

FUND EVALUATION REPORT

City of San Jose Police and Fire Department Retirement Plan

Quarterly Review
As of March 31, 2019



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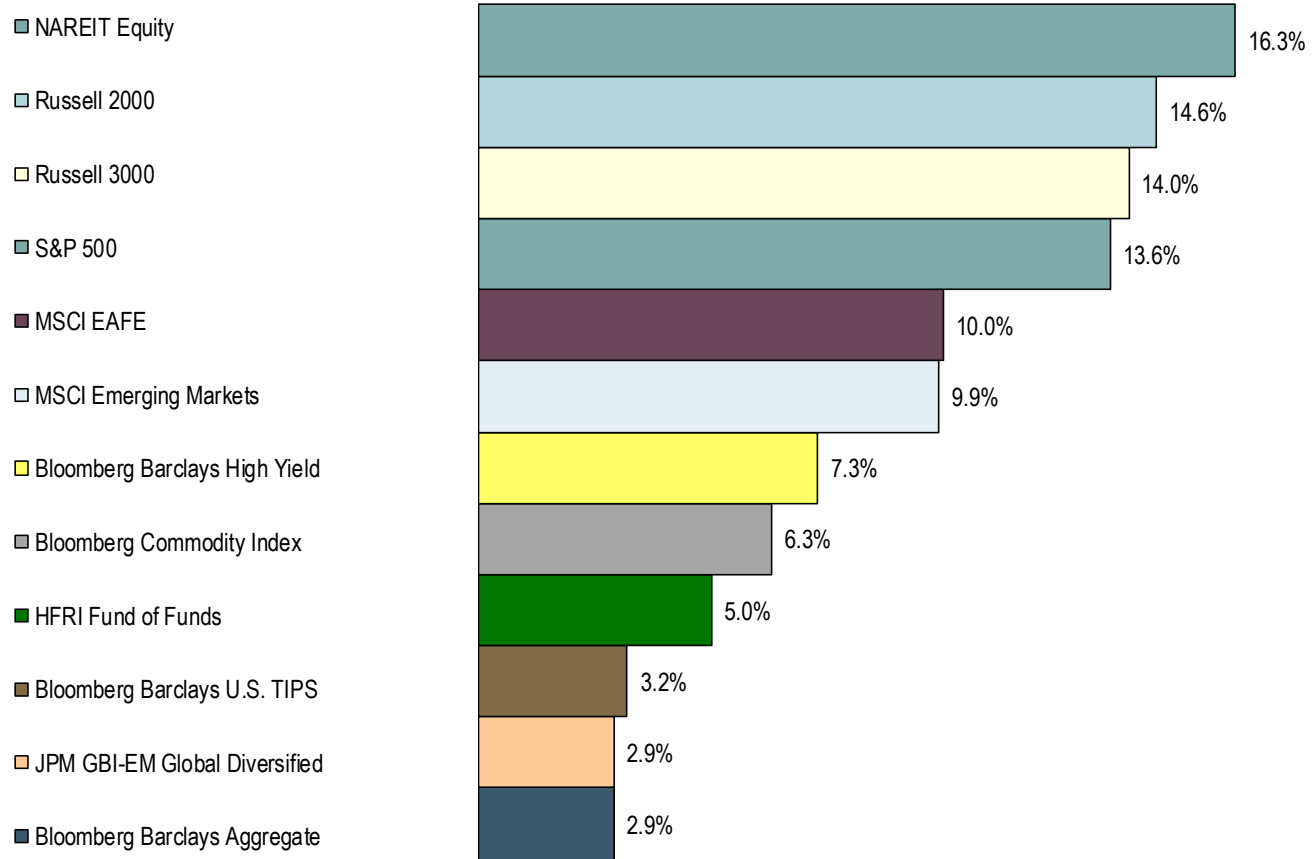
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**The World Markets
First Quarter of 2019**

The World Markets¹ First Quarter of 2019



¹ Source: InvestorForce.

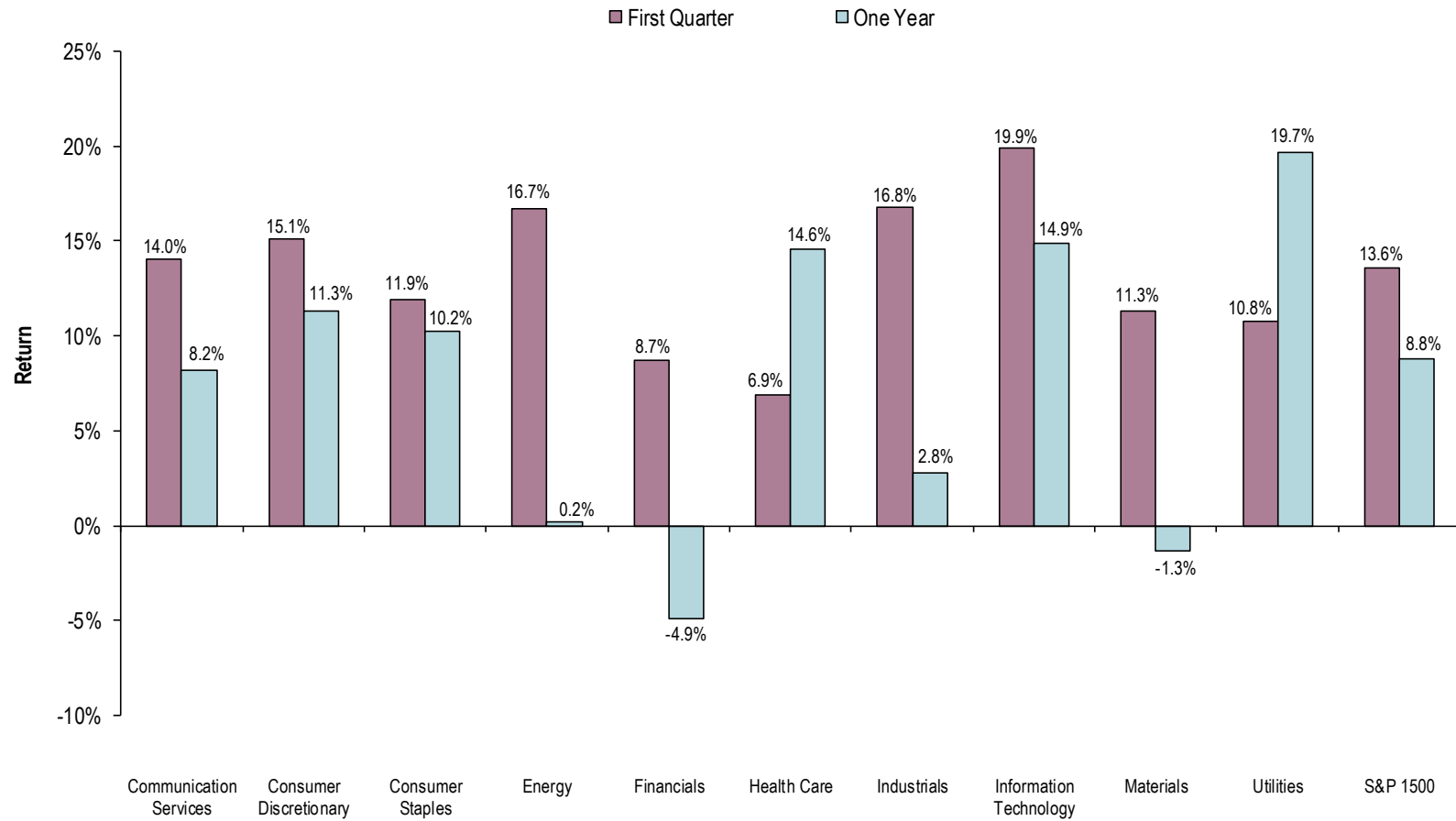


Index Returns¹

	1Q19 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Domestic Equity					
S&P 500	13.6	9.5	13.5	10.9	15.9
Russell 3000	14.0	8.8	13.5	10.4	16.0
Russell 1000	14.0	9.3	13.5	10.6	16.0
Russell 1000 Growth	16.1	12.7	16.5	13.5	17.5
Russell 1000 Value	11.9	5.7	10.5	7.7	14.5
Russell MidCap	16.5	6.5	11.8	8.8	16.9
Russell MidCap Growth	19.6	11.5	15.1	10.9	17.6
Russell MidCap Value	14.4	2.9	9.5	7.2	16.4
Russell 2000	14.6	2.0	12.9	7.1	15.4
Russell 2000 Growth	17.1	3.9	14.9	8.4	16.5
Russell 2000 Value	11.9	0.2	10.9	5.6	14.1
Foreign Equity					
MSCI ACWI (ex. U.S.)	10.3	-4.2	8.1	2.6	8.8
MSCI EAFE	10.0	-3.7	7.3	2.3	9.0
MSCI EAFE (Local Currency)	10.6	2.8	8.5	6.0	9.8
MSCI EAFE Small Cap	10.7	-9.4	7.5	4.5	12.8
MSCI Emerging Markets	9.9	-7.4	10.7	3.7	8.9
MSCI Emerging Markets (Local Currency)	10.1	-1.7	11.3	7.2	10.2
Fixed Income					
Bloomberg Barclays Universal	3.3	4.5	2.6	3.0	4.4
Bloomberg Barclays Aggregate	2.9	4.5	2.0	2.7	3.8
Bloomberg Barclays U.S. TIPS	3.2	2.7	1.7	1.9	3.4
Bloomberg Barclays High Yield	7.3	5.9	8.6	4.7	11.3
JPM GBI-EM Global Diversified	2.9	-7.6	3.3	-0.8	4.3
Other					
NAREIT Equity	16.3	20.3	6.0	9.0	18.2
Bloomberg Commodity Index	6.3	-5.3	2.2	-8.9	-2.6
HFRI Fund of Funds	5.0	0.5	4.1	2.3	3.6

¹ Source: InvestorForce.

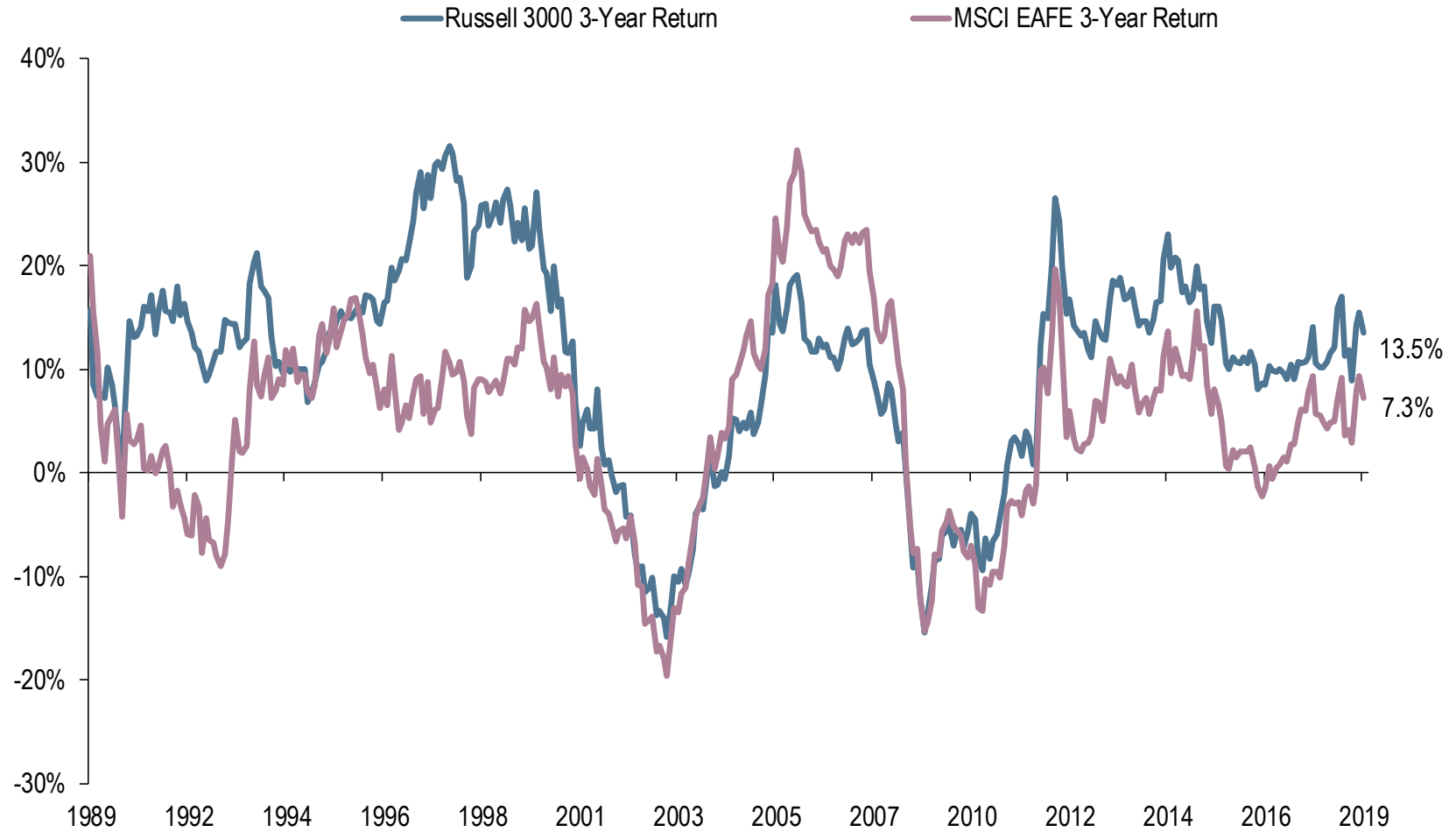
S&P Sector Returns¹



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



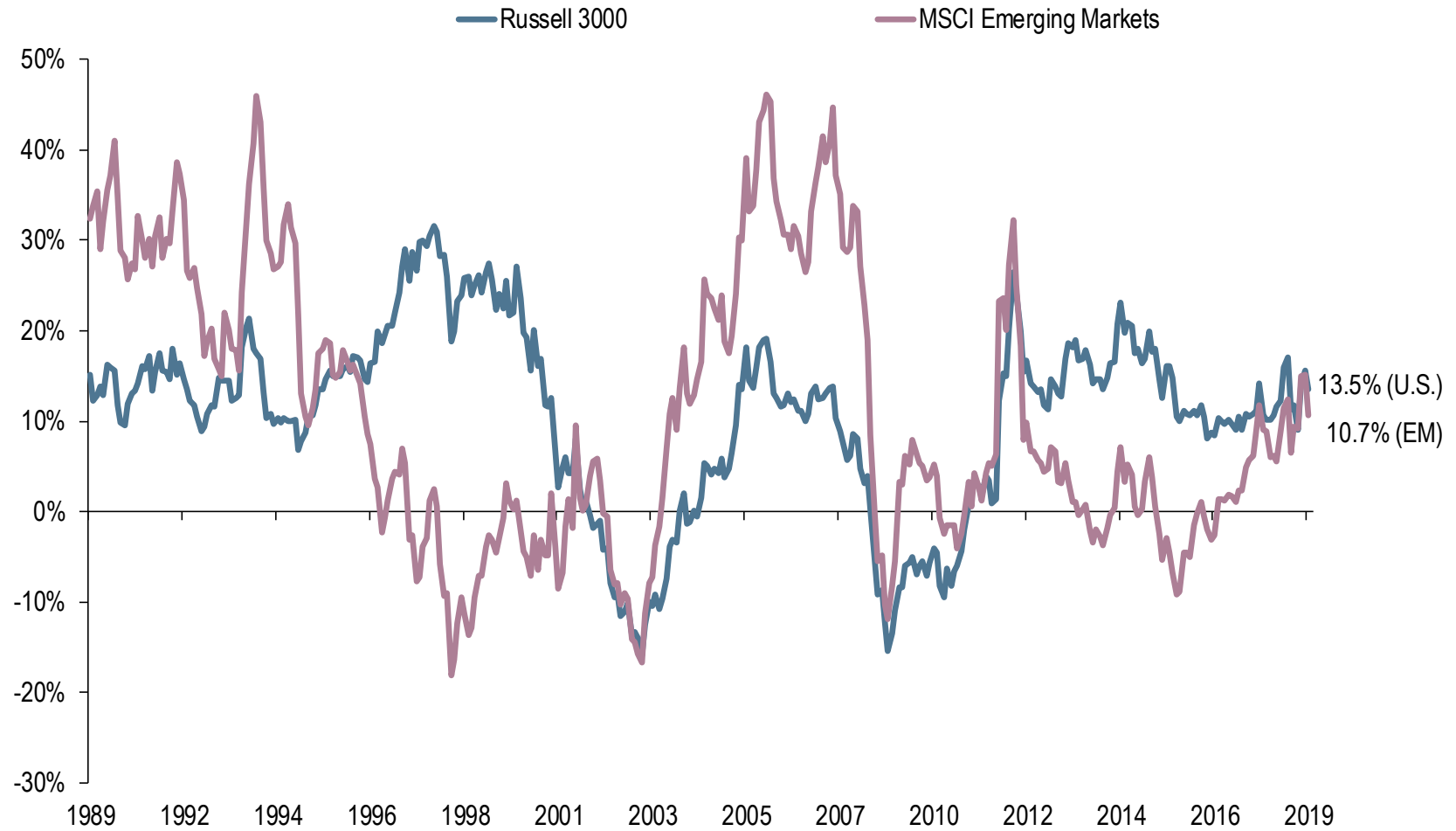
U.S. and Developed Market Foreign Equity Rolling Three-Year Returns¹



¹ Source: InvestorForce.



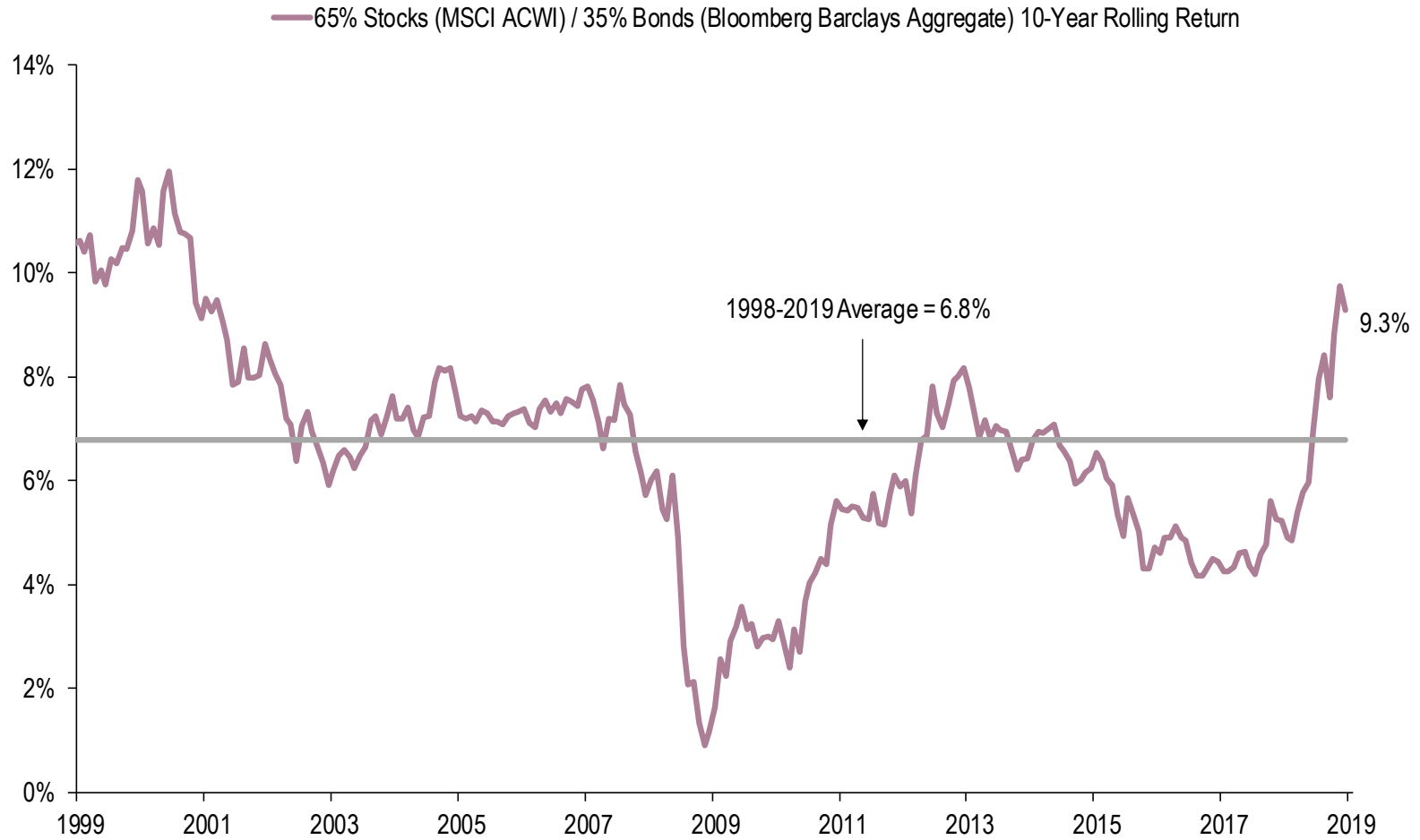
U.S. and Emerging Market Equity Rolling Three-Year Returns¹



¹ Source: InvestorForce.



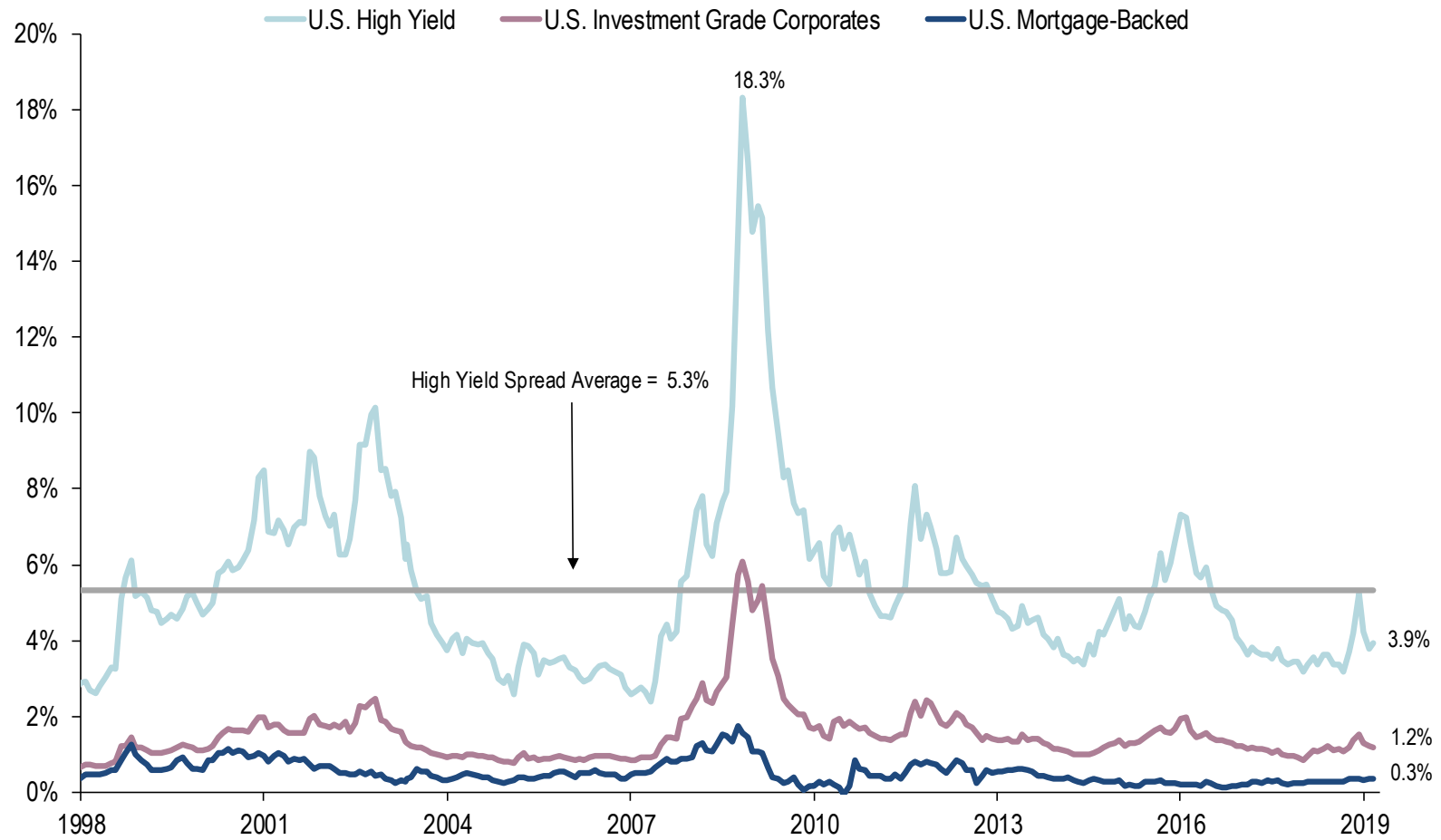
Rolling Ten-Year Returns: 65% Stocks and 35% Bonds¹



¹ Source: InvestorForce.



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

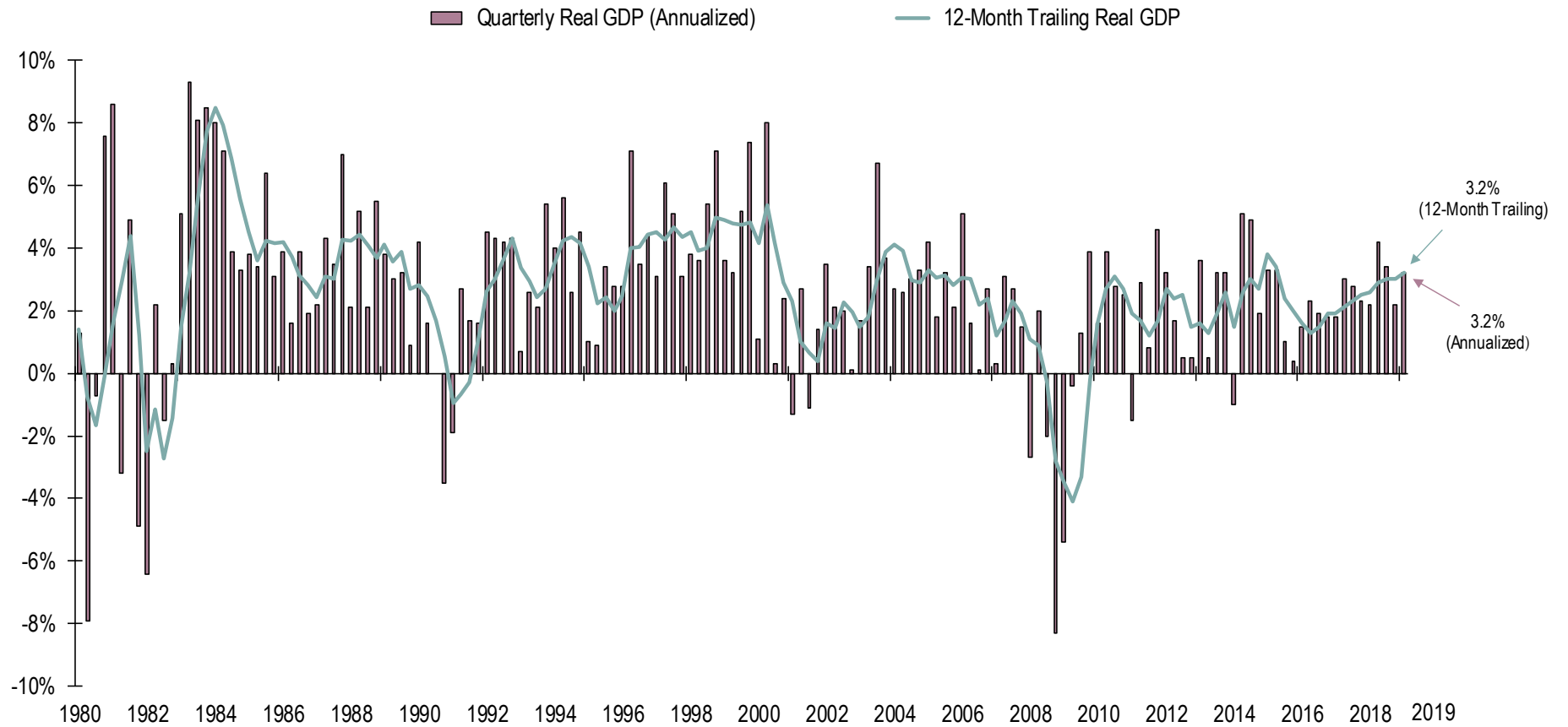


¹ Source: Barclays Live.

² The median high yield spread was 4.8% from 1997-2019.



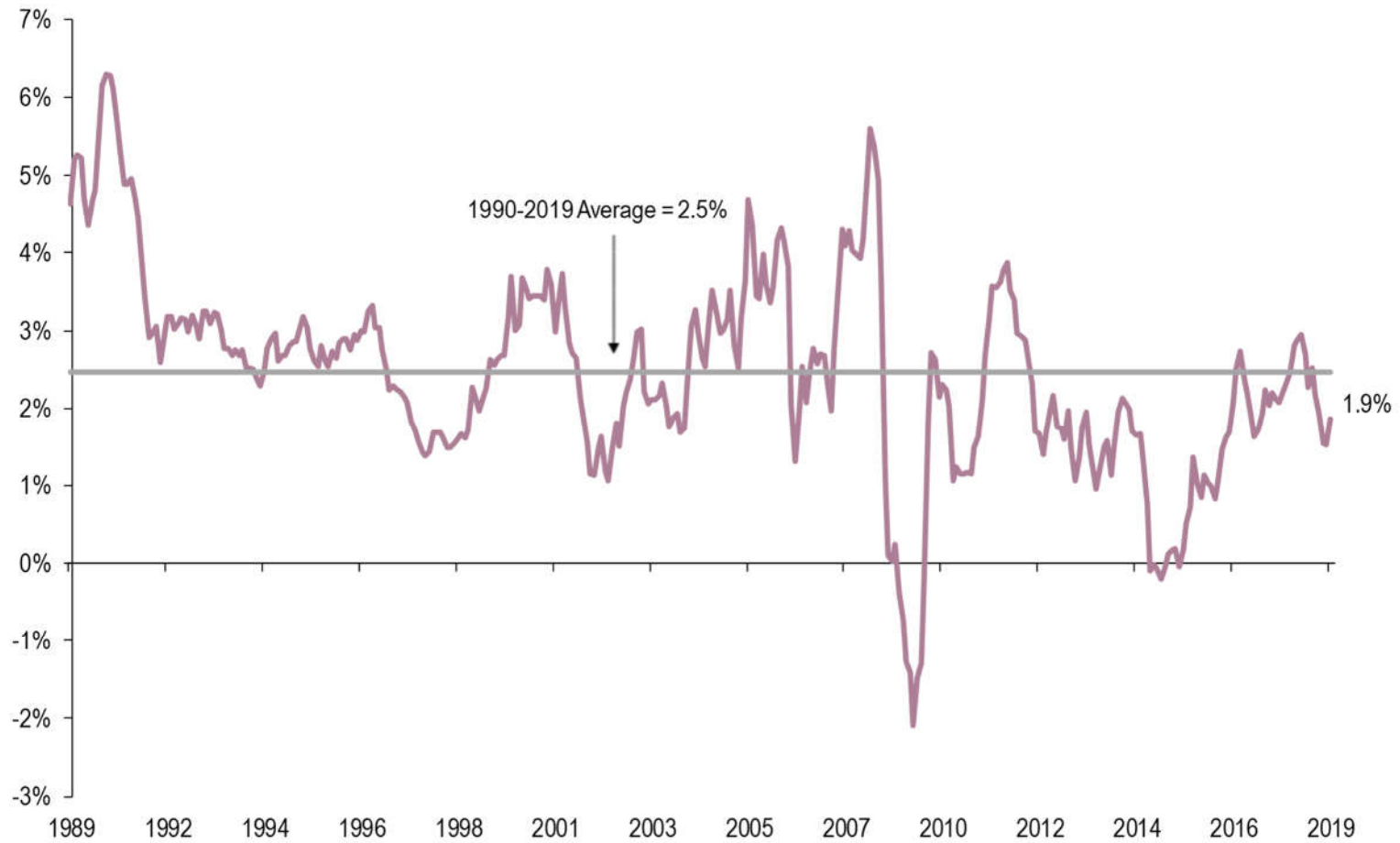
U.S. Real Gross Domestic Product (GDP) Growth¹



¹ Source: Bureau of Economic Analysis. Data is as of Q1 2019 and represents the first estimate.



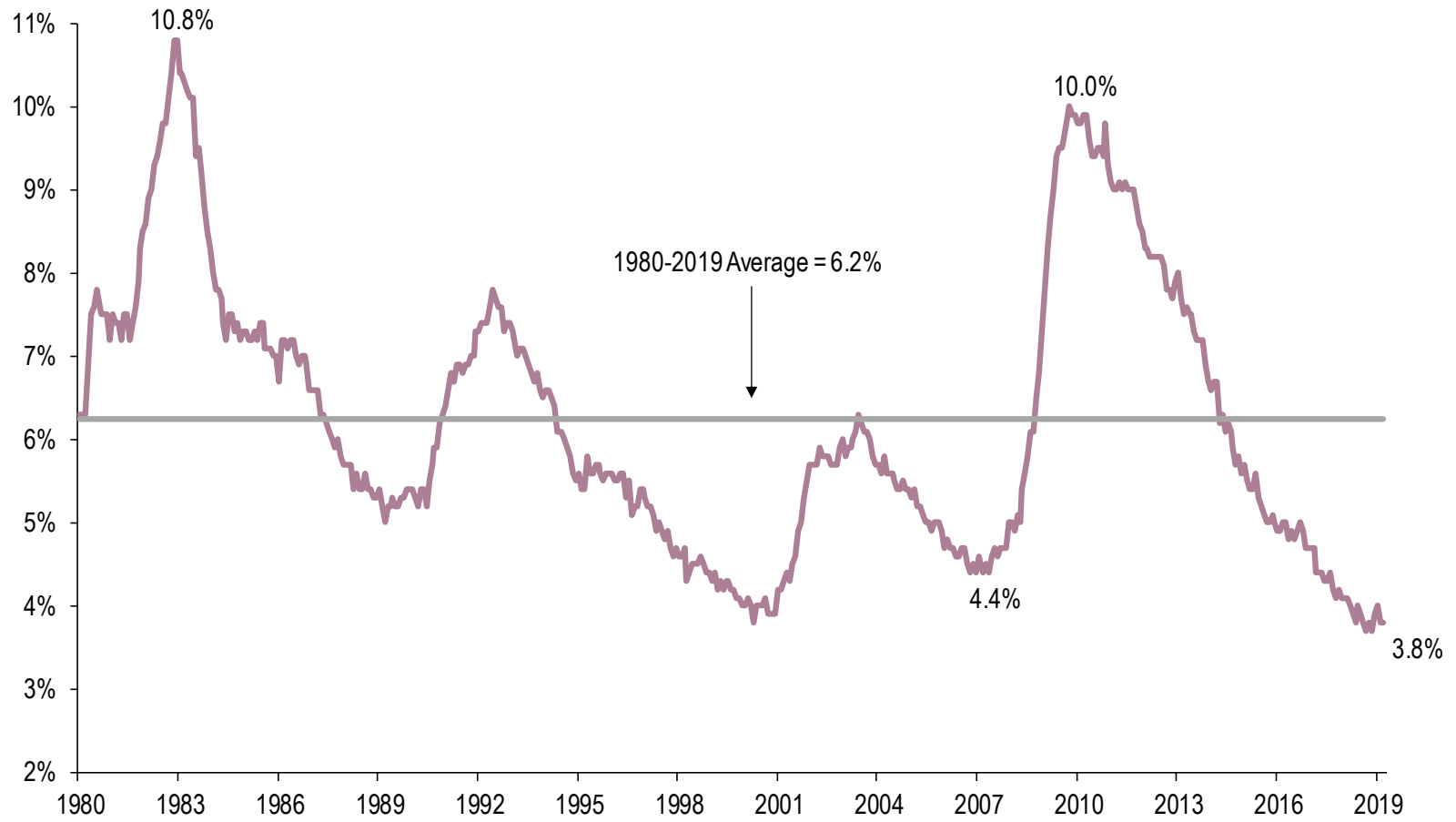
U.S. Inflation (CPI) Trailing Twelve Months¹



¹ Source: Bureau of Labor Statistics. Data is non-seasonally adjusted CPI, which may be volatile in the short-term. Data is as of March 31, 2019.



U.S. Unemployment¹



¹ Source: Bureau of Labor Statistics. Data is as of March 31, 2019.



**Executive Summary
As of March 31, 2019**

The value of the City of San Jose Police & Fire Department Retirement Plan's assets was \$3.6 billion on March 31, 2019, an increase of approximately \$137.1 million from the end of the prior quarter. The Plan had net cash outflows of \$54.4 million during the quarter.

- The Retirement Plan's net of fees performance for the quarter was +5.5%, outperforming the Policy Benchmark return of +5.2%, in-line with the Investable Benchmark Portfolio return of +5.5%, and underperforming the peer median return of +7.2%.
- The Retirement Plan returned +1.5% in the fiscal year-to-date period, compared to +2.1% for the Policy Benchmark, +1.9% for the Investable Benchmark Portfolio, and +2.5% for the peer median. The Retirement Plan's standard deviation of returns was 6.1% over the trailing one-year period, exhibiting lower volatility than the peer median (7.6%).
 - Growth returned +8.3% for the quarter and +2.1% over the fiscal year-to-date period, versus +8.1% and +2.4% for the Growth Benchmark over the same periods, respectively.
 - Zero Beta returned +1.2% for the quarter and +2.4% over the fiscal year-to-date period, versus +0.7% and +1.3% for the Zero Beta Benchmark over the same periods, respectively.
 - Other returned +2.7% for the quarter and +1.0% over the fiscal year-to-date period, versus +2.4% and +1.0% for the Other Benchmark over the same periods, respectively.
- The Retirement Plan added four investment managers during the quarter: BlackRock Core Property Fund (Core Real Estate), Clarion Lion Properties Fund (Core Real Estate), and Northern Trust FTSE WGBI ex U.S. (Sovereign Bonds ex U.S.), Octagon CLO Opportunity Fund III (Private Debt).

Artisan

- Artisan Global Opportunities returned +16.5% for the quarter, outperforming the MSCI ACWI Growth NR benchmark by 200 basis points. Compared to peers, Artisan ranks in the 11th and 12th percentiles for the quarter and since inception periods, respectively. As global markets bounced back from the fourth quarter selloff, the portfolio outperformed, with payment processing company Worldpay, power tool manufacturer Techtronic, and drink-mix producer Fevertree as top contributors in the quarter.

Cove Street

- Cove Street Small Cap Value returned +15.2% for the quarter and +4.0% over the fiscal year-to-date period, outperforming the Russell 2000 Value benchmark by 330 and 1,150 basis points, respectively. Compared to peers, Cove Street ranks in the 13th and 6th percentiles for the quarter and since inception periods, respectively. The portfolio benefitted in the quarter from strong performance in its largest positions, including digital media solutions company Avid Technologies, global communications company ViaSat, and mineral producer Compass Minerals.

GQG

- GQG Partners Global Emerging Markets returned +11.8% for the quarter and +2.1% over the fiscal year-to-date period, outperforming the MSCI Emerging Markets benchmark by 190 and 150 basis points, respectively. Compared to peers, GQG ranks in the 31st and 12th percentiles for the quarter and since inception periods, respectively. The portfolio's largest contributor to overall performance was AIA Group Limited, an Asian life insurance group, while its largest negative contributor overall was KT Corporation, a South Korean telecom operator.

Credit Suisse

- Credit Suisse Risk Parity Commodity Fund returned +5.1% for the quarter, underperforming the Bloomberg Commodity Index by 120 basis points. Since inception in April 2011, Credit Suisse has outperformed the index by 350 basis points.

¹ Net of management fees.



First Quarter Manager Summary

Investment Manager	Asset Class	Changes/ Announcements	Performance Concerns	Meketa Recommendation ¹	Comments
Artisan Global Value	Global Equity	---	---	---	---
Artisan Global Opportunities	Global Equity	Yes	---	Hold	Personnel Changes
Cove Street Small Cap Value	U.S. Equity	---	---	---	---
Oberweis International Opps.	International Equity	---	Yes	---	Watch List
Dimensional EM Value	Emerging Markets Equity	---	---	---	---
Comgest Global EM	Emerging Markets Equity	---	Yes	---	Watch List
GQG Partners Global EM	Emerging Markets Equity	---	---	---	---
Senator Global Opportunity	Long-Short Equity	---	Yes	---	Watch List
Sandler Plus	Long-Short Equity	---	---	---	---
Marshall Wace	Long-Short Equity	---	---	---	---
Beach Point Total Return Fund II	Non-Investment Grade Credit	---	Yes	---	Watch List
BlueBay EM Select Debt	Emerging Markets Debt	Yes	Yes	Hold	Watch List/Personnel Changes
Iguazu Partners LP Fund	Emerging Markets Debt	---	---	---	---
Credit Suisse Risk Parity	Commodities	---	---	---	---

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



Artisan

- In the first quarter, within the Artisan Partners Growth Team two investment professionals were promoted to analyst and associate portfolio manager, respectively.

Oberweis

- Over the three-year period, Oberweis (+7.3%) has underperformed the MSCI World ex USA Small Cap Growth by 60 basis points. Since inception in March 2014, Oberweis has outperformed the benchmark by 50 basis points and ranked in the 25th percentile compared to peers.

Comgest

- Since inception in March 2017, Comgest (-2.6%) has underperformed the MSCI Emerging Markets SMID Cap by 750 basis points and ranked in the 97th percentile compared to peers.

Senator

- Over the three-year period, Senator (+5.4%) has underperformed the HFRI Equity Hedge Index by 150 basis points. Since inception in April 2013, Senator (+5.5%) has outperformed the benchmark by 130 basis points per year, on average.

Beach Point

- Over the three-year period, Beach Point (+6.1%) has underperformed the Bloomberg Barclays High Yield TR by 250 basis points. Since inception in October 2013, Beach Point (+3.8%) has underperformed the benchmark by 170 basis points per year, on average.

BlueBay

- Over the three-year period, BlueBay (+3.5%) has underperformed the JPM Blended Emerging Markets Index by 110 basis points. Since inception in August 2013, BlueBay (+0.7%) has underperformed the benchmark by 190 basis points and ranked in the 74th percentile compared to peers.
- During the quarter, BlueBay announced that Gautam Kalani will become a named portfolio manager on the Emerging Markets Select strategy, alongside senior portfolio manager Russel Matthews.

Watch List^{1,2}

Investment Manager	Asset Class	Watch List Status	Comments
Oberweis International Opps.	International Equity	Monitoring	Underperformance
Comgest Global EM	Emerging Markets Equity	Monitoring	Underperformance
Senator Global Opportunity	Long-Short Equity	Monitoring	Underperformance
Beach Point Total Return Fund II	Non-Investment Grade Credit	Monitoring	Underperformance
BlueBay EM Select Debt	Emerging Markets Debt	Monitoring	Underperformance
DE Shaw	Absolute Return	Monitoring	Transparency Concerns
Kepos Alpha Fund	Absolute Return	Monitoring	Underperformance

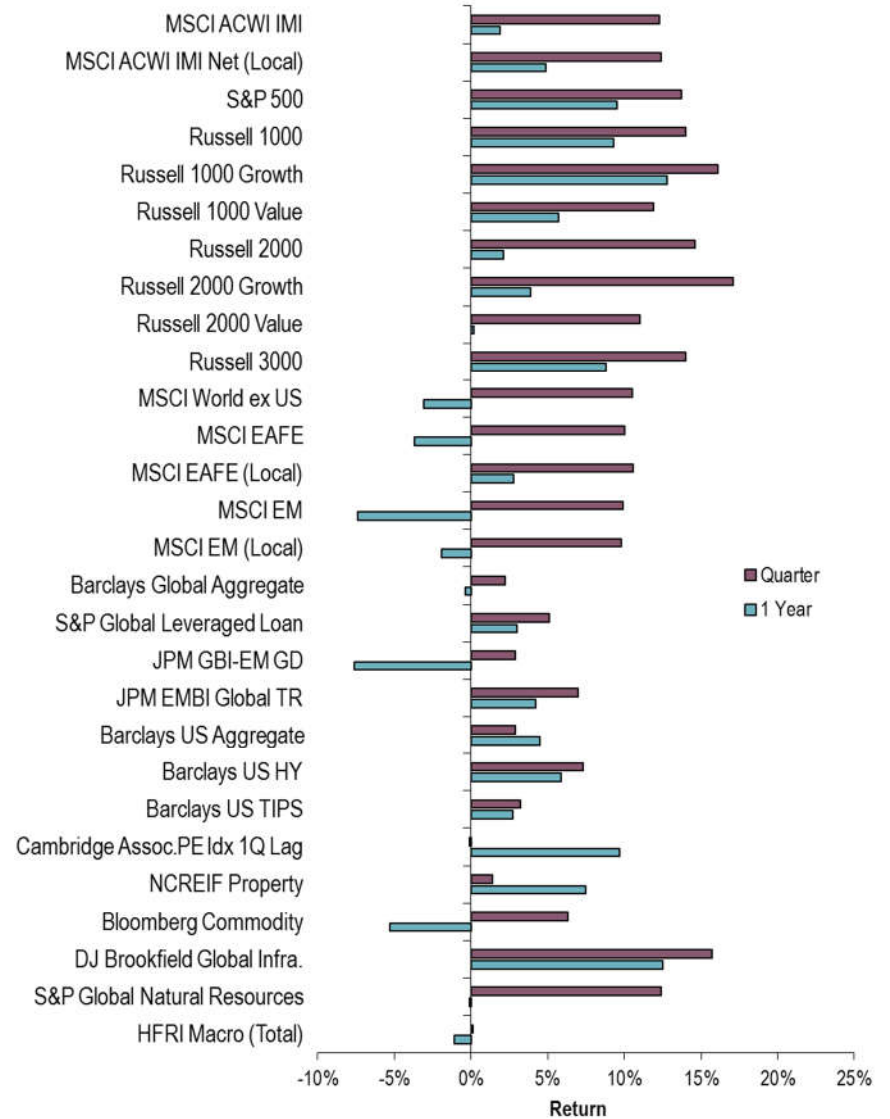
¹ Watch List excludes Private Markets and Passive Funds.

² Placement on the Watch List includes qualitative reasons and manager underperformance versus the appropriate benchmark over a three and or five year period as outlined in the Investment Policy Statement.



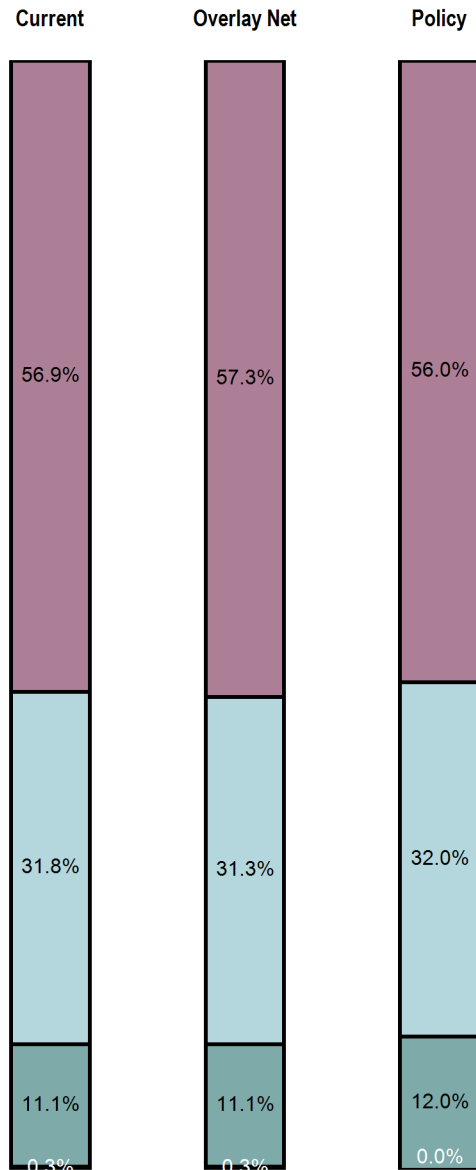
Market Environment – 1Q19 Overview

Benchmark	Scope	1Q19 (%)	1 YR (%)	3 YR (%)	5YR (%)	10 YR (%)
Global Equity						
MSCI ACWI IMI	World	12.3	1.9	10.6	6.3	12.3
MSCI ACWI IMI Net (Local)	World (Local Currency)	12.4	4.9	11.1	8.1	12.6
Domestic Equity						
S&P 500	Large Core	13.7	9.5	13.5	10.9	15.9
Russell 1000	Large Core	14.0	9.3	13.5	10.6	16.1
Russell 1000 Growth	Large Growth	16.1	12.8	16.5	13.5	17.5
Russell 1000 Value	Large Value	11.9	5.7	10.5	7.7	14.5
Russell 2000	Small Core	14.6	2.1	12.9	7.1	15.4
Russell 2000 Growth	Small Growth	17.1	3.9	14.9	8.4	16.5
Russell 2000 Value	Small Value	11.0	0.2	10.9	5.6	14.1
Russell 3000	All Cap Core	14.0	8.8	13.5	10.4	16.0
International Equity						
MSCI World ex US	World ex-US	10.5	-3.1	7.3	2.2	8.8
MSCI EAFE	International Developed	10.0	-3.7	7.3	2.3	9.0
MSCI EAFE (Local)	International Developed (Local Currency)	10.6	2.8	8.5	6.0	9.8
MSCI EM	Emerging Markets	9.9	-7.4	10.7	3.7	8.9
MSCI EM (Local)	Emerging Markets (Local Currency)	9.8	-1.9	11.3	7.1	10.2
Global Fixed Income						
Barclays Global Aggregate	Global Core Bonds	2.2	-0.4	1.5	1.0	3.1
S&P Global Leveraged Loan	Bank Loans	5.1	3.0	5.3	3.1	7.5
JPM GBI-EM GD	Emerging Markets Bonds (Local Currency)	2.9	-7.6	3.3	-0.8	4.4
JPM EMBI Global TR	Emerging Market Bonds	7.0	4.2	5.8	5.4	8.5
Domestic Fixed Income						
Barclays US Aggregate	Core Bonds	2.9	4.5	2.0	2.7	3.8
Barclays US HY	High Yield	7.3	5.9	8.6	4.7	11.3
Barclays US TIPS	Inflation	3.2	2.7	1.7	1.9	3.4
Other						
Cambridge Associates PE Index 1Qtr Lag	Private Equity	-0.1	9.7	10.0	10.1	10.7
NCREIF Property	Real Estate	1.4	7.5	8.0	10.2	8.7
Bloomberg Commodity	Commodities	6.3	-5.3	2.2	-8.9	-2.6
DJ Brookfield Global Infrastructure	Infrastructure	15.7	12.5	8.7	5.7	13.4
S&P Global Natural Resources	Natural Resources	12.4	-0.1	13.4	1.8	4.9
HFRI Macro	Hedge Funds	0.1	-1.1	-1.4	0.1	-1.9



1Q19 Review

As of March 31, 2019



Allocation vs. Targets and Policy					
	Current Balance	Current Allocation	Russell Overlay Net Position	Policy	Difference
Growth	\$2,042,016,078	56.9%	57.3%	56.0%	0.9%
Public Equity	\$1,103,519,665	30.7%	31.2%	31.0%	-0.3%
Private Markets	\$792,454,783	22.1%	22.1%	22.0%	0.1%
Emerging Markets Debt	\$111,550,529	3.1%	3.1%	3.0%	0.1%
High Yield Debt	\$34,491,101	1.0%	1.0%	0.0%	1.0%
Zero Beta	\$1,141,749,954	31.8%	31.3%	32.0%	-0.2%
Absolute Return	\$263,358,922	7.3%	7.3%	7.0%	0.3%
Short-Term IG Bonds	\$603,369,830	16.8%	16.8%	20.0%	-3.2%
Immunized Cash Flows	\$187,239,383	5.2%	5.2%	5.0%	0.2%
Cash	\$87,781,820	2.4%	2.0%	0.0%	2.4%
Other	\$397,162,834	11.1%	11.1%	12.0%	-0.9%
Core Real Estate	\$145,678,064	4.1%	4.1%	5.0%	-0.9%
Commodities	\$73,933,686	2.1%	2.1%	2.0%	0.1%
Sovereign bonds ex-US	\$104,405,783	2.9%	2.9%	3.0%	-0.1%
TIPS	\$73,145,301	2.0%	2.0%	2.0%	0.0%
Overlay	\$10,543,875	0.3%	0.3%	0.0%	0.3%
Total	\$3,591,472,741	100.0%	100.0%	100.0%	

¹ Data in the column titled "Russel Overlay Net Position" is based on physical exposures, adjusted for synthetic positions provided by Russell Investments.

² Cash composite includes the cash account, cash collateral in the Russell Investments Overlay program, and residuals from terminated manager assets.

As of March 31, 2019

Asset Class Net Performance Summary

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund	3,591,472,741	100.0	5.5	1.5	2.1	6.5	4.0	8.1	8.3	Mar-71
Policy Benchmark			5.2	2.1	2.2	7.1	4.4	8.6	--	Mar-71
Investable Benchmark Portfolio			5.5	1.9	2.0	6.6	4.0	8.3	--	Mar-71
60/40 MSCI ACWI/BBgBarc Global Aggregate			8.1	2.5	1.6	7.0	4.4	8.5	--	Mar-71
Low-Cost Passive Portfolio			7.5	--	--	--	--	--	--	Mar-71
Liability Benchmark Portfolio			4.7	--	--	--	--	--	--	Mar-71
InvestorForce Public DB > \$1B Net Median			7.2	2.5	3.4	8.3	5.8	9.8	--	Mar-71
InvestorForce Public DB > \$1B Net Rank			95	82	84	99	99	96	--	Mar-71
Growth	2,042,016,078	56.9	8.3	2.1	2.5	8.7	--	--	--	Apr-08
Growth Benchmark			8.1	2.4	2.9	8.5	--	--	--	Apr-08
Public Equity	1,103,519,665	30.7	11.6	0.7	0.4	10.1	6.3	12.0	5.6	Apr-08
Public Equity Benchmark			11.7	2.2	3.0	11.0	6.6	12.5	6.0	Apr-08
Global Equity	384,739,222	10.7	13.9	1.6	3.1	12.3	8.6	--	10.8	Mar-13
MSCI ACWI IMI Net USD			12.3	1.2	1.9	10.6	6.3	--	8.3	Mar-13
eV All Global Equity Net Median			12.4	1.5	2.7	9.5	6.4	12.5	8.5	Mar-13
eV All Global Equity Net Rank			35	50	46	23	21	--	16	Mar-13
U.S. Equity	183,701,812	5.1	14.0	4.0	8.3	13.2	10.0	15.9	9.5	Jun-95
MSCI USA IMI NR USD			14.0	4.3	8.3	12.9	9.8	15.4	9.2	Jun-95
eV All US Equity Net Median			13.8	1.7	5.3	11.6	8.3	15.4	10.4	Jun-95
eV All US Equity Net Rank			48	36	35	34	28	40	71	Jun-95

¹ Fiscal Year begins July 1.² Please see the Appendix for composition of the Policy Benchmark, Low-Cost Passive Portfolio, Liability Benchmark Portfolio, Growth Benchmark, and Public Equity Benchmark.³ Returns for the Equity Aggregate are gross of fees through June 2015 and net of fees thereafter.

As of March 31, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
International Equity	137,811,832	3.8	12.4	-5.9	-6.8	6.9	2.6	9.7	7.3	Jun-95
<i>MSCI World ex USA IMI NR USD</i>			10.5	-3.2	-4.0	7.3	2.4	9.2	--	Jun-95
<i>eV ACWI ex-US All Cap Equity Net Median</i>			11.0	-3.6	-5.5	7.7	3.2	10.6	6.7	Jun-95
<i>eV ACWI ex-US All Cap Equity Net Rank</i>			34	83	63	63	66	59	33	Jun-95
Emerging Markets Equity	308,333,820	8.6	9.6	-1.8	-12.5	7.5	2.8	7.1	9.1	Sep-01
<i>MSCI Emerging Market IMI Net</i>			9.7	0.0	-8.0	10.1	3.4	9.1	10.1	Sep-01
<i>eV Emg Mkts Equity Net Median</i>			10.3	-0.3	-8.6	9.9	3.7	9.8	11.0	Sep-01
<i>eV Emg Mkts Equity Net Rank</i>			62	65	82	82	74	98	99	Sep-01
Marketable Alternative Equity	88,932,978	2.5	4.3	-0.7	1.1	5.7	--	--	5.2	Oct-14
<i>HFRI Equity Hedge (Total) Index</i>			7.6	-1.2	-0.4	6.7	--	--	3.8	Oct-14
Private Markets	792,454,783	22.1	4.2	3.1	5.4	7.9	--	--	6.4	Jul-15
<i>Private Markets Benchmark</i>			4.2	2.3	4.0	8.4	--	--	7.3	Jul-15
<i>MSCI ACWI IMI + 100bps</i>			12.6	1.9	2.9	11.7	--	--	8.0	Jul-15
Private Markets ex Russell 3000	517,651,424	14.4	-0.6	4.0	6.1	7.3	--	--	5.9	Jul-15
<i>Private Markets Benchmark</i>			4.2	2.3	4.0	8.4	--	--	7.3	Jul-15
Private Equity	482,654,183	13.4	7.8	6.2	10.2	11.7	10.6	11.1	8.6	Oct-05
<i>San Jose Custom Private Equity Benchmark</i>			-2.0	5.3	8.1	13.6	11.3	10.6	11.6	Oct-05
Private Equity ex Russell 3000	217,850,824	6.1	0.3	9.7	13.8	11.5	10.8	10.6	--	Oct-05
Northern Trust Russell 3000	264,803,359	7.4	14.1	4.7	8.8	13.6	10.4	--	10.4	Apr-14
<i>Russell 3000</i>			14.0	4.7	8.8	13.5	10.4	--	10.4	Apr-14

¹ Please see the Appendix for composition of the Private Markets Benchmark.

As of March 31, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Debt	192,203,859	5.4	-1.3	-1.2	-0.8	3.2	--	--	3.2	Oct-15
<i>S&P Global Leveraged Loan + 2%</i>			4.5	3.5	3.3	7.5	--	--	6.7	Oct-15
Private Real Estate	86,976,214	2.4	0.6	6.6	8.7	9.9	--	--	9.0	Jul-15
<i>NCREIF ODCE Equal Weighted</i>			1.7	5.5	7.7	8.2	--	--	9.2	Jul-15
Private Real Assets	30,620,528	0.9	-5.1	-0.6	3.3	--	--	--	3.0	Jun-16
High Yield Debt	34,491,101	1.0	10.4	5.5	7.2	7.7	--	--	5.6	Oct-15
<i>50% Bofa Global HY/50% S&P Global Leveraged Loan</i>			5.2	3.3	2.2	6.5	--	--	6.0	Oct-15
Emerging Market Debt	111,550,529	3.1	5.2	4.4	-0.7	4.9	2.8	--	0.6	Jan-13
<i>50% JPM EMBI GD / 50% JPM GBI-EM</i>			4.9	5.6	-1.8	4.6	2.4	--	1.1	Jan-13
<i>eV All Emg Mkts Fixed Inc Net Median</i>			5.4	5.7	0.1	5.3	3.4	7.8	2.1	Jan-13
<i>eV All Emg Mkts Fixed Inc Net Rank</i>			55	65	53	58	56	--	62	Jan-13
Zero Beta	1,141,749,954	31.8	1.2	2.4	2.9	2.2	--	--	1.8	Jul-15
<i>Zero Beta Benchmark</i>			0.7	1.3	1.1	0.5	--	--	0.5	Jul-15
Short-Term IG Bonds	603,369,830	16.8	0.6	--	--	--	--	--	1.2	Oct-18
<i>ICE BofAML 91 Days T-Bills TR</i>			0.6	--	--	--	--	--	1.2	Oct-18
Immunized Cash Flows	187,239,383	5.2	1.0	--	--	--	--	--	2.3	Oct-18
<i>Immunized Cash Flow Benchmark</i>			1.0	--	--	--	--	--	2.3	Oct-18
Absolute Return	263,358,922	7.3	3.0	3.8	4.4	3.0	2.7	--	2.7	Nov-12
<i>Absolute Return Benchmark</i>			0.6	1.1	0.9	0.4	0.7	--	1.5	Nov-12

¹ Please see the Appendix for composition of the Zero Beta Benchmark, Immunized Cash Flows Benchmark, and Absolute Return Benchmark.

As of March 31, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Macro	124,034,823	3.5	2.5	1.8	1.6	1.0	--	--	1.7	Jul-15
<i>HFRI Macro (Total) Index</i>			2.3	-0.1	-0.2	-0.1	--	--	0.1	Jul-15
Relative Value	139,324,099	3.9	3.5	5.6	6.9	5.3	--	--	4.0	Jul-15
<i>HFRI Relative Value (Total) Index</i>			3.9	1.7	3.0	5.5	--	--	3.5	Jul-15
Cash	87,781,820	2.4	0.6	0.9	1.4	1.1	0.6	0.7	8.9	Jul-02
<i>ICE BofAML 91 Days T-Bills TR</i>			0.6	1.7	2.1	1.2	0.7	0.4	1.3	Jul-02
Other	397,162,834	11.1	2.7	1.0	2.0	4.1	--	--	2.6	Jul-15
<i>Other Benchmark</i>			2.4	1.0	-0.1	3.8	--	--	2.5	Jul-15
Core Real Estate	145,678,064	4.1	2.8	4.7	6.8	7.3	8.3	--	8.8	Sep-11
<i>NCREIF ODCE Equal Weighted (Net)</i>			1.5	4.8	6.8	7.3	9.4	--	10.3	Sep-11
Commodities	73,933,686	2.1	5.1	-3.3	0.5	2.5	-5.0	--	-5.4	Apr-11
<i>Bloomberg Commodity Index TR USD</i>			6.3	-5.6	-5.3	2.2	-8.9	--	-8.3	Apr-11
TIPS	73,145,301	2.0	2.0	--	--	--	--	--	1.5	Oct-18
<i>BBgBarc US Treasury TIPS 0-5 Yr TR</i>			1.7	--	--	--	--	--	1.4	Oct-18
Sovereign Bonds ex-US	104,405,783	2.9	-0.4	--	--	--	--	--	-0.4	Oct-18
<i>FTSE WGBI ex US TR</i>			1.5	--	--	--	--	--	2.8	Oct-18
Overlay	10,543,875	0.3								

¹ Cash Composite includes the cash account and residuals from terminated manager assets.

² Please see the Appendix for composition of the Other Benchmark.

As of March 31, 2019

Trailing Net Performance

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund	3,591,472,741	100.3	5.5	1.5	2.1	6.5	4.0	8.1	8.3	Mar-71
<i>Policy Benchmark</i>			5.2	2.1	2.2	7.1	4.4	8.6	--	Mar-71
<i>Investable Benchmark Portfolio</i>			5.5	1.9	2.0	6.6	4.0	8.3	--	Mar-71
<i>60/40 MSCI ACWI/BBgBarc Global Aggregate</i>			8.1	2.5	1.6	7.0	4.4	8.5	--	Mar-71
<i>Low-Cost Passive Portfolio</i>			7.5	--	--	--	--	--	--	Mar-71
<i>Liability Benchmark Portfolio</i>			4.7	--	--	--	--	--	--	Mar-71
<i>InvestorForce Public DB > \$1B Net Median</i>			7.2	2.5	3.4	8.3	5.8	9.8	--	Mar-71
<i>InvestorForce Public DB > \$1B Net Rank</i>			95	82	84	99	99	96	--	Mar-71
Growth	2,042,016,078	57.0	8.3	2.1	2.5	8.7	--	--	--	Apr-08
<i>Growth Benchmark</i>			8.1	2.4	2.9	8.5	--	--	--	Apr-08
Public Equity	1,103,519,665	30.8	11.6	0.7	0.4	10.1	6.3	12.0	5.6	Apr-08
<i>Public Equity Benchmark</i>			11.7	2.2	3.0	11.0	6.6	12.5	6.0	Apr-08
Global Equity	384,739,222	10.7	13.9	1.6	3.1	12.3	8.6	--	10.8	Mar-13
<i>MSCI ACWI IMI Net USD</i>			12.3	1.2	1.9	10.6	6.3	--	8.3	Mar-13
<i>eV All Global Equity Net Median</i>			12.4	1.5	2.7	9.5	6.4	12.5	8.5	Mar-13
<i>eV All Global Equity Net Rank</i>			35	50	46	23	21	--	16	Mar-13
<i>Artisan Global Value</i>	205,786,911	5.7	11.7	0.8	0.7	10.1	6.5	--	9.5	Mar-13
<i>MSCI ACWI Value NR USD</i>			9.9	2.0	0.7	9.0	4.3	--	6.5	Mar-13
<i>eV All Global Equity Net Median</i>			12.4	1.5	2.7	9.5	6.4	12.5	8.5	Mar-13
<i>eV All Global Equity Net Rank</i>			62	55	64	44	48	--	30	Mar-13

¹ Please see the Appendix for composition of the Policy Benchmark, Low-Cost Passive Portfolio, Liability Benchmark Portfolio, Growth Benchmark, and Public Equity Benchmark.

As of March 31, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Artisan Global Opportunities	178,952,310	5.0	16.5	2.1	3.3	13.9	10.3	--	11.1	May-13
<i>MSCI ACWI Growth NR USD</i>			14.5	2.2	4.5	12.3	8.5	--	9.5	May-13
<i>eV All Global Equity Net Median</i>			12.4	1.5	2.7	9.5	6.4	12.5	7.7	May-13
<i>eV All Global Equity Net Rank</i>			11	45	44	13	8	--	12	May-13
U.S. Equity	183,701,812	5.1	14.0	4.0	8.3	13.2	10.0	15.9	9.5	Jun-95
<i>MSCI USA IMI NR USD</i>			14.0	4.3	8.3	12.9	9.8	15.4	9.2	Jun-95
<i>eV All US Equity Net Median</i>			13.8	1.7	5.3	11.6	8.3	15.4	10.4	Jun-95
<i>eV All US Equity Net Rank</i>			48	36	35	34	28	40	71	Jun-95
Northern Trust Russell 1000 Index Fund	139,895,871	3.9	14.0	5.8	9.5	13.6	10.7	--	10.7	Apr-14
<i>Russell 1000</i>			14.0	5.5	9.3	13.5	10.6	--	10.6	Apr-14
Northern Trust Russell 2000 Value	19,432,199	0.5	12.0	-7.4	0.2	--	--	--	-1.9	Jan-18
<i>Russell 2000 Value</i>			11.9	-7.5	0.2	--	--	--	-2.0	Jan-18
Cove Street Small Cap Value	24,373,742	0.7	15.2	4.0	7.7	--	--	--	3.2	Dec-17
<i>Russell 2000 Value</i>			11.9	-7.5	0.2	--	--	--	-2.6	Dec-17
<i>eV US Small Cap Value Equity Net Median</i>			12.6	-7.7	-2.1	9.0	5.2	15.0	-3.3	Dec-17
<i>eV US Small Cap Value Equity Net Rank</i>			13	2	5	--	--	--	6	Dec-17
International Equity	137,811,832	3.8	12.4	-5.9	-6.8	6.9	2.6	9.7	7.3	Jun-95
<i>MSCI World ex USA IMI NR USD</i>			10.5	-3.2	-4.0	7.3	2.4	9.2	--	Jun-95
<i>eV ACWI ex-US All Cap Equity Net Median</i>			11.0	-3.6	-5.5	7.7	3.2	10.6	6.7	Jun-95
<i>eV ACWI ex-US All Cap Equity Net Rank</i>			34	83	63	63	66	59	33	Jun-95
Northern Trust MSCI World ex US	88,754,814	2.5	10.5	-2.5	-3.3	7.6	2.4	--	2.4	Apr-14
<i>MSCI World ex USA</i>			10.4	-2.4	-3.1	7.3	2.2	--	2.2	Apr-14

As of March 31, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Oberweis International Opportunities	49,057,018	1.4	16.1	-11.6	-12.6	7.3	6.0	--	5.2	Mar-14
<i>MSCI World ex USA Small Cap Growth NR USD</i>			12.7	-8.3	-8.0	7.9	5.0	--	4.7	Mar-14
<i>eV ACWI ex-US All Cap Equity Net Median</i>			11.0	-3.6	-5.5	7.7	3.2	10.6	3.0	Mar-14
<i>eV ACWI ex-US All Cap Equity Net Rank</i>			6	99	97	61	16	--	25	Mar-14
Emerging Markets Equity	308,333,820	8.6	9.6	-1.8	-12.5	7.5	2.8	7.1	9.1	Sep-01
<i>MSCI Emerging Market IMI Net</i>			9.7	0.0	-8.0	10.1	3.4	9.1	10.1	Sep-01
<i>eV Emg Mkts Equity Net Median</i>			10.3	-0.3	-8.6	9.9	3.7	9.8	11.0	Sep-01
<i>eV Emg Mkts Equity Net Rank</i>			62	65	82	82	74	98	99	Sep-01
Northern Trust MSCI EM IMI	194,044,443	5.4	9.7	--	--	--	--	--	1.7	Oct-18
<i>MSCI Emerging Market IMI Net</i>			9.7	--	--	--	--	--	1.5	Oct-18
Dimensional Fund Advisors EM Value	32,974,515	0.9	7.2	1.7	-7.7	11.6	--	--	5.2	Jul-15
<i>MSCI Emerging Markets Value NR USD</i>			7.8	4.0	-5.3	9.5	--	--	3.3	Jul-15
<i>eV Emg Mkts Equity Net Median</i>			10.3	-0.3	-8.6	9.9	3.7	9.8	4.4	Jul-15
<i>eV Emg Mkts Equity Net Rank</i>			88	25	39	26	--	--	34	Jul-15
Comgest Global EM Promising Co	33,088,630	0.9	8.6	-8.7	-21.6	--	--	--	-2.6	Mar-17
<i>MSCI Emerging Markets SMID Cap</i>			7.1	-2.6	-10.6	--	--	--	4.9	Mar-17
<i>eV Emg Mkts Small Cap Equity Net Median</i>			9.5	-3.9	-11.3	7.7	3.6	13.7	5.9	Mar-17
<i>eV Emg Mkts Small Cap Equity Net Rank</i>			69	86	98	--	--	--	97	Mar-17
GQG Global Emerging Markets	48,226,233	1.3	11.8	2.1	-7.2	--	--	--	6.7	Jul-17
<i>MSCI Emerging Markets</i>			9.9	0.6	-7.4	--	--	--	5.0	Jul-17
<i>eV Emg Mkts Equity Net Median</i>			10.3	-0.3	-8.6	9.9	3.7	9.8	3.6	Jul-17
<i>eV Emg Mkts Equity Net Rank</i>			31	22	34	--	--	--	12	Jul-17

As of March 31, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Marketable Alternative Equity	88,932,978	2.5	4.3	-0.7	1.1	5.7	--	--	5.2	Oct-14
<i>HFRI Equity Hedge (Total) Index</i>			7.6	-1.2	-0.4	6.7	--	--	3.8	Oct-14
Senator Global Opportunity, L.P.	21,905,612	0.6	8.1	-1.8	-0.6	5.4	3.5	--	5.5	Apr-13
<i>HFRI Event-Driven (Total) Index</i>			4.1	-0.1	1.8	6.9	3.0	--	4.2	Apr-13
Sandler Plus Offshore Fund Ltd	22,254,175	0.6	-0.6	1.0	3.9	8.3	8.3	--	8.1	May-13
<i>HFRI Equity Hedge (Total) Index</i>			7.6	-1.2	-0.4	6.7	3.5	--	4.6	May-13
Marshall Wace Eureka Fund	44,773,192	1.3	4.6	-0.9	0.8	7.8	7.7	--	7.7	Apr-14
<i>HFRI Equity Hedge (Total) Index</i>			7.6	-1.2	-0.4	6.7	3.5	--	3.5	Apr-14
Private Markets	792,454,783	22.1	4.2	3.1	5.4	7.9	--	--	6.4	Jul-15
<i>Private Markets Benchmark</i>			4.2	2.3	4.0	8.4	--	--	7.3	Jul-15
<i>MSCI ACWI IMI + 100bps</i>			12.6	1.9	2.9	11.7	--	--	8.0	Jul-15
Private Markets ex Russell 3000	517,651,424	14.5	-0.6	4.0	6.1	7.3	--	--	5.9	Jul-15
<i>Private Markets Benchmark</i>			4.2	2.3	4.0	8.4	--	--	7.3	Jul-15
Private Equity	482,654,183	13.5	7.8	6.2	10.2	11.7	10.6	11.1	8.6	Oct-05
<i>San Jose Custom Private Equity Benchmark</i>			-2.0	5.3	8.1	13.6	11.3	10.6	11.6	Oct-05
Private Equity ex Russell 3000	217,850,824	6.1	0.3	9.7	13.8	11.5	10.8	10.6	--	Oct-05
PE Strategic Partnership, LP	41,789,536	1.2	2.8	16.5	16.2	--	--	--	5.7	Aug-17
<i>Cambridge Glob Priv Eq Qtr Lag</i>			-2.0	5.3	8.1	--	--	--	14.1	Aug-17
Pantheon USA Fund VI, LP	9,039,256	0.3	-2.1	2.9	6.2	6.4	5.5	8.7	5.7	Oct-05
<i>Cambridge Glob Priv Eq Qtr Lag</i>			-2.0	5.3	8.1	13.2	10.7	13.0	12.7	Oct-05

Total Fund Aggregate

As of March 31, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Portfolio Advisors Private Eq	4,455,858	0.1	0.0	1.7	1.4	4.1	6.6	6.4	6.3	Nov-05
<i>Cambridge Glob Priv Eq Qtr Lag</i>			-2.0	5.3	8.1	13.2	10.7	13.0	12.7	Nov-05
HarbourVest Partners VII	818,522	0.0	0.0	-1.5	-7.7	2.3	7.9	10.7	8.9	Dec-05
<i>Cambridge Glob Priv Eq Qtr Lag</i>			-2.0	5.3	8.1	13.2	10.7	13.0	12.8	Dec-05
Siguler Guff Distressed	5,051,968	0.1	-0.3	3.9	8.3	9.0	7.8	10.3	9.0	Nov-08
<i>Cambridge Glob Priv Eq Qtr Lag</i>			-2.0	5.3	8.1	13.2	10.7	13.0	9.3	Nov-08
TCW/Crescent Mezzanine	1,074,833	0.0	-19.5	-18.8	-18.2	-0.7	2.8	7.2	6.5	Dec-08
<i>Cambridge Glob Priv Eq Qtr Lag</i>			-2.0	5.3	8.1	13.2	10.7	13.0	10.5	Dec-08
TPG Opportunities Partners II	1,848,530	0.1	1.9	19.9	22.1	10.9	14.6	--	15.7	Oct-12
<i>Cambridge Glob Priv Eq Qtr Lag</i>			-2.0	5.3	8.1	13.2	10.7	--	12.6	Oct-12
Crescent Mezzanine Partners VI	8,044,504	0.2	1.1	6.2	8.2	8.5	8.4	--	6.6	Feb-13
<i>Cambridge Glob Priv Eq Qtr Lag</i>			-2.0	5.3	8.1	13.2	10.7	--	12.5	Feb-13
Warburg Pincus (Europa) XI	18,253,360	0.5	0.9	8.5	14.8	13.7	13.8	--	12.4	May-13
<i>Cambridge Glob Priv Eq Qtr Lag</i>			-2.0	5.3	8.1	13.2	10.7	--	12.5	May-13
57 Stars Global Opportunity	29,518,113	0.8	0.0	-1.3	-0.8	8.2	0.3	--	0.5	Jan-14
<i>Cambridge Glob Priv Eq Qtr Lag</i>			-2.0	5.3	8.1	13.2	10.7	--	11.9	Jan-14
TPG Opportunities Partners III	8,838,575	0.2	-4.3	4.6	9.7	12.7	3.2	--	3.2	Mar-14
<i>Cambridge Glob Priv Eq Qtr Lag</i>			-2.0	5.3	8.1	13.2	10.7	--	12.1	Mar-14
CCMP Capital Investors III, LP	18,578,303	0.5	-6.3	4.1	6.0	10.6	--	--	7.5	Aug-14
<i>Cambridge Glob Priv Eq Qtr Lag</i>			-2.0	5.3	8.1	13.2	--	--	11.1	Aug-14

As of March 31, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Industry Ventures Partnership	19,075,480	0.5	0.0	22.9	29.4	15.1	--	--	16.4	Oct-14
<i>Cambridge Glob Priv Eq Qtr Lag</i>			-2.0	5.3	8.1	13.2	--	--	10.0	Oct-14
Francisco Partners	18,413,243	0.5	7.4	28.6	39.8	23.6	--	--	17.4	May-15
<i>Cambridge Glob Priv Eq Qtr Lag</i>			-2.0	5.3	8.1	13.2	--	--	11.5	May-15
HarbourVest VIII	9,457,446	0.3	0.0	5.0	13.3	11.3	--	--	11.9	Jul-15
<i>Cambridge Glob Priv Eq Qtr Lag</i>			-2.0	5.3	8.1	13.2	--	--	12.0	Jul-15
HarbourVest IX	16,274,093	0.5	0.0	10.6	23.7	--	--	--	40.4	Jan-17
<i>Cambridge Glob Priv Eq Qtr Lag</i>			-2.0	5.3	8.1	--	--	--	13.8	Jan-17
Innovation Endeavors III	869,782	0.0	1.8	-29.0	--	--	--	--	-29.0	Jun-18
<i>Cambridge Glob Priv Eq Qtr Lag</i>			-2.0	5.3	--	--	--	--	8.1	Jun-18
Crestline Portfolio Financing	6,449,421	0.2	0.3	5.4	--	--	--	--	5.4	Jun-18
<i>Cambridge Glob Priv Eq Qtr Lag</i>			-2.0	5.3	--	--	--	--	8.1	Jun-18
Northern Trust Russell 3000	264,803,359	7.4	14.1	4.7	8.8	13.6	10.4	--	10.4	Apr-14
<i>Russell 3000</i>			14.0	4.7	8.8	13.5	10.4	--	10.4	Apr-14
Private Debt	192,203,859	5.4	-1.3	-1.2	-0.8	3.2	--	--	3.2	Oct-15
<i>S&P Global Leveraged Loan + 2%</i>			4.5	3.5	3.3	7.5	--	--	6.7	Oct-15
White Oak Direct Lending	11,271,501	0.3	8.2	-13.3	-11.2	-14.2	-7.0	--	-2.1	Nov-10
<i>S&P Global Leveraged Loan Index +2%</i>			4.4	3.5	3.3	7.5	4.9	--	6.3	Nov-10
Blackstone/GSO Cap Partners	8,561,209	0.2	0.1	12.1	15.3	7.3	3.0	--	10.0	Dec-10
<i>S&P Global Leveraged Loan Index +2%</i>			4.4	3.5	3.3	7.5	4.9	--	6.3	Dec-10

Total Fund Aggregate

As of March 31, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Medley Opportunity Fund II LP	25,063,682	0.7	-0.2	-8.5	-9.8	-2.5	0.1	--	2.8	Mar-11
<i>S&P Global Leveraged Loan Index +2%</i>			4.4	3.5	3.3	7.5	4.9	--	5.9	Mar-11
Marathon Euro Credit Opp Fund	2,356,642	0.1	6.8	27.2	29.0	16.7	12.0	--	11.8	Oct-12
<i>S&P Global Leveraged Loan Index +2%</i>			4.4	3.5	3.3	7.5	4.9	--	5.8	Oct-12
Cross Ocean USD ESS Fund I, LP	6,677,053	0.2	-11.5	-11.3	-14.7	4.7	4.3	--	4.3	Apr-14
<i>S&P Global Leveraged Loan Index +2%</i>			4.4	3.5	3.3	7.5	4.9	--	4.9	Apr-14
Park Square Credit Opp II, LP	41,995,527	1.2	-3.4	-1.3	0.3	6.3	--	--	4.6	Nov-14
<i>S&P Global Leveraged Loan Index +2%</i>			4.4	3.5	3.3	7.5	--	--	5.5	Nov-14
Shoreline China Value III, LP	12,620,344	0.4	-2.0	-7.2	-4.8	2.2	--	--	6.6	Jul-15
<i>S&P Global Leveraged Loan Index +2%</i>			4.4	3.5	3.3	7.5	--	--	6.1	Jul-15
Cross Ocean USD ESS Fund II LP	63,339,123	1.8	-1.9	-0.3	1.3	--	--	--	9.8	May-16
<i>S&P Global Leveraged Loan Index +2%</i>			4.4	3.5	3.3	--	--	--	6.9	May-16
ArrowMark Co-Investment	10,318,779	0.3	3.4	10.4	13.6	--	--	--	12.7	Dec-17
<i>S&P Global Leveraged Loan Index +2%</i>			4.4	3.5	3.3	--	--	--	4.7	Dec-17
Octagon CLO Opp Fund III	10,000,000	0.3	--	--	--	--	--	--	0.0	Feb-19
<i>S&P Global Leveraged Loan Index +2%</i>			--	--	--	--	--	--	1.7	Feb-19
Private Real Estate	86,976,214	2.4	0.6	6.6	8.7	9.9	--	--	9.0	Jul-15
<i>NCREIF ODCE Equal Weighted</i>			1.7	5.5	7.7	8.2	--	--	9.2	Jul-15
TA Realty Associates Fund X	5,102,001	0.1	2.7	9.5	12.0	12.1	12.2	--	11.6	Mar-13
<i>NCREIF Property Index</i>			1.8	4.9	6.8	7.1	9.1	--	9.8	Mar-13

As of March 31, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Blackstone Real Estate Debt <i>NCREIF Property Index</i>	375,233	0.0	3.1 1.8	0.3 4.9	1.8 6.8	7.5 7.1	8.6 9.1	-- --	9.5 9.6	Sep-13 Sep-13
Brookfield SREP I <i>NCREIF Property Index</i>	7,398,742	0.2	1.5 1.8	15.2 4.9	23.2 6.8	27.8 7.1	23.7 9.1	-- --	22.6 9.6	Sep-13 Sep-13
Tristan - EPISO III <i>NCREIF Property Index</i>	4,809,455	0.1	-8.7 1.8	-5.3 4.9	-10.9 6.8	15.4 7.1	10.5 9.1	-- --	7.7 9.6	Dec-13 Dec-13
Orion Euro Real Estate IV LP <i>NCREIF Property Index</i>	3,231,883	0.1	-17.1 1.8	-25.9 4.9	-29.2 6.8	-3.6 7.1	-6.9 9.1	-- --	-6.9 9.1	Apr-14 Apr-14
Och Ziff Real Estate Fund III <i>NCREIF Property Index</i>	7,362,599	0.2	4.4 1.8	17.9 4.9	25.2 6.8	27.5 7.1	-- --	-- --	13.9 8.9	Oct-14 Oct-14
Tristan - EPISO IV <i>NCREIF Property Index</i>	15,044,663	0.4	4.0 1.8	5.6 4.9	2.4 6.8	6.4 7.1	-- --	-- --	5.9 7.2	Dec-15 Dec-15
KSL Capital Partners IV, LP <i>NCREIF Property Index</i>	14,044,508	0.4	2.2 1.8	13.6 4.9	26.9 6.8	-5.2 7.1	-- --	-- --	-5.2 7.1	Apr-16 Apr-16
Brookfield SREP II <i>NCREIF Property Index</i>	16,449,596	0.5	2.3 1.8	6.9 4.9	11.1 6.8	-- --	-- --	-- --	10.0 7.0	Jun-16 Jun-16
DRA Growth & Income Fund IX <i>NCREIF Property Index</i>	10,798,692	0.3	1.7 1.8	14.0 4.9	18.5 6.8	-- --	-- --	-- --	14.9 7.2	Feb-17 Feb-17
GEM Realty Fund VI <i>NCREIF Property Index</i>	888,663	0.0	0.4 1.8	29.3 4.9	35.3 6.8	-- --	-- --	-- --	4.2 7.4	Nov-17 Nov-17

As of March 31, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Torchlight Debt Opportunity VI	1,470,179	0.0	-15.6	-2.5	-2.5	--	--	--	-2.5	Apr-18
<i>NCREIF Property Index</i>			1.8	4.9	6.8	--	--	--	6.8	Apr-18
Private Real Assets	30,620,528	0.9	-5.1	-0.6	3.3	--	--	--	3.0	Jun-16
Brookfield Infrastructure III	13,200,897	0.4	1.0	1.5	5.5	--	--	--	8.4	Jun-16
<i>DJ Brookfield Global Infrastructure Net TR USD</i>			15.7	8.0	12.5	--	--	--	8.4	Jun-16
Global Infra Part III-A/B, LP	14,298,802	0.4	-8.5	4.6	4.2	--	--	--	-2.8	Sep-16
<i>DJ Brookfield Global Infrastructure Net TR USD</i>			15.7	8.0	12.5	--	--	--	6.5	Sep-16
Lime Rock Partners VIII	3,120,829	0.1	-12.7	--	--	--	--	--	-12.7	Dec-18
<i>DJ Brookfield Global Infrastructure Net TR USD</i>			15.7	--	--	--	--	--	10.1	Dec-18
High Yield Debt	34,491,101	1.0	10.4	5.5	7.2	7.7	--	--	5.6	Oct-15
<i>50% Bofa Global HY/50% S&P Global Leveraged Loan</i>			5.2	3.3	2.2	6.5	--	--	6.0	Oct-15
Beach Point Total Ret Fund II	34,491,101	1.0	4.5	0.2	1.7	6.1	3.1	--	3.8	Oct-13
<i>BBgBarc US High Yield TR</i>			7.3	4.9	5.9	8.6	4.7	--	5.5	Oct-13
Emerging Market Debt	111,550,529	3.1	5.2	4.4	-0.7	4.9	2.8	--	0.6	Jan-13
<i>50% JPM EMBI GD / 50% JPM GBI-EM</i>			4.9	5.6	-1.8	4.6	2.4	--	1.1	Jan-13
<i>eV All Emg Mkts Fixed Inc Net Median</i>			5.4	5.7	0.1	5.3	3.4	7.8	2.1	Jan-13
<i>eV All Emg Mkts Fixed Inc Net Rank</i>			55	65	53	58	56	--	62	Jan-13
BlueBay EM Select Bond	40,276,179	1.1	5.2	4.6	-6.1	3.5	0.6	--	0.7	Aug-13
<i>50% JPM EMBI GD + 50% JPM GBI EM GD</i>			4.9	5.6	-1.8	4.6	2.4	--	2.6	Aug-13
<i>eV All Emg Mkts Fixed Inc Net Median</i>			5.4	5.7	0.1	5.3	3.4	7.8	3.8	Aug-13
<i>eV All Emg Mkts Fixed Inc Net Rank</i>			57	64	74	82	73	--	74	Aug-13

As of March 31, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Iguazu Partners LP Fund	71,274,350	2.0	5.3	3.8	7.6	7.1	7.0	--	7.2	Feb-14
50% JPM EMBI GD + 50% JPM GBI EM GD			4.9	5.6	-1.8	4.6	2.4	--	3.4	Feb-14
eV All Emg Mkts Fixed Inc Net Median			5.4	5.7	0.1	5.3	3.4	7.8	4.0	Feb-14
eV All Emg Mkts Fixed Inc Net Rank			54	73	1	12	1	--	1	Feb-14
Zero Beta	1,141,749,954	31.9	1.2	2.4	2.9	2.2	--	--	1.8	Jul-15
Zero Beta Benchmark			0.7	1.3	1.1	0.5	--	--	0.5	Jul-15
Short-Term IG Bonds	603,369,830	16.8	0.6	--	--	--	--	--	1.2	Oct-18
ICE BofAML 91 Days T-Bills TR			0.6	--	--	--	--	--	1.2	Oct-18
BlackRock 3-Month T-Bill	603,369,830	16.8	0.6	--	--	--	--	--	1.2	Oct-18
ICE BofAML 91 Days T-Bills TR			0.6	--	--	--	--	--	1.2	Oct-18
Immunized Cash Flows	187,239,383	5.2	1.0	--	--	--	--	--	2.3	Oct-18
Immunized Cash Flow Benchmark			1.0	--	--	--	--	--	2.3	Oct-18
Northern Trust 1-3 Year US Gov Bond	187,239,383	5.2	1.0	--	--	--	--	--	2.3	Sep-18
BBgBarc US Govt 1-3 Yr TR			1.0	--	--	--	--	--	2.2	Sep-18
Absolute Return	263,358,922	7.4	3.0	3.8	4.4	3.0	2.7	--	2.7	Nov-12
Absolute Return Benchmark			0.6	1.1	0.9	0.4	0.7	--	1.5	Nov-12
Macro	124,034,823	3.5	2.5	1.8	1.6	1.0	--	--	1.7	Jul-15
HFRI Macro (Total) Index			2.3	-0.1	-0.2	-0.1	--	--	0.1	Jul-15
Kepos Alpha Fund, Ltd	11,889,033	0.3	8.6	5.1	8.7	-5.0	1.8	--	-0.8	Mar-13
HFRI Macro: Systematic Diversified Index			2.1	-0.6	-1.5	-2.3	1.1	--	0.4	Mar-13
Dymon Asia Macro Fund, Ltd	26,832,460	0.7	-2.6	-5.0	-4.3	0.1	--	--	-0.1	Sep-15
HFRI Macro (Total) Index			2.3	-0.1	-0.2	-0.1	--	--	0.3	Sep-15

Total Fund Aggregate

As of March 31, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Keynes Lev Quant Strat, Ltd <i>BARCLAY HEDGE BTOP 50</i>	15,533,528	0.4	6.4 1.7	6.0 0.8	1.7 -0.4	1.3 -3.3	-- --	-- --	1.8 -2.4	Jan-16 Jan-16
Pharo Management, Ltd <i>HFRI Macro (Total) Index</i>	36,641,431	1.0	3.3 2.3	2.9 -0.1	0.6 -0.2	9.7 -0.1	-- --	-- --	9.7 -0.1	Apr-16 Apr-16
AHL Partners LLP <i>BARCLAY HEDGE BTOP 50</i>	17,266,077	0.5	2.5 1.7	1.6 0.8	4.2 -0.4	-- --	-- --	-- --	6.1 -3.0	Jul-16 Jul-16
Systematica <i>BARCLAY HEDGE BTOP 50</i>	15,872,295	0.4	1.6 1.7	5.0 0.8	5.1 -0.4	-- --	-- --	-- --	3.0 0.8	Jul-17 Jul-17
Relative Value	139,324,099	3.9	3.5	5.6	6.9	5.3	--	--	4.0	Jul-15
<i>HFRI Relative Value (Total) Index</i>			3.9	1.7	3.0	5.5	--	--	3.5	Jul-15
Pine River Volatility Arb <i>HFRI Relative Value (Total) Index</i>	25,152,200	0.7	4.8 3.9	4.4 1.7	2.5 3.0	-- --	-- --	-- --	0.3 3.2	Mar-17 Mar-17
DE Shaw Composite Fund, LLC <i>HFRI Fund Weighted Composite Index</i>	48,259,842	1.3	6.5 5.5	8.5 -0.3	11.2 0.5	9.0 5.0	11.2 3.0	-- --	11.4 3.6	Apr-13 Apr-13
JD Capital <i>HFRI Relative Value (Total) Index</i>	23,256,678	0.6	1.7 3.9	4.5 1.7	7.6 3.0	-- --	-- --	-- --	6.2 4.2	Oct-16 Oct-16
Pine River Fund, Ltd <i>HFRI Relative Value (Total) Index</i>	1,611,916	0.0	0.3 3.9	-0.7 1.7	-2.8 3.0	1.0 5.5	-0.6 3.5	-- --	1.4 4.3	Jan-13 Jan-13
Hudson Bay <i>HFRI Relative Value (Total) Index</i>	41,043,463	1.1	1.7 3.9	5.1 1.7	6.6 3.0	-- --	-- --	-- --	5.5 3.0	Aug-17 Aug-17



As of March 31, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Cash	87,781,820	2.5	0.6	0.9	1.4	1.1	0.6	0.7	8.9	Jul-02
<i>ICE BofAML 91 Days T-Bills TR</i>			0.6	1.7	2.1	1.2	0.7	0.4	1.3	Jul-02
Other	397,162,834	11.1	2.7	1.0	2.0	4.1	--	--	2.6	Jul-15
<i>Other Benchmark</i>			2.4	1.0	-0.1	3.8	--	--	2.5	Jul-15
Core Real Estate	145,678,064	4.1	2.8	4.7	6.8	7.3	8.3	--	8.8	Sep-11
<i>NCREIF ODCE Equal Weighted (Net)</i>			1.5	4.8	6.8	7.3	9.4	--	10.3	Sep-11
American Core Realty Fund, LLC	55,788,777	1.6	2.2	6.2	8.3	7.8	9.1	--	9.7	Sep-11
<i>NCREIF ODCE Equal Weighted</i>			1.7	5.5	7.7	8.2	10.4	--	11.3	Sep-11
BlackRock Core Property Fund	13,625,000	0.4	--	--	--	--	--	--	0.0	Feb-19
<i>NCREIF ODCE Equal Weighted (Net)</i>			--	--	--	--	--	--	1.5	Feb-19
Clarion Lion Properties Fund	76,264,277	2.1	--	--	--	--	--	--	0.3	Mar-19
<i>NCREIF ODCE Equal Weighted (Net)</i>			--	--	--	--	--	--	1.5	Mar-19
Russell Overlay Real Estate	9	0.0	33.9	29.3	29.8	14.3	9.8	--	9.7	Dec-12
<i>50% MSCI ACWI & 50% Barclays Global</i>			7.1	2.5	1.3	6.1	3.9	--	5.0	Dec-12
Commodities	73,933,686	2.1	5.1	-3.3	0.5	2.5	-5.0	--	-5.4	Apr-11
<i>Bloomberg Commodity Index TR USD</i>			6.3	-5.6	-5.3	2.2	-8.9	--	-8.3	Apr-11
Credit Suisse Risk Parity	73,933,686	2.1	5.1	-3.5	-2.1	4.2	-5.1	--	-4.9	Apr-11
<i>Bloomberg Commodity Index TR USD</i>			6.3	-5.6	-5.3	2.2	-8.9	--	-8.3	Apr-11
TIPS	73,145,301	2.0	2.0	--	--	--	--	--	1.5	Oct-18
<i>BBgBarc US Treasury TIPS 0-5 Yr TR</i>			1.7	--	--	--	--	--	1.4	Oct-18
Northern Trust 0-5 Year TIPS	73,145,301	2.0	2.0	--	--	--	--	--	1.5	Oct-18
<i>BBgBarc U.S. TIPS 0-5 Years</i>			1.7	--	--	--	--	--	1.4	Oct-18



As of March 31, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Sovereign Bonds ex-US	104,405,783	2.9	-0.4	--	--	--	--	--	-0.4	Oct-18
<i>FTSE WGBI ex US TR</i>			1.5	--	--	--	--	--	2.8	<i>Oct-18</i>
Northern Trust FTSE WGBI ex US <i>FTSE WGBI ex US TR</i>	104,405,783	2.9	--	--	--	--	--	--	--	Oct-18 <i>Oct-18</i>
Overlay	10,543,875	0.3								
Russell Overlay	10,444,185	0.3								

¹ Cash composite includes the cash account and residuals from terminated manager assets.



As of March 31, 2019

Cash Flow Summary
Quarter Ending March 31, 2019

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
57 Stars Global Opportunity	\$29,067,669	\$450,455	\$0	\$450,455	-\$10	\$29,518,113
AHL Partners LLP	\$14,839,709	\$2,000,000	\$0	\$2,000,000	\$426,368	\$17,266,077
American Core Realty Fund, LLC	\$131,215,489	\$0	-\$77,968,232	-\$77,968,232	\$2,541,520	\$55,788,777
ArrowMark Co-Investment	\$10,304,754	\$0	-\$323,375	-\$323,375	\$337,400	\$10,318,779
Artisan Global Opportunities	\$153,602,714	\$0	\$0	\$0	\$25,349,597	\$178,952,310
Artisan Global Value	\$184,306,514	\$12,153,722	-\$12,153,722	\$0	\$21,480,397	\$205,786,911
Beach Point Total Ret Fund II	\$49,532,513	\$0	-\$17,412,721	-\$17,412,721	\$2,371,308	\$34,491,101
BlackRock 3-Month T-Bill	\$502,852,542	\$137,000,000	-\$40,000,000	\$97,000,000	\$3,517,287	\$603,369,830
BlackRock Core Property Fund	--	\$13,625,000	\$0	\$13,625,000	\$0	\$13,625,000
BlackRock Global Agg ex US Hedged	\$112,272,399	\$0	-\$112,309,714	-\$112,309,714	\$37,315	--
Blackstone Real Estate Debt	\$988,164	\$0	-\$632,564	-\$632,564	\$19,633	\$375,233
Blackstone/GSO Cap Partners	\$8,473,784	\$79,950	\$0	\$79,950	\$7,475	\$8,561,209
BlueBay EM Select Bond	\$38,301,967	\$0	\$0	\$0	\$1,974,212	\$40,276,179
Brookfield Infrastructure III	\$12,064,937	\$1,077,637	-\$143,882	\$933,755	\$202,204	\$13,200,897
Brookfield SREP I	\$7,969,084	\$0	-\$688,587	-\$688,587	\$118,245	\$7,398,742
Brookfield SREP II	\$16,736,996	\$0	-\$735,089	-\$735,089	\$447,689	\$16,449,596
Cash	\$149,668,172	\$386,717,130	-\$448,968,009	-\$62,250,879	\$364,527	\$87,781,820
CCMP Capital Investors III, LP	\$19,741,240	\$91,151	\$0	\$91,151	-\$1,254,088	\$18,578,303
Clarion Lion Properties Fund	--	\$76,000,000	-\$115,162	\$75,884,838	\$379,439	\$76,264,277
Comgest Global EM Promising Co	\$30,477,967	\$0	\$0	\$0	\$2,610,663	\$33,088,630
Cove Street Small Cap Value	\$21,157,712	\$528,778	-\$528,778	\$0	\$3,216,030	\$24,373,742
Credit Suisse Risk Parity	\$70,317,654	\$0	-\$71,076	-\$71,076	\$3,687,107	\$73,933,686
Crescent Mezzanine Partners VI	\$8,432,800	\$0	-\$498,059	-\$498,059	\$109,763	\$8,044,504
Crestline Portfolio Financing	\$5,419,609	\$1,010,137	\$0	\$1,010,137	\$19,675	\$6,449,421
Cross Ocean USD ESS Fund I, LP	\$9,297,835	\$0	-\$1,715,386	-\$1,715,386	-\$905,396	\$6,677,053
Cross Ocean USD ESS Fund II LP	\$57,355,759	\$7,500,000	-\$470,632	\$7,029,368	-\$1,046,004	\$63,339,123

Total Fund Aggregate

As of March 31, 2019

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
DE Shaw Composite Fund, LLC	\$33,722,822	\$12,000,000	-\$269,577	\$11,730,423	\$2,806,597	\$48,259,842
Dimensional Fund Advisors EM Value	\$30,773,922	\$0	\$0	\$0	\$2,200,593	\$32,974,515
DRA Growth & Income Fund IX	\$9,841,654	\$1,015,228	-\$285,917	\$729,311	\$227,727	\$10,798,692
Dymon Asia Macro Fund, Ltd	\$27,537,115	\$0	\$0	\$0	-\$704,655	\$26,832,460
Francisco Partners	\$18,589,002	\$0	-\$1,599,996	-\$1,599,996	\$1,424,236	\$18,413,243
GEM Realty Fund VI	\$884,977	\$0	-\$42,188	-\$42,188	\$45,874	\$888,663
Global Infra Part III-A/B, LP	\$15,349,141	\$272,436	-\$85,275	\$187,161	-\$1,237,500	\$14,298,802
GQG Global Emerging Markets	\$43,133,732	\$0	-\$56,612	-\$56,612	\$5,149,113	\$48,226,233
HarbourVest IX	\$16,281,319	\$1,500,000	-\$1,507,222	-\$7,222	-\$4	\$16,274,093
HarbourVest Partners VII	\$1,078,397	\$0	-\$259,875	-\$259,875	\$1	\$818,522
HarbourVest VIII	\$10,387,990	\$0	-\$930,545	-\$930,545	\$1	\$9,457,446
Hudson Bay	\$40,355,427	\$0	\$0	\$0	\$688,036	\$41,043,463
Iguazu Partners LP Fund	\$67,701,800	\$0	\$0	\$0	\$3,572,550	\$71,274,350
Industry Ventures Partnership	\$18,891,965	\$466,225	-\$282,710	\$183,515	\$0	\$19,075,480
Innovation Endeavors III	\$539,658	\$315,000	\$0	\$315,000	\$15,124	\$869,782
JD Capital	\$22,877,140	\$0	-\$84,614	-\$84,614	\$464,152	\$23,256,678
Kepos Alpha Fund, Ltd	\$10,945,711	\$0	-\$51,992	-\$51,992	\$995,314	\$11,889,033
Keynes Lev Quant Strat, Ltd	\$14,596,076	\$0	-\$29,607	-\$29,607	\$967,059	\$15,533,528
KSL Capital Partners IV, LP	\$10,468,339	\$3,307,311	-\$206,065	\$3,101,246	\$474,923	\$14,044,508
Lime Rock Partners VIII	\$3,523,949	\$45,985	\$0	\$45,985	-\$449,105	\$3,120,829
Marathon Euro Credit Opp Fund	\$2,206,638	\$0	\$0	\$0	\$150,004	\$2,356,642
Marshall Wace Eureka Fund	\$42,823,029	\$0	-\$92,353	-\$92,353	\$2,042,515	\$44,773,192
Medley Opportunity Fund II LP	\$25,125,398	\$0	-\$65,599	-\$65,599	\$3,883	\$25,063,682
Northern Trust 0-5 Year TIPS	\$71,698,578	\$0	\$0	\$0	\$1,446,724	\$73,145,301
Northern Trust 1-3 Year US Gov Bond	\$185,419,981	\$0	\$0	\$0	\$1,819,402	\$187,239,383
Northern Trust FTSE WGBI ex US	--	\$106,521,799	-\$2,521,799	\$104,000,000	\$405,783	\$104,405,783
Northern Trust MSCI EM IMI	\$186,077,950	\$0	-\$10,000,000	-\$10,000,000	\$17,966,492	\$194,044,443

Total Fund Aggregate

As of March 31, 2019

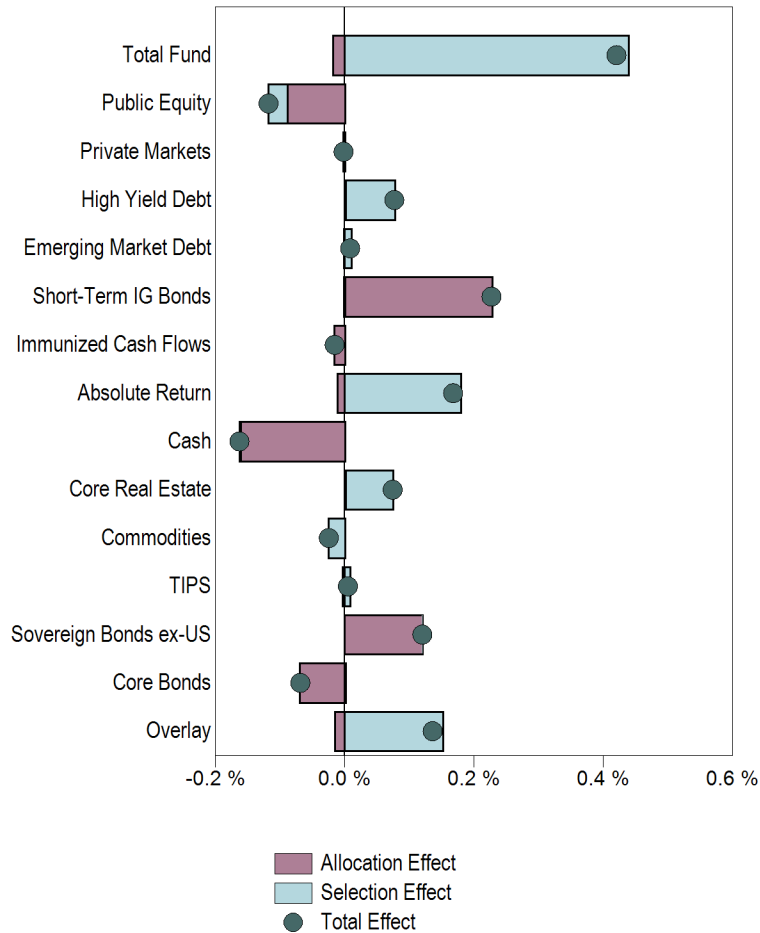
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
Northern Trust MSCI World ex US	\$80,350,897	\$0	\$0	\$0	\$8,403,918	\$88,754,814
Northern Trust Russell 1000 Index Fund	\$122,700,899	\$0	\$0	\$0	\$17,194,973	\$139,895,871
Northern Trust Russell 2000 Value	\$17,349,517	\$0	\$0	\$0	\$2,082,682	\$19,432,199
Northern Trust Russell 3000	\$261,587,608	\$0	-\$32,000,000	-\$32,000,000	\$35,215,751	\$264,803,359
Oberweis International Opportunities	\$42,270,562	\$21,784,466	-\$21,784,466	\$0	\$6,786,456	\$49,057,018
Och Ziff Real Estate Fund III	\$7,520,518	\$247,474	-\$709,256	-\$461,782	\$303,863	\$7,362,599
Octagon CLO Opp Fund III	--	\$10,000,000	\$0	\$10,000,000	\$0	\$10,000,000
Orion Euro Real Estate IV LP	\$3,303,992	\$594,860	-\$63,194	\$531,666	-\$603,774	\$3,231,883
Pantheon USA Fund VI, LP	\$9,480,104	\$0	-\$282,997	-\$282,997	-\$157,851	\$9,039,256
Park Square Credit Opp II, LP	\$44,027,987	\$0	-\$552,681	-\$552,681	-\$1,479,779	\$41,995,527
PE Strategic Partnership, LP	\$34,646,420	\$6,000,000	-\$105,000	\$5,895,000	\$1,248,116	\$41,789,536
Pharo Management, Ltd	\$30,478,368	\$5,000,000	\$0	\$5,000,000	\$1,163,063	\$36,641,431
Pine River Fund, Ltd	\$2,042,815	\$0	-\$437,469	-\$437,469	\$6,570	\$1,611,916
Pine River Volatility Arb	\$23,994,850	\$0	-\$30,679	-\$30,679	\$1,188,029	\$25,152,200
Portfolio Advisors Private Eq	\$4,625,326	\$0	-\$171,149	-\$171,149	\$1,681	\$4,455,858
Rhumblin Brookfield Global Infrastructure	\$3,468	\$0	-\$72	-\$72	-\$3,396	--
Russell Currency Hedge FI	\$1,136,121	\$216,051,983	-\$217,894,103	-\$1,842,120	\$705,999	--
Russell Overlay	\$10,555,822	\$114,406,545	-\$119,406,545	-\$5,000,000	\$4,888,363	\$10,444,185
Russell Overlay Real Estate	\$48,144,022	\$16,551,642	-\$66,495,154	-\$49,943,512	\$1,799,500	\$9
Sandler Plus Offshore Fund Ltd	\$22,381,389	\$0	\$0	\$0	-\$127,214	\$22,254,175
Senator Global Opportunity, L.P.	\$27,025,545	\$0	-\$7,301,871	-\$7,301,871	\$2,181,937	\$21,905,612
Shoreline China Value III, LP	\$13,269,343	\$0	-\$424,706	-\$424,706	-\$224,293	\$12,620,344
Siguler Guff Distressed	\$5,307,601	\$0	-\$241,391	-\$241,391	-\$14,241	\$5,051,968
Symphony	\$0	\$0	-\$3,627,497	-\$3,627,497	\$3,627,497	--
Systematica	\$15,618,840	\$0	\$0	\$0	\$253,455	\$15,872,295
TA Realty Associates Fund X	\$5,660,666	\$0	-\$731,891	-\$731,891	\$173,226	\$5,102,001
TCW/Crescent Mezzanine	\$1,335,698	\$0	-\$4,349	-\$4,349	-\$256,517	\$1,074,833

Total Fund Aggregate

As of March 31, 2019

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
Terminated Manager Assets	\$93,200	\$0	-\$1	-\$1	\$6,491	\$99,690
Torchlight Debt Opportunity VI	\$1,990,528	\$0	-\$311,170	-\$311,170	-\$209,179	\$1,470,179
TPG Opportunities Partners II	\$2,383,545	\$0	-\$582,750	-\$582,750	\$47,735	\$1,848,530
TPG Opportunities Partners III	\$9,632,800	\$0	-\$456,942	-\$456,942	-\$337,283	\$8,838,575
Tristan - EPISO III	\$6,090,820	\$146,563	-\$994,715	-\$848,152	-\$433,214	\$4,809,455
Tristan - EPISO IV	\$14,460,627	\$0	-\$63,335	-\$63,335	\$647,371	\$15,044,663
Voya	\$329,987	\$0	-\$316,288	-\$316,288	-\$13,700	\$0
Warburg Pincus (Europa) XI	\$18,887,559	\$0	-\$794,700	-\$794,700	\$160,501	\$18,253,360
White Oak Direct Lending	\$10,419,916	\$0	\$33,146	\$33,146	\$818,439	\$11,271,501
Total	\$3,454,337,051	\$1,154,461,479	-\$1,208,858,159	-\$54,396,680	\$191,532,370	\$3,591,472,741

Attribution Effects
3 Months Ending March 31, 2019

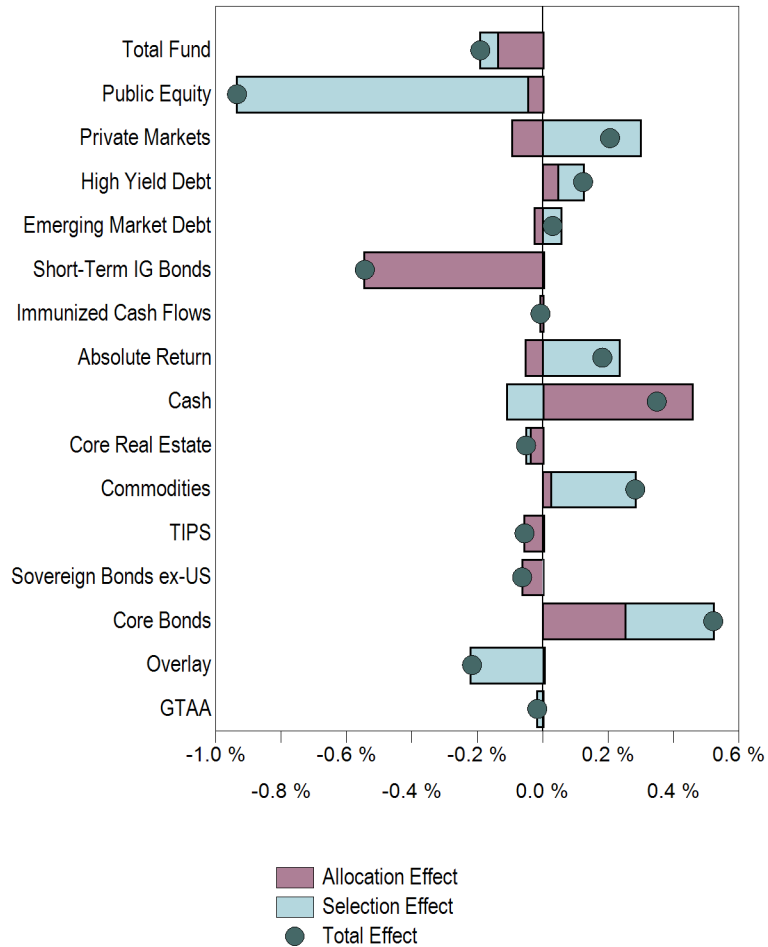


Attribution Summary
3 Months Ending March 31, 2019

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Public Equity	11.6%	11.7%	-0.1%	0.0%	-0.1%	-0.1%
Private Markets	4.2%	4.2%	0.0%	0.0%	0.0%	0.0%
High Yield Debt	10.4%	5.2%	5.1%	0.1%	0.0%	0.1%
Emerging Market Debt	5.2%	4.9%	0.3%	0.0%	0.0%	0.0%
Short-Term IG Bonds	0.6%	0.6%	0.0%	0.0%	0.2%	0.2%
Immunized Cash Flows	1.0%	1.0%	0.0%	0.0%	0.0%	0.0%
Absolute Return	3.0%	0.6%	2.4%	0.2%	0.0%	0.2%
Cash	0.6%	0.6%	0.0%	0.0%	-0.2%	-0.2%
Core Real Estate	2.8%	1.5%	1.4%	0.1%	0.0%	0.1%
Commodities	5.1%	6.3%	-1.2%	0.0%	0.0%	0.0%
TIPS	2.0%	1.7%	0.4%	0.0%	0.0%	0.0%
Sovereign Bonds ex-US	-0.4%	1.5%	-2.0%	0.0%	0.1%	0.1%
Core Bonds	1.5%	2.2%	-0.7%	0.0%	-0.1%	-0.1%
Overlay	49.8%	0.6%	49.2%	0.2%	0.0%	0.1%
Total	5.6%	5.2%	0.4%	0.4%	0.0%	0.4%

Difference in attribution returns and returns in the performance summary may occur as a result of the different calculation methodologies that are applied by InvestorForce.

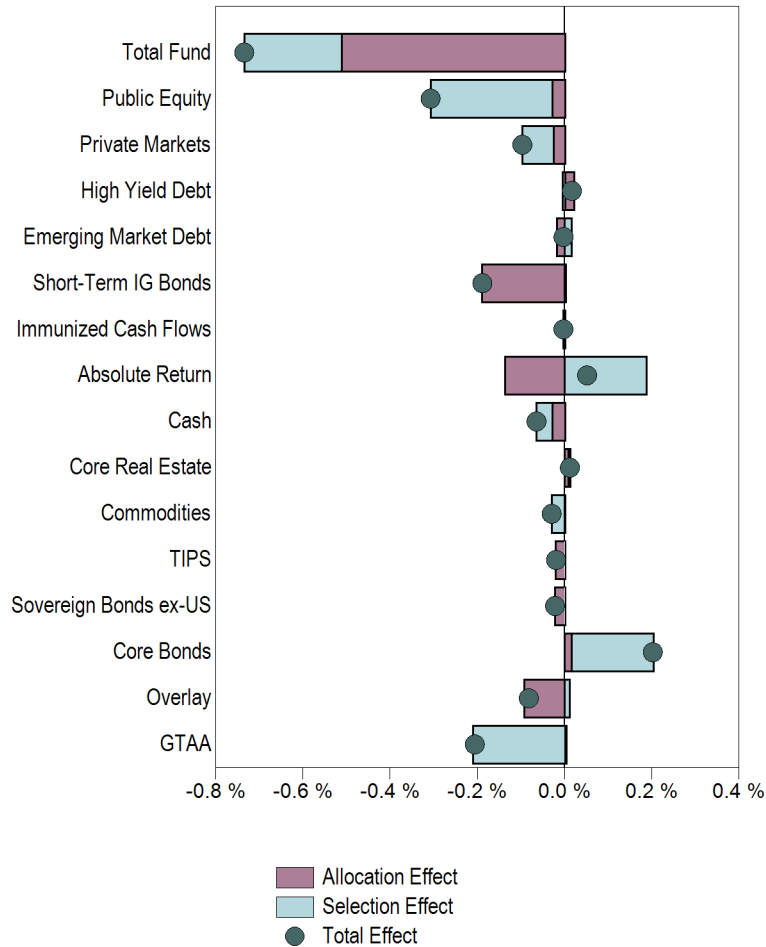
Attribution Effects
1 Year Ending March 31, 2019



Attribution Summary
1 Year Ending March 31, 2019

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Public Equity	0.4%	3.0%	-2.6%	-0.9%	0.0%	-0.9%
Private Markets	5.4%	4.0%	1.4%	0.3%	-0.1%	0.2%
High Yield Debt	7.2%	2.2%	4.9%	0.1%	0.0%	0.1%
Emerging Market Debt	-0.7%	-1.8%	1.1%	0.1%	0.0%	0.0%
Short-Term IG Bonds	--	1.2%	--	0.0%	-0.5%	-0.5%
Immunized Cash Flows	--	--	--	0.0%	0.0%	0.0%
Absolute Return	4.4%	0.9%	3.4%	0.2%	-0.1%	0.2%
Cash	1.4%	2.1%	-0.8%	-0.1%	0.5%	0.3%
Core Real Estate	6.8%	6.8%	0.0%	0.0%	0.0%	-0.1%
Commodities	0.5%	-5.3%	5.8%	0.3%	0.0%	0.3%
TIPS	--	1.4%	--	0.0%	-0.1%	-0.1%
Sovereign Bonds ex-US	--	2.8%	--	0.0%	-0.1%	-0.1%
Core Bonds	0.9%	-0.4%	1.3%	0.3%	0.3%	0.5%
Overlay	-44.0%	2.1%	-46.1%	-0.2%	0.0%	-0.2%
GTAA	--	--	--	0.0%	0.0%	0.0%
Total	2.0%	2.2%	-0.2%	-0.1%	-0.1%	-0.2%

Attribution Effects
3 Years Ending March 31, 2019



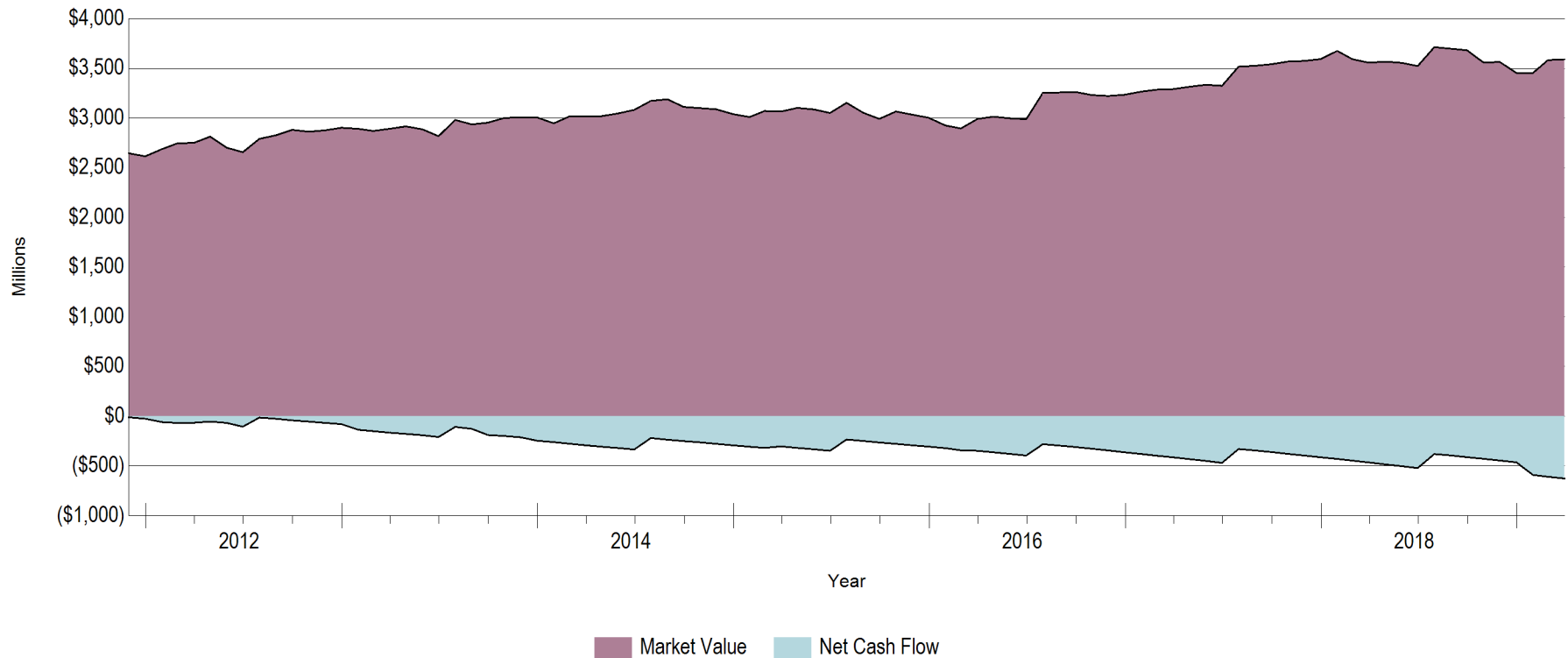
Attribution Summary
3 Years Ending March 31, 2019

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Public Equity	10.1%	11.0%	-0.8%	-0.3%	0.0%	-0.3%
Private Markets	7.9%	8.4%	-0.4%	-0.1%	0.0%	-0.1%
High Yield Debt	7.7%	6.5%	1.2%	0.0%	0.0%	0.0%
Emerging Market Debt	4.9%	4.6%	0.3%	0.0%	0.0%	0.0%
Short-Term IG Bonds	--	0.4%	--	0.0%	-0.2%	-0.2%
Immunized Cash Flows	--	--	--	0.0%	0.0%	0.0%
Absolute Return	3.0%	0.4%	2.6%	0.2%	-0.1%	0.1%
Cash	1.1%	1.2%	-0.1%	0.0%	0.0%	-0.1%
Core Real Estate	7.3%	7.3%	0.0%	0.0%	0.0%	0.0%
Commodities	2.5%	2.2%	0.2%	0.0%	0.0%	0.0%
TIPS	--	0.5%	--	0.0%	0.0%	0.0%
Sovereign Bonds ex-US	--	0.9%	--	0.0%	0.0%	0.0%
Core Bonds	3.1%	1.5%	1.6%	0.2%	0.0%	0.2%
Overlay	-14.9%	1.2%	-16.1%	0.0%	-0.1%	-0.1%
GTAA	--	--	--	-0.2%	0.0%	-0.2%
Total	6.6%	7.3%	-0.7%	-0.2%	-0.5%	-0.7%

Total Fund Asset Growth Summary

As of March 31, 2019

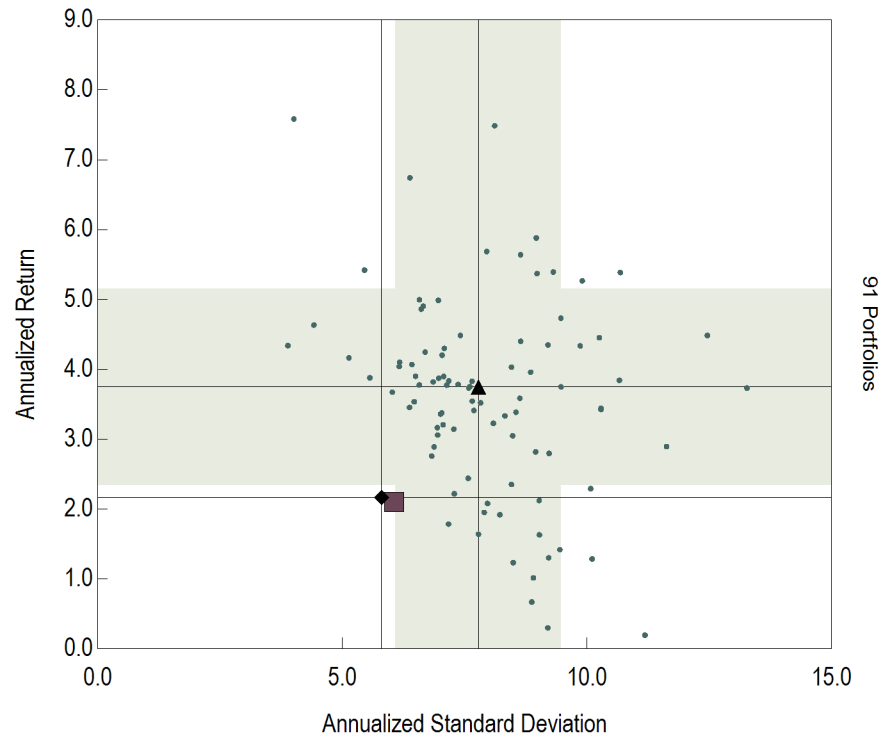
Market Value History
7 Years 5 Months Ending March 31, 2019



	Quarter-To-Date	One Year	Three Years	Five Years
Beginning Market Value	\$3,682,678,461	\$3,593,922,037	\$3,003,671,006	\$3,006,083,447
Net Cash Flow	-\$51,666,642	-\$50,408,417	-\$157,894,190	-\$217,187,173
Net Investment Change	-\$176,674,834	-\$89,176,635	\$608,560,168	\$665,440,710
Ending Market Value	\$3,454,336,984	\$3,454,336,984	\$3,454,336,984	\$3,454,336,984

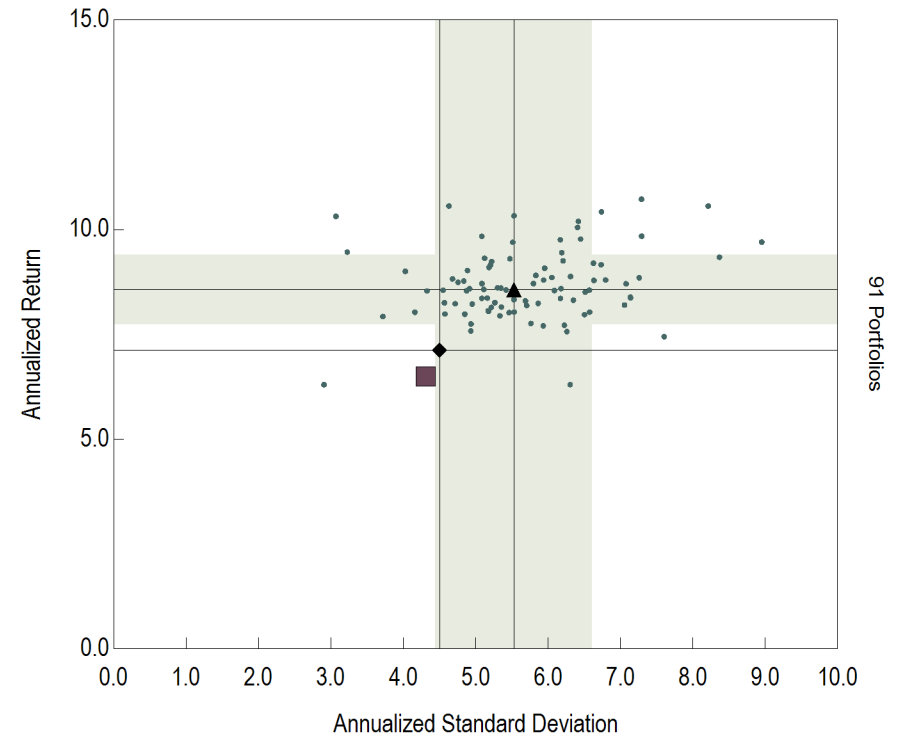


Annualized Return vs. Annualized Standard Deviation
1 Year Ending March 31, 2019



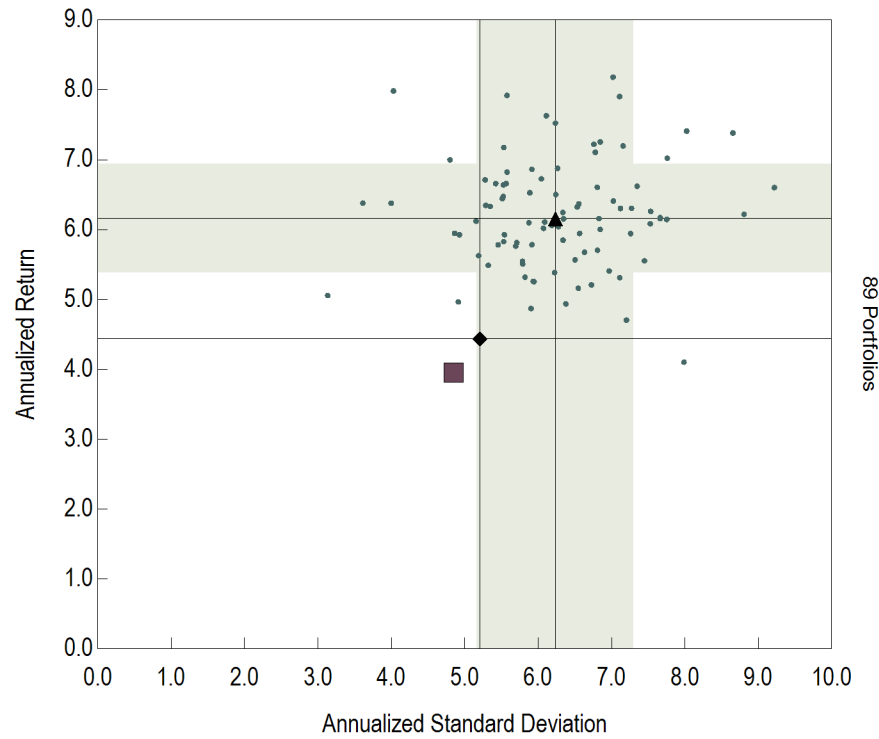
- Total Fund
- ◆ Policy Benchmark
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB > \$1B Gross

Annualized Return vs. Annualized Standard Deviation
3 Years Ending March 31, 2019



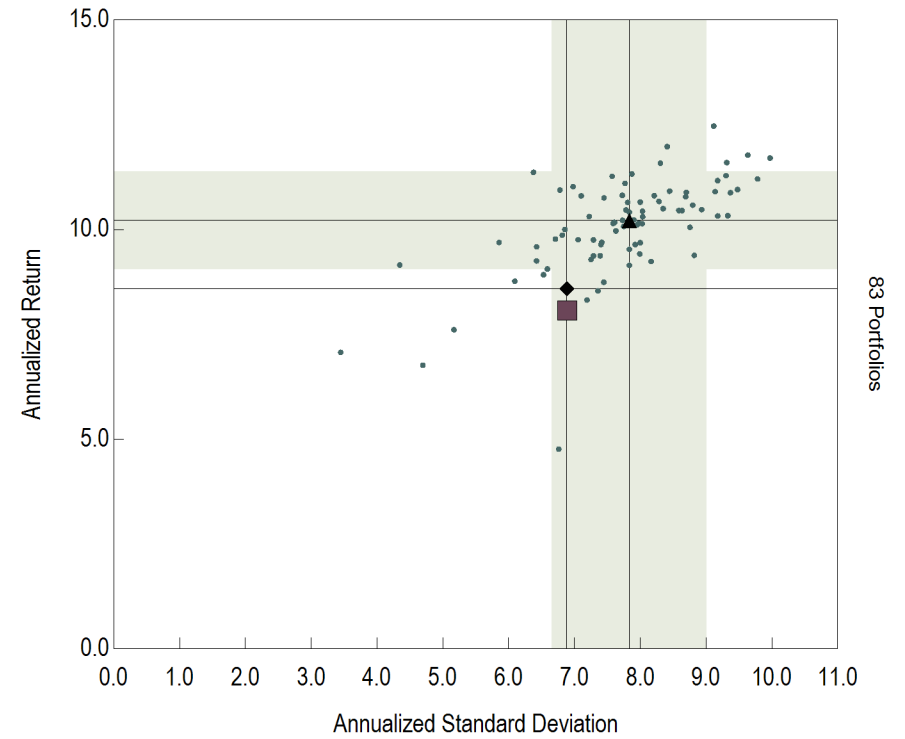
- Total Fund
- ◆ Policy Benchmark
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB > \$1B Gross

Annualized Return vs. Annualized Standard Deviation
5 Years Ending March 31, 2019



- Total Fund
- ◆ Policy Benchmark
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB > \$1B Gross

Annualized Return vs. Annualized Standard Deviation
10 Years Ending March 31, 2019

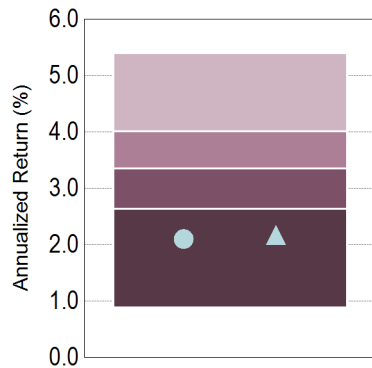


- Total Fund
- ◆ Policy Benchmark
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB > \$1B Gross

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

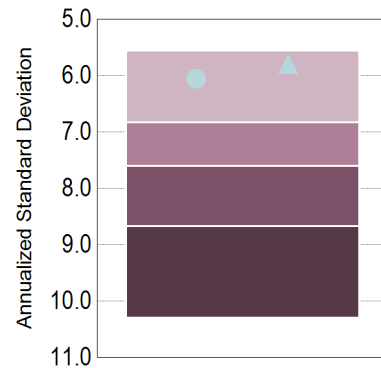
As of March 31, 2019

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



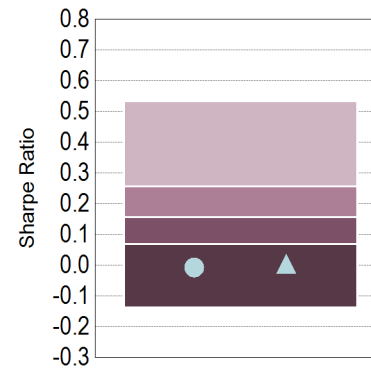
● Total Fund	
Value	2.1
Rank	84
▲ Policy Benchmark	
Value	2.2
Rank	83
Universe	
5th %tile	5.4
25th %tile	4.0
Median	3.4
75th %tile	2.6
95th %tile	0.9

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



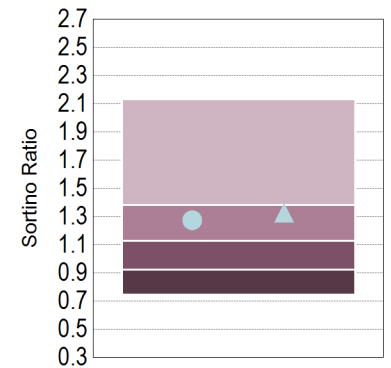
● Total Fund	
Value	6.1
Rank	9
▲ Policy Benchmark	
Value	5.8
Rank	7
Universe	
5th %tile	5.6
25th %tile	6.8
Median	7.6
75th %tile	8.7
95th %tile	10.3

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



● Total Fund	
Value	0.0
Rank	84
▲ Policy Benchmark	
Value	0.0
Rank	83
Universe	
5th %tile	0.5
25th %tile	0.3
Median	0.2
75th %tile	0.1
95th %tile	-0.1

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

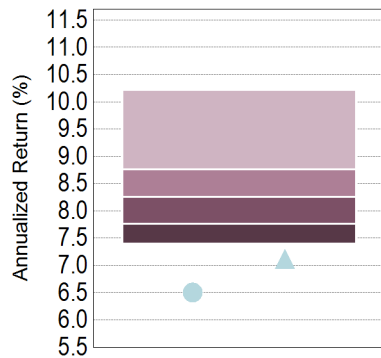


● Total Fund	
Value	1.3
Rank	34
▲ Policy Benchmark	
Value	1.3
Rank	30
Universe	
5th %tile	2.1
25th %tile	1.4
Median	1.1
75th %tile	0.9
95th %tile	0.7

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

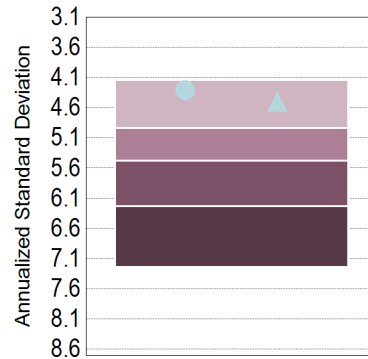
As of March 31, 2019

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



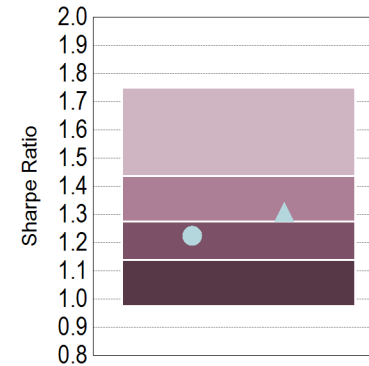
● Total Fund	
Value	6.5
Rank	99
▲ Policy Benchmark	
Value	7.1
Rank	99
Universe	
5th %tile	10.2
25th %tile	8.8
Median	8.3
75th %tile	7.8
95th %tile	7.4

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



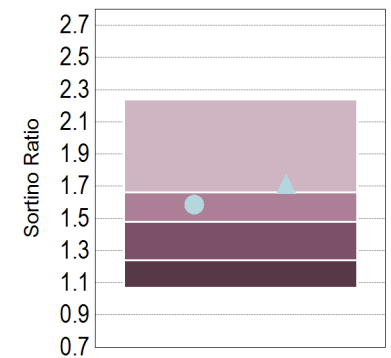
● Total Fund	
Value	4.3
Rank	7
▲ Policy Benchmark	
Value	4.5
Rank	9
Universe	
5th %tile	4.1
25th %tile	4.9
Median	5.5
75th %tile	6.2
95th %tile	7.2

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



● Total Fund	
Value	1.2
Rank	62
▲ Policy Benchmark	
Value	1.3
Rank	44
Universe	
5th %tile	1.7
25th %tile	1.4
Median	1.3
75th %tile	1.1
95th %tile	1.0

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

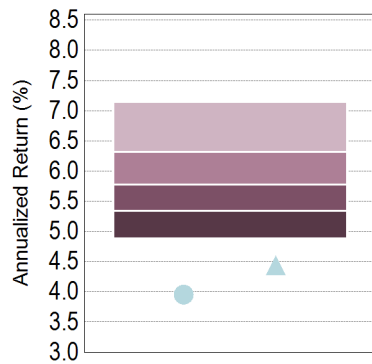


● Total Fund	
Value	1.6
Rank	35
▲ Policy Benchmark	
Value	1.7
Rank	22
Universe	
5th %tile	2.2
25th %tile	1.7
Median	1.5
75th %tile	1.2
95th %tile	1.1

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

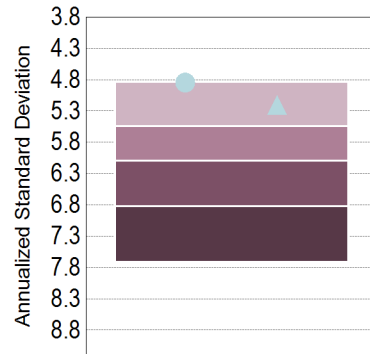
As of March 31, 2019

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



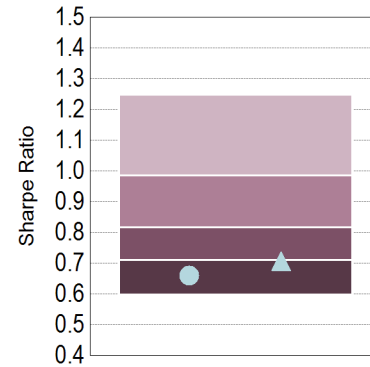
● Total Fund	
Value	4.0
Rank	99
▲ Policy Benchmark	
Value	4.4
Rank	99
Universe	
5th %tile	7.1
25th %tile	6.3
Median	5.8
75th %tile	5.4
95th %tile	4.9

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



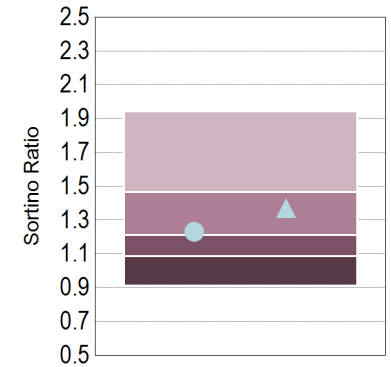
● Total Fund	
Value	4.8
Rank	6
▲ Policy Benchmark	
Value	5.2
Rank	12
Universe	
5th %tile	4.8
25th %tile	5.5
Median	6.1
75th %tile	6.8
95th %tile	7.7

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



● Total Fund	
Value	0.7
Rank	89
▲ Policy Benchmark	
Value	0.7
Rank	77
Universe	
5th %tile	1.2
25th %tile	1.0
Median	0.8
75th %tile	0.7
95th %tile	0.6

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

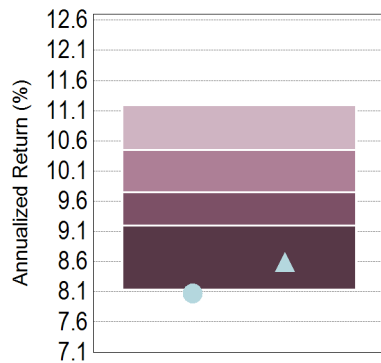


● Total Fund	
Value	1.2
Rank	48
▲ Policy Benchmark	
Value	1.4
Rank	34
Universe	
5th %tile	1.9
25th %tile	1.5
Median	1.2
75th %tile	1.1
95th %tile	0.9

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

As of March 31, 2019

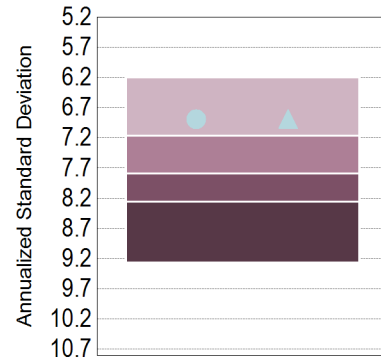
Annualized Return (%)
vs. InvestorForce Public DB > \$1B Net



● Total Fund	
Value	8.1
Rank	96
▲ Policy Benchmark	
Value	8.6
Rank	92

Universe	
5th %tile	11.2
25th %tile	10.5
Median	9.8
75th %tile	9.2
95th %tile	8.1

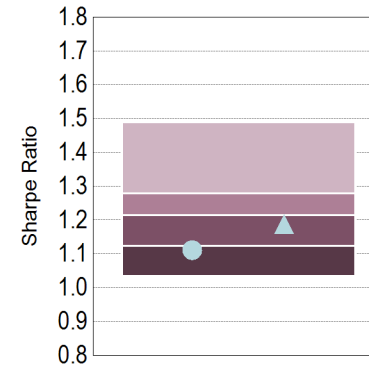
Annualized Standard Deviation
vs. InvestorForce Public DB > \$1B Net



● Total Fund	
Value	6.9
Rank	20
▲ Policy Benchmark	
Value	6.9
Rank	20

Universe	
5th %tile	6.2
25th %tile	7.2
Median	7.8
75th %tile	8.2
95th %tile	9.3

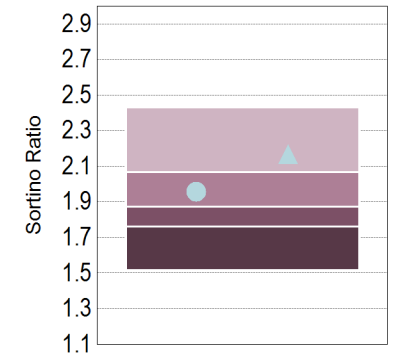
Sharpe Ratio
vs. InvestorForce Public DB > \$1B Net



● Total Fund	
Value	1.1
Rank	81
▲ Policy Benchmark	
Value	1.2
Rank	60

Universe	
5th %tile	1.5
25th %tile	1.3
Median	1.2
75th %tile	1.1
95th %tile	1.0

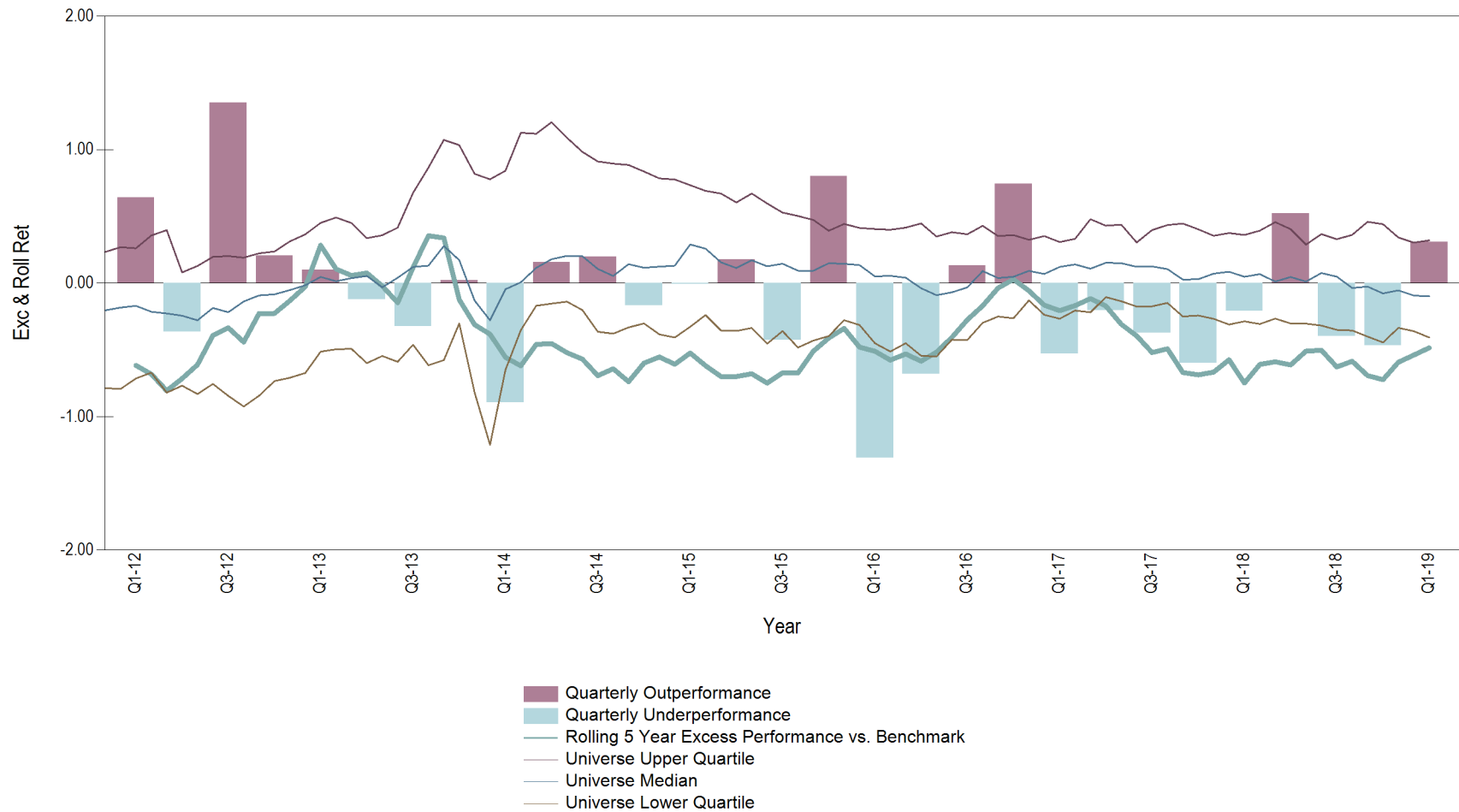
Sortino Ratio
vs. InvestorForce Public DB > \$1B Net



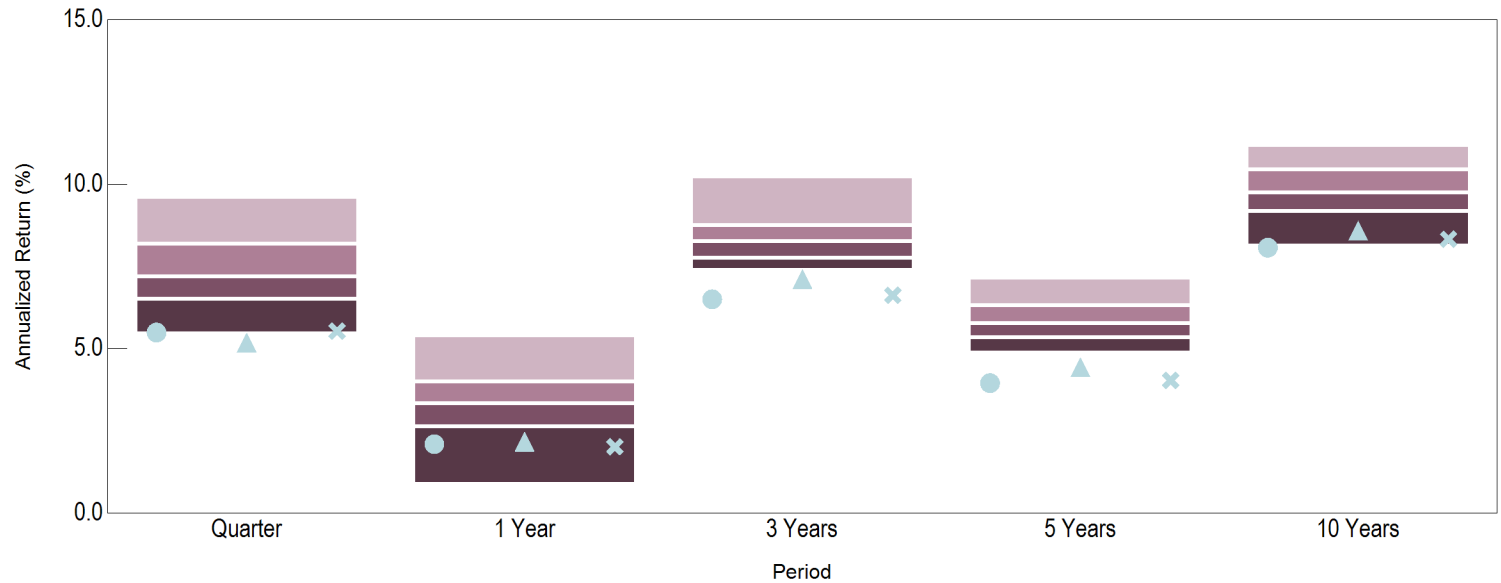
● Total Fund	
Value	2.0
Rank	41
▲ Policy Benchmark	
Value	2.2
Rank	15

Universe	
5th %tile	2.4
25th %tile	2.1
Median	1.9
75th %tile	1.8
95th %tile	1.5

Rolling Annualized Excess Performance



InvestorForce Public DB > \$1B Net Return Comparison
Ending March 31, 2019

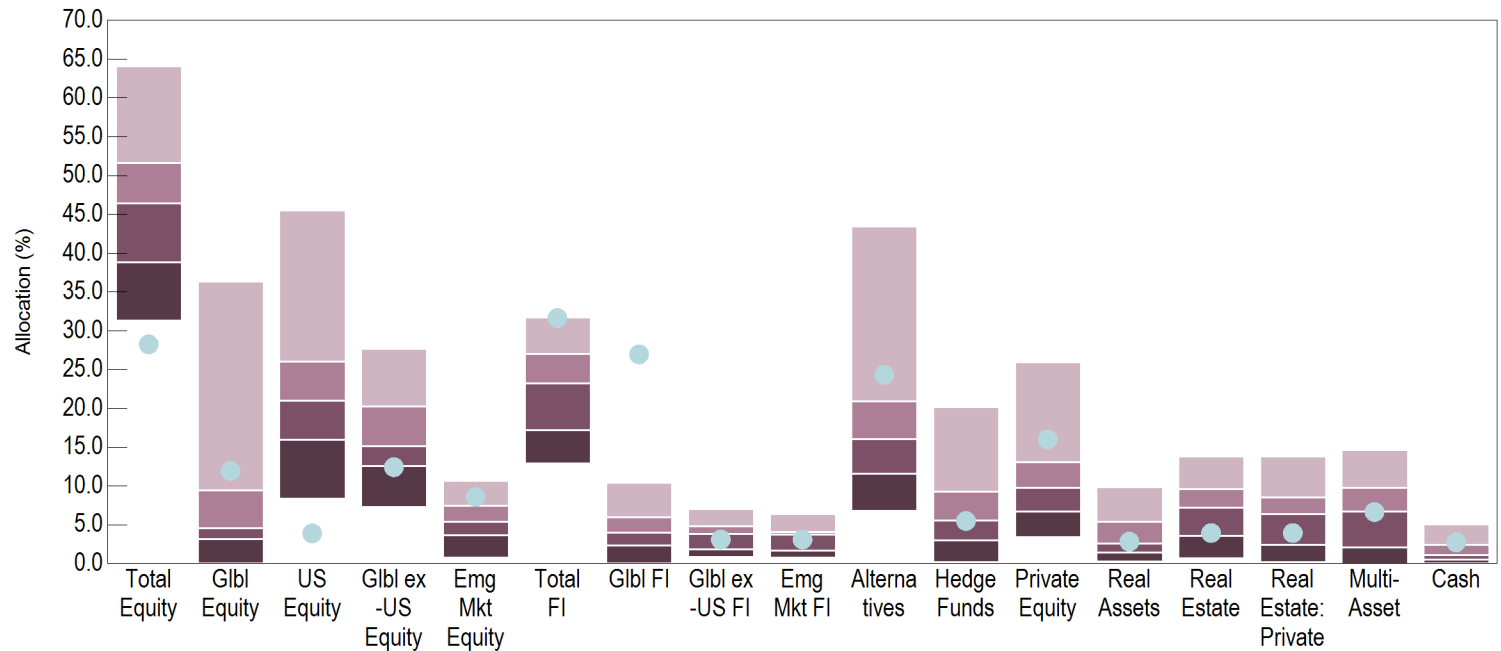


	Return (Rank)									
5th Percentile	9.6		5.4		10.2		7.1		11.2	
25th Percentile	8.2		4.0		8.8		6.3		10.5	
Median	7.2		3.4		8.3		5.8		9.8	
75th Percentile	6.5		2.6		7.8		5.4		9.2	
95th Percentile	5.5		0.9		7.4		4.9		8.1	
# of Portfolios	78		77		77		74		68	
● Total Fund	5.5	(95)	2.1	(84)	6.5	(99)	4.0	(99)	8.1	(96)
▲ Policy Benchmark	5.2	(96)	2.2	(83)	7.1	(99)	4.4	(99)	8.6	(92)
× Investable Benchmark Portfolio	5.5	(95)	2.0	(84)	6.6	(99)	4.0	(99)	8.3	(94)

¹ Fiscal Year begins July 1.



Total Plan Allocation vs. InvestorForce Public DB > \$1B Net
As of March 31, 2019



	Allocation																	
5th Percentile	64.1	36.3	45.5	27.6	10.7	31.7	10.4	7.1	6.4	43.5	20.1	25.9	9.9	13.8	13.8	14.6	5.0	--
25th Percentile	51.7	9.5	26.1	20.3	7.5	27.1	6.0	4.9	4.2	21.0	9.3	13.2	5.5	9.7	8.6	9.9	2.5	--
Median	46.5	4.7	21.1	15.2	5.5	23.3	4.1	3.9	3.8	16.1	5.6	9.8	2.6	7.3	6.4	6.8	1.2	--
75th Percentile	38.9	3.2	16.0	12.6	3.7	17.3	2.4	1.9	1.7	11.6	3.1	6.8	1.5	3.6	2.5	2.2	0.6	--
95th Percentile	31.4	0.1	8.5	7.4	0.8	13.0	0.1	1.0	0.9	6.9	0.2	3.4	0.3	0.8	0.3	0.0	0.1	--
# of Portfolios	61	24	51	59	50	60	28	34	30	57	43	55	32	54	50	40	59	--
● Total Fund Rank	28.2	11.9	3.9	12.4	8.6	31.6	27.0	3.1	3.1	24.3	5.5	16.0	2.8	3.9	3.9	6.6	2.7	--
	96	20	99	77	16	6	1	62	58	22	52	17	48	74	69	52	21	

As of March 31, 2019

Major Benchmark Returns					
Periods Ending March 31, 2019					
Name	Q1-19	1 Yr	3 Yrs	5 Yrs	10 Yrs
US Equity					
Russell 3000	14.0	8.8	13.5	10.4	16.0
S&P 500	13.6	9.5	13.5	10.9	15.9
Russell 1000	14.0	9.3	13.5	10.6	16.0
Russell 1000 Growth	16.1	12.7	16.5	13.5	17.5
Russell 1000 Value	11.9	5.7	10.5	7.7	14.5
Russell MidCap	16.5	6.5	11.8	8.8	16.9
Russell 2000	14.6	2.0	12.9	7.1	15.4
Russell 2000 Growth	17.1	3.9	14.9	8.4	16.5
Russell 2000 Value	11.9	0.2	10.9	5.6	14.1
International Equity					
MSCI ACWI	12.2	2.6	10.7	6.5	12.0
MSCI World ex USA	10.4	-3.1	7.3	2.2	8.8
MSCI EAFE	10.0	-3.7	7.3	2.3	9.0
MSCI Emerging Markets	9.9	-7.4	10.7	3.7	8.9
Fixed Income					
91 Day T-Bills	0.6	2.1	1.2	0.8	0.4
BBgBarc US Aggregate TR	2.9	4.5	2.0	2.7	3.8
BBgBarc US Govt/Credit TR	3.3	4.5	2.1	2.8	3.9
BBgBarc US Municipal TR	2.9	5.4	2.7	3.7	4.7
BBgBarc US High Yield TR	7.3	5.9	8.6	4.7	11.3
FTSE WGBI TR	1.7	-1.6	1.0	0.6	2.2
FTSE WGBI ex US TR	1.5	-4.5	0.9	-0.1	2.0
Real Estate					
FTSE NAREIT All REIT	16.7	19.5	8.0	9.8	18.2
NCREIF Property Index	1.8	6.8	7.1	9.1	8.5
Alternatives					
HFRI Fund of Funds Composite Index	4.6	0.1	3.9	2.2	3.5
Inflation					
Consumer Price Index	1.2	1.9	2.2	1.5	1.8

Total Fund Risk Statistics (Net of Fees)

As of March 31, 2019

Statistics Summary
3 Years Ending March 31, 2019

	% 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	100.00%	6.50%	99	4.31%	7	-0.15%	67	1.23%	-0.50	86	0.92	1.22
Policy Benchmark	--	7.12%	99	4.50%	9	0.00%	62	0.00%	--	--	1.00	1.31
Growth	56.86%	8.74%	--	6.38%	--	0.50%	--	0.96%	0.22	--	0.96	1.18
Growth Benchmark	--	8.53%	--	6.56%	--	0.00%	--	0.00%	--	--	1.00	1.11
Public Equity	30.73%	10.15%	--	9.55%	--	-0.31%	--	1.54%	-0.54	--	0.95	0.93
Public Equity Benchmark	--	10.97%	--	9.96%	--	0.00%	--	0.00%	--	--	1.00	0.98
Global Equity	10.71%	12.28%	23	10.72%	45	1.64%	21	3.19%	0.53	19	1.01	1.03
MSCI ACWI IMI Net USD	--	10.58%	38	10.17%	30	0.00%	42	0.00%	--	--	1.00	0.92
U.S. Equity	5.11%	13.21%	34	11.49%	29	0.07%	35	2.05%	0.14	31	1.02	1.04
MSCI USA IMI NR USD	--	12.92%	37	11.09%	24	0.00%	35	0.00%	--	--	1.00	1.05
International Equity	3.84%	6.92%	63	11.49%	55	-0.76%	72	2.19%	-0.17	72	1.07	0.50
MSCI World ex USA IMI NR USD	--	7.29%	61	10.60%	23	0.00%	58	0.00%	--	--	1.00	0.57
Emerging Markets Equity	8.59%	7.47%	82	12.31%	25	-1.98%	84	3.19%	-0.82	92	0.93	0.51
MSCI Emerging Market IMI Net	--	10.08%	48	12.85%	45	0.00%	54	0.00%	--	--	1.00	0.69
Marketable Alternative Equity	2.48%	5.71%	--	4.04%	--	1.41%	--	3.52%	-0.29	--	0.56	1.11
HFRI Equity Hedge (Total) Index	--	6.73%	--	5.84%	--	0.00%	--	0.00%	--	--	1.00	0.94
Private Markets	22.06%	7.92%	--	3.90%	--	1.23%	--	2.73%	-0.16	--	0.77	1.71
Private Markets Benchmark	--	8.36%	--	3.84%	--	0.00%	--	0.00%	--	--	1.00	1.86
Private Markets ex Russell 3000	14.41%	7.26%	--	2.49%	--	5.65%	--	4.40%	-0.25	--	0.05	2.42
Private Markets Benchmark	--	8.36%	--	3.84%	--	0.00%	--	0.00%	--	--	1.00	1.86
Private Equity	13.44%	11.73%	--	5.87%	--	12.28%	--	9.59%	-0.20	--	-0.14	1.79
San Jose Custom Private Equity Benchmark	--	13.62%	--	6.68%	--	0.00%	--	0.00%	--	--	1.00	1.85
Private Equity ex Russell 3000	6.07%	13.29%	--	3.13%	--	12.35%	--	7.52%	-0.04	--	-0.02	3.86
San Jose Custom Private Equity Benchmark	--	13.62%	--	6.68%	--	0.00%	--	0.00%	--	--	1.00	1.85
Northern Trust Russell 3000	7.37%	13.57%	--	11.10%	--	0.08%	--	0.04%	1.90	--	1.00	1.11
Russell 3000	--	13.48%	--	11.09%	--	0.00%	--	0.00%	--	--	1.00	1.11
Private Debt	5.35%	3.24%	--	3.60%	--	0.32%	--	4.20%	-1.01	--	0.27	0.56



Total Fund Risk Statistics (Net of Fees)

As of March 31, 2019

	% 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
S&P Global Leveraged Loan + 2%	--	7.47%	--	3.18%	--	0.00%	--	0.00%	--	--	1.00	1.96
Private Real Estate	2.42%	9.86%	--	4.03%	--	11.50%	--	6.02%	0.28	--	-0.41	2.14
NCREIF ODCE Equal Weighted	--	8.17%	--	3.31%	--	0.00%	--	0.00%	--	--	1.00	2.10
High Yield Debt	0.96%	7.72%	--	6.06%	--	0.79%	--	4.62%	0.26	--	1.07	1.07
50% Bofa Global HY/50% S&P Global Leveraged Loan	--	6.54%	--	3.66%	--	0.00%	--	0.00%	--	--	1.00	1.45
Emerging Market Debt	3.11%	4.90%	58	5.11%	24	1.81%	49	4.44%	0.07	60	0.55	0.72
50% JPM EMBI GD / 50% JPM GBI-EM	--	4.59%	64	7.64%	63	0.00%	67	0.00%	--	--	1.00	0.44
Zero Beta	31.79%	2.20%	--	1.34%	--	1.15%	--	2.77%	0.63	--	0.22	0.73
Zero Beta Benchmark	--	0.46%	--	3.24%	--	0.00%	--	0.00%	--	--	1.00	-0.24
Absolute Return	7.33%	2.97%	--	2.06%	--	1.96%	--	3.35%	0.78	--	0.25	0.85
Absolute Return Benchmark	--	0.37%	--	3.77%	--	0.00%	--	0.00%	--	--	1.00	-0.23
Macro	3.45%	1.01%	--	3.87%	--	0.69%	--	2.87%	0.37	--	0.71	-0.06
HFRI Macro (Total) Index	--	-0.06%	--	4.05%	--	0.00%	--	0.00%	--	--	1.00	-0.32
Relative Value	3.88%	5.30%	--	2.38%	--	3.50%	--	3.25%	-0.07	--	0.13	1.71
HFRI Relative Value (Total) Index	--	5.51%	--	2.58%	--	0.00%	--	0.00%	--	--	1.00	1.66
Cash	2.44%	1.07%	--	0.42%	--	-0.14%	--	0.42%	-0.31	--	0.54	-0.38
ICE BofAML 91 Days T-Bills TR	--	1.19%	--	0.22%	--	0.00%	--	0.00%	--	--	1.00	-0.15
Other	11.06%	4.07%	--	2.84%	--	1.26%	--	2.28%	0.10	--	0.61	1.00
Other Benchmark	--	3.83%	--	3.67%	--	0.00%	--	0.00%	--	--	1.00	0.71
Core Real Estate	4.06%	7.25%	--	3.77%	--	9.79%	--	5.82%	0.00	--	-0.62	1.60
NCREIF ODCE Equal Weighted (Net)	--	7.27%	--	2.96%	--	0.00%	--	0.00%	--	--	1.00	2.04
Commodities	2.06%	2.45%	--	6.17%	--	0.74%	--	6.39%	0.04	--	0.49	0.20
Bloomberg Commodity Index TR USD	--	2.22%	--	9.89%	--	0.00%	--	0.00%	--	--	1.00	0.10
Core Bonds	0.00%	3.06%	--	3.55%	--	1.66%	--	2.48%	0.63	--	0.65	0.51



Total Fund Risk Statistics (Net of Fees)

As of March 31, 2019

	% 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
BBgBarc Global Aggregate TR	--	1.49%	--	4.71%	--	0.00%	--	0.00%	--	--	1.00	0.06
Overlay	0.29%	-14.89%	--	47.03%	--	-16.12%	--	47.04%	-0.34	--	-16.82	-0.34
91 Day T-Bills	--	1.23%	--	0.22%	--	0.00%	--	0.00%	--	--	1.00	0.00

Benchmark History

As of March 31, 2019

Total Fund		
10/1/2018	Present	13% MSCI USA IMI NR USD / 8% MSCI World ex USA IMI NR USD / 10% MSCI Emerging Market IMI Net / 22% Private Markets Benchmark / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 20% ICE BofAML 91 Days T-Bills TR / 5% Immunized Cash Flow Benchmark / 7% Absolute Return Benchmark / 5% NCREIF-ODCE / 2% Bloomberg Commodity Index TR USD / 3% FTSE WGBI ex US TR / 2% BBgBarc US Treasury TIPS 0-5 Yr TR
5/1/2018	9/30/2018	34% MSCI ACWI IMI (Net) / 8% San Jose Custom Total Private Equity Index / 22.4% BBgBarc Global Aggregate TR / 1.4% S&P Global Leveraged Loan / 1.4% JP Morgan EMBI Global Diversified / 1.4% JP Morgan GBI EM Global Diversified TR USD / 6% HFRI Macro (Total) Index / 2% DJ Brookfield Global Infrastructure Net TR USD / 6% Bloomberg Commodity Index TR USD / 8% S&P Global Leveraged Loan + 2% / 8% NCREIF Property Index / 1.4% ICE BofAML Global High Yield TR
11/1/2016	4/30/2018	31% MSCI ACWI IMI (Net) / 8% San Jose Custom Total Private Equity Index / 16% Fixed Income Blended Benchmark / 11% S&P Global Leveraged Loan + 2% / 7% Custom Commodity Risk Parity Index / 3% CPI + 5% (Unadjusted) / 10% 60% MSCI World & 40% Citigroup WGBI / 1% 91 Day T-Bills / 7% San Jose Custom Total Real Estate BM / 6% Absolute Return Benchmark
Low-Cost Passive Portfolio		
10/1/2018	Present	13% MSCI USA IMI NR USD / 8% MSCI World ex USA IMI NR USD / 10% MSCI Emerging Market IMI Net / 12% Russell 3000 / 4% BBgBarc US Aggregate TR / 8% FTSE EPRA/NAREIT Global NR USD / 3% S&P Global Natural Resources Net USD / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 25% ICE BofAML 91 Days T-Bills TR / 7% 3-Month Libor + 1% / 2% BBgBarc US Treasury TIPS 0-5 Yr TR / 2% Bloomberg Commodity Index TR USD / 3% FTSE WGBI ex US TR
Liability Benchmark Portfolio		
10/1/2018	Present	BBgBarc US Treasury Long TR
Growth		
10/1/2018	Present	51.73% Public Equity Benchmark / 43.1% Private Markets Benchmark / 5.17% 50% JPM EMBI GD / 50% JPM GBI-EM
5/1/2018	9/30/2018	55.18% MSCI ACWI IMI Net USD / 12.99% S&P Global Leveraged Loan +2% / 12.99% Private Markets Benchmark / 6.49% NCREIF Property Index / 4.55% 50% JPM EMBI GD / 50% JPM GBI-EM / 4.55% 50% BAML Global HY / 50% S&P Global Leveraged Loan / 3.25% DJ Brookfield Global Infrastructure Net TR USD
7/1/2015	4/30/2018	51.92% MSCI ACWI IMI Net USD / 18.43% S&P Global Leveraged Loan +2% / 13.4% Private Markets Benchmark / 2.68% 50% JPM EMBI GD / 50% JPM GBI-EM / 2.68% 50% BAML Global HY / 50% S&P Global Leveraged Loan
10/1/2018	Present	
Public Equity		
10/1/2018	Present	41.93% MSCI USA IMI NR USD / 25.81% MSCI World ex USA IMI NR USD / 32.26% MSCI Emerging Market IMI Net
4/1/2008	9/30/2018	MSCI ACWI IMI (Net)
Global Equity		
3/1/2013	Present	MSCI ACWI IMI Net USD
U.S. Equity		
6/1/1995	Present	MSCI USA IMI NR USD
International Equity		
6/1/1995	Present	MSCI World ex USA IMI NR USD



As of March 31, 2019

Emerging Markets Equity		
9/1/2001	Present	MSCI Emerging Market IMI Net
Marketable Alternative Equity		
10/1/2014	Present	HFRI Equity Hedge (Total) Index
Private Markets		
10/1/2018	Present	Private Markets
5/1/2018	9/30/2018	36.36% Cambridge Associates PE Composite BM / 36.36% S&P Global Leveraged Loan +2% / 18.18% NCREIF Property Index / 9.1% DJ Brookfield Global Infrastructure Net TR USD
7/1/2015	4/30/2018	19.61% Cambridge Associates PE Composite BM / 11.76% Russell 3000 / 43.14% S&P Global Leveraged Loan +2% / 13.73% NCREIF Property Index / 11.76% DJ Brookfield Global Infrastructure Net TR USD
Private Markets ex Russell 3000		
10/1/2018	Present	Private Markets
5/1/2018	9/30/2018	36.36% Cambridge Associates PE Composite BM / 36.36% S&P Global Leveraged Loan +2% / 18.18% NCREIF Property Index / 9.1% DJ Brookfield Global Infrastructure Net TR USD
7/1/2015	4/30/2018	19.61% Cambridge Associates PE Composite BM / 11.76% Russell 3000 / 43.14% S&P Global Leveraged Loan +2% / 13.73% NCREIF Property Index / 11.76% DJ Brookfield Global Infrastructure Net TR USD
Private Equity		
11/1/2016	Present	Cambridge Glob Priv Eq Qtr Lag
10/1/2005	10/31/2016	Cambridge Associates US All PE (1 Qtr Lag)
Private Equity ex Russell 3000		
11/1/2016	Present	Cambridge Glob Priv Eq Qtr Lag
10/1/2005	10/31/2016	Cambridge Associates US All PE (1 Qtr Lag)
Private Equity ex Russell 3000		
No Benchmark Selected		
Northern Trust Russell 3000		
4/1/2014	Present	Russell 3000
Private Debt		
10/1/2015	Present	S&P Global Leveraged Loan + 0.17
Private Real Estate		
7/1/2015	Present	NCREIF ODCE Equal Weighted

Private Real Assets		
		No Benchmark Selected
High Yield Debt		
10/1/2015	Present	50% ICE BofAML Global High Yield TR / 50% S&P Global Leveraged Loan
Emerging Market Debt		
1/1/2013	Present	50% JP Morgan GBI EM Global Diversified TR USD / 50% JP Morgan EMBI Global Diversified
Zero Beta		
10/1/2018	Present	62.5% ICE BofAML 91 Days T-Bills TR / 15.62% Immunized Cash Flow Benchmark / 21.88% Absolute Return Benchmark
5/1/2018	9/30/2018	HFRI Macro (Total) Index
7/1/2015	4/30/2018	85.71% HFRI Macro (Total) Index / 14.29% ICE BofAML 91 Days T-Bills TR
Short-Term IG Bonds		
10/1/2018	Present	ICE BofAML 91 Days T-Bills TR
Immunized Cash Flows		
10/1/2018	Present	Immunized Cash Flows
Absolute Return		
10/1/2018	Present	ICE BofAML 91 Days T-Bills TR
11/1/2012	9/30/2018	HFRI Macro (Total) Index
Macro		
7/1/2015	Present	HFRI Macro (Total) Index
Relative Value		
7/1/2015	Present	HFRI Relative Value (Total) Index
Cash		
7/1/2002	Present	ICE BofAML 91 Days T-Bills TR
Other		
10/1/2018	Present	41.67% NCREIF ODCE Equal Weighted / 16.67% Bloomberg Commodity Index TR USD / 25% FTSE WGBI ex US TR / 16.66% BBgBarc US Treasury TIPS 0-5 Yr TR
5/1/2018	9/30/2018	69.14% BBgBarc Global Aggregate TR / 18.52% Bloomberg Commodity Index TR USD / 12.34% NCREIF Property Index
7/1/2015	4/30/2018	38.44% BBgBarc Global Aggregate TR / 30.03% 60% MSCI World & 40% Citigroup WGBI / 21.02% Bloomberg Commodity Index TR USD / 10.51% NCREIF Property Index

Core Real Estate		
9/1/2011	Present	NCREIF ODCE Equal Weighted (Net)
Commodities		
4/1/2011	Present	Bloomberg Commodity Index TR USD
TIPS		
10/1/2018	Present	BBgBarc US Treasury TIPS 0-5 Yr TR
Sovereign Bonds ex-US		
10/1/2018	Present	FTSE WGBI ex US TR
Core Bonds		
10/1/2015	Present	BBgBarc Global Aggregate TR
Overlay		
	Present	91 Day T-Bills

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. $\text{Portfolio Return} - [\text{Risk Free Rate} + \text{Beta} * (\text{market return} - \text{Risk Free Rate})]$.

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 its 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%.

$$\frac{5\% \text{ (discount)}}{5 \text{ (yrs. to maturity)}} = 1\% \text{ pro rata, plus } 5.26\% \text{ (current yield)} = 6.26\% \text{ (yield to maturity)}$$

Sources: [Investment Terminology](#), 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.