FUND EVALUATION REPORT

San Jose Federated City Employees' Retirement System



Quarterly Review December 31, 2017

Disclaimer

Data is provided for informational purposes only, may not be complete, and cannot be relied upon for any purpose other than for discussion.

Meketa Investment Group has prepared this report on the basis of sources believed to be reliable. The data are based on matters as they are known as of the date of preparation of the report, and not as of any future date, and will not be updated or otherwise revised to reflect information that subsequently becomes available.

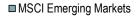


1. The World Markets in the Fourth Quarter of 2017

- 2. Executive Summary
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- 3. 4Q17 Review
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The World Markets Fourth Quarter of 2017

The World Markets¹ Fourth Quarter of 2017



■ S&P 500

□ Russell 3000

■ Bloomberg Commodity Index

■ MSCI EAFE

□ Russell 2000

☐ HFRI Fund of Funds

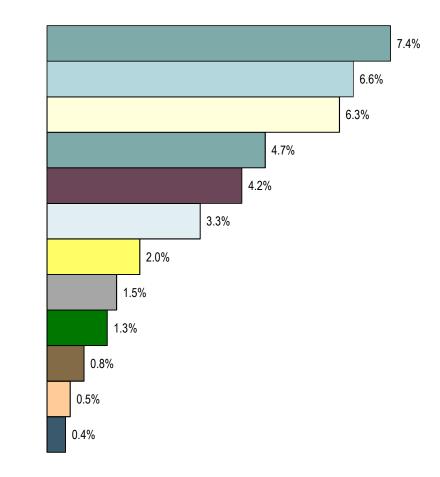
■ NAREIT Equity

■ Bloomberg Barclays U.S. TIPS

■ JPM GBI-EM Global Diversified Local

□ Bloomberg Barclays High Yield

■ Bloomberg Barclays Aggregate



¹ Source: InvestorForce.



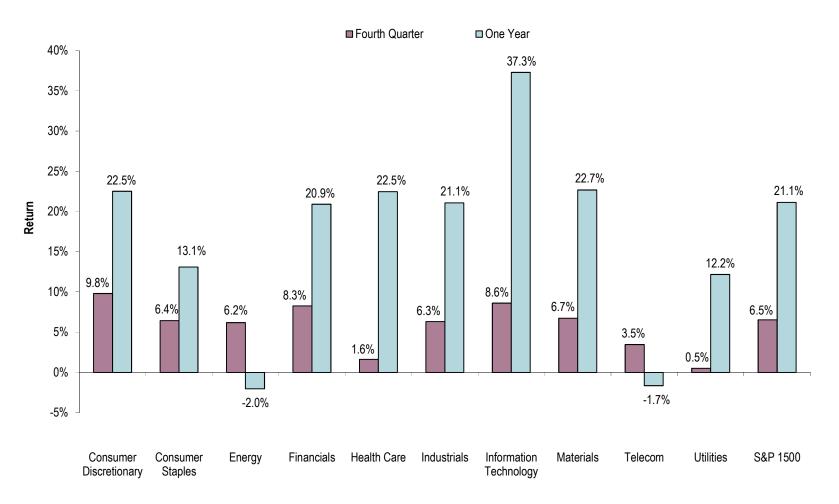
Index Returns¹

	4Q17 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Domestic Equity					
Russell 3000	6.3	21.1	11.1	15.6	8.6
Russell 1000	6.6	21.7	11.2	15.7	8.6
Russell 1000 Growth	7.9	30.2	13.8	17.3	10.0
Russell 1000 Value	5.3	13.7	8.7	14.0	7.1
Russell MidCap	6.1	18.5	9.6	15.0	9.1
Russell MidCap Growth	6.8	25.3	10.3	15.3	9.1
Russell MidCap Value	5.5	13.3	9.0	14.7	9.1
Russell 2000	3.3	14.6	10.0	14.1	8.7
Russell 2000 Growth	4.6	22.2	10.3	15.2	9.2
Russell 2000 Value	2.0	7.8	9.5	13.0	8.2
Foreign Equity					
MSCI ACWI (ex. U.S.)	5.0	27.2	7.8	6.8	1.8
MSCI EAFE	4.2	25.0	7.8	7.9	1.9
MSCI EAFE (Local Currency)	3.7	15.2	8.5	11.4	3.3
MSCI EAFE Small Cap	6.1	33.0	14.2	12.9	5.8
MSCI Emerging Markets	7.4	37.3	9.1	4.3	1.7
MSCI Emerging Markets (Local Currency)	5.7	30.6	10.5	8.0	4.1
Fixed Income					
Bloomberg Barclays Universal	0.4	4.1	2.8	2.5	4.3
Bloomberg Barclays Aggregate	0.4	3.5	2.2	2.1	4.0
Bloomberg Barclays U.S. TIPS	1.3	3.0	2.0	0.1	3.5
Bloomberg Barclays High Yield	0.5	7.5	6.4	5.8	8.0
JPM GBI-EM Global Diversified (Local Currency)	0.8	8.9	7.1	5.8	8.3
Other					
NAREIT Equity	1.5	5.2	5.6	9.5	7.4
Bloomberg Commodity Index	4.7	1.7	-5.0	-8.5	-6.8
HFRI Fund of Funds	2.0	7.7	2.6	4.0	1.1

¹ Source: InvestorForce.



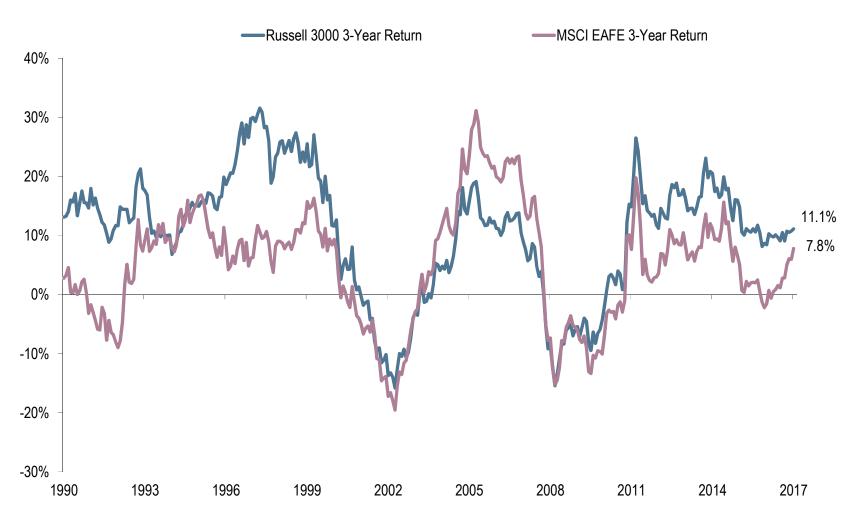
S&P Sector Returns¹



¹ Source: InvestorForce. Represents S&P 1500 (All Cap) data.



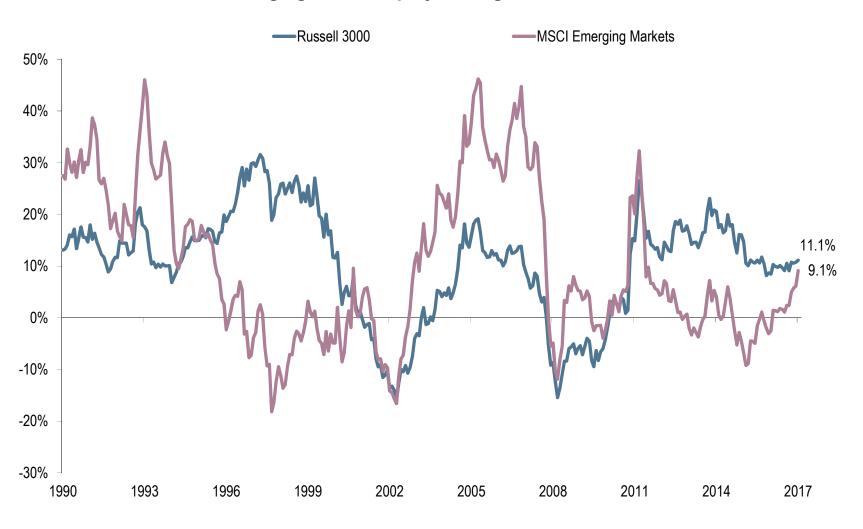
U.S. and Developed Market Foreign Equity Rolling Three-Year Returns¹



¹ Source: InvestorForce.



U.S. and Emerging Market Equity Rolling Three-Year Returns¹

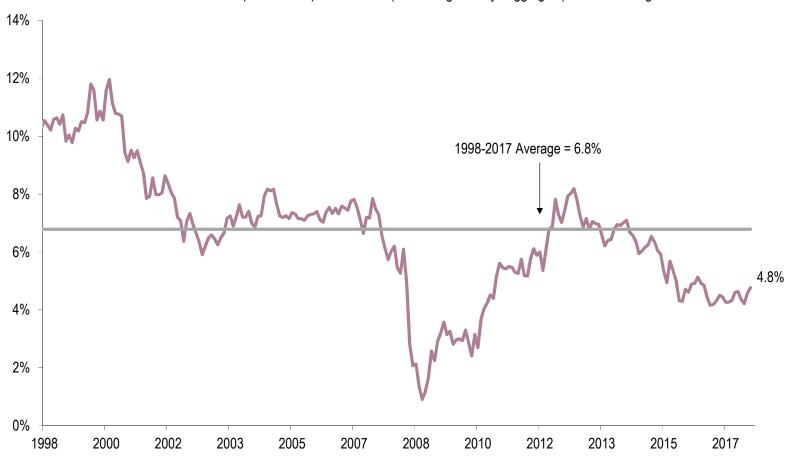


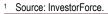
¹ Source: InvestorForce.



Rolling Ten-Year Returns: 65% Stocks and 35% Bonds¹

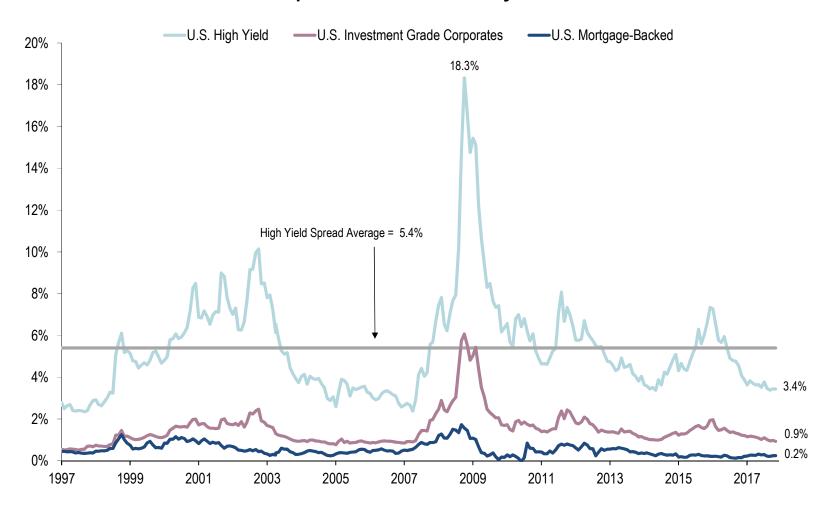
——65% Stocks (MSCI ACWI) / 35% Bonds (Bloomberg Barclays Aggregate) 10-Year Rolling Return







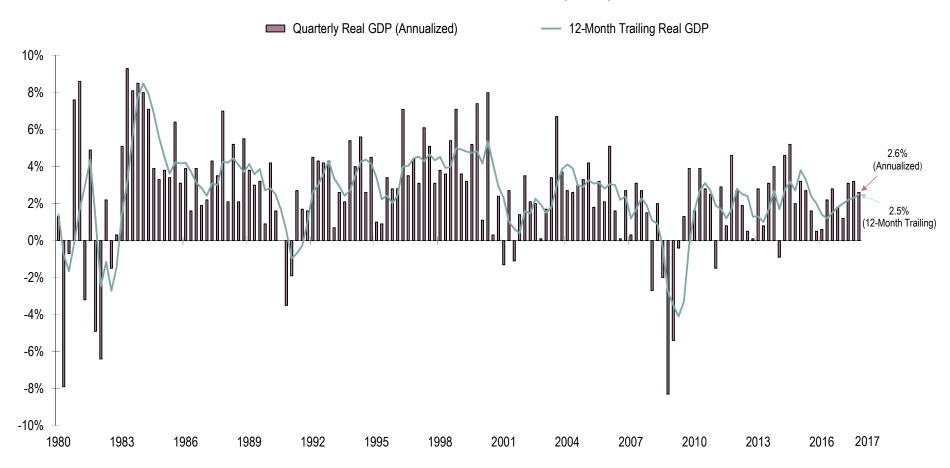
Credit Spreads vs. U.S. Treasury Bonds^{1,2}



Source: Barclays Live.
 The median high yield spread was 5.0% from 1997-2017.



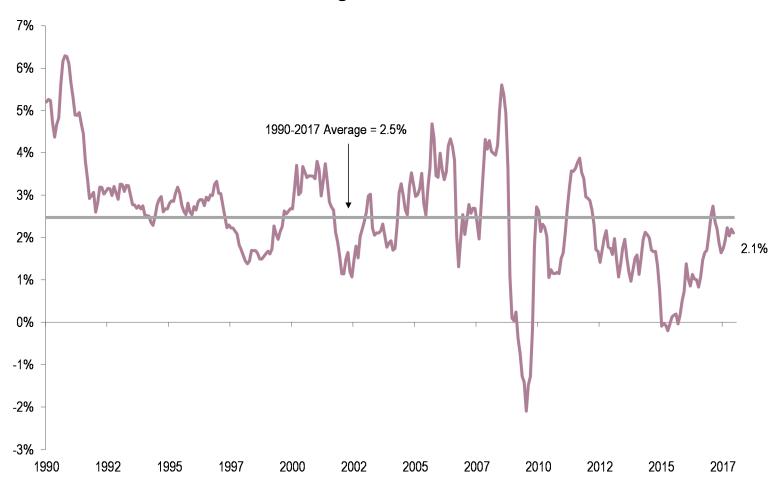
U.S. Real Gross Domestic Product (GDP) Growth¹



¹ Source: Bureau of Economic Analysis. Fourth quarter GDP data represents the first estimate.



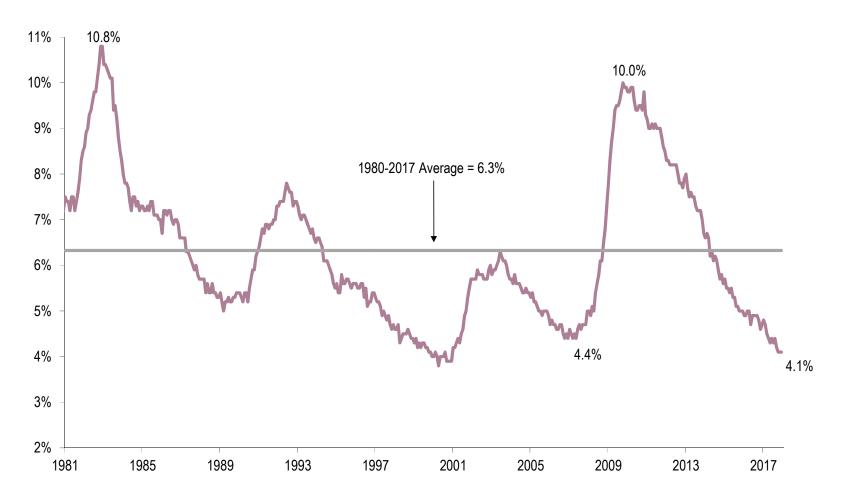
U.S. Inflation (CPI)
Trailing Twelve Months¹



Source: Bureau of Labor Statistics. Data is non-seasonally adjusted CPI, which may be volatile in the short-term. Data is as of December 31, 2017.



U.S. Unemployment¹



¹ Source: Bureau of Labor Statistics. Data is as of December 31, 2017.



Executive Summary As of December 31, 2017

The value of the San Jose Federated City Employees' Retirement System assets was \$2,170.7 million on December 31, 2017, an increase of approximately \$0.6 million from the end of the prior quarter. The System had net cash outflows of \$51.1 million during the quarter.

- The Retirement System's net of fees performance for the quarter was +2.3%, underperforming the Policy Benchmark (+3.3%) and Custom Benchmark (+3.4%). Despite strong absolute performance, The Retirement System underperformed the peer Public Defined Benefit Plans > \$1 Billion Universe's median return of +3.5%.
- The Retirement System returned +10.6% in the one-year period, compared to +13.3% for the Policy Benchmark, +11.9% for the Custom Benchmark, and +15.6% for the peer median. The Retirement System's standard deviation of returns was 1.4%, exhibiting lower volatility than the peer median (1.5%).
 - Total Global Equity returned +4.5% for the quarter and +21.7% over the one-year period, versus +5.7% and +23.9% for the MSCI ACWI IMI over the same periods, respectively. For the quarter, Global Equity returned +4.2%, U.S. Equity returned +4.6%, International Equity returned +4.7%, Emerging Markets Equity returned +6.3%, and Marketable Alternative Equity returned +2.5%.
 - Global Fixed Income returned +0.6% for the quarter and +5.1% over the one-year period, versus +1.1% and +8.0% for the Custom Benchmark over the same periods, respectively. For the quarter, Global Core returned +0.6%, Non-Investment Grade Credit returned +0.3%, and Emerging Markets Debt returned +1.2%.
 - Real Assets returned +3.7% for the quarter and +12.2% over the one-year period. For the quarter, Real Estate returned +2.9%, Commodities returned +4.0%, Infrastructure returned +0.2%, and Natural Resources returned +7.6%.
- The Retirement System added two investment managers during the quarter: Northern Trust 2000 Value (U.S. Equity) and ArrowMark Co-Investment (Private Debt).

Artisan

 Artisan Global Value returned +4.1% for the quarter and +23.4% in the one-year period, underperforming the MSCI ACWI Growth by 70 basis points in the quarter but outperforming by 510 basis points over the one-year period. Compared to peers, Artisan ranks in the 26th and 1st percentiles over the one-year and since inception periods, respectively.

Oberweis

• Oberweis International Opportunities outperformed the MSCI World ex USA Small Cap Growth for the quarter (+7.9% vs. 6.4%). Over the one-year and since inception periods, Oberweis has also outperformed the benchmark by 820 and 170 basis points, respectively. The year's strong outperformance was driven by favorable stock selection, specifically in Information Technology, as two smartphone component manufacturers (Sunny Optical and AMS AG) were the best performing holdings.

GQG Partners

 GQG Partners Global Emerging Markets returned +5.9% for the quarter, underperforming the MSCI Emerging Markets by 150 basis points but still outperformed the benchmark by 100 basis points since inception in July 2017. Stronger-than-anticipated economic progress and earnings drove absolute returns in the quarter while an overweight toward Information Technology coupled with November weakness in technology names dampened relative returns.

BlueBay

• BlueBay Emerging Market Select Debt outperformed the J.P. Morgan Emerging Market Bond Index for the quarter (+1.2% vs. +1.0%) and one-year (+13.4% vs. +12.7%) periods. BlueBay noted that increasing global trade volumes, low global inflation, and accommodative global monetary policy drove solid performance in the year.

¹ All returns calculated by the System's Custodian and are shown net of fees.



Fourth Quarter Manager Summary

Investment Manager	Asset Class	Changes/ Announcements	Performance Concerns	Meketa Recommendation¹	Comments
Artisan Global Value	Global Equity				
Artisan Global Opportunities	Global Equity	Yes		Hold	Personnel Changes
Cove Street Small Cap Value	Small Cap Equity				
Aberdeen Frontier Markets	Frontier Markets Equity	Yes		Hold	Personnel Changes
Comgest Global EM	Emerging Markets Equity				
GQG Partners Global EM	Emerging Markets Equity				
Dimensional EM Value	Emerging Markets Equity				
Senator Global Opportunity	Marketable Alternative Equity				
Horizon Portfolio I	Long-Short Equity				
Sandler Plus	Long-Short Equity				
Marshall Wace Eureka	Long-Short Equity				
Voya Securitized Credit	Global Credit				
Davidson Kempner Inst.	Non-Investment Grade Credit				
Claren Road Credit Fund	Non-Investment Grade Credit				Approved Termination
BlueBay EM Select Debt	Emerging Markets Debt				
Credit Suisse Risk Parity	Commodities				
Pinnacle Natural Resources	Commodities		Yes	Terminate	Significant Underperformance

¹ The Meketa Investment Group recommendations are based on the noted organizational or resource changes at each manager.



Artisan

During the quarter, a trader left the Global Growth team.

Aberdeen

- Following the merger completion by Standard Life, Aberdeen added a Global Head of Investment Innovation and saw the departure of their Chief Marketing Officer in the fourth quarter.
- In the fourth quarter, two investment analysts on the Frontier Markets Equity team left the firm.

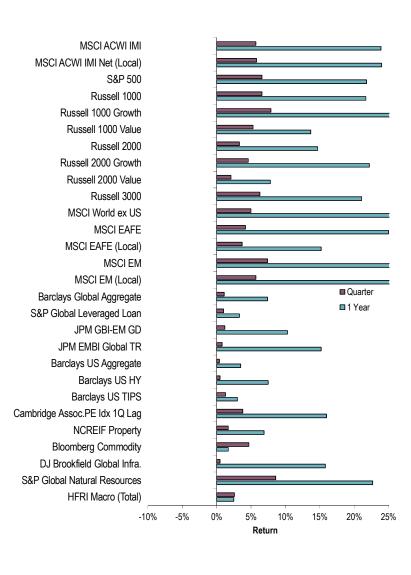
Pinnacle

• Pinnacle Natural Resources underperformed the Bloomberg Commodity Index by 200 basis points in the quarter and is 1,110 basis points behind the benchmark since inception in January 2016.



Market Environment – 4Q17 Overview

Benchmark	Scope	4Q17 (%)	1 YR (%)	3 YR (%)	5YR (%)	10 YR (%)
Global Equity	P-	(/	(,	(/	(/	V7
MSCI ACWI IMI	World	5.7	23.9	9.5	11.0	5.0
MSCI ACWI IMI Net (Local)	World (Local Currency)	5.8	24.0	9.8	11.2	5.3
Domestic Equity	,					
S&P 500	Large Core	6.6	21.8	11.4	15.8	8.5
Russell 1000	Large Core	6.6	21.7	11.2	15.7	8.6
Russell 1000 Growth	Large Growth	7.9	30.2	13.8	17.3	10.0
Russell 1000 Value	Large Value	5.3	13.7	8.7	14.0	7.1
Russell 2000	Small Core	3.3	14.7	10.0	14.1	8.7
Russell 2000 Growth	Small Growth	4.6	22.2	10.3	15.2	9.2
Russell 2000 Value	Small Value	2.1	7.8	9.6	13.0	8.2
Russell 3000	All Cap Core	6.3	21.1	11.1	15.6	8.6
International Equity						
MSCI World ex US	World ex-US	5.0	27.2	7.8	6.8	1.8
MSCI EAFE	International Developed	4.2	25.0	7.8	7.9	1.9
MSCI EAFE (Local)	International Developed (Local Currency)	3.7	15.2	8.5	11.4	3.3
MSCI EM	Emerging Markets	7.4	37.3	9.1	4.3	1.7
MSCI EM (Local)	Emerging Markets (Local Currency)	5.7	30.6	10.5	8.0	4.1
Global Fixed Income						
Barclays Global Aggregate	Global Core Bonds	1.1	7.4	2.0	8.0	3.1
S&P Global Leveraged Loan	Bank Loans	1.0	3.3	3.7	3.4	4.6
JPM GBI-EM GD	Emerging Markets Bonds (Local Currency)	1.2	10.3	7.1	4.6	7.3
JPM EMBI Global TR	Emerging Market Bonds	8.0	15.2	2.5	-1.6	3.6
Domestic Fixed Income						
Barclays US Aggregate	Core Bonds	0.4	3.5	2.2	2.1	4.0
Barclays US HY	High Yield	0.5	7.5	6.4	5.8	8.0
Barclays US TIPS	Inflation	1.3	3.0	2.0	0.1	3.5
Other						
Cambridge Associates PE Index 1Qtr Lag	Private Equity	3.8	16.0	10.9	14.0	9.0
NCREIF Property	Real Estate	1.7	6.9	9.8	10.3	6.2
Bloomberg Commodity	Commodities	4.7	1.7	-5.0	-8.5	-6.8
DJ Brookfield Global Infrastructure	Infrastructure	0.5	15.8	3.7	8.5	6.7
S&P Global Natural Resources	Natural Resources	8.6	22.7	7.2	2.5	-0.4
HFRI Macro	Hedge Funds	2.6	2.5	-0.8	0.2	-1.1
MSCI ACWI IMI	World	5.7	23.9	9.5	11.0	5.0
MSCI ACWI IMI Net (Local)	World (Local Currency)	5.8	24.0	9.8	11.2	5.3





4Q17 Review

Policy	Current	Overlay Net		Allocation vs	. Targets a	nd Policy			
				Current Balance	Current Allocation	Russell Overlay Net Position	Policy	Policy Range	Within IPS Range?
			Total Global Equity	\$685,252,435	31.6%	30.6%	28.0%	20.0% - 36.0%	Yes
28.0%	31.6%	30.6%	US Equity	\$108,980,198	5.0%	5.8%			
	31.373		International Equity	\$209,323,251	9.6%	10.9%		-	
			Global Equity	\$180,230,650	8.3%	5.6%			
			Emerging Markets Equity	\$103,422,047	4.8%	4.4%		-	
			Marketable Alternative Equity	\$83,296,288	3.8%	3.8%	6.0%	3.0% - 9.0%	Yes
9.0%	2.8%	2.8%	Private Equity	\$60,928,700	2.8%	2.8%	9.0%	4.0% - 14.0%	No
			Global Fixed Income	\$463,987,135	21.4%	21.7%	33.0%	23.0% - 43.0%	No
			Global Core	\$368,069,324	17.0%	17.3%	12.0%	7.0% - 17.0%	Yes
	21.4%	21.7%	Non-Investment Grade Credit	\$39,103,762	1.8%	1.8%	4.0%	0.0% - 6.0%	Yes
			Emerging Markets	\$56,814,049	2.6%	2.6%	3.0%	0.0% - 5.0%	Yes
33.0%			Private Debt	\$78,690,889	3.6%	3.6%	6.0%	1.0% - 11.0%	Yes
33.078	2.6%	3.6%	Real Assets	\$503,375,230	23.2%	23.2%	13.0%	6.0% - 20.0%	No
	3.6%	0.070	Real Estate	\$123,406,048	5.7%	5.7%	7.0%	4.0% - 10.0%	Yes
			Commodities	\$136,503,336	6.3%	6.3%	6.0%	2.0% - 10.0%	Yes
			Infrastructure	\$112,869,963	5.2%	5.2%	5.0%	2.0% - 8.0%	Yes
	23.2%	23.2%	Natural Resources	\$130,595,883	6.0%	6.0%	5.0%	2.0% - 8.0%	Yes
6.0%			Absolute Return	\$263,297,701	12.1%	12.1%	11.0%	6.0% - 16.0%	Yes
			Opportunistic			0.0%	0.0%	0.0% - 3.0%	Yes
13.0%			Cash	\$115,177,835	5.3%	6.0%	0.0%	0.0% - 10.0%	Yes
			Total	\$2,170,709,925	100.0%	100.0%	100.0%		
	12.1%	12.1%							
11.0%		-0.0%-							
	5.3%	6.0%							
0.0%									

Data in the column titled "Russell Overlay Net Postiion" is based on physical exposures, adjusted for synthetic positions provided by Russell Investments.
 Cash composite includes the cash account, cash collateral inthe Russell Investments Overlay program, and residuals from terminated manager assets.



Asset Class Net Performance Summary												
	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since		
Total Fund Aggregate	2,170,709,925	100.0	2.3	5.5	10.6	4.5	5.2	3.5	6.8	Jan-94		
San Jose FCERS Policy Benchmark			3.3	7.1	13.3	5.7	6.4	4.4	7.2	Jan-94		
San Jose FCERS Custom Benchmark			3.4	6.7	11.9	4.8	5.4	3.5		Jan-94		
InvestorForce Public DB > \$1B Net Median			3.5	7.4	15.6	7.5	8.7	5.4	7.4	Jan-94		
InvestorForce Public DB > \$1B Net Rank			96	95	97	97	96	95	68	Jan-94		
Total Global Equity	685,252,435	31.6	4.5	10.0	21.7	8.3	10.3	[9.2	May-10		
MSCI ACWI IMI Net USD			5.7	11.3	23.9	9.5	11.0		9.3	May-10		
eV All Global Equity Net Median			5.1	10.5	23.0	9.0	11.4	5.5	10.0	May-10		
eV All Global Equity Net Rank			67	58	59	61	67		65	May-10		
Global Equity	180,230,650	8.3	4.2	9.6	21.2				11.8	Jul-15		
MSCI ACWI IMI Net USD	1		5.7	11.3	23.9				10.2	Jul-15		
eV All Global Equity Net Median			5.1	10.5	23.0	9.0	11.4	5.5	9.5	Jul-15		
eV All Global Equity Net Rank			73	62	62				22	Jul-15		
US Equity	108,980,198	5.0	4.6	8.8	16.9				10.9	Jul-15		
Russell 3000			6.3	11.2	21.1				12.6	Jul-15		
eV All US Equity Net Median	1		5.6	10.4	18.7	9.8	14.5	8.5	10.6	Jul-15		
eV All US Equity Net Rank			67	70	59				46	Jul-15		
International Equity	209,323,251	9.6	4.7	11.4	27.5				8.2	Jul-15		
MSCI World ex USA	1		4.2	10.1	24.2			[7.1	Jul-15		
eV All EAFE Equity Net Median			4.2	10.4	26.6	8.9	9.0	3.4	8.0	Jul-15		
eV All EAFE Equity Net Rank	1		38	41	45				48	Jul-15		



Fiscal Year begins July 1.
 Beginning in July 2012, fees are accounted for on a cash basis. Previously, fees were accounted for on an accrual basis.
 Please see the Appendix for composition of the San Jose FCERS Policy Benchmark.
 San Jose FCERS Custom Benchmark consists of the individual benchmarks that comprise the San Jose FCERS Policy Benchmark weighted accordingly to actual allocations and re-adjusted monthly.
 Returns for the Equity Aggregate are gross of fees through June 2015 and net of fees thereafter.

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Emerging Markets Equity	103,422,047	4.8	6.3	13.1	30.1				7.4	Jul-15
MSCI Emerging Markets			7.4	15.9	37.3				9.7	Jul-15
eV Emg Mkts Equity Net Median			6.7	14.9	37.1	9.1	5.4	2.7	9.8	Jul-15
eV Emg Mkts Equity Net Rank			62	70	82				84	Jul-15
Marketable Alternative Equity	83,296,288	3.8	2.5	5.8	12.0	5.4			6.3	Oct-14
HFRI Equity Hedge (Total) Index	l .		3.4	7.0	13.3	5.8			5.3	Oct-14
Private Equity	60,928,700	2.8	2.7	8.1	15.3	8.9	11.9	7.4	7.1	Jan-06
Cambridge PE Composite BM	l .		4.3	9.6	17.7	10.3	12.6	8.8	11.0	Jan-06
Global Fixed Income	463,987,135	21.4	0.6	1.8	5.1	2.4	2.0		2.8	Jan-12
Fixed Income Custom Benchmark			1.1	3.0	8.0	2.5	1.1		1.6	Jan-12
eV All US Fixed Inc Net Median			0.4	1.4	3.9	2.6	2.4	4.2	3.2	Jan-12
eV All US Fixed Inc Net Rank	l .		38	39	36	56	61		56	Jan-12
Global Core	368,069,324	17.0	0.6	1.3	3.7				2.1	Jul-15
BBgBarc Global Aggregate TR	l .		1.1	2.9	7.4				3.7	Jul-15
Non-Investment Grade Credit	39,103,762	1.8	0.3	0.9	5.8	1.7			1.7	Feb-13
50% BAML Global HY / 50% S&P Global Leveraged Loan			0.8	2.4	5.8	5.1			6.1	Feb-13
Emerging Markets	56,814,049	2.6	1.2	5.5	13.4				5.2	Jul-15
50% JPM EMBI GD / 50% JPM GBI-EM			1.0	4.1	12.7				6.6	Jul-15
eV All Emg Mkts Fixed Inc Net Median			0.9	4.2	12.5	5.7	2.6	6.3	6.6	Jul-15
eV All Emg Mkts Fixed Inc Net Rank			36	8	39				73	Jul-15
Private Debt	78,690,889	3.6	-4.2	-8.6	-6.2	-0.2	3.0		4.0	Dec-10
S&P Global Leveraged Loan +2%			1.7	3.9	9.1	6.5	6.0		6.6	Dec-10

Fiscal Year begins July 1.
 Returns for the Fixed income, Private Debt, and Real Assets Aggregates are gross of fees through June 2015 and net of fees thereafter.
 Prior to 7/1/2015, Fixed Income Custom Benchmark was 100% Barclays Global Aggregate. After 7/1/2015, Fixed Income Custom Benchmark consists of 80% Barclays Global Aggregate, 5% JPM GBI-EM GD, 5% JPM EMBI GD, 5% S&P Global Leveraged Loan, and 5% BAML Global HY Index.



	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Real Assets	503,375,230	23.2	3.7	8.6	12.2	3.6	0.9	-	1.5	May-10
Real Assets Benchmark			3.0	7.3	9.8	3.8	3.1		5.0	May-10
Real Estate	123,406,048	5.7	2.9	5.2	10.2	12.7	14.3	4.5	9.4	Jan-94
NCREIF Property Index			1.8	3.5	7.0	9.4	10.2	6.1	9.4	Jan-94
Commodities	136,503,336	6.3	4.0	6.5	5.6	-5.5	-7.3		-3.8	May-10
Bloomberg Commodity Index TR USD			4.7	7.3	1.7	-5.0	-8.5		-5.2	May-10
Infrastructure	112,869,963	5.2	0.2	3.6	15.9	4.2			6.6	Mar-14
DJ Brookfield Global Infrastructure Net TR USD			0.5	3.8	15.8	3.7			6.1	Mar-14
Natural Resources	130,595,883	6.0	7.6	19.7	18.8	4.4	0.1		0.3	Nov-12
S&P Global Natural Resources Index TR USD			8.6	20.3	22.7	7.2	2.5		2.8	Nov-12
Absolute Return	263,297,701	12.1	0.6	2.6	2.8	2.0	3.2		3.4	Nov-12
HFRI Macro (Total) Index			2.4	3.0	2.2	0.7	1.4		1.5	Nov-12
Relative Value	123,991,714	5.7	1.1	2.8	4.7	3.8			3.6	Oct-14
HFRI Relative Value (Total) Index			1.1	2.4	5.2	4.1			3.5	Oct-14
Macro	139,305,987	6.4	0.1	2.5	1.3	0.0			1.2	Oct-14
HFRI Macro (Total) Index			2.4	3.0	2.2	0.7			1.3	Oct-14
Opportunistic	-									Jul-15
Cash	115,177,835	5.3								
91 Day T-Bills										

Fiscal Year begins July 1.
 Cash composite includes the cash account, cash collateral in the Russell Investments Overlay program, and residuals from terminated manager assets.



								7.10 0.	DCCCITIDGI C	.,
	Trailing Net Po	erformance								
	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Total Fund Aggregate	2,170,709,925	100.0	2.3	5.5	10.6	4.5	5.2	3.5	6.8	Jan-94
San Jose FCERS Policy Benchmark			3.3	7.1	13.3	5.7	6.4	4.4	7.2	Jan-94
San Jose FCERS Custom Benchmark			3.4	6.7	11.9	4.8	5.4	3.5		Jan-94
InvestorForce Public DB > \$1B Net Median			3.5	7.4	15.6	7.5	8.7	5.4	7.4	Jan-94
InvestorForce Public DB > \$1B Net Rank			96	95	97	97	96	95	68	Jan-94
Total Global Equity	685,252,435	31.6	4.5	10.0	21.7	8.3	10.3		9.2	May-10
MSCI ACWI IMI Net USD			5.7	11.3	23.9	9.5	11.0		9.3	May-10
eV All Global Equity Net Median			5.1	10.5	23.0	9.0	11.4	5.5	10.0	May-10
eV All Global Equity Net Rank			67	58	59	61	67		65	May-10
Global Equity	180,230,650	8.3	4.2	9.6	21.2				11.8	Jul-15
MSCI ACWI IMI Net USD			5.7	11.3	23.9				10.2	Jul-15
eV All Global Equity Net Median			5.1	10.5	23.0	9.0	11.4	5.5	9.5	Jul-15
eV All Global Equity Net Rank			73	62	62				22	Jul-15
Artisan Global Value	126,207,749	5.8	4.1	10.0	23.4	10.4	13.6		12.6	Mar-11
MSCI ACWI Value NR USD			4.8	9.7	18.3	7.7	9.5		7.0	Mar-11
eV Global Value Equity Net Median			4.5	8.8	19.2	8.5	11.0	5.4	8.5	Mar-11
eV Global Value Equity Net Rank			62	37	26	16	6		1	Mar-11
Artisan Global Opportunities	54,518,692	2.5	4.5	10.1					10.1	Jul-17
MSCI ACWI Growth NR USD			6.6	12.7					12.7	Jul-17
eV Global Value Equity Net Median			4.5	8.8	19.2	8.5	11.0	5.4	8.8	Jul-17
eV Global Value Equity Net Rank			51	35					35	Jul-17
Russell Currency Hedge	-495,791	0.0								

Fiscal Year begins July 1.
 Returns for the Equity Aggregate are gross of fees through June 2015 and net of fees thereafter.



	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
US Equity	108,980,198	5.0	4.6	8.8	16.9				10.9	Jul-15
Russell 3000			6.3	11.2	21.1				12.6	Jul-15
eV All US Equity Net Median			5.6	10.4	18.7	9.8	14.5	8.5	10.6	Jul-15
eV All US Equity Net Rank			67	70	59				46	Jul-15
Northern Trust Russell 1000 Index	74,572,571	3.4	6.6	11.4	21.7				24.3	Nov-16
Russell 1000			6.6	11.4	21.7				24.3	Nov-16
Cove Street Small Cap Value	17,285,694	0.8	-0.3	2.7	6.7	7.8			6.5	May-14
Russell 2000 Value			2.0	7.3	7.8	9.5			9.2	May-14
eV US Small Cap Value Equity Net Median			3.5	8.7	10.3	9.6	13.7	9.0	9.4	May-14
eV US Small Cap Value Equity Net Rank			98	96	78	80			88	May-14
Northern Trust Russell 2000 Value	17,121,933	0.8							0.0	Dec-17
Russell 2000 Value									-1.0	Dec-17
International Equity	209,323,251	9.6	4.7	11.4	27.5			-	8.2	Jul-15
MSCI World ex USA			4.2	10.1	24.2				7.1	Jul-15
eV All EAFE Equity Net Median			4.2	10.4	26.6	8.9	9.0	3.4	8.0	Jul-15
eV All EAFE Equity Net Rank			38	41	45				48	Jul-15
Northern Trust MSCI World ex. U.S.	168,820,944	7.8	4.0	9.9	24.3				22.2	Nov-16
MSCI World ex USA			4.2	10.1	24.2				22.1	Nov-16
Oberweis International Opportunities	40,502,308	1.9	7.9	18.2	42.5				17.6	Nov-15
MSCI World ex US Small Cap Growth			6.4	14.5	34.3				15.9	Nov-15
eV ACWI ex-US All Cap Equity Net Median			4.9	11.9	29.6	9.3	9.1	3.4	12.5	Nov-15
eV ACWI ex-US All Cap Equity Net Rank			1	5	7			-	11	Nov-15

¹ Fiscal Year begins July 1.



	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Emerging Markets Equity	103,422,047	4.8	6.3	13.1	30.1				7.4	Jul-15
MSCI Emerging Markets			7.4	15.9	37.3				9.7	Jul-15
eV Emg Mkts Equity Net Median			6.7	14.9	37.1	9.1	5.4	2.7	9.8	Jul-15
eV Emg Mkts Equity Net Rank			62	70	82				84	Jul-15
Dimensional Fund Advisors EM Value	35,121,081	1.6	7.9	13.9	33.9				25.1	Nov-16
MSCI Emerging Markets Value NR USD			6.8	12.7	28.1				20.9	Nov-16
eV Emg Mkts Equity Net Median			6.7	14.9	37.1	9.1	5.4	2.7	25.5	Nov-16
eV Emg Mkts Equity Net Rank			24	60	70				57	Nov-16
GQG Partners Global Emerging Markets	29,018,050	1.3	5.9	16.9					16.9	Jul-17
MSCI Emerging Markets			7.4	15.9					15.9	Jul-17
MSCI Frontier Markets ex GCC NR USD			9.5	16.6					16.6	Jul-17
eV Emg Mkts Equity Net Median			6.7	14.9	37.1	9.1	5.4	2.7	14.9	Jul-17
eV Emg Mkts Equity Net Rank			72	29					29	Jul-17
Aberdeen Frontier Markets	21,020,983	1.0	4.5	5.9	20.5	2.2			0.8	Dec-13
MSCI Frontier Markets			5.6	14.1	31.9	5.0			5.9	Dec-13
MSCI Frontier Markets ex GCC NR USD			9.5	16.6	38.8	7.0			4.3	Dec-13
eV Emg Mkts Equity Net Median			6.7	14.9	37.1	9.1	5.4	2.7	6.1	Dec-13
eV Emg Mkts Equity Net Rank			94	99	99	99			99	Dec-13
Comgest Global Emerging Markets	18,261,934	0.8	6.3	14.9					21.7	Mar-17
MSCI Emerging Markets			7.4	15.9					26.3	Mar-17
eV Emg Mkts Equity Net Median			6.7	14.9	37.1	9.1	5.4	2.7	26.2	Mar-17
eV Emg Mkts Equity Net Rank			63	51				-	76	Mar-17

¹ Fiscal Year begins July 1.



	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Marketable Alternative Equity	83,296,288	3.8	2.5	5.8	12.0	5.4			6.3	Oct-14
HFRI Equity Hedge (Total) Index			3.4	7.0	13.3	5.8			5.3	Oct-14
Senator Global Opportunity Offshore Fund HFRI Event-Driven (Total) Index	25,767,983	1.2	2.4 2.0	5.9 3.5	13.8 7.6	4.4 4.7			7.5 5.0	Apr-13 <i>Apr-13</i>
Marshall Wace Eureka Fund HFRI Equity Hedge (Total) Index	21,662,441	1.0	3.7 3.4	5.9 7.0	11.7 13.3	8.1 5.8	 	-	8.5 <i>4.8</i>	Apr-14 <i>Apr-14</i>
Sandler Plus Offshore Fund Ltd HFRI Equity Hedge (Total) Index	18,261,975	0.8	2.2 3.4	7.4 7.0	15.2 13.3	9.3 5.8			8.5 5.9	May-13 <i>May-1</i> 3
Horizon Portfolio I HFRI Equity Hedge (Total) Index	17,603,890	0.8	2.1 3.4	3.8 7.0	6.7 13.3	3.3 5.8		 	5.6 6.2	Jul-13 <i>Jul-1</i> 3
Private Equity	60,928,700	2.8	2.7	8.1	15.3	8.9	11.9	7.4	7.1	Jan-06
Cambridge PE Composite BM			4.3	9.6	17.7	10.3	12.6	8.8	11.0	Jan-06
PE Strategic Partnership LP Cambridge PE Composite BM	10,667,522	0.5	-5.6 <i>4.3</i>	 	 				-5.6 9.6	Aug-17 <i>Aug-17</i>
Pantheon USA Fund VII Cambridge PE Composite BM	23,157,807	1.1	3.3 4.3	7.4 9.6	15.8 17.7	11.0 <i>10</i> .3	14.2 12.6			Jan-07 <i>Jan-</i> 07
Partners Group Secondary 2011, L.P. Cambridge PE Composite BM	11,173,472	0.5	3.0 4.3	8.4 9.6	14.4 17.7	11.5 <i>10</i> .3	15.5 12.6		23.2 12.9	Nov-12 <i>Nov-12</i>
Pantheon Global Secondary Fund III 'B' Cambridge PE Composite BM	5,735,849	0.3	2.1 4.3	6.8 9.6	7.3 17.7	2.2 10.3	3.1 12.6			Jan-07 <i>Jan-</i> 07

Fiscal Year begins July 1.
 Returns for the Fixed Income Aggregate are gross of fees through June 2015 and net of fees thereafter.
 Prior to 7/1/2015, Fixed Income Custom Benchmark was 100% Barclays Global Aggregate. After 7/1/2015, Fixed Income Custom Benchmark consists of 80% Barclays Global Aggregate, 5% JPM GBI-EM GD, 5% JPM EMBI GD, 5% S&P Global Leveraged Loan, and 5% BAML Global HY Index.



	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Pathway Private Equity Fund VIII Cambridge PE Composite BM	5,051,202	0.2	6.4 4.3	8.6 9.6	10.9 17.7	4.6 10.3	10.4 12.6			Aug-04 Aug-04
Great Hill Equity Partners IV, LP Cambridge PE Composite BM	3,406,772	0.2	14.7 <i>4.</i> 3	49.9 9.6	78.1 17.7	38.4 10.3	36.8 12.6	-		Oct-08 Oct-08
Partners Group Secondary 2008, L.P. Cambridge PE Composite BM	1,736,076	0.1	1.1 4.3	5.7 9.6	22.3 17.7	3.2 10.3	7.4 12.6	-		Dec-08 Dec-08
Global Fixed Income	463,987,135	21.4	0.6	1.8	5.1	2.4	2.0	-	2.8	Jan-12
Fixed Income Custom Benchmark eV All US Fixed Inc Net Median eV All US Fixed Inc Net Rank			1.1 0.4 38	3.0 1.4 39	8.0 3.9 36	2.5 2.6 56	1.1 2.4 61	 4.2 	1.6 3.2 56	Jan-12 Jan-12 Jan-12
Global Core	368,069,324	17.0	0.6	1.3	3.7			-	2.1	Jul-15
BBgBarc Global Aggregate TR			1.1	2.9	7.4				3.7	Jul-15
Northern Trust Intermediate Gov't 1-10 Year BBgBarc US Govt Int TR	104,351,593	4.8	-0.4 -0.4	-0.1 -0.1	1.1 1.1	1.1 1.1	0.9 <i>0</i> .9		0.8 0.9	Oct-12 Oct-12
Northern Trust TIPS 0-5 Years BBgBarc US Treasury TIPS 0-5 Yr TR	97,323,034	4.5	0.2 0.2	0.7 0.7	0.9 <i>0</i> .9	1.2 1.2		-	0.2 0.2	Jul-14 <i>Jul-14</i>
Voya Securitized Credit BBgBarc Global Aggregate Securitized TR	71,148,001	3.3	1.3 <i>0.4</i>	3.1 1.8	8.9 <i>4.3</i>			-	6.2 2.4	Jul-15 <i>Jul-15</i>
BlackRock Long Government Index BBgBarc US Govt Long TR	39,811,266	1.8	2.4 2.3	3.0 2.9	8.8 8.5			-	1.3 1.0	Jun-16 <i>Jun-</i> 16
BlackRock Global Agg ex US BBgBarc Global Aggregate ex US TR	29,650,559	1.4	1.1 1.6			 		-	1.5 1.4	Aug-17 <i>Aug-17</i>

¹ Fiscal Year begins July 1.



	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
BlackRock US Debt Fund	25,784,871	1.2	0.4						0.8	Aug-17
BBgBarc US Aggregate TR			0.4						0.8	Aug-17
Non-Investment Grade Credit	39,103,762	1.8	0.3	0.9	5.8	1.7		-	1.7	Feb-13
50% BAML Global HY / 50% S&P Global Leveraged Loan			0.8	2.4	5.8	5.1			6.1	Feb-13
Davidson Kempner Institutional Partners, L.P.	38,890,241	1.8	0.8	1.6	6.4	4.6			5.3	Feb-13
HFRI Event-Driven (Total) Index			2.0	3.5	7.6	4.7			5.1	Feb-13
Claren Road Credit Fund	213,520	0.0								
HFRI RV: Fixed Income-Corporate Index								- 1		
Emerging Markets	56,814,049	2.6	1.2	5.5	13.4			-	5.2	Jul-15
50% JPM EMBI GD / 50% JPM GBI-EM			1.0	4.1	12.7				6.6	Jul-15
eV All Emg Mkts Fixed Inc Net Median			0.9	4.2	12.5	5.7	2.6	6.3	6.6	Jul-15
eV All Emg Mkts Fixed Inc Net Rank			36	8	39		-	-	73	Jul-15
BlueBay Emerging Market Select Debt	56,814,049	2.6	1.2	5.5	13.4				5.2	Jul-15
50% JPM EMBI GD / 50% JPM GBI-EM			1.0	4.1	12.7				6.6	Jul-15
Private Debt	78,690,889	3.6	-4.2	-8.6	-6.2	-0.2	3.0	-	4.0	Dec-10
S&P Global Leveraged Loan +2%			1.7	3.9	9.1	6.5	6.0		6.6	Dec-10
Medley Opportunity Fund II	34,733,221	1.6	-2.2	-0.4	3.3	4.6	6.4		6.4	Jun-11
3-Month LIBOR + 5%			1.6	3.2	6.4	5.8	5.6		5.6	Jun-11
White Oak Direct Lending Account	17,184,682	0.8	-13.5	-29.0	-30.2	-10.0	-3.5		-1.8	Feb-11
3-Month LIBOR + 5%			1.6	3.2	6.4	5.8	5.6	-	5.6	Feb-11
GSO Direct Lending Account	12,012,757	0.6	0.7	0.3	5.1	-0.1	2.9		7.5	Mar-11
3-Month LIBOR + 5%			1.6	3.2	6.4	5.8	5.6	-	5.6	Mar-11

Fiscal Year begins July 1.
 Returns for the Private Debt and Real Assets Aggregates are gross of fees through June 2015 and net of fees thereafter.



	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Cross Ocean USD ESS II	9,758,700	0.4	2.1	3.8	15.0				16.6	Aug-16
S&P Global Leveraged Loan +2%			1.7	3.9	9.1				8.7	Aug-16
ArrowMark Co-Investment	5,001,528	0.2						-1		Dec-17
Real Assets	503,375,230	23.2	3.7	8.6	12.2	3.6	0.9		1.5	May-10
Real Assets Benchmark			3.0	7.3	9.8	3.8	3.1		5.0	May-10
Real Estate	123,406,048	5.7	2.9	5.2	10.2	12.7	14.3	4.5	9.4	Jan-94
NCREIF Property Index			1.8	3.5	7.0	9.4	10.2	6.1	9.4	Jan-94
American Realty	47,974,244	2.2	1.4	3.2	6.3	9.8	10.2	3.8	4.9	Jan-07
NCREIF ODCE Equal Weighted (Net)			1.9	3.7	6.9	9.8	10.6	3.9	4.9	Jan-07
PRISA	38,286,170	1.8	2.0	2.0	7.2	10.2	11.3	3.7	7.0	Jul-04
NCREIF ODCE Equal Weighted (Net)			1.9	3.7	6.9	9.8	10.6	3.9	6.9	Jul-04
DRA Growth & Income Fund VIII	13,696,093	0.6	7.6	10.7	16.4	13.1			13.1	Jan-15
NCREIF Property Index			1.8	3.5	7.0	9.4			9.4	Jan-15
DRA Growth and Income Fund VII	9,336,207	0.4	8.2	15.7	29.2	24.0	20.8		20.1	Apr-12
NCREIF Property Index			1.8	3.5	7.0	9.4	10.2		10.2	Apr-12
DRA Growth and Income Fund IX	6,807,150	0.3	3.7	5.2					9.5	Feb-17
NCREIF Property Index			1.8	3.5					7.0	Feb-17
Tristan Capital Partners	5,306,006	0.2	2.8	5.3	13.0				8.3	Jan-16
NCREIF Property Index			1.8	3.5	7.0				7.5	Jan-16
DRA Growth and Income Fund VI	1,548,139	0.1	3.6	4.5	2.4	10.0	16.6	9.7	9.7	Jan-08
NCREIF Property Index			1.8	3.5	7.0	9.4	10.2	6.1	6.1	Jan-08

¹ Fiscal Year begins July 1.



	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
GEM Realty Fund VI	369,801	0.0								Nov-17
NCREIF Property Index							-			Nov-17
DRA Growth and Income Fund V	82,239	0.0	1.7	68.8	54.8	36.9	28.3	11.6	11.7	Jan-06
NCREIF Property Index			1.8	3.5	7.0	9.4	10.2	6.1	7.7	Jan-06
Fidelity Real Estate Growth Fund III	0	0.0	-98.4	-98.3	-98.9	-75.8	-53.9	-40.6	-40.6	Jan-08
NCREIF Property Index			1.8	3.5	7.0	9.4	10.2	6.1	6.1	Jan-08
Commodities	136,503,336	6.3	4.0	6.5	5.6	-5.5	-7.3	-	-3.8	May-10
Bloomberg Commodity Index TR USD			4.7	7.3	1.7	-5.0	-8.5		-5.2	May-10
Credit Suisse Risk Parity Commodity Index	100,008,296	4.6	4.4	7.8	9.5	-1.9	-4.7		-5.1	Apr-11
Bloomberg Commodity Index TR USD			4.7	7.3	1.7	-5.0	-8.5		-9.0	Apr-11
Pinnacle Natural Resources, L.P.	36,495,040	1.7	2.7	3.3	-3.9				-4.5	Jan-16
Bloomberg Commodity Index TR USD			4.7	7.3	1.7				6.6	Jan-16
Infrastructure	112,869,963	5.2	0.2	3.6	15.9	4.2		-	6.6	Mar-14
DJ Brookfield Global Infrastructure Net TR USD			0.5	3.8	15.8	3.7			6.1	Mar-14
Rhumbline DJ Brookfield Global Infrastructure	107,268,112	4.9	0.7	4.2	16.6				4.8	Jun-15
DJ Brookfield Global Infrastructure Net TR USD			0.5	3.8	15.8				4.1	Jun-15
Global Infrastructure Partners III	5,595,310	0.3	-11.8	-10.5	-0.2				-8.3	Sep-16
DJ Brookfield Global Infrastructure Net TR USD			0.5	3.8	15.8				9.5	Sep-16
SSgA DJ Brookfield Infrastructure Index	6,540	0.0								

¹ Fiscal Year begins July 1.



	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Natural Resources	130,595,883	6.0	7.6	19.7	18.8	4.4	0.1		0.3	Nov-12
S&P Global Natural Resources Index TR USD			8.6	20.3	22.7	7.2	2.5	-	2.8	Nov-12
Rhumbline S&P Global Large MidCap Commodity & NR	130,089,432	6.0	7.6	19.7	18.8				4.4	Jun-15
S&P Global LargeMidCap Commodity and Resources GR USD			7.7	19.6	18.7				4.4	Jun-15
Northern Trust Global LargeMid Natural Resources	506,451	0.0						- 1		
Absolute Return	263,297,701	12.1	0.6	2.6	2.8	2.0	3.2	-	3.4	Nov-12
HFRI Macro (Total) Index			2.4	3.0	2.2	0.7	1.4		1.5	Nov-12
Relative Value	123,991,714	5.7	1.1	2.8	4.7	3.8			3.6	Oct-14
HFRI Relative Value (Total) Index			1.1	2.4	5.2	4.1			3.5	Oct-14
DE Shaw	41,257,998	1.9	1.6	6.1	10.2	10.1			11.4	Apr-13
HFRI Fund Weighted Composite Index			2.6	4.9	8.6	4.2			4.4	Apr-13
Hudson Bay	30,424,416	1.4	1.4						1.4	Aug-17
HFRI Relative Value (Total) Index			1.1						1.7	Aug-17
Pine River Volatility Arbitrage	24,646,000	1.1	1.8	0.3					-1.4	Mar-17
HFRI Relative Value (Total) Index			1.1	2.4					3.2	Mar-17
JD Capital	21,123,071	1.0	0.4	2.6	4.9				4.4	Oct-16
HFRI Relative Value (Total) Index			1.1	2.4	5.2				5.7	Oct-16
Pine River Fund Ltd	6,540,230	0.3	-1.6	0.5	0.8	-0.9	2.3		2.3	Jan-13
HFRI Relative Value (Total) Index			1.1	2.4	5.2	4.1	4.7	-	4.7	Jan-13

¹ Fiscal Year begins July 1.



	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Macro	139,305,987	6.4	0.1	2.5	1.3	0.0			1.2	Oct-14
HFRI Macro (Total) Index			2.4	3.0	2.2	0.7			1.3	Oct-14
Pharo Management, Ltd.	31,231,571	1.4	-1.3	0.9	14.0				11.6	Apr-16
HFRI Macro (Total) Index			2.4	3.0	2.2			-	1.0	Apr-16
Systematica	26,374,263	1.2	5.4	6.1					6.1	Jul-17
Barclay BTOP50 Index TR USD			3.9	4.4				-	4.4	Jul-17
Dymon Asia Macro	25,888,599	1.2	-3.9	0.2	-7.8				1.6	Sep-15
HFRI Macro (Total) Index			2.4	3.0	2.2				1.3	Sep-15
Keynes Leveraged Quantitative Strategies Fund	19,793,600	0.9	4.0	7.4	3.3				-0.5	Jan-16
Barclay BTOP50 Index TR USD			3.9	4.4	-0.6			-	-2.5	Jan-16
AHL Frontier Fund	15,303,172	0.7	5.7	12.2	15.9				11.8	Jun-16
Barclay BTOP50 Index TR USD			3.9	4.4	-0.6				-3.7	Jun-16
Kepos Alpha Fund	15,179,819	0.7	-6.4	-7.6	-13.8	-9.9			-3.5	Mar-13
HFRI Macro: Systematic Diversified Index			4.6	4.7	2.1	-0.6			1.5	Mar-13
Brevan Howard Fund, Limited	5,534,963	0.3	-2.1	-0.6	-5.5				-2.6	Aug-15
HFRI Macro (Total) Index			2.4	3.0	2.2				0.6	Aug-15

¹ Fiscal Year begins July 1.



	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Opportunistic	-									Jul-15
Cash	115,177,835	5.3								
91 Day T-Bills										
Internal Cash Account	102,969,428	4.7								
Russell Investments Overlay	12,205,425	0.6								

Fiscal Year begins July 1.
 Cash composite includes the cash account, cash collateral in the Russell Investments Overlay program, and residuals from terminated manager assets.



Cash Flow Summary Quarter Ending December 31, 2017						
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
Aberdeen Frontier Markets	\$20,123,966	\$0	\$0	\$0	\$897,016	\$21,020,983
AHL Frontier Fund	\$14,474,590	\$0	\$0	\$0	\$828,582	\$15,303,172
American Realty	\$41,296,610	\$6,000,000	-\$99,926	\$5,900,074	\$777,560	\$47,974,244
ArrowMark Co-Investment		\$5,000,000	\$0	\$5,000,000	\$1,528	\$5,001,528
Artisan Global Opportunities	\$52,180,708	\$0	\$0	\$0	\$2,337,983	\$54,518,692
Artisan Global Value	\$121,257,341	\$14,207,228	-\$14,207,228	\$0	\$4,950,408	\$126,207,749
BlackRock Global Agg ex US	\$29,330,396	\$0	\$0	\$0	\$320,163	\$29,650,559
BlackRock Long Government Index	\$38,890,862	\$0	\$0	\$0	\$920,404	\$39,811,266
BlackRock US Debt Fund	\$25,680,287	\$0	\$0	\$0	\$104,584	\$25,784,871
BlueBay Emerging Market Select Debt	\$56,166,894	\$0	\$0	\$0	\$647,155	\$56,814,049
BlueTrend Fund Limited		\$0	\$0	\$0	\$0	\$0
Brevan Howard Fund, Limited	\$13,252,017	\$0	-\$7,594,670	-\$7,594,670	-\$122,385	\$5,534,963
Claren Road Credit Fund	\$2,789,200	\$0	-\$2,414,826	-\$2,414,826	-\$160,854	\$213,520
Comgest Global Emerging Markets	\$17,185,142	\$19,384	-\$38,768	-\$19,384	\$1,096,176	\$18,261,934
Cove Street Small Cap Value	\$34,246,301	\$0	-\$17,000,000	-\$17,000,000	\$39,393	\$17,285,694
Credit Suisse Risk Parity Commodity Index	\$95,771,104	\$0	-\$95,996	-\$95,996	\$4,333,188	\$100,008,296
Cross Ocean USD ESS II	\$8,838,114	\$750,000	-\$37,703	\$712,297	\$208,289	\$9,758,700
Davidson Kempner Institutional Partners, L.P.	\$38,585,972	\$0	-\$243,340	-\$243,340	\$547,609	\$38,890,241
DE Shaw	\$42,579,741	\$0	-\$2,000,993	-\$2,000,993	\$679,250	\$41,257,998
Dimensional Fund Advisors EM Value	\$32,545,762	\$0	\$0	\$0	\$2,575,319	\$35,121,081
DRA Growth & Income Fund VIII	\$13,240,694	\$355,556	-\$941,475	-\$585,919	\$1,041,318	\$13,696,093
DRA Growth and Income Fund IX	\$5,467,855	\$1,269,036	-\$171,209	\$1,097,827	\$241,468	\$6,807,150
DRA Growth and Income Fund V	\$909,437	\$0	-\$842,640	-\$842,640	\$15,442	\$82,239
DRA Growth and Income Fund VI	\$1,534,054	\$0	-\$45,263	-\$45,263	\$59,348	\$1,548,139
DRA Growth and Income Fund VII	\$9,952,096	\$0	-\$1,442,794	-\$1,442,794	\$826,906	\$9,336,207
Dymon Asia Macro	\$26,948,324	\$0	\$0	\$0	-\$1,059,725	\$25,888,599



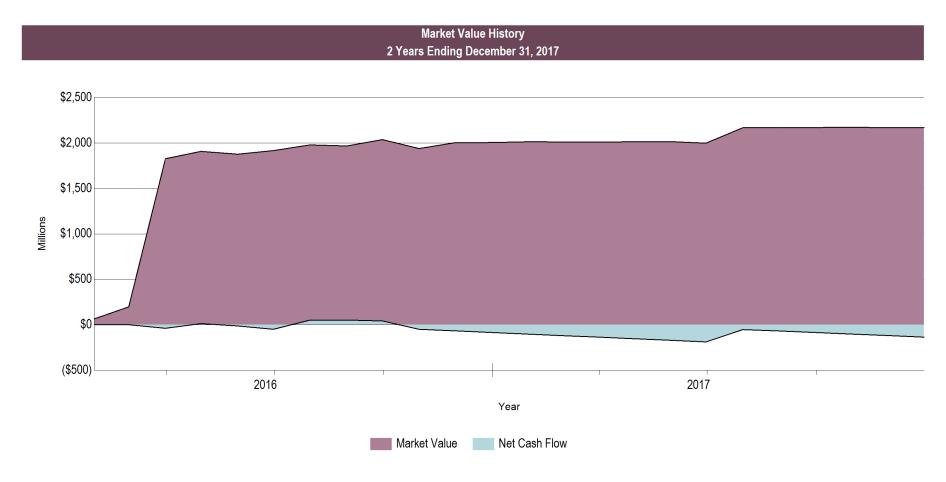
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
Fidelity Real Estate Growth Fund III	\$446,039	\$0	-\$502,015	-\$502,015	\$55,976	\$0
GEM Realty Fund VI		\$500,000	-\$52,750	\$447,250	-\$77,449	\$369,801
Global Infrastructure Partners III	\$4,454,154	\$1,715,790	-\$158,593	\$1,557,197	-\$416,041	\$5,595,310
GQG Partners Global Emerging Markets	\$27,402,117	\$0	-\$35,778	-\$35,778	\$1,651,711	\$29,018,050
Great Hill Equity Partners IV, LP	\$2,984,643	\$17,500	-\$54,057	-\$36,557	\$458,687	\$3,406,772
GSO Direct Lending Account	\$11,863,064	\$82,420	-\$10,713	\$71,707	\$77,986	\$12,012,757
Horizon Portfolio I	\$17,239,352	\$0	\$0	\$0	\$364,537	\$17,603,890
Hudson Bay	\$29,998,920	\$0	\$0	\$0	\$425,496	\$30,424,416
Internal Cash Account	\$110,217,831	\$91,488,932	-\$99,063,974	-\$7,575,042	\$326,639	\$102,969,428
JD Capital	\$21,048,832	\$0	-\$80,319	-\$80,319	\$154,557	\$21,123,071
Kepos Alpha Fund	\$16,212,148	\$0	-\$40,530	-\$40,530	-\$991,798	\$15,179,819
Keynes Leveraged Quantitative Strategies Fund	\$19,041,200	\$0	\$0	\$0	\$752,400	\$19,793,600
Marshall Wace Eureka Fund	\$16,069,345	\$5,000,000	-\$83,805	\$4,916,195	\$676,901	\$21,662,441
Medley Opportunity Fund II	\$38,972,789	\$0	-\$3,549,436	-\$3,549,436	-\$690,132	\$34,733,221
Northern Trust Global LargeMid Natural Resources	\$493,358	\$300	-\$599	-\$299	\$13,392	\$506,451
Northern Trust Intermediate Gov't 1-10 Year	\$104,781,795	\$0	\$0	\$0	-\$430,201	\$104,351,593
Northern Trust MSCI World ex. U.S.	\$162,391,062	\$0	\$0	\$0	\$6,429,881	\$168,820,944
Northern Trust Russell 1000 Index	\$69,959,020	\$0	\$0	\$0	\$4,613,550	\$74,572,571
Northern Trust Russell 2000 Value		\$17,000,000	\$0	\$17,000,000	\$121,933	\$17,121,933
Northern Trust TIPS 0-5 Years	\$97,119,736	\$0	\$0	\$0	\$203,298	\$97,323,034
Oberweis International Opportunities	\$37,538,071	\$14,107,885	-\$14,107,885	\$0	\$2,964,237	\$40,502,308
Pantheon Global Secondary Fund III 'B'	\$6,574,927	\$0	-\$1,026,149	-\$1,026,149	\$187,071	\$5,735,849
Pantheon USA Fund VII	\$25,000,453	\$0	-\$2,668,055	-\$2,668,055	\$825,409	\$23,157,807
Partners Group Secondary 2008, L.P.	\$2,090,553	\$0	-\$377,262	-\$377,262	\$22,785	\$1,736,076
Partners Group Secondary 2011, L.P.	\$11,776,071	\$0	-\$956,467	-\$956,467	\$353,868	\$11,173,472
Pathway Private Equity Fund VIII	\$5,716,517	\$0	-\$1,023,735	-\$1,023,735	\$358,420	\$5,051,202



	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
PE Strategic Partnership LP	\$5,625,000	\$5,462,500	-\$138,894	\$5,323,606	-\$281,084	\$10,667,522
Pharo Management, Ltd.	\$35,997,518	\$0	-\$4,388,017	-\$4,388,017	-\$377,930	\$31,231,571
Pine River Fund Ltd	\$18,130,336	\$0	-\$11,495,512	-\$11,495,512	-\$94,594	\$6,540,230
Pine River Volatility Arbitrage	\$24,202,075	\$0	-\$30,406	-\$30,406	\$474,331	\$24,646,000
Pinnacle Natural Resources, L.P.	\$35,532,800	\$0	\$0	\$0	\$962,240	\$36,495,040
PRISA	\$37,979,108	\$0	-\$449,256	-\$449,256	\$756,317	\$38,286,170
Rhumbline DJ Brookfield Global Infrastructure	\$106,553,571	\$2,803,511	-\$2,803,511	\$0	\$714,541	\$107,268,112
Rhumbline S&P Global Large MidCap Commodity & NR	\$120,924,293	\$5,849,515	-\$5,849,515	\$0	\$9,165,140	\$130,089,432
Russell Currency Hedge	\$279,762	\$70,140,864	-\$70,906,829	-\$765,965	-\$9,588	-\$495,791
Russell Investments Overlay	\$33,165,637	\$42,447,884	-\$62,447,884	-\$20,000,000	-\$960,212	\$12,205,425
Sandler Plus Offshore Fund Ltd	\$17,868,249	\$0	\$0	\$0	\$393,725	\$18,261,975
Senator Global Opportunity Offshore Fund	\$30,369,193	\$0	-\$5,240,318	-\$5,240,318	\$639,107	\$25,767,983
SSgA DJ Brookfield Infrastructure Index	\$6,540	\$0	\$0	\$0	\$0	\$6,540
State Street Terminated Managers	\$3,253	\$0	-\$302	-\$302	\$31	\$2,982
Systematica	\$25,023,926	\$0	\$0	\$0	\$1,350,337	\$26,374,263
Tristan Capital Partners	\$5,159,156	\$0	-\$475	-\$475	\$147,324	\$5,306,006
Voya Securitized Credit	\$70,238,912	\$528,582	-\$528,582	\$0	\$909,089	\$71,148,001
White Oak Direct Lending Account	\$20,454,191	\$80,079	-\$638,451	-\$558,372	-\$2,711,136	\$17,184,682
Total	\$2,170,152,987	\$284,826,965	-\$335,886,905	-\$51,059,940	\$51,616,877	\$2,170,709,925



Total Fund Asset Growth Summary



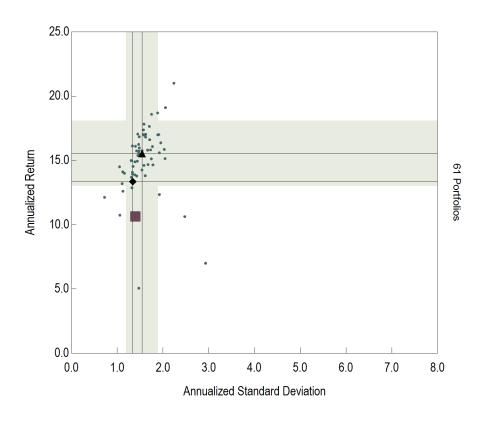
	Fourth Quarter	One Year	Fiscal Year-To-Date	Two Years
Beginning Market Value	\$2,170,152,987	\$2,001,630,349	\$1,998,468,931	\$61,856,007
Net Cash Flow	-\$51,059,940	-\$51,013,887	\$53,015,010	-\$136,707,749
Net Investment Change	\$51,616,878	\$220,093,463	\$119,225,984	\$2,245,561,667
Ending Market Value	\$2,170,709,925	\$2,170,709,925	\$2,170,709,925	\$2,170,709,925



Total Fund Risk/Return

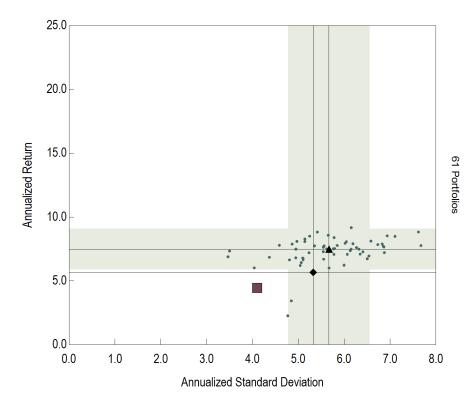
As of December 31, 2017

Annualized Return vs. Annualized Standard Deviation 1 Year Ending December 31, 2017



- Total Fund Aggregate
- San Jose FCERS Policy Benchmark
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB > \$1B Net

Annualized Return vs. Annualized Standard Deviation 3 Years Ending December 31, 2017



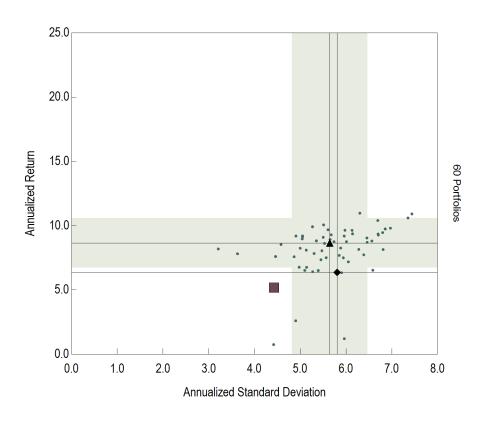
- Total Fund Aggregate
- ◆ San Jose FCERS Policy Benchmark
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB > \$1B Net



Total Fund Risk/Return

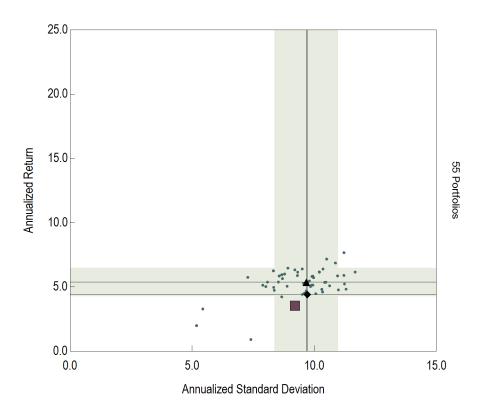
As of December 31, 2017

Annualized Return vs. Annualized Standard Deviation 5 Years Ending December 31, 2017



- Total Fund Aggregate
- San Jose FCERS Policy Benchmark
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB > \$1B Net

Annualized Return vs. Annualized Standard Deviation 10 Years Ending December 31, 2017



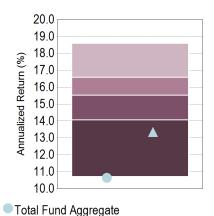
- Total Fund Aggregate
- ◆ San Jose FCERS Policy Benchmark
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB > \$1B Net



Total Fund Risk Statistics vs. Peer Universe (Trailing 1 Year)

As of December 31, 2017

Annualized Return (%) vs. InvestorForce Public DB > \$1B Net

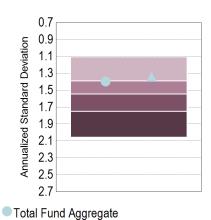


Value 10.6
Rank 97

San Jose FCERS Policy Benchmark
Value 13.3
Rank 87

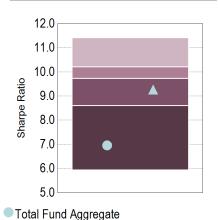
Universe	
5th %tile	18.6
25th %tile	16.6
Median	15.6
75th %tile	14.1
95th %tile	10.7

Annualized Standard Deviation vs. InvestorForce Public DB > \$1B Net



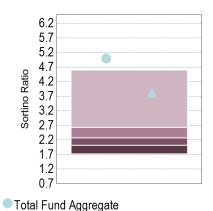
Value 1.4 27 Rank ▲ San Jose FCERS Policy Benchmark Value 1.3 21 Rank Universe 5th %tile 1.1 25th %tile 1.4 1.5 Median 1.7 75th %tile 95th %tile 2.1

Sharpe Ratio vs. InvestorForce Public DB > \$1B Net



7.0 Value 94 Rank San Jose FCERS Policy Benchmark Value 9.3 59 Rank Universe 5th %tile 11.4 25th %tile 10.2 Median 9.7 75th %tile 8.6 95th %tile 5.9

Sortino Ratio vs. InvestorForce Public DB > \$1B Net



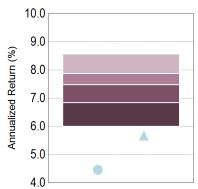
Value	5.0
Rank	2
San Jose FCERS Po	olicy Benchmark
Value	3.8
Rank	8
Universe	
5th %tile	4.6
25th %tile	2.6
Median	2.3
75th %tile	2.0
95th %tile	1.7



Total Fund Risk Statistics vs. Peer Universe (Trailing 3 Years)

As of December 31, 2017

Annualized Return (%) vs. InvestorForce Public DB > \$1B Net

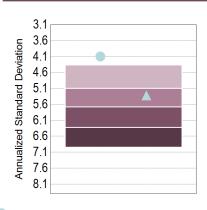


Total Fund Aggregate 4.5 Value Rank A San Jose FCERS Policy Benchmark Value 5.7 96 Rank Universe 5th %tile 8.6 25th %tile 7.9 Median 7.5

6.8

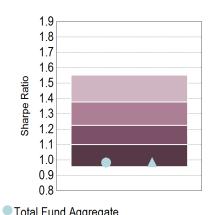
6.0

Annualized Standard Deviation vs. InvestorForce Public DB > \$1B Net



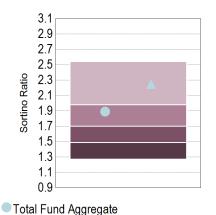
Total Fund Aggregate Value 4.1 Rank ▲ San Jose FCERS Policy Benchmark Value 5.3 37 Rank Universe 5th %tile 4.4 5.1 25th %tile Median 5.7 6.3 75th %tile 95th %tile 6.9

Sharpe Ratio vs. InvestorForce Public DB > \$1B Net



Total i uliu Aggregate	
Value	1.0
Rank	91
▲ San Jose FCERS Policy	Benchmarl
Value	1.0
Rank	91
Universe	
5th %tile	1.6
25th %tile	1.4
Median	1.2
75th %tile	1.1
95th %tile	1.0

Sortino Ratio vs. InvestorForce Public DB > \$1B Net



Value	1.9
Rank	32
San Jose FCERS P	olicy Benchmark
Value	2.2
Rank	11
Universe	
5th %tile	2.5
25th %tile	2.0
Median	1.7
75th %tile	1.5
95th %tile	1.3



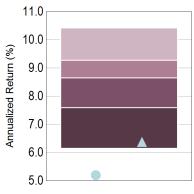
75th %tile

95th %tile

Total Fund Risk Statistics vs. Peer Universe (Trailing 5 Years)

As of December 31, 2017

Annualized Return (%) vs. InvestorForce Public DB > \$1B Net

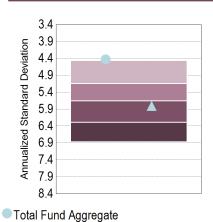


Total Fund Aggregate Value 5.2 Rank 96 A San Jose FCERS Policy Benchmark Value 6.4 95 Rank Universe 5th %tile 10.4 25th %tile 9.3 Median 8.7

7.6

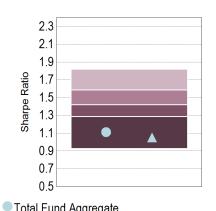
6.2

Annualized Standard Deviation vs. InvestorForce Public DB > \$1B Net



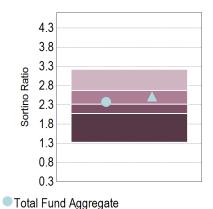
Value 4.4 Rank ▲ San Jose FCERS Policy Benchmark Value 5.8 56 Rank Universe 4.5 5th %tile 5.1 25th %tile 5.6 Median 75th %tile 6.3 95th %tile 6.9

Sharpe Ratio vs. InvestorForce Public DB > \$1B Net



Total Fully Aggregate	
Value	1.1
Rank	93
▲ San Jose FCERS Policy	Benchmark
Value	1.1
Rank	93
Universe	
5th %tile	1.8
25th %tile	1.6
Median	1.4
75th %tile	1.3
95th %tile	0.9

Sortino Ratio vs. InvestorForce Public DB > \$1B Net



Value	2.4
Rank	46
▲ San Jose FCERS Polic	y Benchmark
Value	2.5
Rank	33
Universe	
5th %tile	3.2
25th %tile	2.7
Median	2.3
75th %tile	2.1
95th %tile	1.3



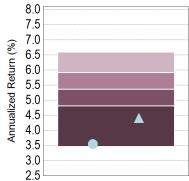
75th %tile

95th %tile

Total Fund Risk Statistics vs. Peer Universe (Trailing 10 Years)

As of December 31, 2017

Annualized Return (%) vs. InvestorForce Public DB > \$1B Net

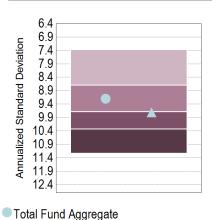


Total Fund Aggregate Value 3.5 Rank 95 A San Jose FCERS Policy Benchmark Value 4.4 90 Rank Universe 5th %tile 6.6 25th %tile 5.9 Median 5.4

4.8

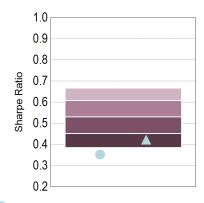
3.5

Annualized Standard Deviation vs. InvestorForce Public DB > \$1B Net



Value 9.2 Rank 34 ▲ San Jose FCERS Policy Benchmark Value 9.7 Rank 53 Universe 5th %tile 7.4 8.7 25th %tile 9.7 Median 75th %tile 10.3 95th %tile 11.2

Sharpe Ratio vs. InvestorForce Public DB > \$1B Net

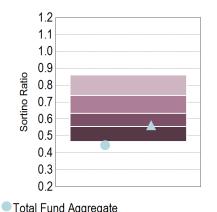


Total Fund Aggregate	
Value	0.4
Rank	97
San Jose FCERS Policy	Benchmark
Value	0.4
Rank	87
Universe	
5th %tile	0.7
25th %tile	0.6
Median	0.5
75th %tile	0.5

0.4

95th %tile

Sortino Ratio vs. InvestorForce Public DB > \$1B Net



- rotarr and riggrogato	
Value	0.4
Rank	98
San Jose FCERS Policy	Benchmark
Value	0.6
Rank	74
Universe 5th %tile 25th %tile	0.9 0.7
Median	0.6
75th %tile	0.6
95th %tile	0.5



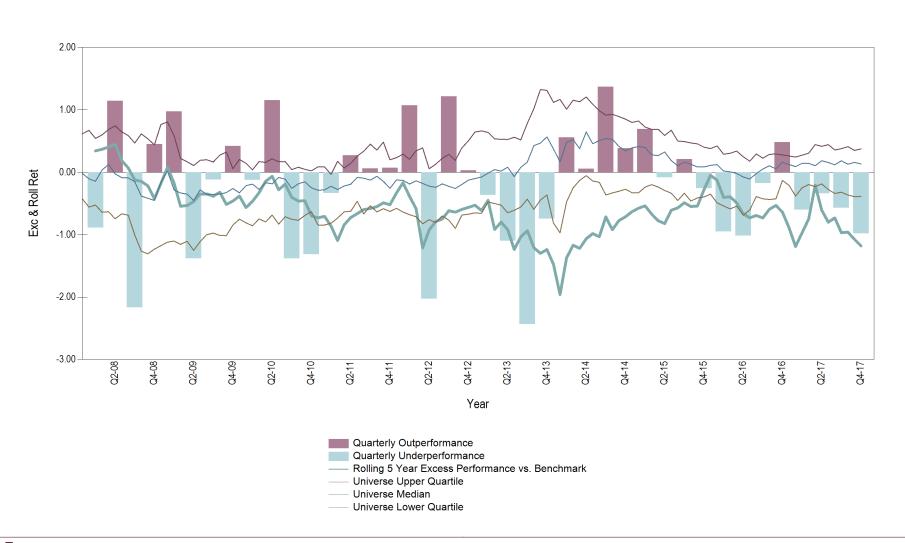
75th %tile

95th %tile

Total Fund Rolling Excess Returns

As of December 31, 2017

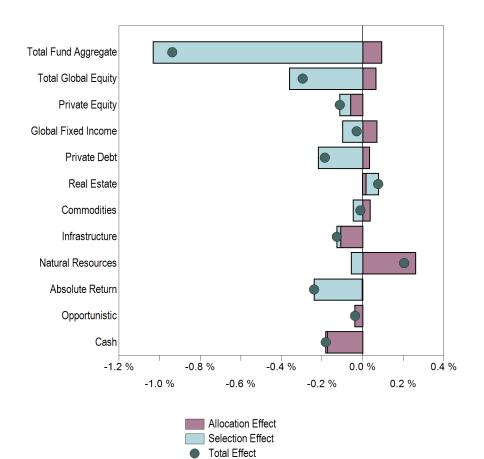
Rolling Annualized Excess Performance





As of December 31, 2017

Attribution Effects QTD Ending December 31, 2017

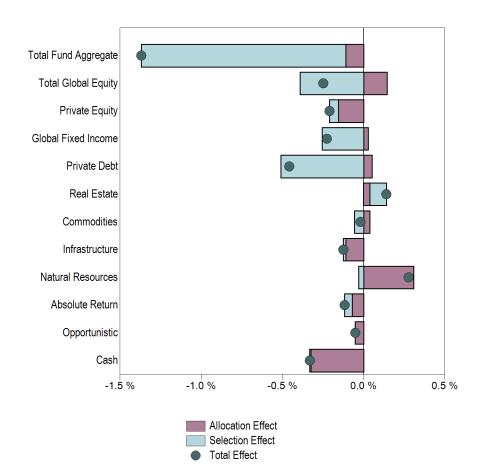


Attribution Summary QTD Ending December 31, 2017								
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects		
Total Global Equity	4.5%	5.7%	-1.2%	-0.4%	0.1%	-0.3%		
Private Equity	2.7%	4.3%	-1.6%	-0.1%	-0.1%	-0.1%		
Global Fixed Income	0.6%	1.1%	-0.5%	-0.1%	0.1%	0.0%		
Private Debt	-4.2%	1.7%	-5.9%	-0.2%	0.0%	-0.2%		
Real Estate	2.9%	1.8%	1.1%	0.1%	0.0%	0.1%		
Commodities	4.0%	4.7%	-0.7%	0.0%	0.0%	0.0%		
Infrastructure	0.2%	0.5%	-0.3%	0.0%	-0.1%	-0.1%		
Natural Resources	7.6%	8.6%	-1.0%	-0.1%	0.3%	0.2%		
Absolute Return	0.6%	2.4%	-1.8%	-0.2%	0.0%	-0.2%		
Opportunistic	0.0%	1.1%	-1.1%	0.0%	0.0%	0.0%		
Cash	0.2%	0.3%	-0.1%	0.0%	-0.2%	-0.2%		
Total	2.4%	3.3%	-0.9%	-1.0%	0.1%	-0.9%		



As of December 31, 2017

Attribution Effects FYTD Ending December 31, 2017

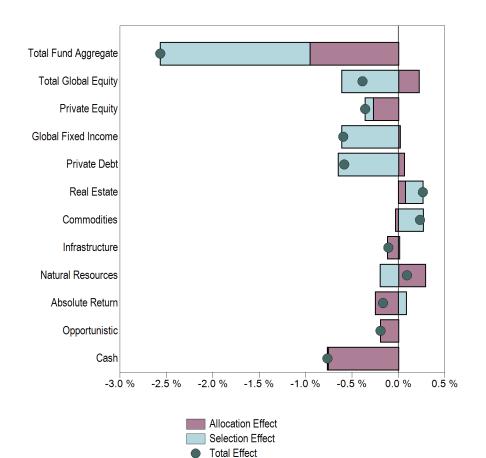


Attribution Summary FYTD Ending December 31, 2017								
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects		
Total Global Equity	10.0%	11.3%	-1.3%	-0.4%	0.1%	-0.2%		
Private Equity	8.1%	9.6%	-1.5%	-0.1%	-0.2%	-0.2%		
Global Fixed Income	1.8%	3.0%	-1.2%	-0.3%	0.0%	-0.2%		
Private Debt	-8.6%	3.9%	-12.5%	-0.5%	0.1%	-0.5%		
Real Estate	5.2%	3.5%	1.7%	0.1%	0.0%	0.1%		
Commodities	6.5%	7.3%	-0.8%	-0.1%	0.0%	0.0%		
Infrastructure	3.6%	3.8%	-0.2%	0.0%	-0.1%	-0.1%		
Natural Resources	19.7%	20.3%	-0.6%	0.0%	0.3%	0.3%		
Absolute Return	2.6%	3.0%	-0.4%	0.0%	-0.1%	-0.1%		
Opportunistic	0.0%	5.0%	-5.0%	0.0%	-0.1%	-0.1%		
Cash	0.5%	0.6%	-0.1%	0.0%	-0.3%	-0.3%		
Total	5.7%	7.1%	-1.4%	-1.3%	-0.1%	-1.4%		



As of December 31, 2017

Attribution Effects 1 Year Ending December 31, 2017

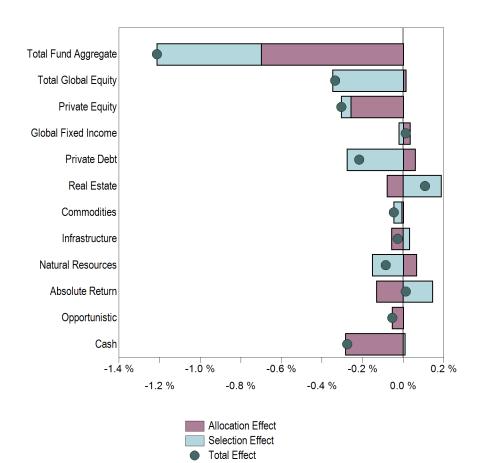


Attribution Summary 1 Year Ending December 31, 2017								
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects		
Total Global Equity	21.7%	23.9%	-2.2%	-0.6%	0.2%	-0.4%		
Private Equity	15.3%	17.7%	-2.4%	-0.1%	-0.3%	-0.4%		
Global Fixed Income	5.1%	8.0%	-2.9%	-0.6%	0.0%	-0.6%		
Private Debt	-6.2%	9.1%	-15.3%	-0.6%	0.1%	-0.6%		
Real Estate	10.2%	7.0%	3.2%	0.2%	0.1%	0.3%		
Commodities	5.6%	1.7%	3.9%	0.3%	0.0%	0.2%		
Infrastructure	15.9%	15.8%	0.2%	0.0%	-0.1%	-0.1%		
Natural Resources	18.8%	22.7%	-3.8%	-0.2%	0.3%	0.1%		
Absolute Return	2.8%	2.2%	0.5%	0.1%	-0.2%	-0.2%		
Opportunistic	0.0%	13.9%	-13.9%	0.0%	-0.2%	-0.2%		
Cash	0.8%	0.9%	-0.1%	0.0%	-0.8%	-0.8%		
Total	10.8%	13.4%	-2.6%	-1.6%	-1.0%	-2.6%		



As of December 31, 2017

Attribution Effects 3 Years Ending December 31, 2017



Attribution Summary 3 Years Ending December 31, 2017								
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects		
Total Global Equity	8.3%	9.5%	-1.2%	-0.3%	0.0%	-0.3%		
Private Equity	8.9%	10.3%	-1.4%	0.0%	-0.3%	-0.3%		
Global Fixed Income	2.4%	2.5%	-0.1%	0.0%	0.0%	0.0%		
Private Debt	-0.2%	6.5%	-6.7%	-0.3%	0.1%	-0.2%		
Real Estate	12.7%	9.4%	3.4%	0.2%	-0.1%	0.1%		
Commodities	-5.5%	-5.0%	-0.4%	0.0%	0.0%	0.0%		
Infrastructure	4.2%	3.7%	0.5%	0.0%	-0.1%	0.0%		
Natural Resources	4.4%	7.2%	-2.9%	-0.2%	0.1%	-0.1%		
Absolute Return	2.0%	0.7%	1.4%	0.1%	-0.1%	0.0%		
Opportunistic	0.0%	5.6%	-5.6%	0.0%	-0.1%	-0.1%		
Cash	0.6%	0.4%	0.1%	0.0%	-0.3%	-0.3%		
Total	4.4%	5.7%	-1.2%	-0.5%	-0.7%	-1.2%		



Total Fund Risk Statistics (Net of Fees)

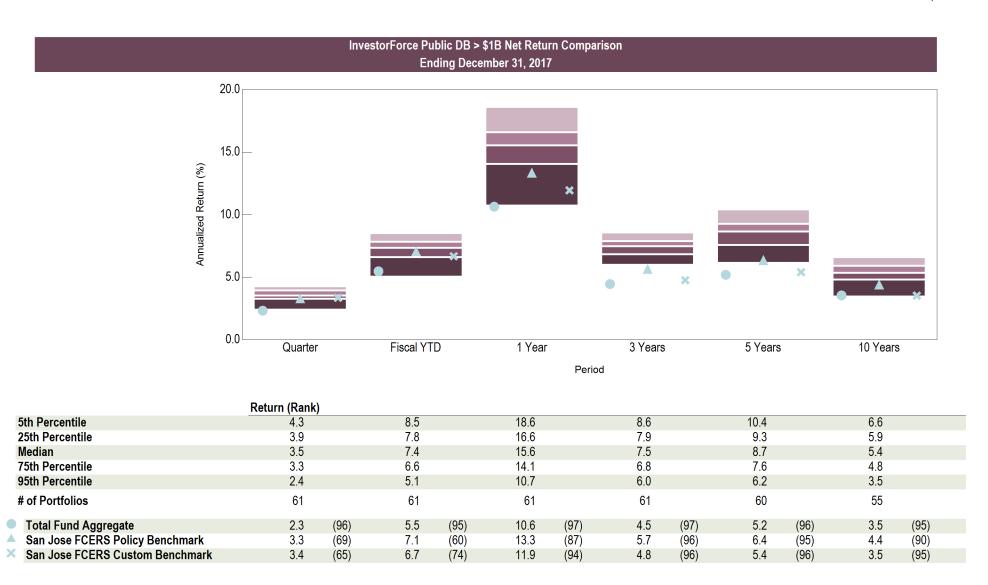
				3 Years	Ending Dec	ember 31, 201	17					
	% of Total MV	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Anlzd Alpha J	Anlzd Alpha J Rank	Tracking Error	Information Ratio	Information Ratio Rank	Beta	Sharpe Ratio
Total Fund Aggregate	100.00%	4.45%	97	4.10%	4	0.15%	42	1.79%	-0.68	90	0.74	0.98
San Jose FCERS Policy Benchmark		5.66%	96	5.32%	37	0.00%	59	0.00%			1.00	0.98
Total Global Equity	31.57%	8.32%	61	8.37%	7	0.75%	42	2.71%	-0.44	73	0.79	0.94
MSCI ACWI IMI Net USD		9.52%	42	10.48%	42	0.00%	52	0.00%			1.00	0.87
Marketable Alternative Equity	3.84%	5.37%		3.59%		3.38%		5.10%	-0.08		0.29	1.38
HFRI Equity Hedge (Total) Index		5.78%		5.64%		0.00%		0.00%			1.00	0.95
Private Equity	2.81%	8.90%		4.02%		4.96%		5.04%	-0.28		0.36	2.11
Cambridge PE Composite BM		10.32%		5.65%		0.00%		0.00%		-	1.00	1.75
Global Fixed Income	21.37%	2.36%	56	2.28%	40	1.19%	57	3.38%	-0.03	57	0.36	0.85
Fixed Income Custom Benchmark		2.46%	54	4.78%	84	0.00%	95	0.00%			1.00	0.43
Non-Investment Grade Credit	1.80%	1.69%		3.42%		0.83%		6.36%	-0.54		0.09	0.37
50% BAML Global HY / 50% S&P Global Leveraged Loan		5.13%		5.95%		0.00%		0.00%			1.00	0.79
Private Debt	3.63%	-0.23%		5.73%		3.04%		7.71%	-0.87		-0.61	-0.11
S&P Global Leveraged Loan +2%		6.47%		3.46%		0.00%		0.00%			1.00	1.75
Real Assets	23.19%	3.61%		8.06%		0.00%		2.62%	-0.07		0.95	0.40
Real Assets Benchmark		3.78%		8.04%		0.00%		0.00%		-	1.00	0.42
Real Estate	5.69%	12.75%		4.45%		12.24%		5.96%	0.56		0.01	2.77
NCREIF Property Index		9.39%		4.00%		0.00%		0.00%			1.00	2.24



Total Fund Risk Statistics (Net of Fees)

	% of Total MV	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Anlzd Alpha J	Anlzd Alpha J Rank	Tracking Error	Information Ratio	Information Ratio Rank	Beta	Sharpe Ratio
Commodities	6.29%	-5.48%		9.58%		-2.24%		6.20%	-0.07		0.67	-0.62
Bloomberg Commodity Index TR USD		-5.03%		12.48%		0.00%		0.00%			1.00	-0.44
Infrastructure	5.20%	4.16%		10.50%		0.50%		0.60%	0.75		0.99	0.36
DJ Brookfield Global Infrastructure Net TR USD		3.70%		10.63%		0.00%		0.00%			1.00	0.31
Natural Resources	6.02%	4.38%		18.55%		-2.78%		2.44%	-1.17		0.99	0.21
S&P Global Natural Resources Index TR USD		7.24%		18.59%		0.00%		0.00%			1.00	0.37
Absolute Return	12.13%	2.02%		2.51%		1.51%		3.20%	0.42		0.37	0.64
HFRI Macro (Total) Index	-	0.66%		3.88%		0.00%		0.00%		-	1.00	0.06
Relative Value	5.71%	3.77%		3.18%		2.57%		3.83%	-0.10	-	0.21	1.05
HFRI Relative Value (Total) Index		4.14%		2.80%		0.00%		0.00%			1.00	1.33
Macro	6.42%	-0.02%		4.97%		-0.67%		3.33%	-0.21		0.95	-0.09
HFRI Macro (Total) Index		0.66%		3.88%		0.00%		0.00%			1.00	0.06
Cash	5.31%	0.55%		0.13%		0.13%		0.12%	1.08		0.55	1.03
91 Day T-Bills		0.42%		0.12%		0.00%		0.00%			1.00	0.00

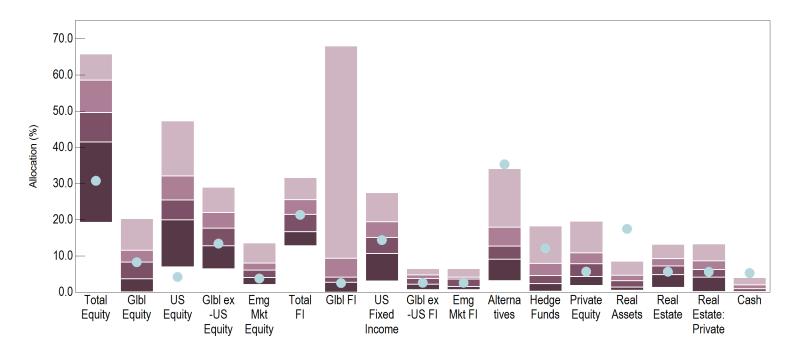






As of December 31, 2017

Total Plan Allocation vs. InvestorForce Public DB > \$1B Net As of December 31, 2017



5th Percentile 25th Percentile Median 75th Percentile 95th Percentile # of Portfolios

 Total Fund Aggregate Rank

Allocat	ion																
65.7	20.3	47.3	29.0	13.6	31.7	68.0	27.4	6.57	6.56	34.1	18.3	19.6	8.61	13.2	13.3	4.11	
58.6	11.6	32.2	22.1	8.19	25.6	9.47	19.6	4.90	4.23	18.0	8.04	10.9	4.80	9.36	8.79	2.17	
49.7	8.43	25.5	17.8	6.23	21.5	4.23	15.2	3.88	3.74	12.8	4.70	7.98	3.25	7.34	6.40	1.07	
41.5	3.78	20.1	12.8	4.18	16.8	2.88	10.7	2.34	1.73	9.25	2.45	4.48	1.49	4.95	4.25	0.31	
19.3	0.23	7.07	6.59	2.19	12.9	0.08	3.18	0.85	0.82	3.28	0.41	1.92	0.63	1.39	0.23	0.00	
56	22	49	50	39	56	26	51	28	24	51	36	48	28	47	44	54	
30.7	8.30	4.23	13.4	3.79	21.3	2.55	14.4	2.61	2.61	35.3	12.1	5.71	17.5	5.66	5.66	5.30	
89	52	99	73	81	53	79	62	71	66	4	16	66	1	64	55	4	



	Major Benchmark I				
Name	Periods Ending Decemb Q4-17	er 31, 2017 1 Yr	3 Yrs	5 Yrs	10 Yrs
US Equity					
Russell 3000	6.3	21.1	11.1	15.6	8.6
S&P 500	6.6	21.8	11.4	15.8	8.5
Russell 1000	6.6	21.7	11.2	15.7	8.6
Russell 1000 Growth	7.9	30.2	13.8	17.3	10.0
Russell 1000 Value	5.3	13.7	8.7	14.0	7.1
Russell MidCap	6.1	18.5	9.6	15.0	9.1
Russell 2000	3.3	14.6	10.0	14.1	8.7
Russell 2000 Growth	4.6	22.2	10.3	15.2	9.2
Russell 2000 Value	2.0	7.8	9.5	13.0	8.2
International Equity					
MSCI ACWI	5.7	24.0	9.3	10.8	4.7
MSCI World ex USA	4.2	24.2	7.4	7.5	1.9
MSCI EAFE	4.2	25.0	7.8	7.9	1.9
MSCI Emerging Markets	7.4	37.3	9.1	4.3	1.7
Fixed Income					
91 Day T-Bills	0.3	0.9	0.4	0.3	0.3
BBgBarc US Aggregate TR	0.4	3.5	2.2	2.1	4.0
BBgBarc US Govt/Credit TR	0.5	4.0	2.4	2.1	4.1
BBgBarc US Municipal TR	0.7	5.4	3.0	3.0	4.5
BBgBarc US High Yield TR	0.5	7.5	6.4	5.8	8.0
Citi WGBI	1.0	7.5	1.7	0.1	2.7
Citi WGBI ex US	1.6	10.3	2.0	-0.3	2.4
Real Estate					
FTSE NAREIT All REIT	2.4	9.3	6.9	9.9	7.7
NCREIF Property Index	1.8	7.0	9.4	10.2	6.1
Alternatives					
HFRI Fund of Funds Composite Index	2.0	7.7	2.6	4.0	1.1
Inflation					
Consumer Price Index	-0.1	2.1	1.6	1.4	1.6



	Benchmark History										
		As of December 31, 2017									
Total Fund Aggrega	te										
11/1/2017	Present	28% MSCI ACWI IMI (Net)/9% Cambridge Associates Private Equity Composite BM/33% Fixed Income Custom Benchmark/ 6% S&P Global Leveraged Loan +2%/8% NCREIF Property Index/4% Bloomberg Commodity Index/1% DJ Brookfield Global Infrastructure (Net)/11% HFRI Macro									
7/1/2015	10/31/2017	28% MSCI ACWI IMI (Net)/9% Cambridge Associates Private Equity Composite/19% Fixed Income Custom Benchmark/ 5% S&P Global Leveraged Loan +2%/ 7% NCREIF Property Index/6% Bloomberg Commodity Index/5% DJ Brookfield Global Infrastructure (Net)/5% S&P Global LargeMidCap Commodity and Resources (Gross)/ 11% HFRI Macro/5% 60/40 MSCI ACWI IMI/BC Global									



Glossary and Notes

Credit Risk: Refers to the risk that the issuer of a fixed income security may default (i.e., the issuer will be unable to make timely principal and/or interest payments on the security.)

Duration: Measure of the sensitivity of the price of a bond to a change in its yield to maturity. Duration summarizes, in a single number, the characteristics that cause bond prices to change in response to a change in interest rates. For example, the price of a bond with a duration of three years will rise by approximately 3% for each 1% decrease in its yield to maturity. Conversely, the price will decrease 3% for each 1% increase in the bond's yield. Price changes for two different bonds can be compared using duration. A bond with a duration of six years will exhibit twice the percentage price change of a bond with a three-year duration. The actual calculation of a bond's duration is somewhat complicated, but the idea behind the calculation is straightforward. The first step is to measure the time interval until receipt for each cash flow (coupon and principal payments) from a bond. The second step is to compute a weighted average of these time intervals. Each time interval is measured by the present value of that cash flow. This weighted average is the duration of the bond measured in years.

Information Ratio: This statistic is a measure of the consistency of a portfolio's performance relative to a benchmark. It is calculated by subtracting the benchmark return from the portfolio return (excess return), and dividing the resulting excess return by the standard deviation (volatility) of this excess return. A positive information ratio indicates outperformance versus the benchmark, and the higher the information ratio, the more consistent the outperformance.

Jensen's Alpha: A measure of the average return of a portfolio or investment in excess of what is predicted by its beta or "market" risk. Portfolio Return- [Risk Free Rate+Beta*(market return-Risk Free Rate)].

Market Capitalization: For a firm, market capitalization is the total market value of outstanding common stock. For a portfolio, market capitalization is the sum of the capitalization of each company weighted by the ratio of holdings in that company to total portfolio holdings; thus it is a weighted-average capitalization. Meketa Investment Group considers the largest 65% of the broad domestic equity market as large capitalization, the next 25% of the market as medium capitalization, and the smallest 10% of stocks as small capitalization.

Market Weighted: Stocks in many indices are weighted based on the total market capitalization of the issue. Thus, the individual returns of higher market-capitalization issues will more heavily influence an index's return than the returns of the smaller market-capitalization issues in the index.

Maturity: The date on which a loan, bond, mortgage, or other debt/security becomes due and is to be paid off.



Prepayment Risk: The risk that prepayments will increase (homeowners will prepay all or part of their mortgage) when mortgage interest rates decline; hence, investors' monies will be returned to them in a lower interest rate environment. Also, the risk that prepayments will slow down when mortgage interest rates rise; hence, investors will not have as much money as previously anticipated in a higher interest rate environment. A prepayment is any payment in excess of the scheduled mortgage payment.

Price-Book Value (P/B) Ratio: The current market price of a stock divided by its book value per share. Meketa Investment Group calculates P/B as the current price divided by Compustat's quarterly common equity. Common equity includes common stock, capital surplus, retained earnings, and treasury stock adjusted for both common and nonredeemable preferred stock. Similar to high P/E stocks, stocks with high P/B's tend to be riskier investments.

Price-Earnings (P/E) Ratio: A stock's market price divided by its current or estimated future earnings. Lower P/E ratios often characterize stocks in low growth or mature industries, stocks in groups that have fallen out of favor, or stocks of established blue chip companies with long records of stable earnings and regular dividends. Sometimes a company that has good fundamentals may be viewed unfavorably by the market if it is an industry that is temporarily out of favor. Or a business may have experienced financial problems causing investors to be skeptical about is future. Either of these situations would result in lower relative P/E ratios. Some stocks exhibit above-average sales and earnings growth or expectations for above average growth. Consequently, investors are willing to pay more for these companies' earnings, which results in elevated P/E ratios. In other words, investors will pay more for shares of companies whose profits, in their opinion, are expected to increase faster than average. Because future events are in no way assured, high P/E stocks tend to be riskier and more volatile investments. Meketa Investment Group calculates P/E as the current price divided by the I/B/E/S consensus of twelve-month forecast earnings per share.

Quality Rating: The rank assigned a security by such rating services as Fitch, Moody's, and Standard & Poor's. The rating may be determined by such factors as (1) the likelihood of fulfillment of dividend, income, and principal payment of obligations; (2) the nature and provisions of the issue; and (3) the security's relative position in the event of liquidation of the company. Bonds assigned the top four grades (AAA, AA, A, BBB) are considered investment grade because they are eligible bank investments as determined by the controller of the currency.

Sharpe Ratio: A commonly used measure of risk-adjusted return. It is calculated by subtracting the risk free return (usually three-month Treasury bill) from the portfolio return and dividing the resulting excess return by the portfolio's total risk level (standard deviation). The result is a measure of return per unit of total risk taken. The higher the Sharpe ratio, the better the fund's historical risk adjusted performance.

Standard Deviation: A measure of the total risk of an asset or a portfolio. Standard deviation measures the dispersion of a set of numbers around a central point (e.g., the average return). If the standard deviation is small, the distribution is concentrated within a narrow range of values. For a normal distribution, about two thirds of the observations will fall within one standard deviation of the mean, and 95% of the observations will fall within two standard deviations of the mean.

STIF Account: Short-term investment fund at a custodian bank that invests in cash-equivalent instruments. It is generally used to safely invest the excess cash held by portfolio managers.

Style: The description of the type of approach and strategy utilized by an investment manager to manage funds. For example, the style for equities is determined by portfolio characteristics such as price-to-book value, price-to-earnings ratio, and dividend yield. Equity styles include growth, value, and core.

Yield to Maturity: The yield, or return, provided by a bond to its maturity date; determined by a mathematical process, usually requiring the use of a "basis book." For example, a 5% bond pays \$5 a year interest on each \$100 par value. To figure its current yield, divide \$5 by \$95—the market price of the bond—and you get 5.26%. Assume that the same bond is due to mature in five years. On the maturity date, the issuer is pledged to pay \$100 for the bond that can be bought now for \$95. In other words, the bond is selling at a discount of 5% below par value. To figure yield to maturity, a simple and approximate method is to divide 5% by the five years to maturity, which equals 1% pro rata yearly. Add that 1% to the 5.26% current yield, and the yield to maturity is roughly 6.26%.

Sources: <u>Investment Terminology</u>, International Foundation of Employee Benefit Plans, 1999. The Handbook of Fixed Income Securities, Fabozzi, Frank J., 1991.

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Throughout this report, numbers may not sum due to rounding.

Returns for periods greater than one year are annualized throughout this report.

Values shown are in millions of dollars, unless noted otherwise.

