

FUND EVALUATION REPORT

City of San Jose Police and Fire Department Retirement Plan

Quarterly Review
As of June 30, 2019



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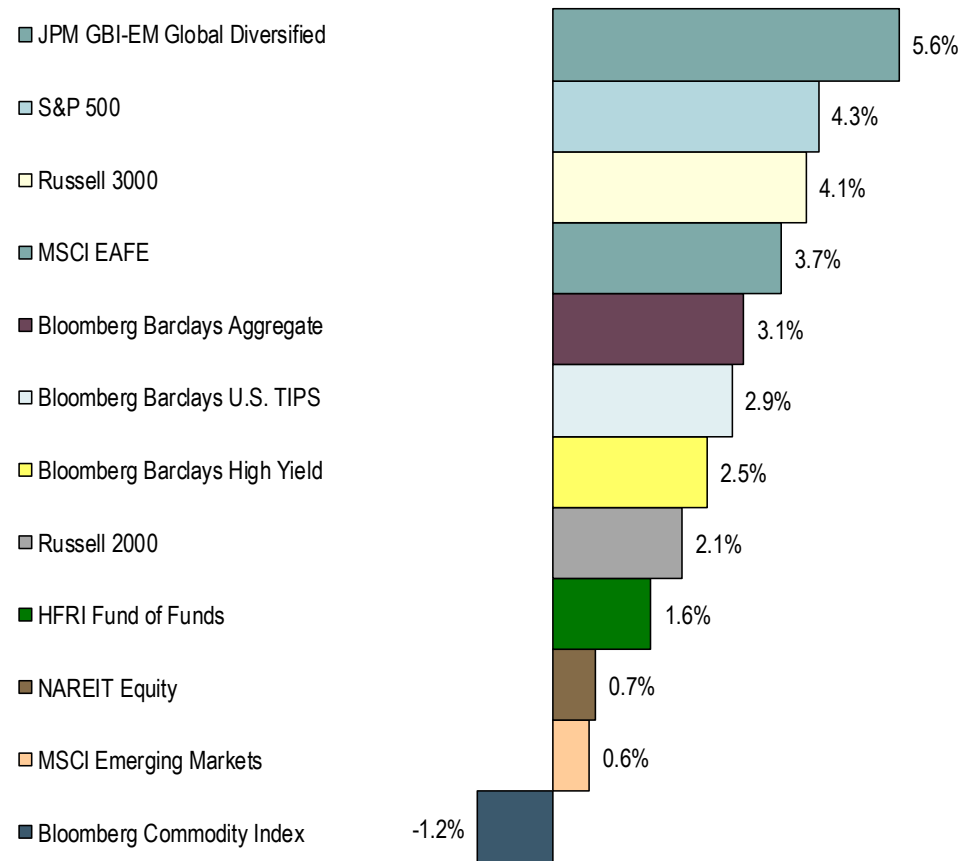
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The World Markets Second Quarter of 2019

The World Markets¹ Second Quarter of 2019



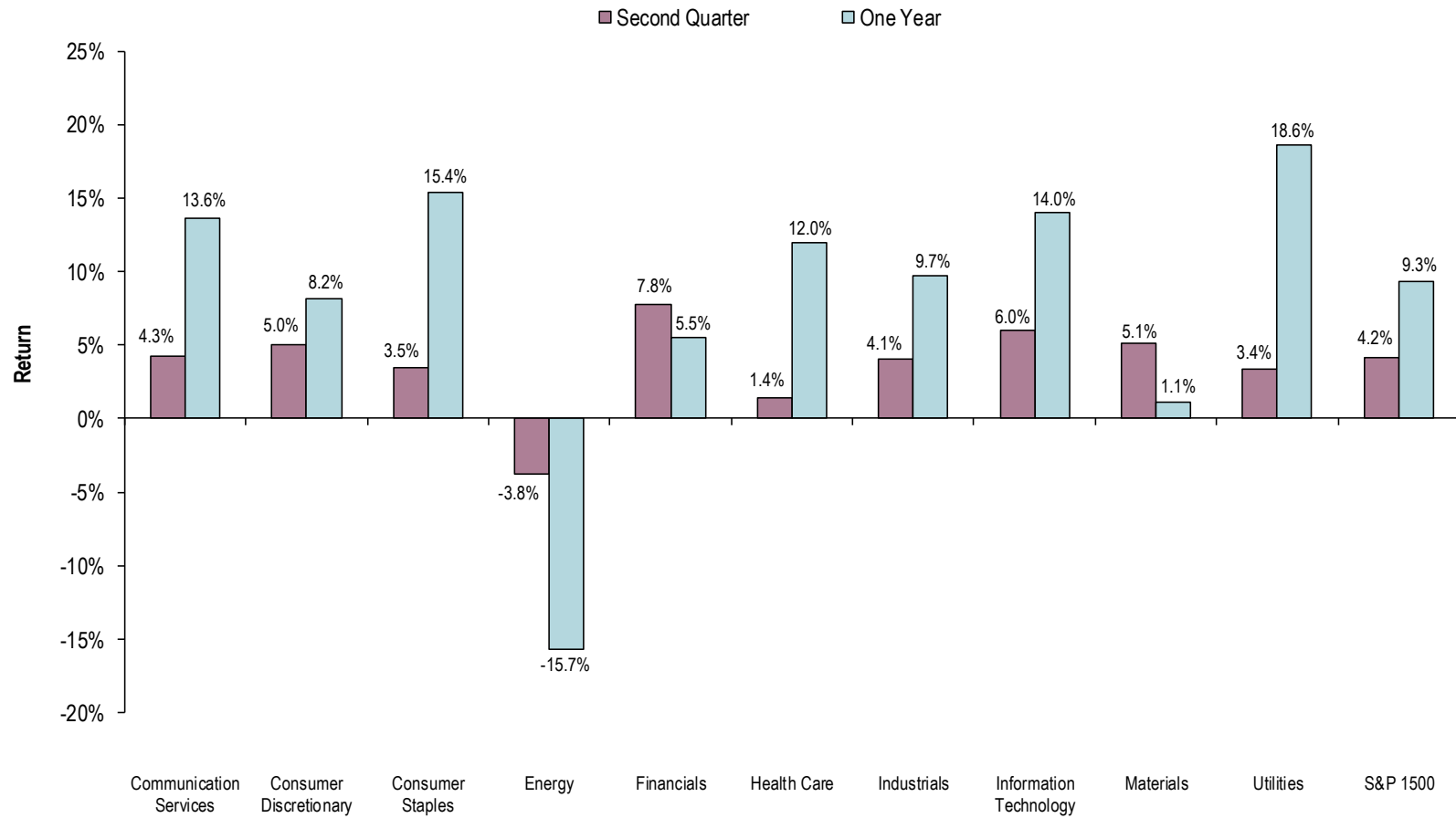
¹ Source: InvestorForce.

Index Returns¹

	2Q19 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Domestic Equity					
S&P 500	4.3	10.4	14.2	10.7	14.7
Russell 3000	4.1	9.0	14.0	10.2	14.7
Russell 1000	4.2	10.0	14.1	10.5	14.8
Russell 1000 Growth	4.6	11.6	18.1	13.4	16.3
Russell 1000 Value	3.8	8.5	10.2	7.5	13.2
Russell MidCap	4.1	7.8	12.2	8.6	15.2
Russell MidCap Growth	5.4	13.9	16.5	11.1	16.0
Russell MidCap Value	3.2	3.7	8.9	6.7	14.6
Russell 2000	2.1	-3.3	12.3	7.1	13.4
Russell 2000 Growth	2.7	-0.5	14.7	8.6	14.4
Russell 2000 Value	1.4	-6.2	9.8	5.4	12.4
Foreign Equity					
MSCI ACWI (ex. U.S.)	3.0	1.3	9.4	2.2	6.5
MSCI EAFE	3.7	1.1	9.1	2.2	6.9
MSCI EAFE (Local Currency)	2.8	2.2	9.8	5.9	8.3
MSCI EAFE Small Cap	1.7	-6.3	9.1	4.4	9.7
MSCI Emerging Markets	0.6	1.2	10.7	2.5	5.8
MSCI Emerging Markets (Local Currency)	7.4	9.4	13.8	7.6	8.6
Fixed Income					
Bloomberg Barclays Universal	3.1	8.1	2.8	3.2	4.4
Bloomberg Barclays Aggregate	3.1	7.9	2.3	2.9	3.9
Bloomberg Barclays U.S. TIPS	2.9	4.8	2.1	1.8	3.6
Bloomberg Barclays High Yield	2.5	7.5	7.5	4.7	9.2
JPM GBI-EM Global Diversified	5.6	9.0	4.2	-0.5	3.4
Other					
NAREIT Equity	0.7	10.1	3.8	7.7	15.3
Bloomberg Commodity Index	-1.2	-6.8	-2.2	-9.1	-3.7
HFRI Fund of Funds	1.6	1.3	4.3	2.2	3.2

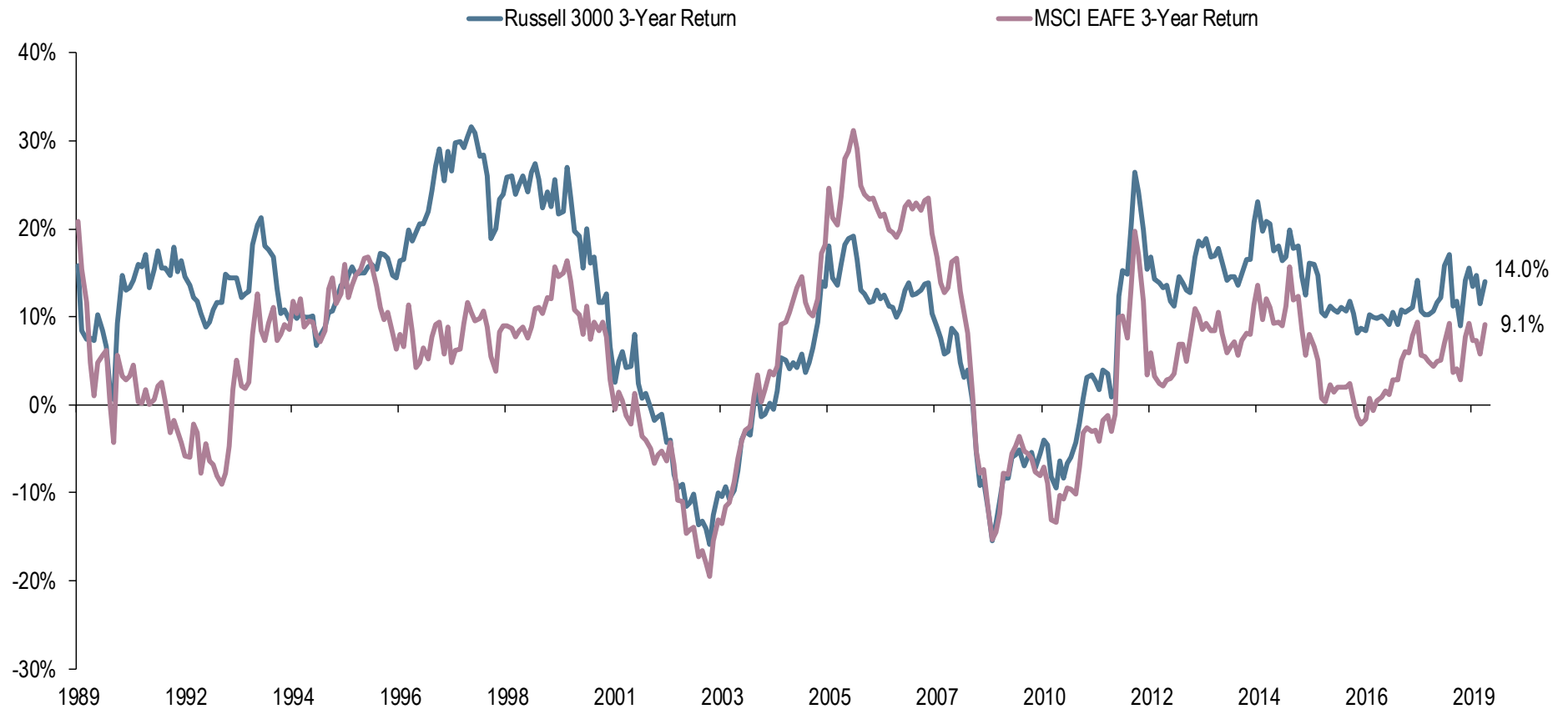
¹ Source: InvestorForce.

S&P Sector Returns¹



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

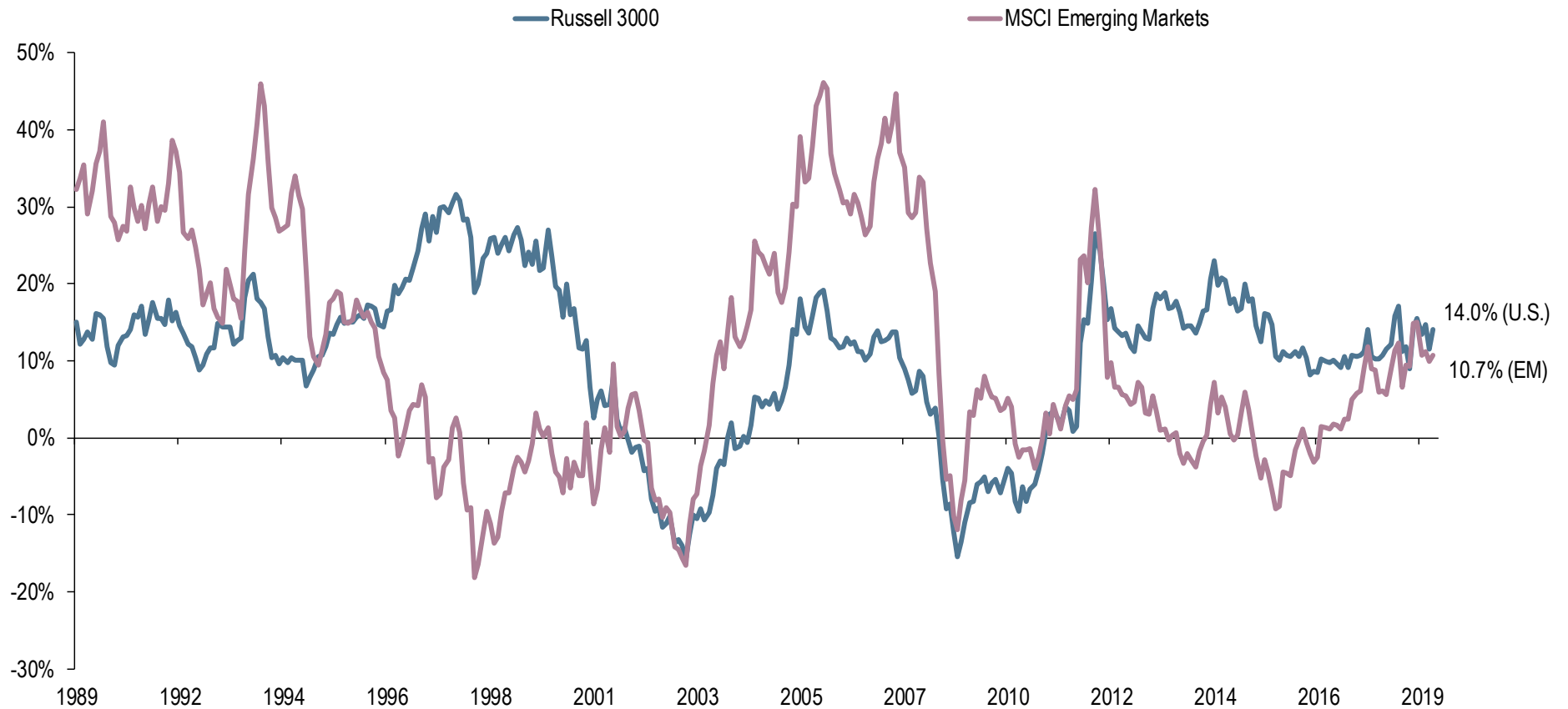
U.S. and Developed Market Foreign Equity Rolling Three-Year Returns¹



¹ Source: InvestorForce.

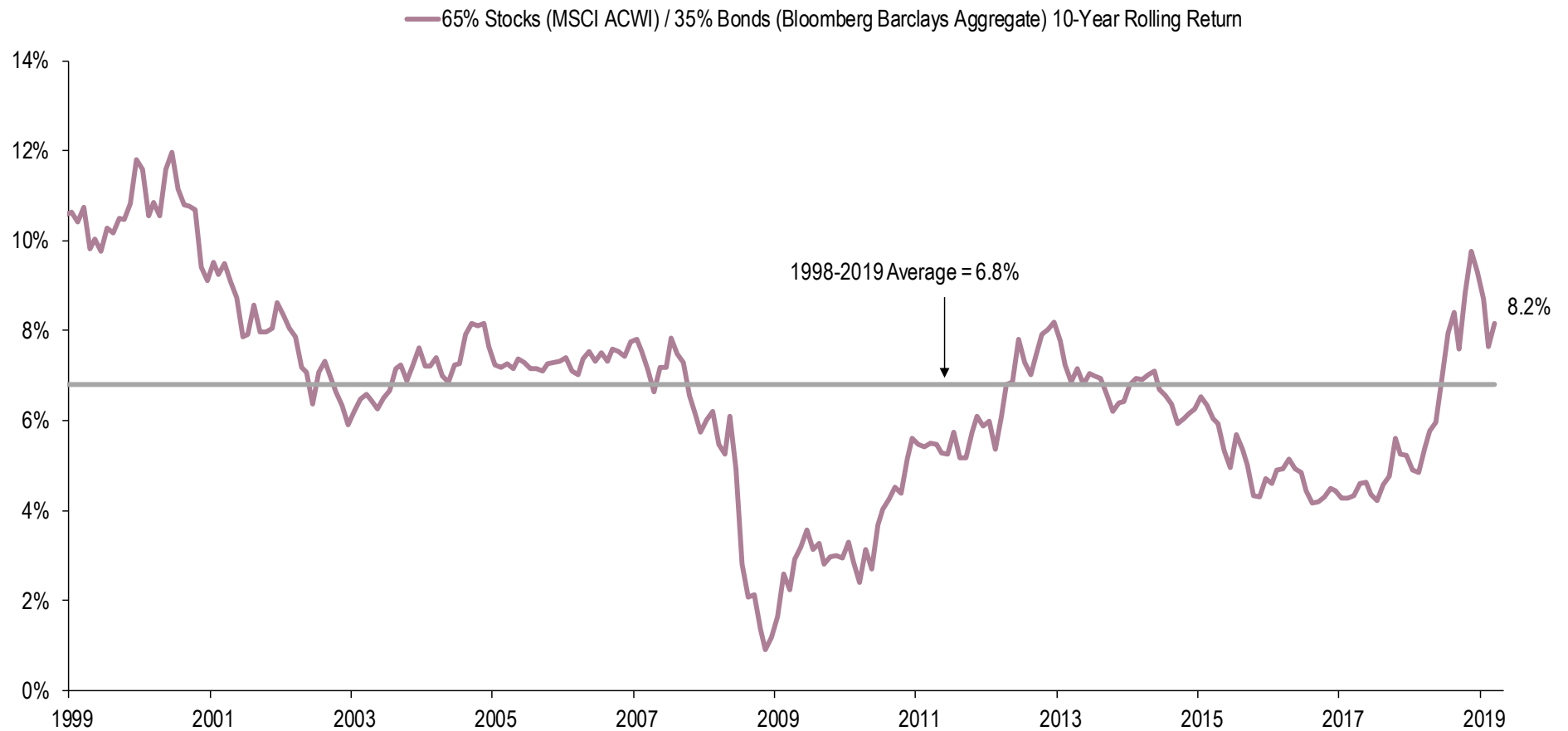


U.S. and Emerging Market Equity Rolling Three-Year Returns¹



¹ Source: InvestorForce.

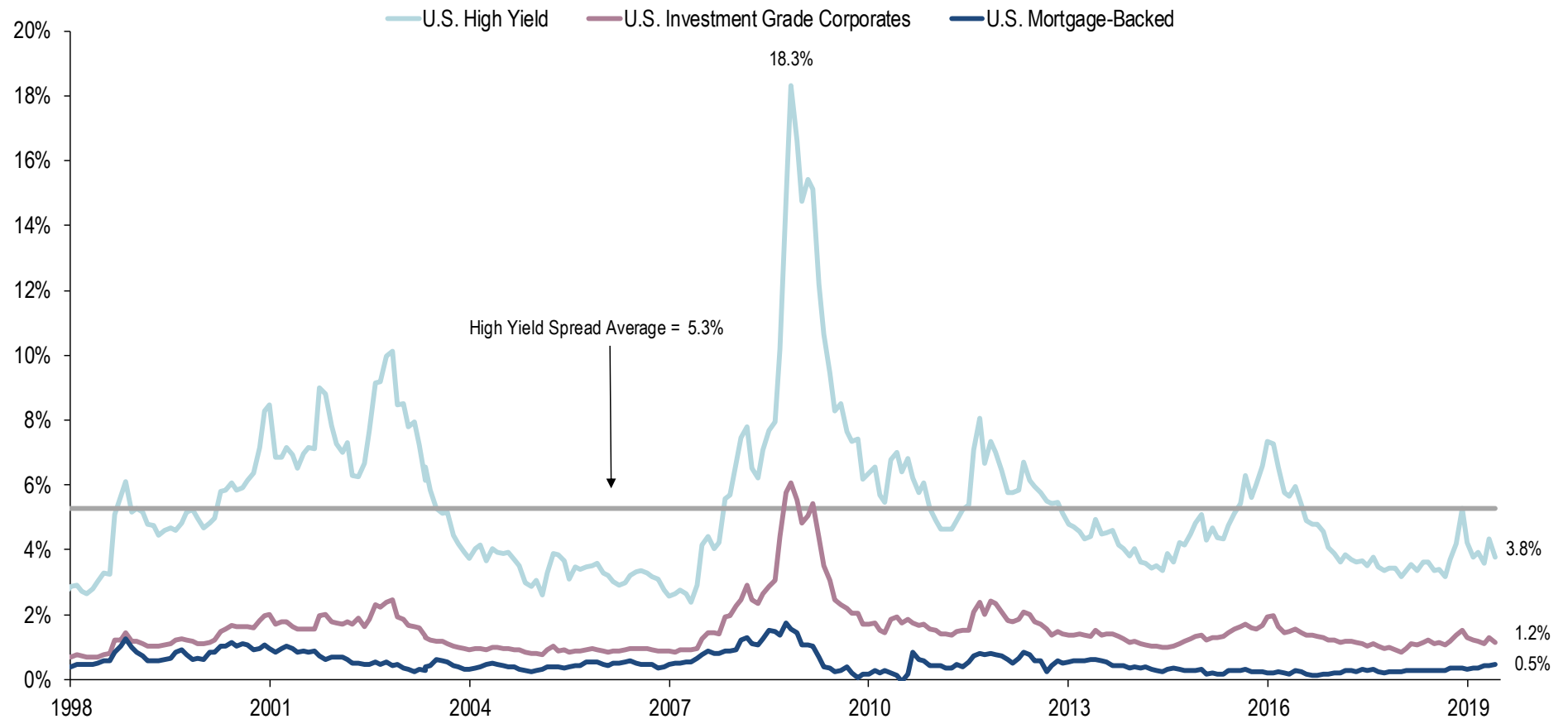
Rolling Ten-Year Returns: 65% Stocks and 35% Bonds¹



¹ Source: InvestorForce.



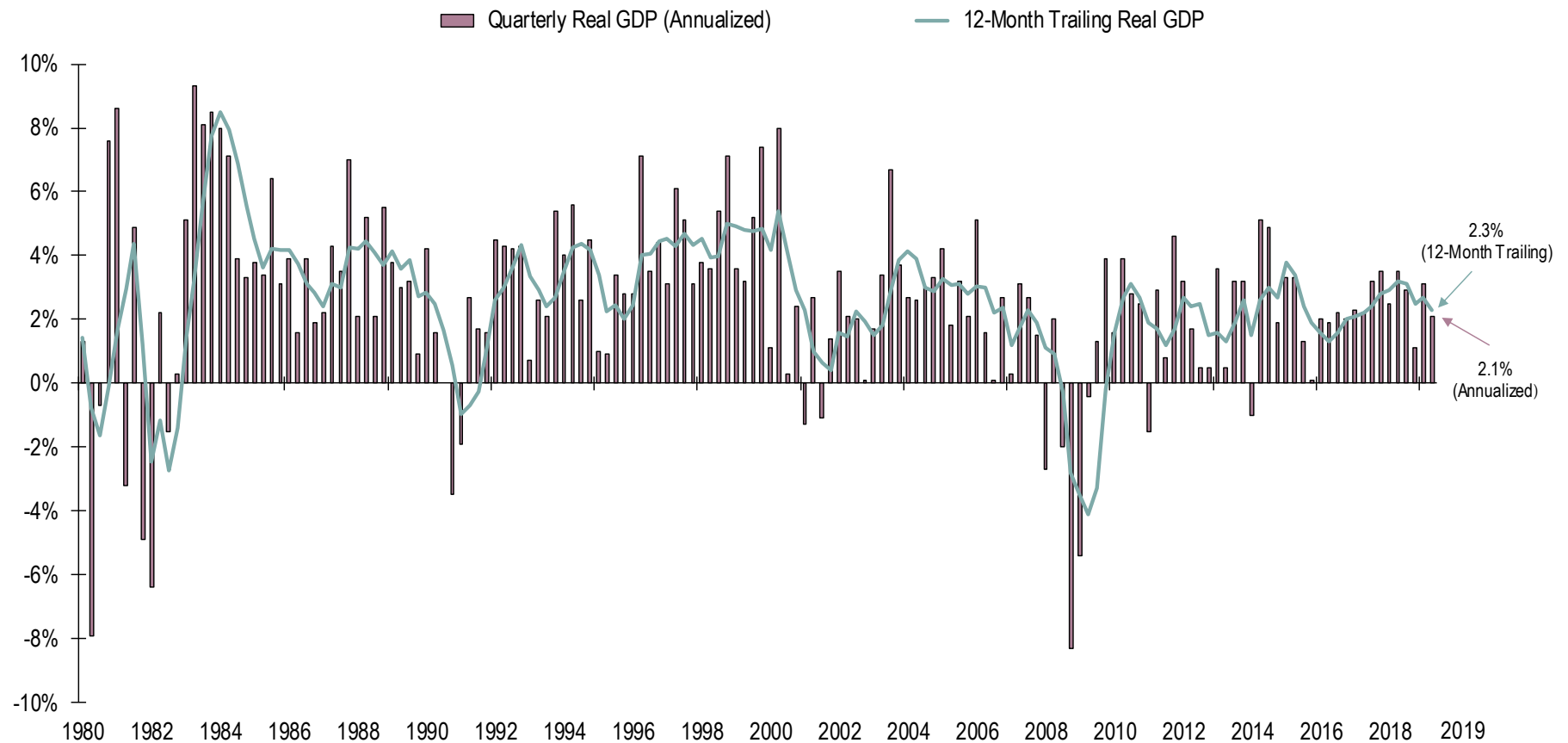
Credit Spreads vs. U.S. Treasury Bonds^{1,2}



¹ Source: Barclays Live.

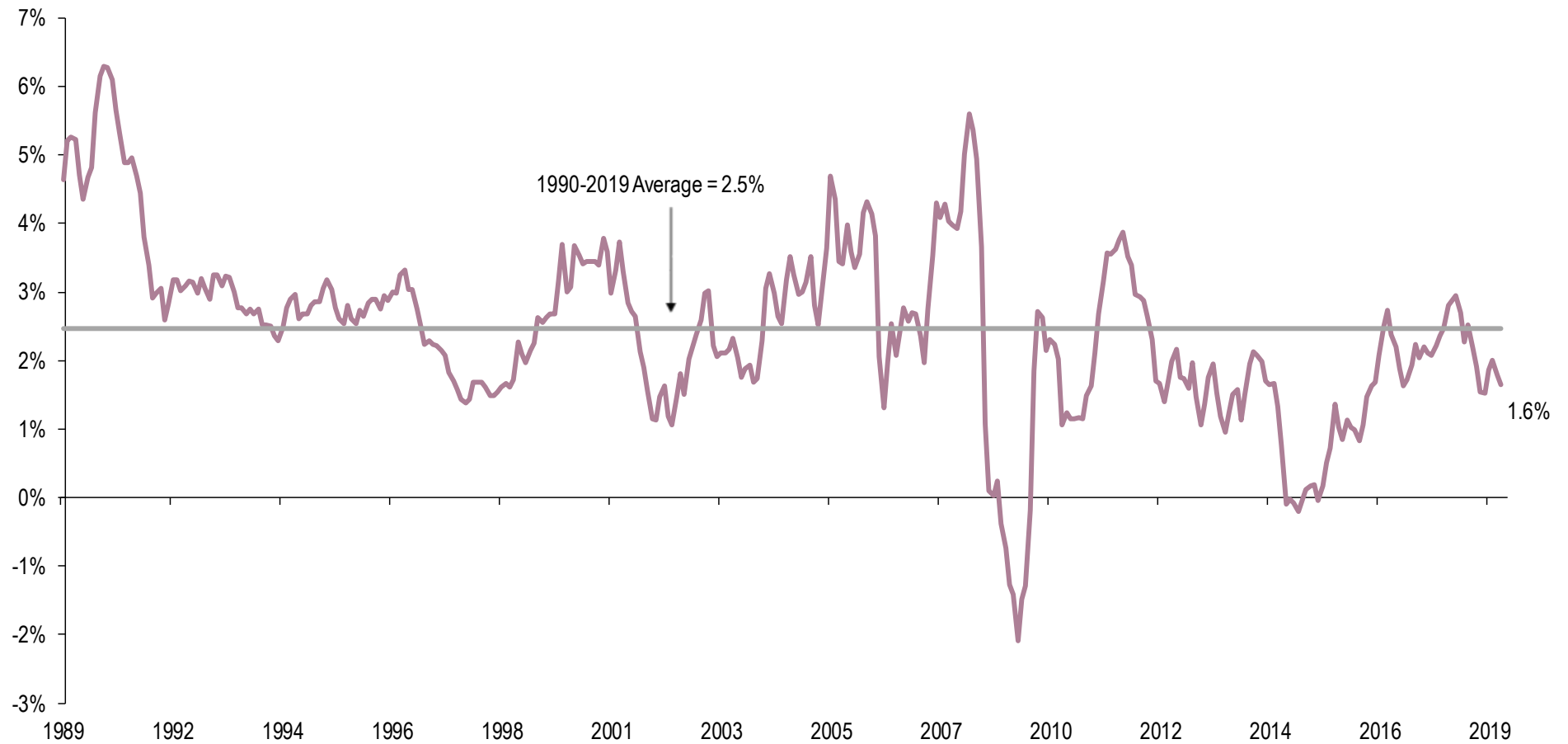
² The median high yield spread was 4.8% from 1997-2019.

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



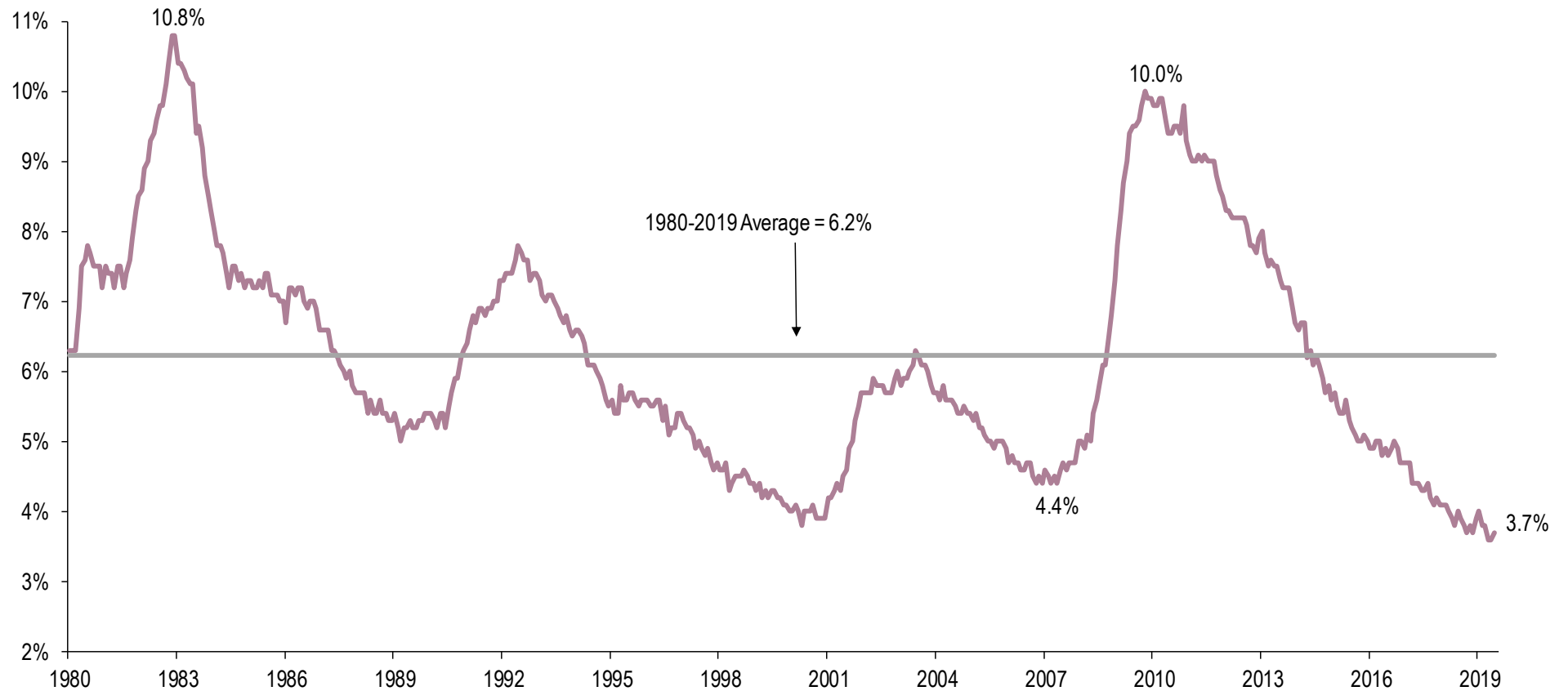
¹ Source: Bureau of Economic Analysis. Data is as of Q2 2019 and represents the first estimate.

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 June 30, 2019.

U.S. Unemployment¹



¹ Source: Bureau of Labor Statistics. Data is as of June 30, 2019.

Executive Summary As of June 30, 2019

The value of the City of San Jose Police & Fire Department Retirement Plan's assets was \$3.6 billion on June 30, 2019, an increase of approximately \$43.3 million from the end of the prior quarter. The Plan had net cash outflows of \$57.2 million during the quarter.

- The Retirement Plan's net of fees performance for the quarter was +2.7%, outperforming the Policy Benchmark and Investable Benchmark Portfolio returns of +2.3% and +2.2%, respectively, and underperforming the peer median return of +2.9%.
- The Retirement Plan returned +4.3% in the fiscal year-to-date period, compared to +4.4% for the Policy Benchmark, +4.2% for the Investable Benchmark Portfolio, and +5.4% for the peer median. The Retirement Plan's standard deviation of returns was 7.1% over the fiscal year-to-date period, exhibiting lower volatility than the peer median (8.8%).
 - Growth returned +3.5% for the quarter and +5.7% over the fiscal year-to-date period, versus +3.2% and +5.9% for the Growth Benchmark over the same periods, respectively.
 - Zero Beta returned +1.3% for the quarter and +3.8% over the fiscal year-to-date period, versus +0.7% and +2.1% for the Zero Beta Benchmark over the same periods, respectively.
 - Other returned +2.0% for the quarter and +2.9% over the fiscal year-to-date period, versus +1.5% and +2.3% for the Other Benchmark over the same periods, respectively.
- The Retirement Plan added three investment managers during the quarter: Cross Ocean USD ESS Fund III LP (Private Debt), Insight Immunized Cash Flow (Immunized Cash Flows), and Tristan EPISO V (Private Real Estate).

Artisan

- Artisan Global Opportunities returned +6.2% for the quarter, outperforming the MSCI ACWI Growth NR benchmark by 130 basis points. Compared to peers, Artisan ranks in the 12th and 10th percentiles for the quarter and since inception periods, respectively. Technology holdings were a noteworthy source of strength in the second quarter within the portfolio with several holdings benefitting from the secular trend toward digital payments.

Cove Street

- Cove Street Small Cap Value returned +4.1% for the quarter and +8.3% over the fiscal year-to-date period, outperforming the Russell 2000 Value benchmark by 270 and 1,450 basis points, respectively. Compared to peers, Cove Street ranks in the 19th and 6th percentiles for the quarter and since inception periods, respectively. The largest contributor to portfolio returns in the second quarter came from an insurance company which underwent a management and systems transformation which has begun to gain traction in the market.

GQG

- GQG Partners Global Emerging Markets returned +6.7% for the quarter and +8.9% over the fiscal year-to-date period, outperforming the MSCI Emerging Markets benchmark by 610 and 770 basis points, respectively. Compared to peers, GQG ranks in the 1st and 3rd percentiles for the quarter and since inception periods, respectively. The portfolios largest contributor to overall performance was Housing Development Finance Corp, a retail bank in Mumbai, while its largest negative contributor overall was Reliance Industries Limited, a multinational conglomerate.

Iguazu

- Iguazu Partners LP Fund returned +3.9% for the quarter, underperforming the blended benchmark by 100 basis points. Since inception in February 2014, Iguazu has outperformed the benchmark by 350 basis points and ranks in the 1st percentile compared to peers.

¹ Net of management fees.



Second Quarter Manager Summary

Investment Manager	Asset Class	Changes/ Announcements	Performance Concerns	Meketa Recommendation ¹	Comments
Artisan Global Value	Global Equity	Yes	---	Hold	Personnel Changes
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	Yes	---	Hold	Personnel Changes
Comgest Global EM	Emerging Markets Equity	---	Yes	---	Watch List
GQG Partners Global EM	Emerging Markets Equity	---	---	---	---
Senator Global Opportunity	Long-Short Equity	---	Yes	---	---
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
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 second quarter, within the Artisan Partners Growth Team, one investment professional was promoted to analyst and a research associate was hired.
- Subsequent to the second quarter, within the Artisan Partners Value Team, one analyst left the firm.

Oberweis

- Over the trailing three-year period, Oberweis (+8.5%) has underperformed the MSCI World ex USA Small Cap Growth by 50 basis points. Since inception in March 2014, Oberweis has outperformed the benchmark by 60 basis points per year, on average and ranked in the 23rd percentile compared to peers.

Dimensional

- In the second quarter, there were two departures on the portfolio management team.

Comgest

- Since inception in March 2017, Comgest (-2.3%) has underperformed the MSCI Emerging Markets SMID Cap by 640 basis points per year, on average and ranked in the 99th percentile compared to peers.

Beach Point

- Over the trailing three- and five-year periods, Beach Point has returned +5.6% and +3.1%, underperforming the Bloomberg Barclays High Yield TR by 190 and 160 basis points, respectively. Since inception in October 2013, Beach Point (+4.0%) has underperformed the benchmark by 170 basis points per year, on average.

BlueBay

- Over the trailing three- and five-year periods, BlueBay has returned +3.9% and +0.8%, underperformed the JPM Blended Emerging Markets Index by 100 and 170 basis points, respectively. Since inception in August 2013, BlueBay (+1.5%) has underperformed the benchmark by 180 basis points per year, on average and ranked in the 74th percentile compared to peers.

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
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

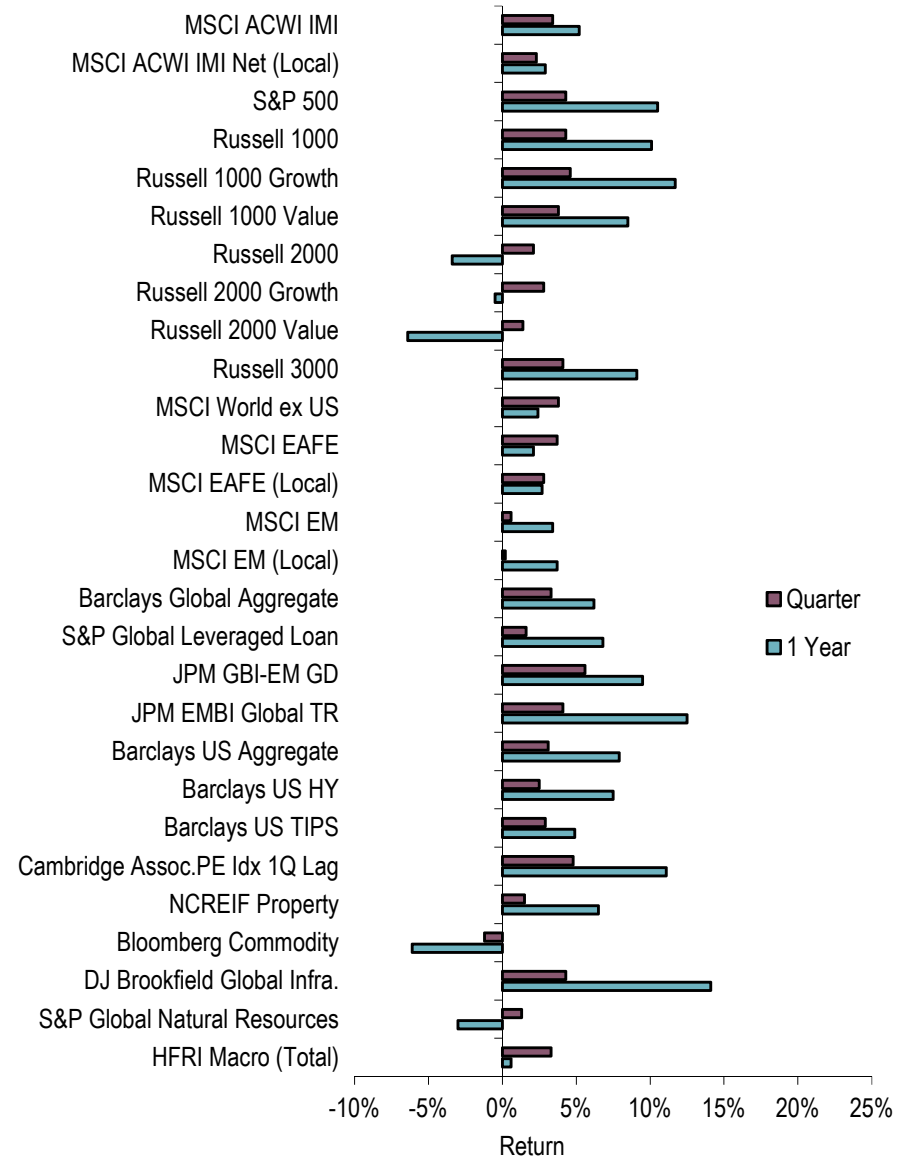
¹ Watch List excludes Private Markets and Passive Funds.

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.



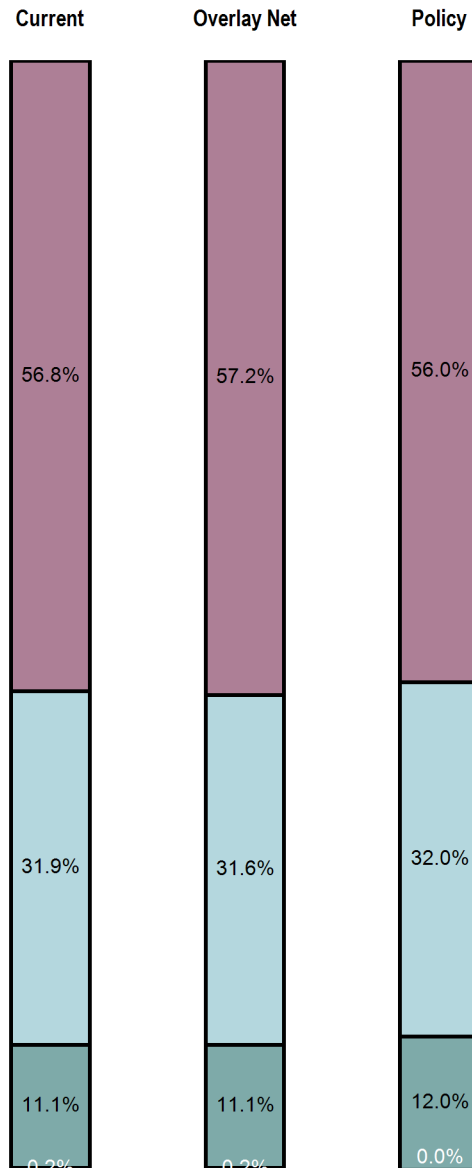
Market Environment – 2Q19 Overview

Benchmark	Scope	2Q19 (%)	1 YR (%)	3 YR (%)	5YR (%)	10 YR (%)
Global Equity						
MSCI ACWI IMI	World	3.4	5.2	12.6	6.1	10.3
MSCI ACWI IMI Net (Local)	World (Local Currency)	2.3	2.9	9.6	5.8	8.8
Domestic Equity						
S&P 500	Large Core	4.3	10.5	15.3	10.7	14.7
Russell 1000	Large Core	4.3	10.1	15.3	10.5	14.8
Russell 1000 Growth	Large Growth	4.6	11.7	19.1	13.4	16.3
Russell 1000 Value	Large Value	3.8	8.5	11.4	7.5	13.2
Russell 2000	Small Core	2.1	-3.4	13.8	7.1	13.3
Russell 2000 Growth	Small Growth	2.8	-0.5	16.1	8.7	14.3
Russell 2000 Value	Small Value	1.4	-6.4	11.3	5.4	12.3
Russell 3000	All Cap Core	4.1	9.1	15.2	10.2	14.7
International Equity						
MSCI World ex US	World ex-US	3.8	2.4	10.4	2.1	6.7
MSCI EAFE	International Developed	3.7	2.1	10.5	2.3	6.9
MSCI EAFE (Local)	International Developed (Local Currency)	2.8	2.7	11.1	5.8	8.4
MSCI EM	Emerging Markets	0.6	3.4	12.0	2.6	5.8
MSCI EM (Local)	Emerging Markets (Local Currency)	0.2	3.7	12.0	6.2	7.8
Global Fixed Income						
Barclays Global Aggregate	Global Core Bonds	3.3	6.2	1.7	1.2	2.9
S&P Global Leveraged Loan	Bank Loans	1.6	6.8	5.0	3.1	5.7
JPM GBI-EM GD	Emerging Markets Bonds (Local Currency)	5.6	9.5	5.0	-0.4	3.5
JPM EMBI Global TR	Emerging Market Bonds	4.1	12.5	5.8	5.3	7.8
Domestic Fixed Income						
Barclays US Aggregate	Core Bonds	3.1	7.9	2.3	3.0	3.9
Barclays US HY	High Yield	2.5	7.5	7.8	4.7	9.3
Barclays US TIPS	Inflation	2.9	4.9	2.1	1.8	3.7
Other						
Cambridge Associates PE Index 1Qtr Lag	Private Equity	4.8	11.1	13.8	10.7	13.7
NCREIF Property	Real Estate	1.5	6.5	6.9	8.8	9.2
Bloomberg Commodity	Commodities	-1.2	-6.1	-2.0	-9.3	-3.9
DJ Brookfield Global Infrastructure	Infrastructure	4.3	14.1	9.0	4.5	12.1
S&P Global Natural Resources	Natural Resources	1.3	-3.0	12.9	0.8	3.5
HFRI Macro	Hedge Funds	3.3	0.6	-0.1	0.5	-1.1



2Q19 Review

As of June 30, 2019



Allocation vs. Targets and Policy

	Current Balance	Current Allocation	Russell Overlay Net Position	Policy	Difference
Growth	\$2,065,898,788	56.8%	57.2%	56.0%	0.8%
Public Equity	\$1,128,645,483	31.1%	31.4%	31.0%	0.1%
Private Markets	\$785,798,527	21.6%	21.6%	22.0%	-0.4%
Emerging Markets Debt	\$116,277,599	3.2%	3.2%	3.0%	0.2%
High Yield Debt	\$35,177,179	1.0%	1.0%	0.0%	1.0%
Zero Beta	\$1,159,736,091	31.9%	31.6%	32.0%	-0.1%
Absolute Return	\$271,169,069	7.5%	7.5%	7.0%	0.5%
Short-Term IG Bonds	\$683,813,826	18.8%	18.8%	20.0%	-1.2%
Immunized Cash Flows	\$178,976,301	4.9%	4.9%	5.0%	-0.1%
Cash	\$25,776,895	0.7%	0.4%	0.0%	0.7%
Other	\$402,858,038	11.1%	11.1%	12.0%	-0.9%
Core Real Estate	\$147,208,843	4.1%	4.1%	5.0%	-0.9%
Commodities	\$72,838,044	2.0%	2.0%	2.0%	0.0%
Sovereign bonds ex-US	\$108,459,818	3.0%	3.0%	3.0%	0.0%
TIPS	\$74,351,332	2.0%	2.1%	2.0%	0.0%
Overlay	\$6,267,857	0.2%	0.2%	0.0%	0.2%
Total	\$3,634,760,774	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.

Total Fund Aggregate

As of June 30, 2019

Asset Class Net Performance Summary

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund	3,634,760,774	100.0	2.7	8.4	4.3	4.3	6.9	3.8	7.2	8.3	Mar-71
Policy Benchmark			2.3	7.5	4.4	4.4	7.2	4.2	7.7	--	Mar-71
Investable Benchmark Portfolio			2.2	7.9	4.2	4.2	6.7	3.8	7.3	--	Mar-71
60/40 MSCI ACWI/BBgBarc Global Aggregate			3.6	12.0	6.1	6.1	7.7	4.3	7.4	--	Mar-71
Low-Cost Passive Portfolio			2.1	9.7	--	--	--	--	--	--	Mar-71
Liability Benchmark Portfolio			6.0	11.0	--	--	--	--	--	--	Mar-71
InvMetrics Public DB > \$1B Net Median			2.9	10.3	5.4	5.4	8.7	5.6	9.0	--	Mar-71
InvMetrics Public DB > \$1B Net Rank			69	95	82	82	99	99	98	--	Mar-71
Growth	2,065,898,788	56.8	3.5	12.1	5.7	5.7	9.5	--	--	--	Apr-08
Growth Benchmark			3.2	11.9	5.9	5.9	10.3	--	--	--	Apr-08
Public Equity	1,128,645,483	31.1	3.5	15.6	4.2	4.2	11.2	6.0	10.2	5.8	Apr-08
Public Equity Benchmark			2.7	14.8	5.2	5.2	11.6	6.2	10.7	6.1	Apr-08
Global Equity	404,889,324	11.1	5.2	19.8	6.9	6.9	14.2	8.8	--	11.3	Mar-13
MSCI ACWI IMI Net USD			3.4	16.1	4.6	4.6	11.4	6.0	--	8.5	Mar-13
eV All Global Equity Net Median			3.4	16.1	5.2	5.2	10.4	6.1	10.7	8.6	Mar-13
eV All Global Equity Net Rank			20	25	39	39	19	19	--	16	Mar-13
U.S. Equity	184,819,368	5.1	3.9	18.4	8.1	8.1	13.6	9.8	14.6	9.6	Jun-95
MSCI USA IMI NR USD			3.9	18.4	8.3	8.3	13.4	9.6	14.1	9.2	Jun-95
eV All US Equity Net Median			3.8	18.0	5.8	5.8	12.2	8.3	13.9	10.4	Jun-95
eV All US Equity Net Rank			48	46	39	39	37	33	36	72	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.

Total Fund Aggregate

As of June 30, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
International Equity	143,311,520	3.9	3.8	16.7	-2.3	-2.3	8.5	2.5	7.6	7.4	Jun-95
MSCI World ex USA IMI NR USD			3.5	14.4	0.2	0.2	8.9	2.2	7.0	--	Jun-95
eV ACWI ex-US All Cap Equity Net Median			3.7	15.3	-0.1	-0.1	9.5	3.4	8.5	6.6	Jun-95
eV ACWI ex-US All Cap Equity Net Rank			46	37	77	77	67	72	68	26	Jun-95
Emerging Markets Equity	303,704,739	8.4	1.1	10.8	-0.8	-0.8	8.1	1.7	4.1	9.0	Sep-01
MSCI Emerging Market IMI Net			0.4	10.2	0.5	0.5	10.0	2.3	5.8	9.9	Sep-01
eV Emg Mkts Equity Net Median			1.4	12.0	0.9	0.9	9.9	2.5	6.7	10.9	Sep-01
eV Emg Mkts Equity Net Rank			57	59	66	66	73	72	99	99	Sep-01
Marketable Alternative Equity	91,920,533	2.5	3.4	7.9	2.6	2.6	6.4	--	--	5.7	Oct-14
HFRI Equity Hedge (Total) Index			1.6	9.3	0.3	0.3	6.8	--	--	3.9	Oct-14
Private Markets	785,798,527	21.6	3.5	7.8	6.6	6.6	8.4	--	--	6.8	Jul-15
Private Markets Benchmark			3.5	7.8	5.9	5.9	8.8	--	--	7.8	Jul-15
MSCI ACWI IMI + 100bps			3.6	16.6	5.6	5.6	12.5	--	--	8.4	Jul-15
Private Markets ex Russell 3000	540,965,475	14.9	3.2	2.7	7.4	7.4	7.9	--	--	6.4	Jul-15
Private Markets Benchmark			3.5	7.8	5.9	5.9	8.8	--	--	7.8	Jul-15
Private Equity	466,105,555	12.8	3.9	12.0	10.3	10.3	12.7	10.0	12.1	8.8	Oct-05
San Jose Custom Private Equity Benchmark			5.0	3.4	11.1	11.1	15.5	11.8	11.4	11.8	Oct-05
Private Equity ex Russell 3000	234,208,663	6.4	4.1	4.4	14.1	14.1	12.8	10.4	11.6	--	Oct-05
Northern Trust Russell 3000	231,896,891	6.4	4.1	18.7	9.0	9.0	14.1	10.2	--	10.7	Apr-14
Russell 3000			4.1	18.7	9.0	9.0	14.0	10.2	--	10.7	Apr-14

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

Total Fund Aggregate

As of June 30, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Debt	184,265,728	5.1	2.0	0.7	0.8	0.8	3.8	--	--	3.6	Oct-15
<i>S&P Global Leveraged Loan + 2%</i>			2.4	5.9	5.2	5.2	7.3	--	--	6.7	Oct-15
Private Real Estate	100,748,488	2.8	2.0	2.7	8.8	8.8	10.5	--	--	9.0	Jul-15
<i>NCREIF ODCE Equal Weighted</i>			1.3	3.0	6.9	6.9	7.9	--	--	8.9	Jul-15
Private Real Assets	34,678,756	1.0	8.4	2.9	7.8	7.8	5.7	--	--	5.5	Jun-16
High Yield Debt	35,177,179	1.0	2.0	12.6	7.6	7.6	7.8	--	--	5.7	Oct-15
<i>50% Bofa Global HY/50% S&P Global Leveraged Loan</i>			2.4	7.2	5.3	5.3	6.2	--	--	6.1	Oct-15
Emerging Market Debt	116,277,599	3.2	4.2	9.7	8.9	8.9	5.2	2.9	--	1.3	Jan-13
<i>50% JPM EMBI GD / 50% JPM GBI-EM</i>			4.9	10.0	10.8	10.8	4.9	2.5	--	1.8	Jan-13
<i>eV All Emg Mkts Fixed Inc Net Median</i>			4.2	10.0	10.1	10.1	5.2	3.1	6.8	2.7	Jan-13
<i>eV All Emg Mkts Fixed Inc Net Rank</i>			50	54	70	70	48	56	--	63	Jan-13
Zero Beta	1,159,736,091	31.9	1.3	2.6	3.8	3.8	2.7	--	--	2.0	Jul-15
<i>Zero Beta Benchmark</i>			0.7	1.4	2.1	2.1	0.4	--	--	0.7	Jul-15
Short-Term IG Bonds	683,813,826	18.8	0.7	1.3	--	--	--	--	--	1.9	Oct-18
<i>ICE BofAML 91 Days T-Bills TR</i>			0.6	1.2	--	--	--	--	--	1.8	Oct-18
Immunized Cash Flows	178,976,301	4.9	1.4	2.3	--	--	--	--	--	3.7	Oct-18
<i>Immunized Cash Flow Benchmark</i>			1.4	2.3	--	--	--	--	--	3.7	Oct-18
Absolute Return	271,169,069	7.5	3.2	6.3	7.1	7.1	4.2	3.0	--	3.1	Nov-12
<i>Absolute Return Benchmark</i>			0.6	1.3	1.9	1.9	0.2	1.3	--	1.2	Nov-12

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

As of June 30, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Macro	130,012,615	3.6	4.8	7.4	6.7	6.7	3.1	--	--	2.8	Jul-15
HFRI Macro (Total) Index			2.5	4.8	2.4	2.4	0.3	--	--	0.7	Jul-15
Relative Value	141,156,454	3.9	1.7	5.3	7.4	7.4	5.7	--	--	4.2	Jul-15
HFRI Relative Value (Total) Index			1.6	5.5	3.3	3.3	5.0	--	--	3.7	Jul-15
Cash	25,776,895	0.7	0.5	1.1	2.0	2.0	1.4	0.9	0.8	8.9	Jul-02
ICE BofAML 91 Days T-Bills TR			0.6	1.2	2.3	2.3	1.4	0.9	0.5	1.4	Jul-02
Other	402,858,038	11.1	2.0	4.6	2.9	2.9	3.9	--	--	2.9	Jul-15
Other Benchmark			1.5	3.9	2.3	2.3	2.7	--	--	2.7	Jul-15
Core Real Estate	147,208,843	4.1	2.5	5.4	7.3	7.3	7.3	8.2	--	8.8	Sep-11
NCREIF ODCE Equal Weighted (Net)			1.1	2.6	6.0	6.0	7.0	9.1	--	10.1	Sep-11
Commodities	72,838,044	2.0	-1.5	3.6	-4.8	-4.8	0.6	-6.0	--	-5.4	Apr-11
Bloomberg Commodity Index TR USD			-1.2	5.1	-6.8	-6.8	-2.2	-9.1	--	-8.2	Apr-11
TIPS	74,351,332	2.0	1.6	3.7	--	--	--	--	--	3.2	Oct-18
BBgBarc US Treasury TIPS 0-5 Yr TR			1.6	3.3	--	--	--	--	--	3.1	Oct-18
Sovereign Bonds ex-US	108,459,818	3.0	3.9	3.4	--	--	--	--	--	3.4	Oct-18
FTSE WGBI ex US TR			3.9	5.5	--	--	--	--	--	6.9	Oct-18
Overlay	6,267,857	0.2									

¹ Cash Composite includes the cash account and residuals from terminated manager assets.² Please see the Appendix for composition of the Other Benchmark.

Total Fund Aggregate

As of June 30, 2019

Trailing Net Performance

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund	3,634,760,774	100.3	2.7	8.4	4.3	4.3	6.9	3.8	7.2	8.3	Mar-71
Policy Benchmark			2.3	7.5	4.4	4.4	7.2	4.2	7.7	--	Mar-71
Investable Benchmark Portfolio			2.2	7.9	4.2	4.2	6.7	3.8	7.3	--	Mar-71
60/40 MSCI ACWI/BBgBarc Global Aggregate			3.6	12.0	6.1	6.1	7.7	4.3	7.4	--	Mar-71
Low-Cost Passive Portfolio			2.1	9.7	--	--	--	--	--	--	Mar-71
Liability Benchmark Portfolio			6.0	11.0	--	--	--	--	--	--	Mar-71
InvMetrics Public DB > \$1B Net Median			2.9	10.3	5.4	5.4	8.7	5.6	9.0	--	Mar-71
InvMetrics Public DB > \$1B Net Rank			69	95	82	82	99	99	98	--	Mar-71
Growth	2,065,898,788	57.0	3.5	12.1	5.7	5.7	9.5	--	--	--	Apr-08
Growth Benchmark			3.2	11.9	5.9	5.9	10.3	--	--	--	Apr-08
Public Equity	1,128,645,483	31.1	3.5	15.6	4.2	4.2	11.2	6.0	10.2	5.8	Apr-08
Public Equity Benchmark			2.7	14.8	5.2	5.2	11.6	6.2	10.7	6.1	Apr-08
Global Equity	404,889,324	11.2	5.2	19.8	6.9	6.9	14.2	8.8	--	11.3	Mar-13
MSCI ACWI IMI Net USD			3.4	16.1	4.6	4.6	11.4	6.0	--	8.5	Mar-13
eV All Global Equity Net Median			3.4	16.1	5.2	5.2	10.4	6.1	10.7	8.6	Mar-13
eV All Global Equity Net Rank			20	25	39	39	19	19	--	16	Mar-13
Artisan Global Value	214,925,782	5.9	4.4	16.6	5.3	5.3	11.9	6.5	--	9.9	Mar-13
MSCI ACWI Value NR USD			2.3	12.4	4.3	4.3	9.4	3.8	--	6.7	Mar-13
eV All Global Equity Net Median			3.4	16.1	5.2	5.2	10.4	6.1	10.7	8.6	Mar-13
eV All Global Equity Net Rank			31	45	50	50	36	43	--	28	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.

Total Fund Aggregate

As of June 30, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Artisan Global Opportunities	189,963,542	5.2	6.2	23.7	8.4	8.4	15.8	10.7	--	11.7	May-13
MSCI ACWI Growth NR USD			4.9	20.1	7.2	7.2	13.8	8.5	--	9.9	May-13
eV All Global Equity Net Median			3.4	16.1	5.2	5.2	10.4	6.1	10.7	7.8	May-13
eV All Global Equity Net Rank			12	8	28	28	13	7	--	10	May-13
U.S. Equity	184,819,368	5.1	3.9	18.4	8.1	8.1	13.6	9.8	14.6	9.6	Jun-95
MSCI USA IMI NR USD			3.9	18.4	8.3	8.3	13.4	9.6	14.1	9.2	Jun-95
eV All US Equity Net Median			3.8	18.0	5.8	5.8	12.2	8.3	13.9	10.4	Jun-95
eV All US Equity Net Rank			48	46	39	39	37	33	36	72	Jun-95
Northern Trust Russell 1000	139,734,918	3.9	4.3	18.9	10.3	10.3	14.2	10.5	--	11.1	Apr-14
Russell 1000			4.2	18.8	10.0	10.0	14.1	10.5	--	11.0	Apr-14
Northern Tr Russell 2000 Value	19,700,292	0.5	1.4	13.5	-6.2	-6.2	--	--	--	-0.7	Jan-18
Russell 2000 Value			1.4	13.5	-6.2	-6.2	--	--	--	-0.8	Jan-18
Cove Street Small Cap Value	25,384,158	0.7	4.1	20.0	8.3	8.3	--	--	--	5.4	Dec-17
Russell 2000 Value			1.4	13.5	-6.2	-6.2	--	--	--	-1.3	Dec-17
eV US Small Cap Value Equity Net Median			2.0	14.9	-5.4	-5.4	8.9	5.0	12.8	-1.9	Dec-17
eV US Small Cap Value Equity Net Rank			19	10	2	2	--	--	--	6	Dec-17
International Equity	143,311,520	4.0	3.8	16.7	-2.3	-2.3	8.5	2.5	7.6	7.4	Jun-95
MSCI World ex USA IMI NR USD			3.5	14.4	0.2	0.2	8.9	2.2	7.0	--	Jun-95
eV ACWI ex-US All Cap Equity Net Median			3.7	15.3	-0.1	-0.1	9.5	3.4	8.5	6.6	Jun-95
eV ACWI ex-US All Cap Equity Net Rank			46	37	77	77	67	72	68	26	Jun-95
Northern Trust MSCI World ex US	92,267,488	2.5	4.0	14.8	1.4	1.4	9.3	2.3	--	3.0	Apr-14
MSCI World ex USA			3.8	14.6	1.3	1.3	9.0	2.0	--	2.8	Apr-14

Total Fund Aggregate

As of June 30, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Oberweis Intl Opportunities	50,848,593	1.4	3.7	20.3	-8.4	-8.4	8.5	6.0	--	5.6	Mar-14
MSCI World ex USA Small Cap Growth NR USD			2.6	15.6	-5.9	-5.9	9.0	4.9	--	5.0	Mar-14
eV ACWI ex-US All Cap Equity Net Median			3.7	15.3	-0.1	-0.1	9.5	3.4	8.5	3.6	Mar-14
eV ACWI ex-US All Cap Equity Net Rank			53	18	98	98	67	15	--	23	Mar-14
Emerging Markets Equity	303,704,739	8.4	1.1	10.8	-0.8	-0.8	8.1	1.7	4.1	9.0	Sep-01
MSCI Emerging Market IMI Net			0.4	10.2	0.5	0.5	10.0	2.3	5.8	9.9	Sep-01
eV Emg Mkts Equity Net Median			1.4	12.0	0.9	0.9	9.9	2.5	6.7	10.9	Sep-01
eV Emg Mkts Equity Net Rank			57	59	66	66	73	72	99	99	Sep-01
Northern Trust MSCI EM IMI	131,261,306	3.6	0.2	9.9	--	--	--	--	--	1.9	Oct-18
MSCI Emerging Market IMI Net			0.4	10.2	--	--	--	--	--	2.0	Oct-18
Dimensional Fund Adv EM Value	69,237,509	1.9	-0.2	7.0	1.5	1.5	11.0	--	--	4.8	Jul-15
MSCI Emerging Markets Value NR USD			1.0	8.9	5.0	5.0	10.0	--	--	3.3	Jul-15
eV Emg Mkts Equity Net Median			1.4	12.0	0.9	0.9	9.9	2.5	6.7	4.6	Jul-15
eV Emg Mkts Equity Net Rank			87	94	45	45	32	--	--	43	Jul-15
Comgest Global EM Promising Co	33,088,630	0.9	0.0	8.6	-8.7	-8.7	--	--	--	-2.3	Mar-17
MSCI Emerging Markets SMID Cap			0.2	7.6	-2.3	-2.3	--	--	--	4.6	Mar-17
eV Emg Mkts Small Cap Equity Net Median			0.5	9.9	-3.1	-3.1	7.0	2.5	9.2	5.2	Mar-17
eV Emg Mkts Small Cap Equity Net Rank			65	75	90	90	--	--	--	99	Mar-17
GQG Global Emerging Markets	70,117,295	1.9	6.7	19.3	8.9	8.9	--	--	--	9.4	Jul-17
MSCI Emerging Markets			0.6	10.6	1.2	1.2	--	--	--	4.6	Jul-17
eV Emg Mkts Equity Net Median			1.4	12.0	0.9	0.9	9.9	2.5	6.7	4.0	Jul-17
eV Emg Mkts Equity Net Rank			1	5	4	4	--	--	--	3	Jul-17

Total Fund Aggregate

As of June 30, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Marketable Alternative Equity	91,920,533	2.5	3.4	7.9	2.6	2.6	6.4	--	--	5.7	Oct-14
<i>HFRI Equity Hedge (Total) Index</i>			1.6	9.3	0.3	0.3	6.8	--	--	3.9	Oct-14
Senator Global Opportunity, L.P.	23,227,261	0.6	6.0	14.6	4.1	4.1	7.3	4.1	--	6.2	Apr-13
<i>HFRI Event-Driven (Total) Index</i>			1.3	5.5	1.2	1.2	6.3	2.8	--	4.3	Apr-13
Sandler Plus Offshore Fund Ltd	22,636,330	0.6	1.7	1.1	2.7	2.7	8.4	9.6	--	8.0	May-13
<i>HFRI Equity Hedge (Total) Index</i>			1.6	9.3	0.3	0.3	6.8	3.4	--	4.7	May-13
Marshall Wace Eureka Fund	46,056,942	1.3	2.9	7.6	2.0	2.0	8.0	8.2	--	7.9	Apr-14
<i>HFRI Equity Hedge (Total) Index</i>			1.6	9.3	0.3	0.3	6.8	3.4	--	3.7	Apr-14
Private Markets	785,798,527	21.7	3.5	7.8	6.6	6.6	8.4	--	--	6.8	Jul-15
<i>Private Markets Benchmark</i>			3.5	7.8	5.9	5.9	8.8	--	--	7.8	Jul-15
<i>MSCI ACWI IMI + 100bps</i>			3.6	16.6	5.6	5.6	12.5	--	--	8.4	Jul-15
Private Markets ex Russell 3000	540,965,475	14.9	3.2	2.7	7.4	7.4	7.9	--	--	6.4	Jul-15
<i>Private Markets Benchmark</i>			3.5	7.8	5.9	5.9	8.8	--	--	7.8	Jul-15
Private Equity	466,105,555	12.9	3.9	12.0	10.3	10.3	12.7	10.0	12.1	8.8	Oct-05
<i>San Jose Custom Private Equity Benchmark</i>			5.0	3.4	11.1	11.1	15.5	11.8	11.4	11.8	Oct-05
Private Equity ex Russell 3000	234,208,663	6.5	4.1	4.4	14.1	14.1	12.8	10.4	11.6	--	Oct-05
PE Strategic Partnership, LP	51,697,849	1.4	2.1	4.9	18.9	18.9	--	--	--	6.1	Aug-17
<i>Cambridge Glob Priv Eq Qtr Lag</i>			5.0	3.4	11.1	11.1	--	--	--	15.4	Aug-17
Pantheon USA Fund VI, LP	8,860,883	0.2	2.7	0.5	5.7	5.7	7.9	4.8	9.5	5.8	Oct-05
<i>Cambridge Glob Priv Eq Qtr Lag</i>			5.0	3.4	11.1	11.1	14.8	11.3	14.1	12.9	Oct-05

Total Fund Aggregate

As of June 30, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Portfolio Advisors Private Eq	4,174,937	0.1	-0.4	-0.4	1.3	1.3	4.0	5.0	7.7	6.1	Nov-05
<i>Cambridge Glob Priv Eq Qtr Lag</i>			5.0	3.4	11.1	11.1	14.8	11.3	14.1	12.9	Nov-05
HarbourVest Partners VII	772,981	0.0	-5.6	-5.6	-6.9	-6.9	0.8	4.1	10.5	8.3	Dec-05
<i>Cambridge Glob Priv Eq Qtr Lag</i>			5.0	3.4	11.1	11.1	14.8	11.3	14.1	13.0	Dec-05
Siguler Guff Distressed	4,577,242	0.1	-2.3	-2.5	1.5	1.5	8.6	5.8	9.7	8.6	Nov-08
<i>Cambridge Glob Priv Eq Qtr Lag</i>			5.0	3.4	11.1	11.1	14.8	11.3	14.1	9.6	Nov-08
TCW/Crescent Mezzanine	477,109	0.0	-3.3	-22.2	-21.5	-21.5	-2.8	0.8	6.8	6.0	Dec-08
<i>Cambridge Glob Priv Eq Qtr Lag</i>			5.0	3.4	11.1	11.1	14.8	11.3	14.1	10.8	Dec-08
TPG Opportunities Partners II	1,831,016	0.1	-0.9	0.9	18.8	18.8	9.2	13.3	--	14.9	Oct-12
<i>Cambridge Glob Priv Eq Qtr Lag</i>			5.0	3.4	11.1	11.1	14.8	11.3	--	13.0	Oct-12
Crescent Mezzanine Partners VI	7,563,456	0.2	2.6	3.7	8.9	8.9	8.5	8.0	--	6.7	Feb-13
<i>Cambridge Glob Priv Eq Qtr Lag</i>			5.0	3.4	11.1	11.1	14.8	11.3	--	12.9	Feb-13
Warburg Pincus (Europa) XI	17,943,997	0.5	5.4	6.3	14.4	14.4	16.0	14.2	--	12.8	May-13
<i>Cambridge Glob Priv Eq Qtr Lag</i>			5.0	3.4	11.1	11.1	14.8	11.3	--	12.9	May-13
57 Stars Global Opportunity	30,477,120	0.8	2.0	2.0	0.7	0.7	7.6	4.8	--	0.8	Jan-14
<i>Cambridge Glob Priv Eq Qtr Lag</i>			5.0	3.4	11.1	11.1	14.8	11.3	--	12.4	Jan-14
TPG Opportunities Partners III	8,197,341	0.2	3.9	-0.6	8.7	8.7	13.2	9.6	--	3.8	Mar-14
<i>Cambridge Glob Priv Eq Qtr Lag</i>			5.0	3.4	11.1	11.1	14.8	11.3	--	12.6	Mar-14
CCMP Capital Investors III, LP	21,016,062	0.6	2.0	-4.5	6.2	6.2	9.3	--	--	7.5	Aug-14
<i>Cambridge Glob Priv Eq Qtr Lag</i>			5.0	3.4	11.1	11.1	14.8	--	--	11.7	Aug-14

Total Fund Aggregate

As of June 30, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Industry Ventures Partnership	20,978,980	0.6	10.0	10.0	35.2	35.2	17.9	--	--	17.8	Oct-14
<i>Cambridge Glob Priv Eq Qtr Lag</i>			5.0	3.4	11.1	11.1	14.8	--	--	10.7	Oct-14
Francisco Partners	17,539,997	0.5	5.6	13.4	35.8	35.8	25.5	--	--	17.8	May-15
<i>Cambridge Glob Priv Eq Qtr Lag</i>			5.0	3.4	11.1	11.1	14.8	--	--	12.2	May-15
HarbourVest Partners VIII	9,868,415	0.3	8.9	8.9	14.3	14.3	15.6	--	--	13.6	Jul-15
<i>Cambridge Glob Priv Eq Qtr Lag</i>			5.0	3.4	11.1	11.1	14.8	--	--	12.8	Jul-15
HarbourVest Dover Street IX	18,386,243	0.5	8.9	8.9	20.5	20.5	--	--	--	40.4	Jan-17
<i>Cambridge Glob Priv Eq Qtr Lag</i>			5.0	3.4	11.1	11.1	--	--	--	14.8	Jan-17
Innovation Endeavors III	1,315,655	0.0	3.0	4.8	-26.9	-26.9	--	--	--	-25.1	Jun-18
<i>Cambridge Glob Priv Eq Qtr Lag</i>			5.0	3.4	11.1	11.1	--	--	--	12.9	Jun-18
Crestline Portfolio Financing	8,529,380	0.2	2.9	3.2	8.4	8.4	--	--	--	7.7	Jun-18
<i>Cambridge Glob Priv Eq Qtr Lag</i>			5.0	3.4	11.1	11.1	--	--	--	12.9	Jun-18
Northern Trust Russell 3000	231,896,891	6.4	4.1	18.7	9.0	9.0	14.1	10.2	--	10.7	Apr-14
<i>Russell 3000</i>			4.1	18.7	9.0	9.0	14.0	10.2	--	10.7	Apr-14
Private Debt	184,265,728	5.1	2.0	0.7	0.8	0.8	3.8	--	--	3.6	Oct-15
<i>S&P Global Leveraged Loan + 2%</i>			2.4	5.9	5.2	5.2	7.3	--	--	6.7	Oct-15
White Oak Direct Lending	10,942,420	0.3	-3.0	4.9	-15.9	-15.9	-14.2	-6.9	--	-2.4	Nov-10
<i>S&P Global Leveraged Loan Index +2%</i>			2.3	5.9	5.2	5.2	7.3	4.9	--	6.3	Nov-10
Blackstone/GSO Cap Partners	8,625,271	0.2	-2.0	-1.9	9.9	9.9	9.2	2.5	--	9.5	Dec-10
<i>S&P Global Leveraged Loan Index +2%</i>			2.3	5.9	5.2	5.2	7.3	4.9	--	6.3	Dec-10

Total Fund Aggregate

As of June 30, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Medley Opportunity Fund II LP	22,496,914	0.6	-3.6	-3.9	-11.8	-11.8	-3.5	-1.1	--	2.3	Mar-11
<i>S&P Global Leveraged Loan Index +2%</i>			2.3	5.9	5.2	5.2	7.3	4.9	--	5.9	Mar-11
Marathon Euro Credit Opp Fund	1,818,663	0.1	-0.1	6.7	27.1	27.1	15.6	11.4	--	11.4	Oct-12
<i>S&P Global Leveraged Loan Index +2%</i>			2.3	5.9	5.2	5.2	7.3	4.9	--	5.9	Oct-12
Cross Ocean USD ESS Fund I, LP	6,826,266	0.2	2.2	-9.5	-9.4	-9.4	4.3	4.2	--	4.5	Apr-14
<i>S&P Global Leveraged Loan Index +2%</i>			2.3	5.9	5.2	5.2	7.3	4.9	--	5.0	Apr-14
Park Square Credit Opp II, LP	43,251,707	1.2	4.7	1.2	3.4	3.4	6.8	--	--	5.4	Nov-14
<i>S&P Global Leveraged Loan Index +2%</i>			2.3	5.9	5.2	5.2	7.3	--	--	5.5	Nov-14
Shoreline China Value III, LP	12,091,332	0.3	3.4	1.4	-4.0	-4.0	4.5	--	--	7.1	Jul-15
<i>S&P Global Leveraged Loan Index +2%</i>			2.3	5.9	5.2	5.2	7.3	--	--	6.2	Jul-15
Cross Ocean USD ESS Fund II LP	50,143,403	1.4	2.8	0.8	2.5	2.5	10.5	--	--	9.9	May-16
<i>S&P Global Leveraged Loan Index +2%</i>			2.3	5.9	5.2	5.2	7.3	--	--	6.9	May-16
ArrowMark Co-Investment	10,333,592	0.3	3.4	6.8	14.2	14.2	--	--	--	12.9	Dec-17
<i>S&P Global Leveraged Loan Index +2%</i>			2.3	5.9	5.2	5.2	--	--	--	5.0	Dec-17
Octagon CLO Opp Fund III	12,936,160	0.4	4.7	--	--	--	--	--	--	4.7	Feb-19
<i>S&P Global Leveraged Loan Index +2%</i>			2.3	--	--	--	--	--	--	3.4	Feb-19
Cross Ocean USD ESS Fund III, LP	4,800,000	0.1	--	--	--	--	--	--	--	--	Jun-19
Private Real Estate	100,748,488	2.8	2.0	2.7	8.8	8.8	10.5	--	--	9.0	Jul-15
<i>NCREIF ODCE Equal Weighted</i>			1.3	3.0	6.9	6.9	7.9	--	--	8.9	Jul-15

Total Fund Aggregate

As of June 30, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
TA Realty Associates Fund X <i>NCREIF Property Index</i>	4,625,965	0.1	5.9 1.5	8.8 3.3	16.0 6.5	16.0 6.5	13.4 6.9	12.7 8.8	-- --	12.2 9.6	Mar-13 Mar-13
Blackstone Real Estate Debt <i>NCREIF Property Index</i>	366,622	0.0	3.8 1.5	7.0 3.3	4.1 6.5	4.1 6.5	8.0 6.9	9.0 8.8	-- --	9.8 9.5	Sep-13 Sep-13
Brookfield SREP I <i>NCREIF Property Index</i>	6,964,500	0.2	-0.8 1.5	0.7 3.3	14.2 6.5	14.2 6.5	24.3 6.9	20.8 8.8	-- --	21.3 9.5	Sep-13 Sep-13
Tristan - EPISO III <i>NCREIF Property Index</i>	3,836,032	0.1	-0.7 1.5	-9.4 3.3	-6.0 6.5	-6.0 6.5	14.7 6.9	10.1 8.8	-- --	7.2 9.4	Dec-13 Dec-13
Orion Euro Real Estate IV LP <i>NCREIF Property Index</i>	3,161,583	0.1	-0.2 1.5	-17.3 3.3	-26.0 6.5	-26.0 6.5	-4.8 6.9	-7.0 8.8	-- --	-6.7 9.0	Apr-14 Apr-14
Och Ziff Real Estate Fund III <i>NCREIF Property Index</i>	7,713,009	0.2	3.9 1.5	8.4 3.3	22.4 6.5	22.4 6.5	26.9 6.9	-- --	-- --	14.1 8.7	Oct-14 Oct-14
Tristan - EPISO IV <i>NCREIF Property Index</i>	16,043,794	0.4	4.2 1.5	8.4 3.3	10.1 6.5	10.1 6.5	7.1 6.9	-- --	-- --	6.7 7.2	Dec-15 Dec-15
KSL Capital Partners IV, LP <i>NCREIF Property Index</i>	14,703,109	0.4	0.1 1.5	2.3 3.3	13.8 6.5	13.8 6.5	0.8 6.9	-- --	-- --	-4.8 7.0	Apr-16 Apr-16
Brookfield SREP II <i>NCREIF Property Index</i>	17,406,719	0.5	3.8 1.5	6.3 3.3	11.0 6.5	11.0 6.5	10.5 6.9	-- --	-- --	10.5 6.9	Jun-16 Jun-16
DRA Growth & Income Fund IX <i>NCREIF Property Index</i>	15,513,287	0.4	1.7 1.5	3.4 3.3	15.9 6.5	15.9 6.5	-- --	-- --	-- --	14.0 7.1	Feb-17 Feb-17

Total Fund Aggregate

As of June 30, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
GEM Realty Fund VI	1,298,181	0.0	-3.3	-2.9	25.0	25.0	--	--	--	1.4	Nov-17
<i>NCREIF Property Index</i>			1.5	3.3	6.5	6.5	--	--	--	7.2	Nov-17
Torchlight Debt Opportunity VI	9,061,241	0.2	1.7	-14.2	-0.9	-0.9	--	--	--	-0.7	Apr-18
<i>NCREIF Property Index</i>			1.5	3.3	6.5	6.5	--	--	--	6.7	Apr-18
Tristan - EPISO V	54,446	0.0	--	--	--	--	--	--	--	2.2	May-19
<i>NCREIF Property Index</i>			--	--	--	--	--	--	--	1.5	May-19
Private Real Assets	34,678,756	1.0	8.4	2.9	7.8	7.8	5.7	--	--	5.5	Jun-16
Brookfield Infrastructure III	14,704,437	0.4	4.8	5.8	6.4	6.4	9.6	--	--	9.4	Jun-16
<i>DJ Brookfield Global Infrastructure Net TR USD</i>			4.3	20.7	12.7	12.7	7.6	--	--	9.2	Jun-16
Global Infra Part III-A/B, LP	16,219,119	0.4	10.1	0.8	15.2	15.2	--	--	--	0.9	Sep-16
<i>DJ Brookfield Global Infrastructure Net TR USD</i>			4.3	20.7	12.7	12.7	--	--	--	7.5	Sep-16
Lime Rock Partners VIII	3,755,200	0.1	17.0	2.1	--	--	--	--	--	2.1	Dec-18
<i>DJ Brookfield Global Infrastructure Net TR USD</i>			4.3	20.7	--	--	--	--	--	14.9	Dec-18
High Yield Debt	35,177,179	1.0	2.0	12.6	7.6	7.6	7.8	--	--	5.7	Oct-15
50% Bofa Global HY/50% S&P Global Leveraged Loan			2.4	7.2	5.3	5.3	6.2	--	--	6.1	Oct-15
Beach Point Total Ret Fund II	35,177,179	1.0	2.0	6.5	2.2	2.2	5.6	3.1	--	4.0	Oct-13
<i>BBgBarc US High Yield TR</i>			2.5	9.9	7.5	7.5	7.5	4.7	--	5.7	Oct-13
Emerging Market Debt	116,277,599	3.2	4.2	9.7	8.9	8.9	5.2	2.9	--	1.3	Jan-13
50% JPM EMBI GD / 50% JPM GBI-EM			4.9	10.0	10.8	10.8	4.9	2.5	--	1.8	Jan-13
eV All Emg Mkts Fixed Inc Net Median			4.2	10.0	10.1	10.1	5.2	3.1	6.8	2.7	Jan-13
eV All Emg Mkts Fixed Inc Net Rank			50	54	70	70	48	56	--	63	Jan-13

Total Fund Aggregate

As of June 30, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
BlueBay EM Select Bond	42,244,999	1.2	4.9	10.3	9.8	9.8	3.9	0.8	--	1.5	Aug-13
50% JPM EMBI GD + 50% JPM GBI EM GD			4.9	10.0	10.8	10.8	4.9	2.5	--	3.3	Aug-13
eV All Emg Mkts Fixed Inc Net Median			4.2	10.0	10.1	10.1	5.2	3.1	6.8	4.2	Aug-13
eV All Emg Mkts Fixed Inc Net Rank			30	44	56	56	84	74	--	74	Aug-13
Iguazu Partners LP Fund	74,032,600	2.0	3.9	9.4	7.8	7.8	7.6	6.9	--	7.6	Feb-14
50% JPM EMBI GD + 50% JPM GBI EM GD			4.9	10.0	10.8	10.8	4.9	2.5	--	4.1	Feb-14
eV All Emg Mkts Fixed Inc Net Median			4.2	10.0	10.1	10.1	5.2	3.1	6.8	4.7	Feb-14
eV All Emg Mkts Fixed Inc Net Rank			64	65	86	86	4	1	--	1	Feb-14
Zero Beta	1,159,736,091	32.0	1.3	2.6	3.8	3.8	2.7	--	--	2.0	Jul-15
Zero Beta Benchmark			0.7	1.4	2.1	2.1	0.4	--	--	0.7	Jul-15
Short-Term IG Bonds	683,813,826	18.9	0.7	1.3	--	--	--	--	--	1.9	Oct-18
ICE BofAML 91 Days T-Bills TR			0.6	1.2	--	--	--	--	--	1.8	Oct-18
BlackRock 3-Month T-Bill	683,813,826	18.9	0.7	1.3	--	--	--	--	--	1.9	Oct-18
ICE BofAML 91 Days T-Bills TR			0.6	1.2	--	--	--	--	--	1.8	Oct-18
Immunized Cash Flows	178,976,301	4.9	1.4	2.3	--	--	--	--	--	3.7	Oct-18
Immunized Cash Flow Benchmark			1.4	2.3	--	--	--	--	--	3.7	Oct-18
Insight Immunized Cash Flow	178,976,301	4.9	--	--	--	--	--	--	--	--	Jun-19
Absolute Return	271,169,069	7.5	3.2	6.3	7.1	7.1	4.2	3.0	--	3.1	Nov-12
Absolute Return Benchmark			0.6	1.3	1.9	1.9	0.2	1.3	--	1.2	Nov-12
Macro	130,012,615	3.6	4.8	7.4	6.7	6.7	3.1	--	--	2.8	Jul-15
HFRI Macro (Total) Index			2.5	4.8	2.4	2.4	0.3	--	--	0.7	Jul-15

Total Fund Aggregate

As of June 30, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Kepos Alpha Fund, Ltd	13,481,605	0.4	13.4	23.2	19.2	19.2	0.9	2.7	--	1.2	Mar-13
<i>HFRI Macro: Systematic Diversified Index</i>			3.5	5.7	2.9	2.9	-1.5	1.4	--	0.9	Mar-13
Dymon Asia Macro Fund, Ltd	27,157,301	0.7	1.2	-1.4	-3.8	-3.8	-0.1	--	--	0.2	Sep-15
<i>HFRI Macro (Total) Index</i>			2.5	4.8	2.4	2.4	0.3	--	--	0.9	Sep-15
Keynes Lev Quant Strat, Ltd	16,999,028	0.5	9.4	16.5	16.0	16.0	6.0	--	--	4.3	Jan-16
<i>BARCLAY HEDGE BTOP 50</i>			3.6	5.3	4.4	4.4	-1.7	--	--	-1.3	Jan-16
Pharo Management, Ltd	38,444,724	1.1	4.9	8.4	8.0	8.0	9.7	--	--	10.6	Apr-16
<i>HFRI Macro (Total) Index</i>			2.5	4.8	2.4	2.4	0.3	--	--	0.7	Apr-16
AHL Partners LLP	17,475,391	0.5	1.2	3.8	2.9	2.9	6.0	--	--	6.0	Jul-16
<i>BARCLAY HEDGE BTOP 50</i>			3.6	5.3	4.4	4.4	-1.7	--	--	-1.7	Jul-16
Systematica	16,454,566	0.5	3.7	5.4	8.9	8.9	--	--	--	4.5	Jul-17
<i>BARCLAY HEDGE BTOP 50</i>			3.6	5.3	4.4	4.4	--	--	--	2.5	Jul-17
Relative Value	141,156,454	3.9	1.7	5.3	7.4	7.4	5.7	--	--	4.2	Jul-15
<i>HFRI Relative Value (Total) Index</i>			1.6	5.5	3.3	3.3	5.0	--	--	3.7	Jul-15
Pine River Fund, Ltd	1,324,847	0.0	17.8	18.2	17.0	17.0	5.9	2.9	--	4.0	Jan-13
<i>HFRI Relative Value (Total) Index</i>			1.6	5.5	3.3	3.3	5.0	3.3	--	4.4	Jan-13
DE Shaw Composite Fund, LLC	48,915,177	1.3	1.4	8.0	10.0	10.0	9.4	10.5	--	11.2	Apr-13
<i>HFRI Fund Weighted Composite Index</i>			1.7	7.2	1.3	1.3	4.9	2.9	--	3.7	Apr-13
JD Capital	23,686,962	0.7	1.9	3.5	6.5	6.5	--	--	--	6.3	Oct-16
<i>HFRI Relative Value (Total) Index</i>			1.6	5.5	3.3	3.3	--	--	--	4.4	Oct-16

Total Fund Aggregate

As of June 30, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Pine River Volatility Arb	25,200,250	0.7	0.2	5.0	4.6	4.6	--	--	--	0.3	Mar-17
HFRI Relative Value (Total) Index			1.6	5.5	3.3	3.3	--	--	--	3.5	Mar-17
Hudson Bay	42,029,218	1.2	2.4	4.1	7.6	7.6	--	--	--	6.0	Aug-17
HFRI Relative Value (Total) Index			1.6	5.5	3.3	3.3	--	--	--	3.5	Aug-17
Cash	25,776,895	0.7	0.5	1.1	2.0	2.0	1.4	0.9	0.8	8.9	Jul-02
ICE BofAML 91 Days T-Bills TR			0.6	1.2	2.3	2.3	1.4	0.9	0.5	1.4	Jul-02
Other	402,858,038	11.1	2.0	4.6	2.9	2.9	3.9	--	--	2.9	Jul-15
Other Benchmark			1.5	3.9	2.3	2.3	2.7	--	--	2.7	Jul-15
Core Real Estate	147,208,843	4.1	2.5	5.4	7.3	7.3	7.3	8.2	--	8.8	Sep-11
NCREIF ODCE Equal Weighted (Net)			1.1	2.6	6.0	6.0	7.0	9.1	--	10.1	Sep-11
American Core Realty Fund, LLC	56,030,594	1.5	2.8	5.0	9.1	9.1	7.9	9.1	--	9.8	Sep-11
NCREIF ODCE Equal Weighted			1.3	3.0	6.9	6.9	7.9	10.1	--	11.1	Sep-11
BlackRock Core Property Fund	13,820,315	0.4	2.5	--	--	--	--	--	--	2.5	Feb-19
NCREIF ODCE Equal Weighted (Net)			1.1	--	--	--	--	--	--	2.6	Feb-19
Clarion Lion Properties Fund	77,357,934	2.1	2.3	--	--	--	--	--	--	2.6	Mar-19
NCREIF ODCE Equal Weighted (Net)			1.1	--	--	--	--	--	--	2.6	Mar-19
Commodities	72,838,044	2.0	-1.5	3.6	-4.8	-4.8	0.6	-6.0	--	-5.4	Apr-11
Bloomberg Commodity Index TR USD			-1.2	5.1	-6.8	-6.8	-2.2	-9.1	--	-8.2	Apr-11
Credit Suisse Risk Parity	72,838,044	2.0	-1.5	3.6	-5.0	-5.0	0.9	-6.0	--	-4.9	Apr-11
Bloomberg Commodity Index TR USD			-1.2	5.1	-6.8	-6.8	-2.2	-9.1	--	-8.2	Apr-11
Custom Commodity Risk Parity Index			-1.5	--	--	--	--	--	--	--	Apr-11

As of June 30, 2019

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
TIPS	74,351,332	2.1	1.6	3.7	--	--	--	--	--	3.2	Oct-18
BBgBarc US Treasury TIPS 0-5 Yr TR			1.6	3.3	--	--	--	--	--	3.1	Oct-18
Northern Trust 0-5 Year TIPS	74,351,332	2.1	1.6	3.7	--	--	--	--	--	3.2	Oct-18
BBgBarc U.S. TIPS 0-5 Years			1.6	3.3	--	--	--	--	--	3.1	Oct-18
Sovereign Bonds ex-US	108,459,818	3.0	3.9	3.4	--	--	--	--	--	3.4	Oct-18
FTSE WGBI ex US TR			3.9	5.5	--	--	--	--	--	6.9	Oct-18
Northern Trust FTSE WGBI ex US	108,459,818	3.0	3.9	--	--	--	--	--	--	--	Oct-18
FTSE WGBI ex US TR			3.9	--	--	--	--	--	--	--	Oct-18
Overlay	6,267,857	0.2									
Russell Overlay	6,173,317	0.2									

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

Total Fund Aggregate

As of June 30, 2019

Cash Flow Summary
Quarter Ending June 30, 2019

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
57 Stars Global Opportunity	\$29,518,113	\$369,494	-\$96,788	\$272,706	\$686,301	\$30,477,120
AHL Partners LLP	\$17,266,077	\$0	\$0	\$0	\$209,315	\$17,475,391
American Core Realty Fund, LLC	\$55,788,777	\$0	-\$1,526,676	-\$1,526,676	\$1,768,493	\$56,030,594
ArrowMark Co-Investment	\$10,318,779	\$0	-\$324,461	-\$324,461	\$339,274	\$10,333,592
Artisan Global Opportunities	\$178,952,310	\$0	\$0	\$0	\$11,011,231	\$189,963,542
Artisan Global Value	\$205,786,911	\$17,973,672	-\$17,973,672	\$0	\$9,138,871	\$214,925,782
Beach Point Total Ret Fund II	\$34,491,101	\$0	-\$117,054	-\$117,054	\$803,132	\$35,177,179
BlackRock 3-Month T-Bill	\$603,369,830	\$90,000,000	-\$14,000,000	\$76,000,000	\$4,443,996	\$683,813,826
BlackRock Core Property Fund	\$13,625,000	\$0	-\$160,339	-\$160,339	\$355,654	\$13,820,315
Blackstone Real Estate Debt	\$375,233	\$0	-\$24,701	-\$24,701	\$16,090	\$366,622
Blackstone/GSO Cap Partners	\$8,561,209	\$235,149	\$0	\$235,149	-\$171,087	\$8,625,271
BlueBay EM Select Bond	\$40,276,179	\$0	\$0	\$0	\$1,968,820	\$42,244,999
Brookfield Infrastructure III	\$13,200,897	\$1,147,495	-\$396,651	\$750,844	\$752,696	\$14,704,437
Brookfield SREP I	\$7,398,742	\$0	-\$374,658	-\$374,658	-\$59,584	\$6,964,500
Brookfield SREP II	\$16,449,596	\$346,720	-\$88,032	\$258,688	\$698,435	\$17,406,719
Cash	\$87,781,820	\$370,288,784	-\$432,424,061	-\$62,135,277	\$130,353	\$25,776,895
CCMP Capital Investors III, LP	\$18,578,303	\$2,071,848	-\$145,576	\$1,926,272	\$511,487	\$21,016,062
Clarion Lion Properties Fund	\$76,264,277	\$0	-\$794,873	-\$794,873	\$1,888,530	\$77,357,934
Comgest Global EM Promising Co	\$33,088,630	\$0	\$0	\$0	\$0	\$33,088,630
Cove Street Small Cap Value	\$24,373,742	\$46,083	-\$46,083	\$0	\$1,010,416	\$25,384,158
Credit Suisse Risk Parity	\$73,933,686	\$0	-\$72,792	-\$72,792	-\$1,022,850	\$72,838,044
Crescent Mezzanine Partners VI	\$8,044,504	\$0	-\$714,814	-\$714,814	\$233,766	\$7,563,456
Crestline Portfolio Financing	\$6,449,421	\$1,895,647	\$0	\$1,895,647	\$184,312	\$8,529,380
Cross Ocean USD ESS Fund I, LP	\$6,677,053	\$0	\$0	\$0	\$149,213	\$6,826,266
Cross Ocean USD ESS Fund II LP	\$63,339,123	\$0	-\$15,144,354	-\$15,144,354	\$1,948,634	\$50,143,403
Cross Ocean USD ESS Fund III, LP	--	\$4,800,000	\$0	\$4,800,000	\$0	\$4,800,000

Total Fund Aggregate

As of June 30, 2019

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
DE Shaw Composite Fund, LLC	\$48,259,842	\$0	-\$308,082	-\$308,082	\$963,417	\$48,915,177
Dimensional Fund Adv EM Value	\$32,974,515	\$35,000,000	\$0	\$35,000,000	\$1,262,994	\$69,237,509
DRA Growth & Income Fund IX	\$10,798,692	\$5,076,142	-\$615,561	\$4,460,581	\$254,014	\$15,513,287
Dymon Asia Macro Fund, Ltd	\$26,832,460	\$0	\$0	\$0	\$324,841	\$27,157,301
Francisco Partners	\$18,413,243	\$0	-\$1,951,131	-\$1,951,131	\$1,077,885	\$17,539,997
GEM Realty Fund VI	\$888,663	\$450,000	-\$42,188	\$407,812	\$1,706	\$1,298,181
Global Infra Part III-A/B, LP	\$14,298,802	\$427,502	-\$80,874	\$346,628	\$1,573,689	\$16,219,119
GQG Global Emerging Markets	\$48,226,233	\$18,000,000	-\$66,380	\$17,933,620	\$3,957,442	\$70,117,295
HarbourVest Dover Street IX	\$16,274,093	\$997,593	-\$402,022	\$595,571	\$1,516,579	\$18,386,243
HarbourVest Partners VII	\$818,522	\$0	\$0	\$0	-\$45,542	\$772,981
HarbourVest Partners VIII	\$9,457,446	\$0	-\$448,251	-\$448,251	\$859,221	\$9,868,415
Hudson Bay	\$41,043,463	\$0	\$0	\$0	\$985,755	\$42,029,218
Iguazu Partners LP Fund	\$71,274,350	\$0	\$0	\$0	\$2,758,250	\$74,032,600
Industry Ventures Partnership	\$19,075,480	\$0	\$0	\$0	\$1,903,500	\$20,978,980
Innovation Endeavors III	\$869,782	\$420,000	\$0	\$420,000	\$25,873	\$1,315,655
Insight Immunized Cash Flow	--	\$179,000,000	\$0	\$179,000,000	-\$23,699	\$178,976,301
JD Capital	\$23,256,678	\$0	-\$87,275	-\$87,275	\$517,558	\$23,686,962
Kepos Alpha Fund, Ltd	\$11,889,033	\$0	-\$56,473	-\$56,473	\$1,649,045	\$13,481,605
Keynes Lev Quant Strat, Ltd	\$15,533,528	\$0	-\$139,315	-\$139,315	\$1,604,815	\$16,999,028
KSL Capital Partners IV, LP	\$14,044,508	\$933,716	-\$413,645	\$520,071	\$138,531	\$14,703,109
Lime Rock Partners VIII	\$3,120,829	\$104,023	-\$32,500	\$71,523	\$562,848	\$3,755,200
Liquidating - Russell MSCI EAFE + CAD	--	\$196,082	\$0	\$196,082	-\$643	\$195,439
Marathon Euro Credit Opp Fund	\$2,356,642	\$0	-\$536,054	-\$536,054	-\$1,925	\$1,818,663
Marshall Wace Eureka Fund	\$44,773,192	\$0	-\$246,970	-\$246,970	\$1,530,721	\$46,056,942
Medley Opportunity Fund II LP	\$25,063,682	\$0	-\$1,780,685	-\$1,780,685	-\$786,083	\$22,496,914
Northern Tr Russell 2000 Value	\$19,432,199	\$0	\$0	\$0	\$268,093	\$19,700,292
Northern Trust 0-5 Year TIPS	\$73,145,301	\$0	\$0	\$0	\$1,206,031	\$74,351,332

Total Fund Aggregate

As of June 30, 2019

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
Northern Trust 1-3 Year US Gov Bond	\$187,239,383	\$0	-\$189,754,657	-\$189,754,657	\$2,515,275	\$0
Northern Trust FTSE WGBI ex US	\$104,405,783	\$2,313,377	-\$2,313,377	\$0	\$4,054,035	\$108,459,818
Northern Trust MSCI EM IMI	\$194,044,443	\$0	-\$61,000,000	-\$61,000,000	-\$1,783,137	\$131,261,306
Northern Trust MSCI World ex US	\$88,754,814	\$0	-\$1,198	-\$1,198	\$3,513,871	\$92,267,488
Northern Trust Russell 1000	\$139,895,871	\$0	-\$6,000,148	-\$6,000,148	\$5,839,194	\$139,734,918
Northern Trust Russell 3000	\$264,803,359	\$0	-\$43,000,000	-\$43,000,000	\$10,093,532	\$231,896,891
Oberweis Intl Opportunities	\$49,057,018	\$27,416,366	-\$27,416,366	\$0	\$1,791,575	\$50,848,593
Och Ziff Real Estate Fund III	\$7,362,599	\$552,096	-\$485,722	\$66,374	\$284,036	\$7,713,009
Octagon CLO Opp Fund III	\$10,000,000	\$2,500,000	-\$164,020	\$2,335,980	\$600,180	\$12,936,160
Orion Euro Real Estate IV LP	\$3,231,883	\$0	-\$63,279	-\$63,279	-\$7,020	\$3,161,583
Pantheon USA Fund VI, LP	\$9,039,256	\$0	-\$457,855	-\$457,855	\$279,482	\$8,860,883
Park Square Credit Opp II, LP	\$41,995,527	\$0	-\$691,676	-\$691,676	\$1,947,856	\$43,251,707
PE Strategic Partnership, LP	\$41,789,536	\$9,000,000	-\$105,000	\$8,895,000	\$1,013,313	\$51,697,849
Pharo Management, Ltd	\$36,641,431	\$0	\$0	\$0	\$1,803,293	\$38,444,724
Pine River Fund, Ltd	\$1,611,916	\$0	-\$499,836	-\$499,836	\$212,767	\$1,324,847
Pine River Volatility Arb	\$25,152,200	\$0	-\$42,315	-\$42,315	\$90,365	\$25,200,250
Portfolio Advisors Private Eq	\$4,455,858	\$0	-\$262,908	-\$262,908	-\$18,013	\$4,174,937
Russell Currency Hedge FI	--	\$0	\$0	\$0	\$0	--
Russell Overlay	\$10,444,185	\$28,552,389	-\$35,052,389	-\$6,500,000	\$2,229,132	\$6,173,317
Sandler Plus Offshore Fund Ltd	\$22,254,175	\$0	\$0	\$0	\$382,155	\$22,636,330
Senator Global Opportunity, L.P.	\$21,905,612	\$0	\$0	\$0	\$1,321,649	\$23,227,261
Shoreline China Value III, LP	\$12,620,344	\$0	-\$978,836	-\$978,836	\$449,824	\$12,091,332
Siguler Guff Distressed	\$5,051,968	\$0	-\$359,600	-\$359,600	-\$115,126	\$4,577,242
Systematica	\$15,872,295	\$0	\$0	\$0	\$582,271	\$16,454,566
TA Realty Associates Fund X	\$5,102,001	\$0	-\$801,331	-\$801,331	\$325,296	\$4,625,965
TCW/Crescent Mezzanine	\$1,074,833	\$0	-\$566,005	-\$566,005	-\$31,719	\$477,109
Terminated Manager Assets	\$99,690	\$0	-\$1	-\$1	-\$5,149	\$94,540

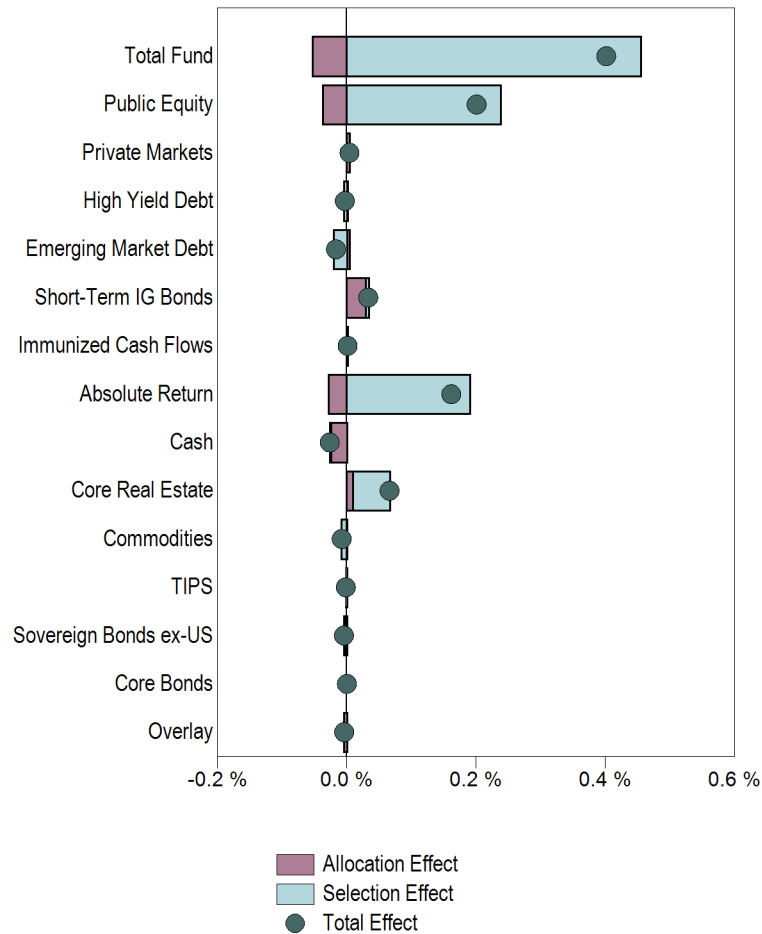
Total Fund Aggregate

As of June 30, 2019

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
Torchlight Debt Opportunity VI	\$1,470,179	\$7,500,000	-\$101,250	\$7,398,750	\$192,312	\$9,061,241
TPG Opportunities Partners II	\$1,848,530	\$0	-\$5,665	-\$5,665	-\$11,849	\$1,831,016
TPG Opportunities Partners III	\$8,838,575	\$0	-\$1,007,770	-\$1,007,770	\$366,536	\$8,197,341
Tristan - EPIISO III	\$4,809,455	\$133,329	-\$1,090,533	-\$957,205	-\$16,218	\$3,836,032
Tristan - EPIISO IV	\$15,044,663	\$829,095	-\$540,803	\$288,293	\$710,838	\$16,043,794
Tristan - EPIISO V	--	\$0	-\$115,610	-\$115,610	\$170,057	\$54,446
Warburg Pincus (Europa) XI	\$18,253,360	\$0	-\$1,297,042	-\$1,297,042	\$987,679	\$17,943,997
White Oak Direct Lending	\$11,271,501	\$0	\$19,238	\$19,238	-\$348,320	\$10,942,420
Total	\$3,591,472,731	\$808,576,603	-\$865,788,944	-\$57,212,341	\$100,500,384	\$3,634,760,774

As of June 30, 2019

Attribution Effects
3 Months Ending June 30, 2019



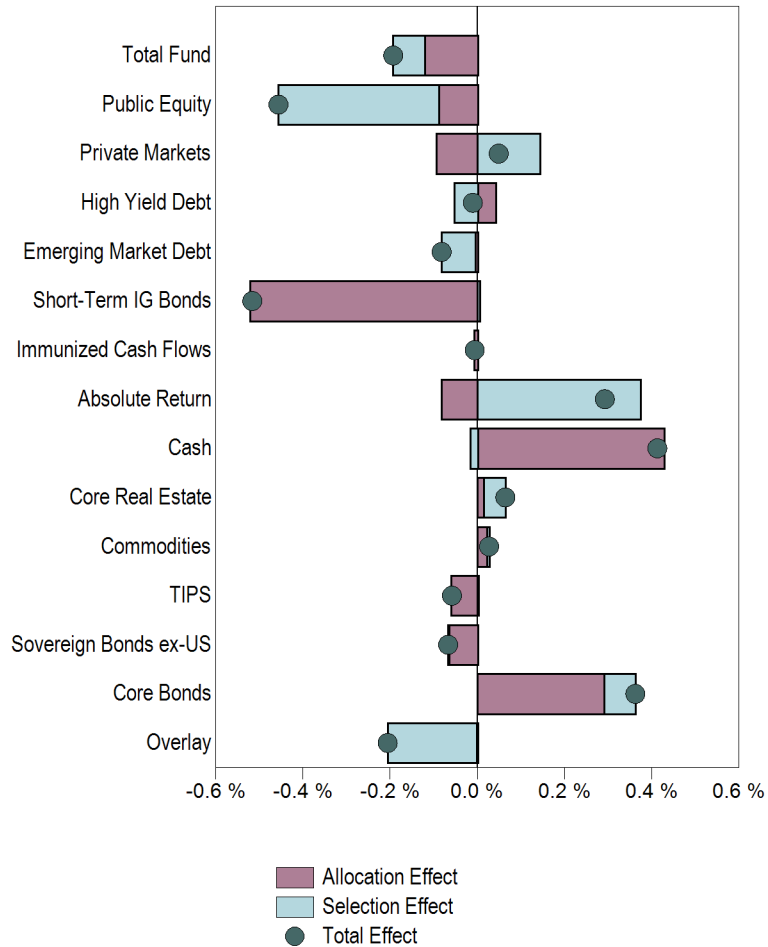
Attribution Summary
3 Months Ending June 30, 2019

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Public Equity	3.5%	2.7%	0.8%	0.2%	0.0%	0.2%
Private Markets	3.5%	3.5%	0.0%	0.0%	0.0%	0.0%
High Yield Debt	2.0%	2.4%	-0.4%	0.0%	0.0%	0.0%
Emerging Market Debt	4.2%	4.9%	-0.6%	0.0%	0.0%	0.0%
Short-Term IG Bonds	0.7%	0.6%	0.0%	0.0%	0.0%	0.0%
Immunized Cash Flows	1.4%	1.4%	0.0%	0.0%	0.0%	0.0%
Absolute Return	3.2%	0.6%	2.5%	0.2%	0.0%	0.2%
Cash	0.5%	0.6%	-0.1%	0.0%	0.0%	0.0%
Core Real Estate	2.5%	1.1%	1.4%	0.1%	0.0%	0.1%
Commodities	-1.5%	-1.2%	-0.3%	0.0%	0.0%	0.0%
TIPS	1.6%	1.6%	0.0%	0.0%	0.0%	0.0%
Sovereign Bonds ex-US	3.9%	3.9%	0.0%	0.0%	0.0%	0.0%
Core Bonds	--	--	--	--	0.0%	--
Overlay	--	--	--	--	0.0%	--
Total	2.7%	2.3%	0.4%	0.5%	-0.1%	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.

As of June 30, 2019

Attribution Effects
1 Year Ending June 30, 2019



Attribution Summary
1 Year Ending June 30, 2019

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Public Equity	4.2%	5.2%	-0.9%	-0.4%	-0.1%	-0.5%
Private Markets	6.6%	5.9%	0.8%	0.1%	-0.1%	0.0%
High Yield Debt	7.6%	5.3%	2.3%	-0.1%	0.0%	0.0%
Emerging Market Debt	8.9%	10.8%	-1.9%	-0.1%	0.0%	-0.1%
Short-Term IG Bonds	--	1.8%	--	0.0%	-0.5%	-0.5%
Immunized Cash Flows	--	--	--	0.0%	0.0%	0.0%
Absolute Return	7.1%	1.9%	5.2%	0.4%	-0.1%	0.3%
Cash	2.0%	2.3%	-0.3%	0.0%	0.4%	0.4%
Core Real Estate	7.3%	6.0%	1.3%	0.0%	0.0%	0.1%
Commodities	-4.8%	-6.8%	2.0%	0.0%	0.0%	0.0%
TIPS	--	3.1%	--	0.0%	-0.1%	-0.1%
Sovereign Bonds ex-US	--	6.9%	--	0.0%	-0.1%	-0.1%
Core Bonds	--	2.5%	--	0.1%	0.3%	0.4%
Overlay	--	1.7%	--	-0.2%	0.0%	-0.2%
Total	4.3%	4.5%	-0.2%	-0.1%	-0.1%	-0.2%

As of June 30, 2019

Attribution Effects
3 Years Ending June 30, 2019



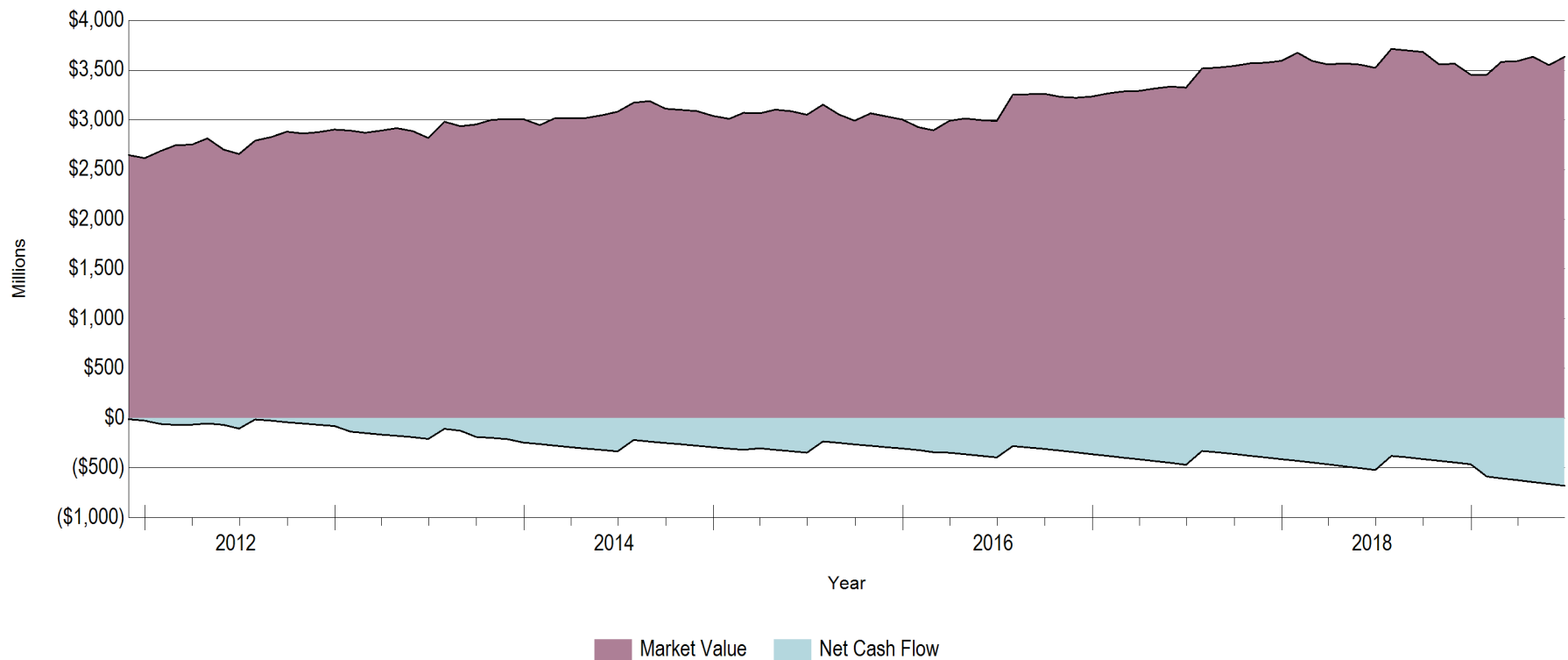
Attribution Summary
3 Years Ending June 30, 2019

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Public Equity	11.2%	11.6%	-0.4%	-0.2%	0.0%	-0.2%
Private Markets	8.4%	8.8%	-0.3%	-0.1%	0.0%	-0.1%
High Yield Debt	7.8%	6.2%	1.6%	0.0%	0.0%	0.0%
Emerging Market Debt	5.2%	4.9%	0.3%	0.0%	0.0%	0.0%
Short-Term IG Bonds	--	0.6%	--	0.0%	-0.2%	-0.2%
Immunized Cash Flows	--	--	--	0.0%	0.0%	0.0%
Absolute Return	4.2%	0.2%	4.1%	0.3%	-0.1%	0.2%
Cash	1.4%	1.4%	0.0%	0.0%	0.0%	0.0%
Core Real Estate	7.3%	7.0%	0.3%	0.0%	0.0%	0.0%
Commodities	0.6%	-2.2%	2.8%	0.1%	0.0%	0.2%
TIPS	--	1.0%	--	0.0%	0.0%	0.0%
Sovereign Bonds ex-US	--	2.2%	--	0.0%	0.0%	0.0%
Core Bonds	--	0.5%	--	0.2%	0.0%	0.2%
Overlay	--	1.2%	--	0.0%	-0.1%	-0.1%
GTAA	--	--	--	-0.2%	0.0%	-0.2%
Total	7.0%	7.2%	-0.2%	0.3%	-0.5%	-0.2%

Total Fund Asset Growth Summary

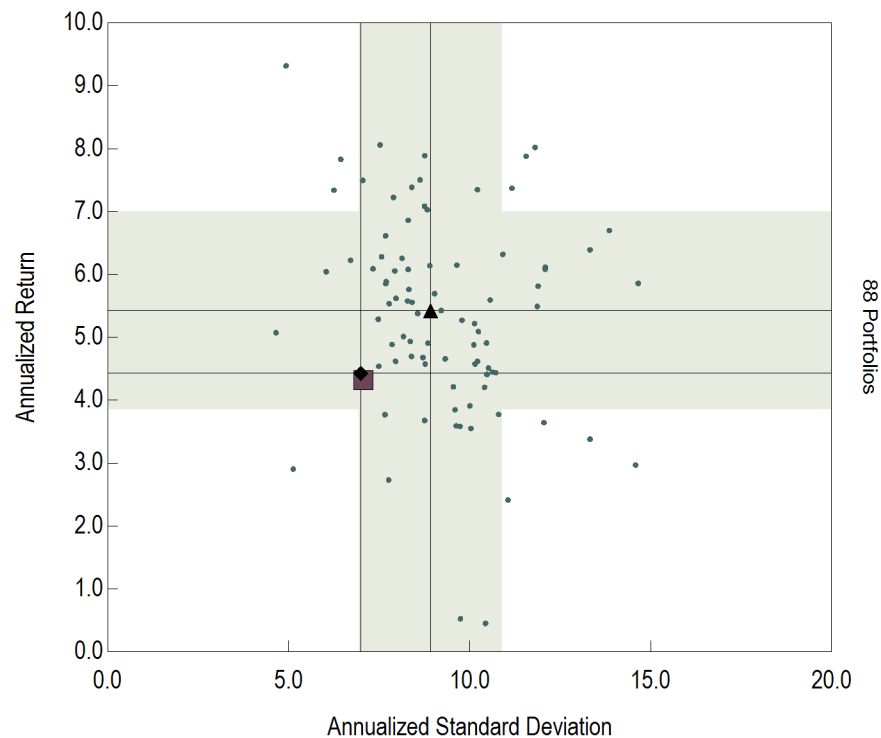
As of June 30, 2019

Market Value History
7 Years 8 Months Ending June 30, 2019



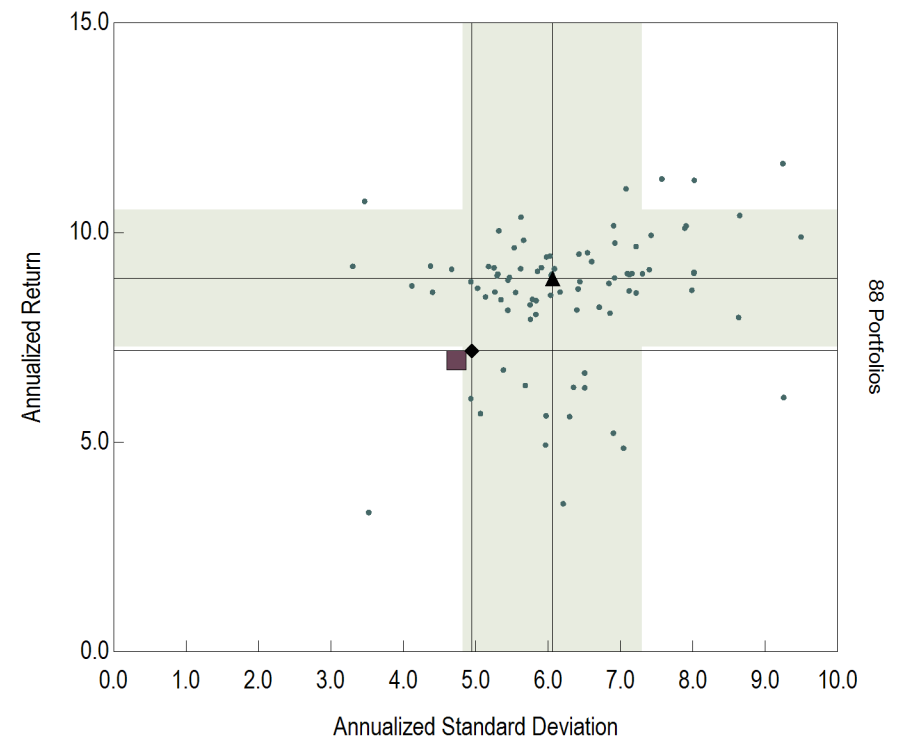
	Quarter-To-Date	One Year	Three Years	Five Years
Beginning Market Value	\$3,591,472,741	\$3,523,485,335	\$3,077,991,296	\$3,082,909,956
Net Cash Flow	-\$57,023,161	-\$159,028,882	-\$285,266,452	-\$346,142,039
Net Investment Change	\$100,311,195	\$270,304,321	\$842,035,931	\$897,992,857
Ending Market Value	\$3,634,760,774	\$3,634,760,774	\$3,634,760,774	\$3,634,760,774

Annualized Return vs. Annualized Standard Deviation
1 Year Ending June 30, 2019



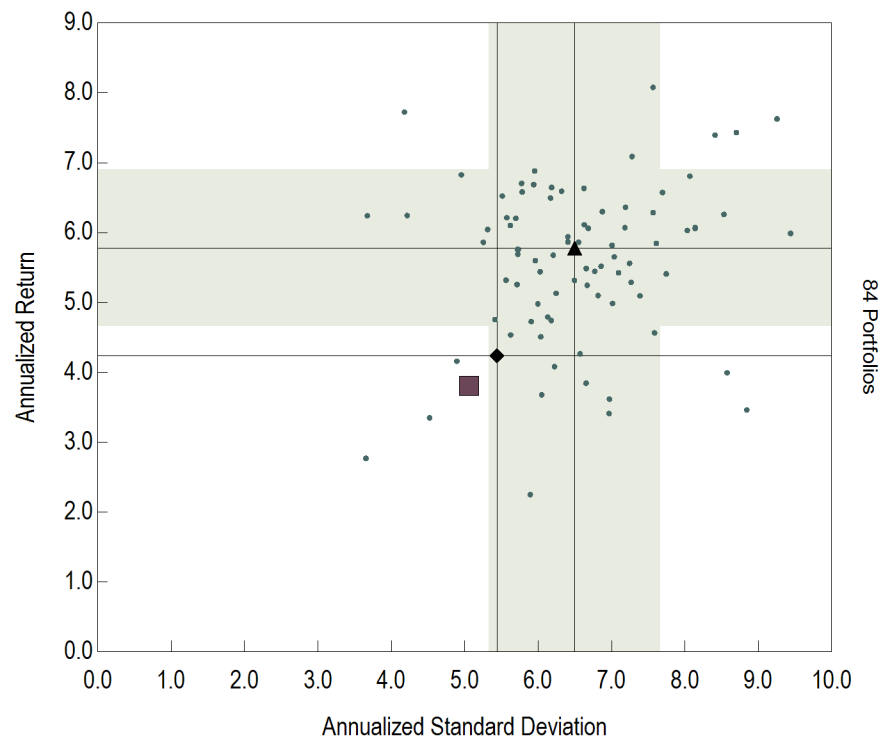
- Total Fund
- ◆ Policy Benchmark
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics Public DB > \$1B Gross

Annualized Return vs. Annualized Standard Deviation
3 Years Ending June 30, 2019

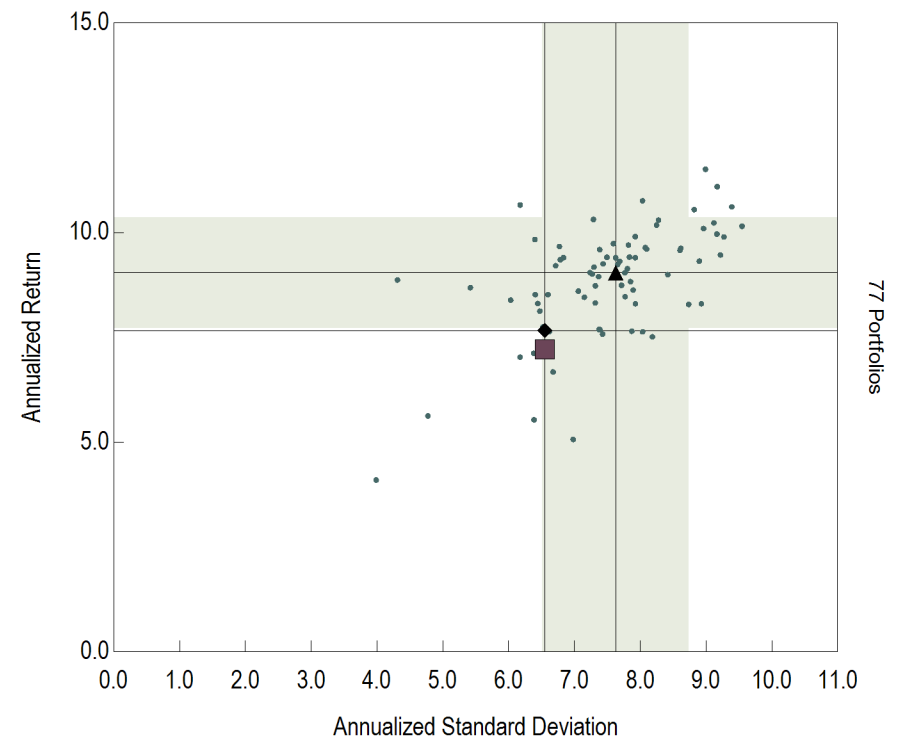


- Total Fund
- ◆ Policy Benchmark
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics Public DB > \$1B Gross

Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2019



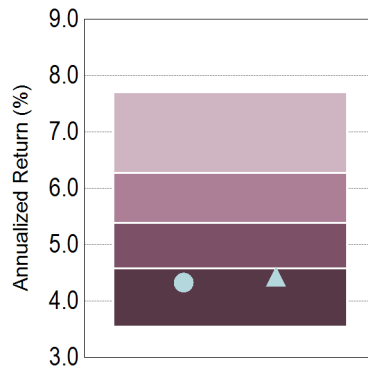
Annualized Return vs. Annualized Standard Deviation
10 Years Ending June 30, 2019



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

As of June 30, 2019

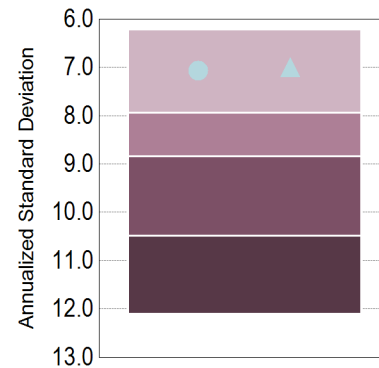
Annualized Return (%)
vs. InvMetrics Public DB > \$1B Net



● Total Fund	
Value	4.3
Rank	82
▲ Policy Benchmark	
Value	4.4
Rank	80

Universe	
5th %tile	7.7
25th %tile	6.3
Median	5.4
75th %tile	4.6
95th %tile	3.5

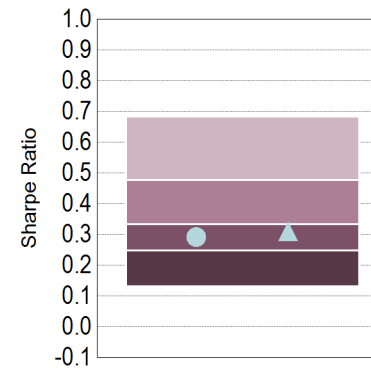
Annualized Standard Deviation
vs. InvMetrics Public DB > \$1B Net



● Total Fund	
Value	7.1
Rank	11
▲ Policy Benchmark	
Value	7.0
Rank	11

Universe	
5th %tile	6.2
25th %tile	7.9
Median	8.8
75th %tile	10.5
95th %tile	12.1

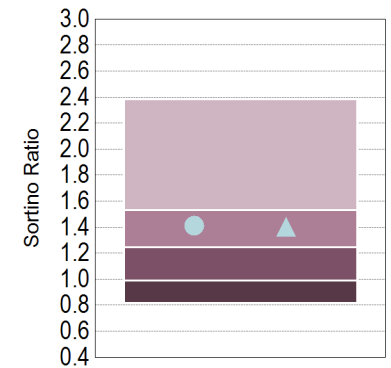
Sharpe Ratio
vs. InvMetrics Public DB > \$1B Net



● Total Fund	
Value	0.3
Rank	62
▲ Policy Benchmark	
Value	0.3
Rank	57

Universe	
5th %tile	0.7
25th %tile	0.5
Median	0.3
75th %tile	0.2
95th %tile	0.1

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



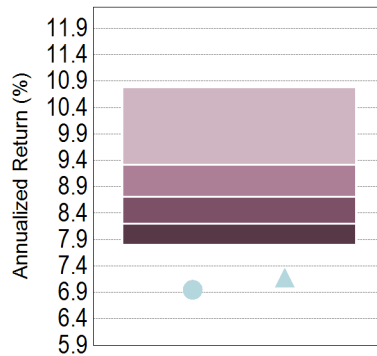
● Total Fund	
Value	1.4
Rank	35
▲ Policy Benchmark	
Value	1.4
Rank	35

Universe	
5th %tile	2.4
25th %tile	1.5
Median	1.3
75th %tile	1.0
95th %tile	0.8

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

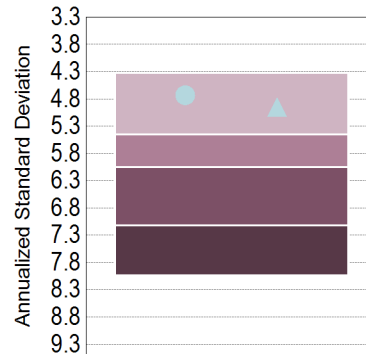
As of June 30, 2019

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



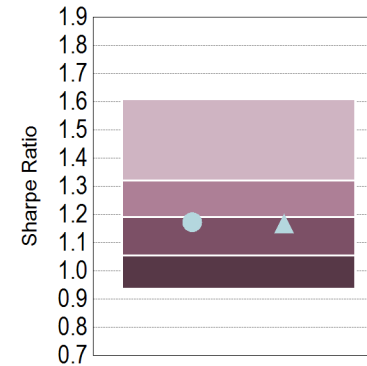
● Total Fund	
Value	6.9
Rank	99
▲ Policy Benchmark	
Value	7.2
Rank	99
Universe	
5th %tile	10.8
25th %tile	9.3
Median	8.7
75th %tile	8.2
95th %tile	7.8

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



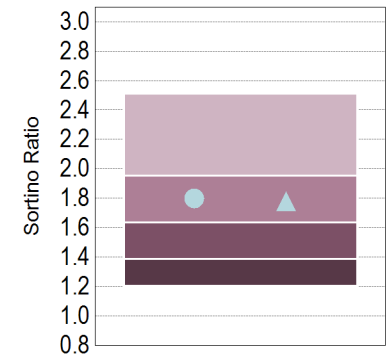
● Total Fund	
Value	4.7
Rank	8
▲ Policy Benchmark	
Value	5.0
Rank	11
Universe	
5th %tile	4.3
25th %tile	5.4
Median	6.0
75th %tile	7.1
95th %tile	8.0

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



● Total Fund	
Value	1.2
Rank	54
▲ Policy Benchmark	
Value	1.2
Rank	56
Universe	
5th %tile	1.6
25th %tile	1.3
Median	1.2
75th %tile	1.1
95th %tile	0.9

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

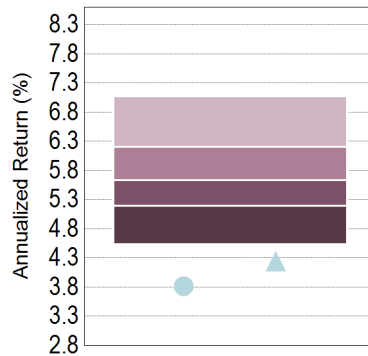


● Total Fund	
Value	1.8
Rank	36
▲ Policy Benchmark	
Value	1.8
Rank	37
Universe	
5th %tile	2.5
25th %tile	2.0
Median	1.6
75th %tile	1.4
95th %tile	1.2

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

As of June 30, 2019

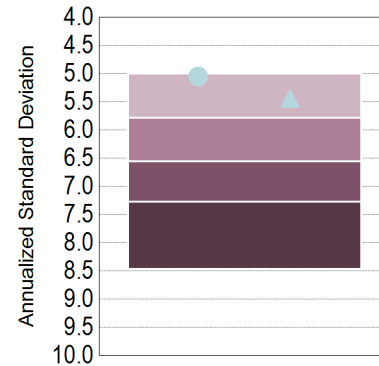
Annualized Return (%) vs. InvMetrics Public DB > \$1B Net



● Total Fund	
Value	3.8
Rank	99
▲ Policy Benchmark	
Value	4.2
Rank	98

Universe	
5th %tile	7.1
25th %tile	6.2
Median	5.6
75th %tile	5.2
95th %tile	4.5

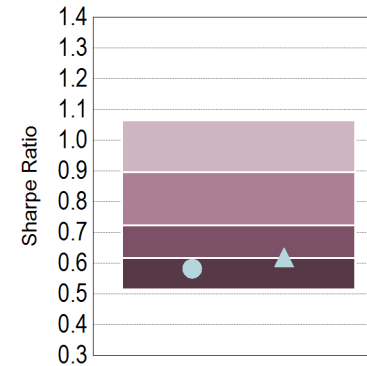
Annualized Standard Deviation vs. InvMetrics Public DB > \$1B Net



● Total Fund	
Value	5.1
Rank	6
▲ Policy Benchmark	
Value	5.4
Rank	10

Universe	
5th %tile	5.0
25th %tile	5.8
Median	6.6
75th %tile	7.3
95th %tile	8.5

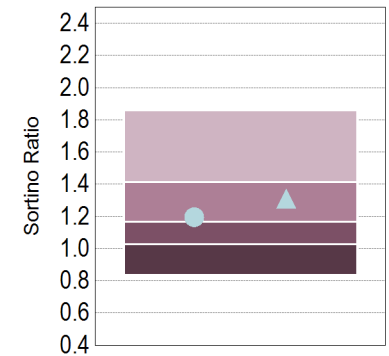
Sharpe Ratio vs. InvMetrics Public DB > \$1B Net



● Total Fund	
Value	0.6
Rank	90
▲ Policy Benchmark	
Value	0.6
Rank	76

Universe	
5th %tile	1.1
25th %tile	0.9
Median	0.7
75th %tile	0.6
95th %tile	0.5

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



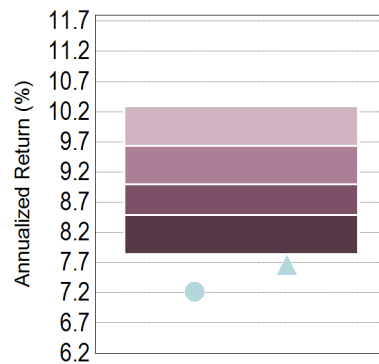
● Total Fund	
Value	1.2
Rank	48
▲ Policy Benchmark	
Value	1.3
Rank	41

Universe	
5th %tile	1.9
25th %tile	1.4
Median	1.2
75th %tile	1.0
95th %tile	0.8

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

As of June 30, 2019

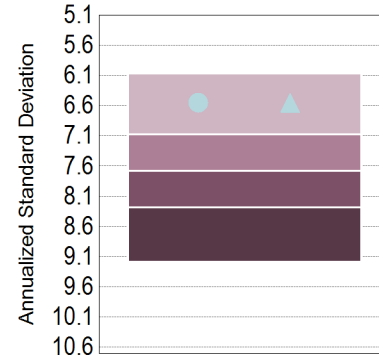
Annualized Return (%) vs. InvMetrics Public DB > \$1B Net



● Total Fund	
Value	7.2
Rank	98
▲ Policy Benchmark	
Value	7.7
Rank	98

Universe	
5th %tile	10.3
25th %tile	9.6
Median	9.0
75th %tile	8.5
95th %tile	7.9

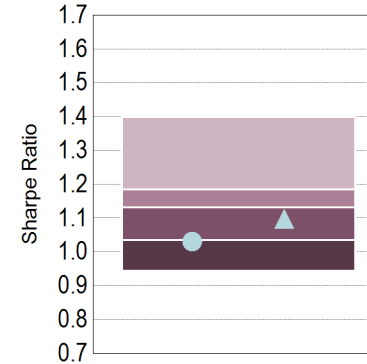
Annualized Standard Deviation vs. InvMetrics Public DB > \$1B Net



● Total Fund	
Value	6.6
Rank	14
▲ Policy Benchmark	
Value	6.6
Rank	14

Universe	
5th %tile	6.1
25th %tile	7.1
Median	7.7
75th %tile	8.3
95th %tile	9.2

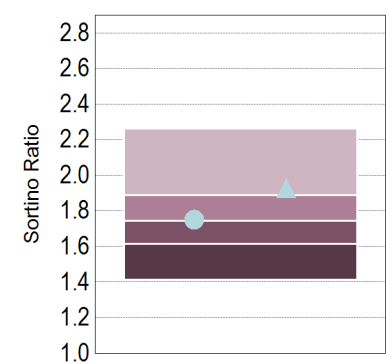
Sharpe Ratio vs. InvMetrics Public DB > \$1B Net



● Total Fund	
Value	1.0
Rank	77
▲ Policy Benchmark	
Value	1.1
Rank	61

Universe	
5th %tile	1.4
25th %tile	1.2
Median	1.1
75th %tile	1.0
95th %tile	0.9

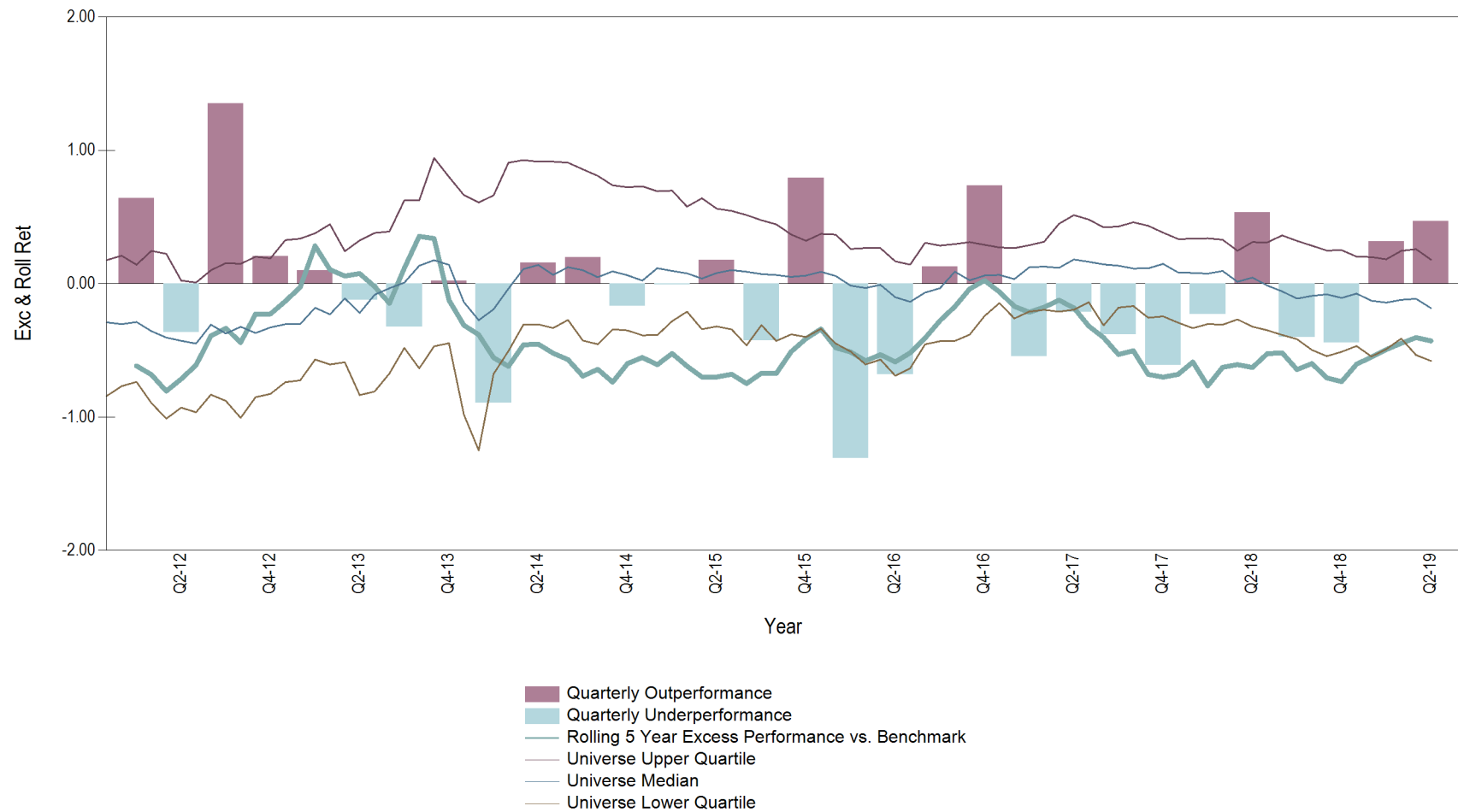
Sortino Ratio vs. InvMetrics Public DB > \$1B Net



● Total Fund	
Value	1.7
Rank	50
▲ Policy Benchmark	
Value	1.9
Rank	21

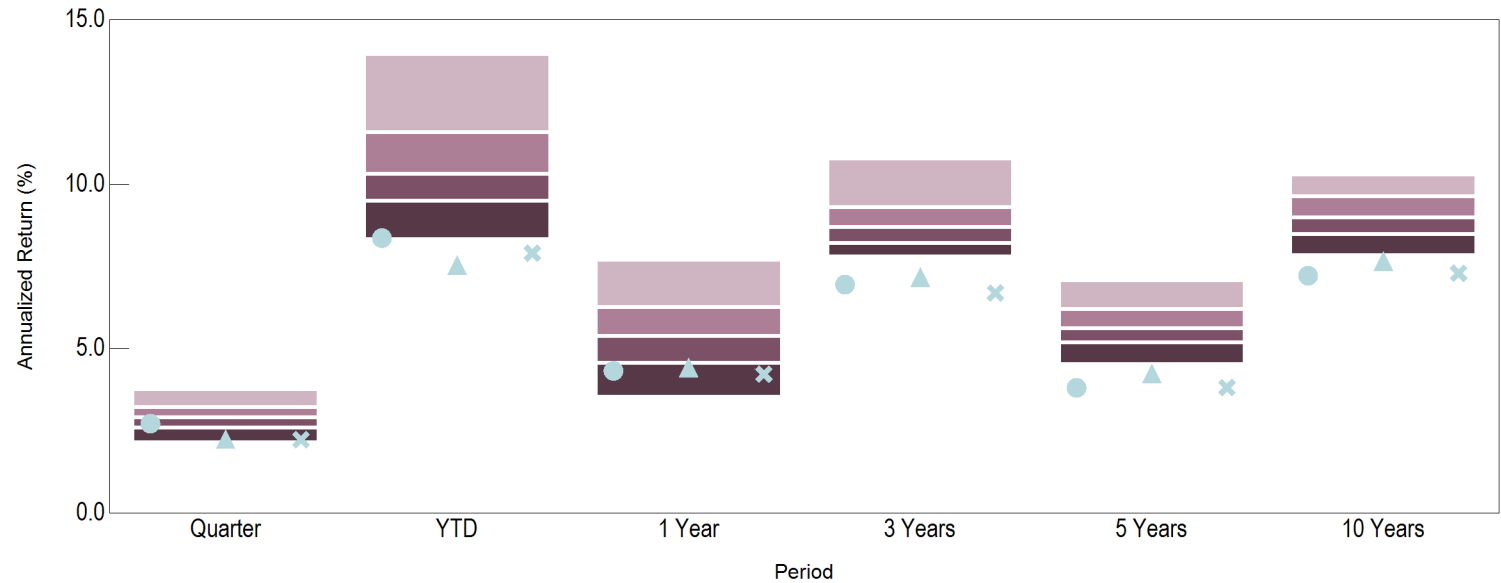
Universe	
5th %tile	2.3
25th %tile	1.9
Median	1.7
75th %tile	1.6
95th %tile	1.4

Rolling Annualized Excess Performance



As of June 30, 2019

InvMetrics Public DB > \$1B Net Return Comparison
Ending June 30, 2019

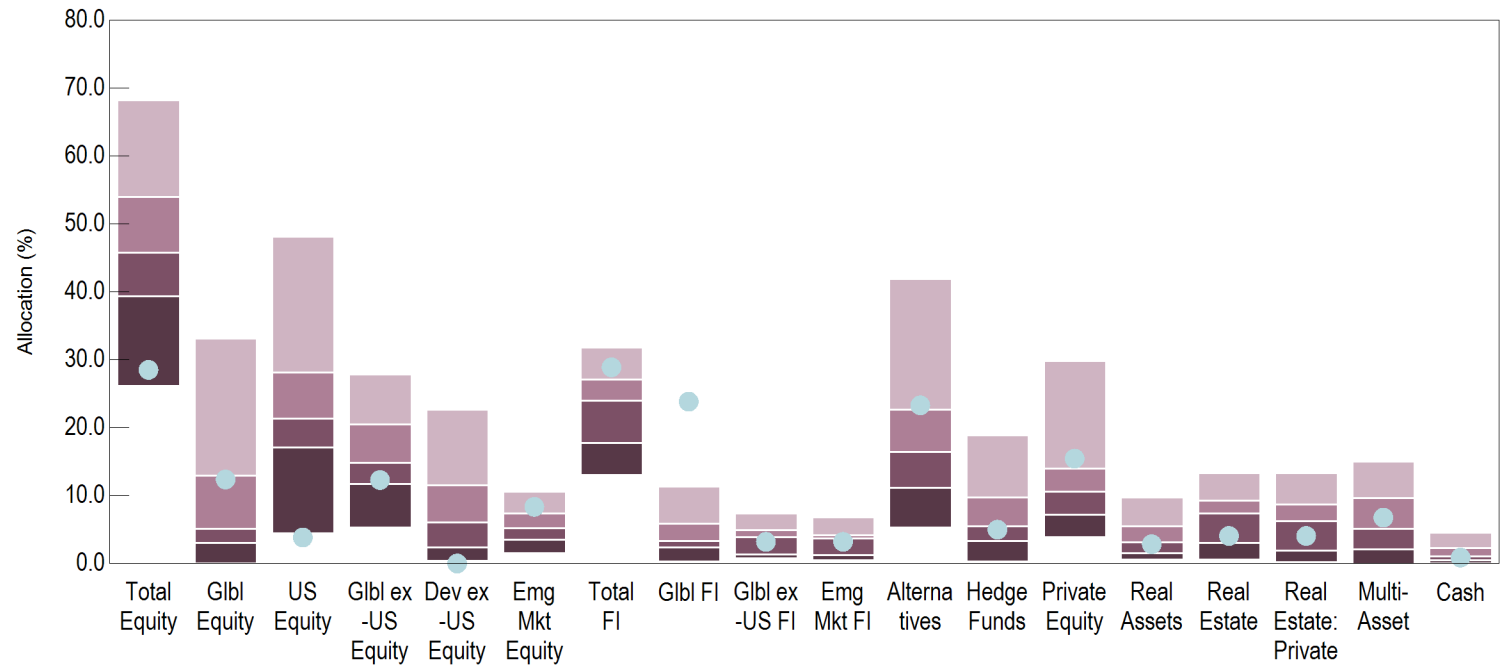


		Return (Rank)											
5th Percentile		3.8		14.0		7.7		10.8		7.1		10.3	
25th Percentile		3.2		11.6		6.3		9.3		6.2		9.6	
Median		2.9		10.3		5.4		8.7		5.6		9.0	
75th Percentile		2.6		9.5		4.6		8.2		5.2		8.5	
95th Percentile		2.2		8.3		3.5		7.8		4.5		7.9	
# of Portfolios		78		78		77		77		73		65	
●	Total Fund	2.7	(69)	8.4	(95)	4.3	(82)	6.9	(99)	3.8	(99)	7.2	(98)
▲	Policy Benchmark	2.3	(94)	7.5	(97)	4.4	(80)	7.2	(99)	4.2	(98)	7.7	(98)
✕	Investable Benchmark Portfolio	2.2	(94)	7.9	(96)	4.2	(86)	6.7	(99)	3.8	(99)	7.3	(98)

¹ Fiscal Year begins July 1.

As of June 30, 2019

Total Plan Allocation vs. InvMetrics Public DB > \$1B Net
As of June 30, 2019



	Allocation																		
5th Percentile	68.2	33.2	48.2	27.9	22.7	10.6	31.8	11.3	7.4	6.8	41.9	18.8	29.8	9.7	13.3	13.3	15.0	4.6	--
25th Percentile	54.1	13.0	28.2	20.6	11.7	7.4	27.2	6.0	5.0	4.3	22.7	9.8	14.1	5.6	9.3	8.8	9.7	2.3	--
Median	45.9	5.2	21.5	15.0	6.2	5.3	24.1	3.4	4.0	3.8	16.5	5.6	10.7	3.2	7.4	6.3	5.2	1.2	--
75th Percentile	39.4	3.2	17.2	11.8	2.5	3.6	17.9	2.4	1.4	1.3	11.2	3.4	7.3	1.6	3.1	2.0	2.2	0.6	--
95th Percentile	26.2	0.1	4.5	5.4	0.5	1.6	13.1	0.4	0.9	0.5	5.4	0.4	3.9	0.7	0.7	0.3	0.0	0.1	--
# of Portfolios	61	27	52	57	33	47	60	27	32	27	56	39	52	31	53	51	36	60	--
Total Fund Rank	28.5	12.4	3.8	12.3	0.0	8.4	28.9	23.8	3.2	3.2	23.3	5.0	15.5	2.9	4.1	4.1	6.8	0.9	--
	92	26	99	73	99	13	17	1	59	53	25	63	19	56	68	65	40	64	

As of June 30, 2019

Major Benchmark Returns Periods Ending June 30, 2019					
Name	Q2-19	1 Yr	3 Yrs	5 Yrs	10 Yrs
US Equity					
Russell 3000	4.1	9.0	14.0	10.2	14.7
S&P 500	4.3	10.4	14.2	10.7	14.7
Russell 1000	4.2	10.0	14.1	10.5	14.8
Russell 1000 Growth	4.6	11.6	18.1	13.4	16.3
Russell 1000 Value	3.8	8.5	10.2	7.5	13.2
Russell MidCap	4.1	7.8	12.2	8.6	15.2
Russell 2000	2.1	-3.3	12.3	7.1	13.4
Russell 2000 Growth	2.7	-0.5	14.7	8.6	14.4
Russell 2000 Value	1.4	-6.2	9.8	5.4	12.4
International Equity					
MSCI ACWI	3.6	5.7	11.6	6.2	10.1
MSCI World ex USA	3.8	1.3	9.0	2.0	6.7
MSCI EAFE	3.7	1.1	9.1	2.2	6.9
MSCI Emerging Markets	0.6	1.2	10.7	2.5	5.8
Fixed Income					
91 Day T-Bills	0.6	2.3	1.4	0.9	0.5
BBgBarc US Aggregate TR	3.1	7.9	2.3	2.9	3.9
BBgBarc US Govt/Credit TR	3.5	8.5	2.4	3.1	4.1
BBgBarc US Municipal TR	2.1	6.7	2.6	3.6	4.7
BBgBarc US High Yield TR	2.5	7.5	7.5	4.7	9.2
FTSE WGBI TR	3.6	5.5	1.0	0.8	2.2
FTSE WGBI ex US TR	3.9	4.5	0.8	0.2	1.9
Real Estate					
FTSE NAREIT All REIT	1.1	11.5	5.8	8.6	15.5
NCREIF Property Index	1.5	6.5	6.9	8.8	9.2
Alternatives					
HFRI Fund of Funds Composite Index	1.5	1.2	4.2	2.2	3.2
Inflation					
Consumer Price Index	0.8	1.6	2.0	1.5	1.7

Total Fund Risk Statistics (Net of Fees)

As of June 30, 2019

Statistics Summary
3 Years Ending June 30, 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%	6.95%	99	4.73%	8	0.18%	49	1.19%	-0.19	70	0.93	1.17
Policy Benchmark	--	7.18%	99	4.95%	11	0.00%	61	0.00%	--	--	1.00	1.17
Growth	56.84%	9.50%	--	7.19%	--	-0.13%	--	1.50%	-0.56	--	0.92	1.13
Growth Benchmark	--	10.34%	--	7.67%	--	0.00%	--	0.00%	--	--	1.00	1.17
Public Equity	31.05%	11.21%	--	10.61%	--	0.25%	--	1.52%	-0.28	--	0.93	0.92
Public Equity Benchmark	--	11.63%	--	11.26%	--	0.00%	--	0.00%	--	--	1.00	0.91
Global Equity	11.14%	14.17%	19	11.97%	54	2.56%	19	2.70%	1.02	9	1.02	1.07
MSCI ACWI IMI Net USD	--	11.42%	41	11.44%	43	0.00%	43	0.00%	--	--	1.00	0.88
U.S. Equity	5.08%	13.62%	37	12.88%	33	0.05%	39	2.06%	0.11	36	1.02	0.95
MSCI USA IMI NR USD	--	13.38%	39	12.52%	27	0.00%	39	0.00%	--	--	1.00	0.96
International Equity	3.94%	8.47%	67	12.13%	45	-0.99%	72	2.17%	-0.21	73	1.07	0.58
MSCI World ex USA IMI NR USD	--	8.92%	62	11.16%	17	0.00%	54	0.00%	--	--	1.00	0.67
Emerging Markets Equity	8.36%	8.09%	73	12.83%	22	-1.23%	71	2.97%	-0.65	85	0.92	0.52
MSCI Emerging Market IMI Net	--	10.01%	48	13.62%	47	0.00%	52	0.00%	--	--	1.00	0.63
Marketable Alternative Equity	2.53%	6.37%	--	4.09%	--	2.67%	--	4.76%	-0.08	--	0.43	1.21
HFRI Equity Hedge (Total) Index	--	6.77%	--	6.38%	--	0.00%	--	0.00%	--	--	1.00	0.84
Private Markets	21.62%	8.43%	--	4.29%	--	1.12%	--	2.74%	-0.12	--	0.80	1.64
Private Markets Benchmark	--	8.77%	--	4.25%	--	0.00%	--	0.00%	--	--	1.00	1.73
Private Markets ex Russell 3000	14.88%	7.87%	--	2.42%	--	6.17%	--	4.74%	-0.19	--	0.04	2.68
Private Markets Benchmark	--	8.77%	--	4.25%	--	0.00%	--	0.00%	--	--	1.00	1.73
Private Equity	12.82%	12.71%	--	6.70%	--	12.15%	--	9.73%	-0.29	--	-0.06	1.69
San Jose Custom Private Equity Benchmark	--	15.51%	--	6.67%	--	0.00%	--	0.00%	--	--	1.00	2.12
Private Equity ex Russell 3000	6.44%	14.22%	--	3.16%	--	13.71%	--	7.75%	-0.17	--	-0.06	4.06
San Jose Custom Private Equity Benchmark	--	15.51%	--	6.67%	--	0.00%	--	0.00%	--	--	1.00	2.12
Northern Trust Russell 3000	6.38%	14.10%	--	12.54%	--	0.07%	--	0.04%	1.79	--	1.00	1.01
Russell 3000	--	14.02%	--	12.53%	--	0.00%	--	0.00%	--	--	1.00	1.01
Private Debt	5.07%	3.78%	--	3.60%	--	0.74%	--	4.06%	-0.86	--	0.28	0.66

Total Fund Risk Statistics (Net of Fees)

As of June 30, 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%	--	7.26%	--	2.84%	--	0.00%	--	0.00%	--	--	1.00	2.06
Private Real Estate	2.77%	10.46%	--	3.95%	--	12.03%	--	5.95%	0.43	--	-0.46	2.29
NCREIF ODCE Equal Weighted	--	7.87%	--	3.21%	--	0.00%	--	0.00%	--	--	1.00	2.01
High Yield Debt	0.97%	7.78%	--	6.04%	--	0.76%	--	4.45%	0.36	--	1.18	1.06
50% Bofa Global HY/50% S&P Global Leveraged Loan	--	6.17%	--	3.50%	--	0.00%	--	0.00%	--	--	1.00	1.36
Emerging Market Debt	3.20%	5.25%	48	4.71%	20	2.01%	31	4.44%	0.08	51	0.52	0.82
50% JPM EMBI GD / 50% JPM GBI-EM	--	4.91%	65	7.30%	59	0.00%	65	0.00%	--	--	1.00	0.48
Zero Beta	31.91%	2.73%	--	1.28%	--	1.58%	--	2.49%	0.95	--	0.25	1.03
Zero Beta Benchmark	--	0.37%	--	3.02%	--	0.00%	--	0.00%	--	--	1.00	-0.34
Absolute Return	7.46%	4.24%	--	2.13%	--	3.24%	--	2.98%	1.36	--	0.32	1.34
Absolute Return Benchmark	--	0.19%	--	3.50%	--	0.00%	--	0.00%	--	--	1.00	-0.35
Macro	3.58%	3.07%	--	4.05%	--	2.47%	--	2.76%	0.99	--	0.77	0.41
HFRI Macro (Total) Index	--	0.35%	--	4.08%	--	0.00%	--	0.00%	--	--	1.00	-0.26
Relative Value	3.88%	5.71%	--	2.25%	--	3.87%	--	3.15%	0.22	--	0.12	1.91
HFRI Relative Value (Total) Index	--	5.01%	--	2.52%	--	0.00%	--	0.00%	--	--	1.00	1.43
Cash	0.71%	1.43%	--	0.28%	--	0.05%	--	0.23%	0.21	--	0.72	0.12
ICE BofAML 91 Days T-Bills TR	--	1.38%	--	0.23%	--	0.00%	--	0.00%	--	--	1.00	-0.06
Other	11.08%	3.87%	--	2.65%	--	1.62%	--	2.08%	0.54	--	0.63	0.93
Other Benchmark	--	2.75%	--	3.22%	--	0.00%	--	0.00%	--	--	1.00	0.42
Core Real Estate	4.05%	7.28%	--	3.18%	--	8.69%	--	5.15%	0.06	--	-0.50	1.85
NCREIF ODCE Equal Weighted (Net)	--	6.97%	--	2.86%	--	0.00%	--	0.00%	--	--	1.00	1.94
Commodities	2.00%	0.60%	--	6.36%	--	1.31%	--	5.24%	0.53	--	0.59	-0.13
Bloomberg Commodity Index TR USD	--	-2.18%	--	8.59%	--	0.00%	--	0.00%	--	--	1.00	-0.42
Core Bonds	0.00%	--	--	--	--	--	--	--	--	--	--	--

Total Fund Risk Statistics (Net of Fees)

As of June 30, 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	--	1.62%	--	4.51%	--	0.00%	--	0.00%	--	--	1.00	0.05
Overlay	0.17%	--	--	--	--	--	--	--	--	--	--	--
91 Day T-Bills	--	1.40%	--	0.22%	--	0.00%	--	0.00%	--	--	1.00	0.00

Total Fund Aggregate

As of June 30, 2019

Benchmark History

As of June 30, 2019

Total Fund			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
10/1/2018	Present		
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 Index +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 Index +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
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 June 30, 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 Index +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 Index +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 Index +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 Index +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

As of June 30, 2019

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.