

San Jose Federated City Employees' Retirement System

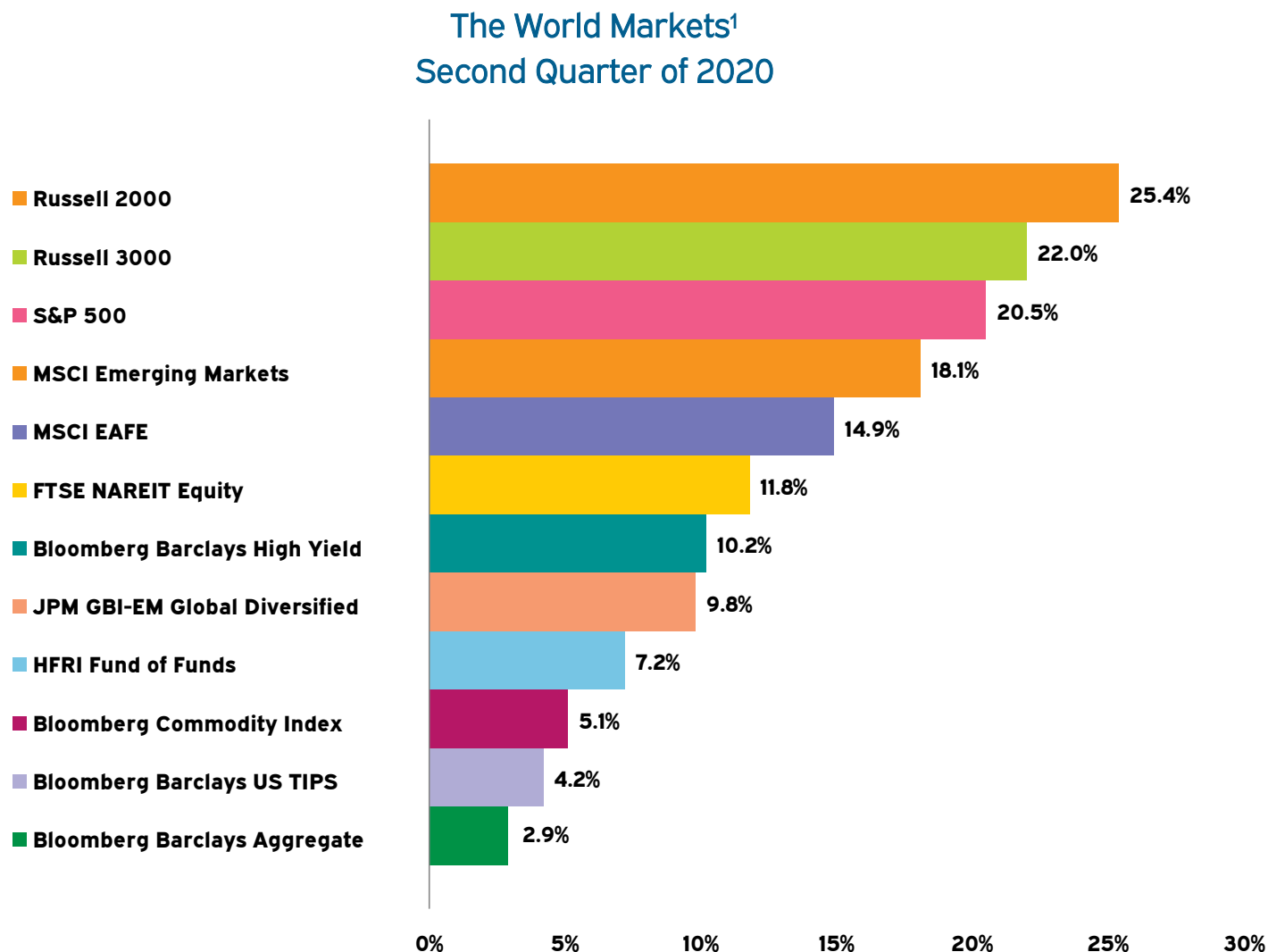
As of June 30, 2020

Quarterly Review

FCERS 10-15-20

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The World Markets Second Quarter of 2020



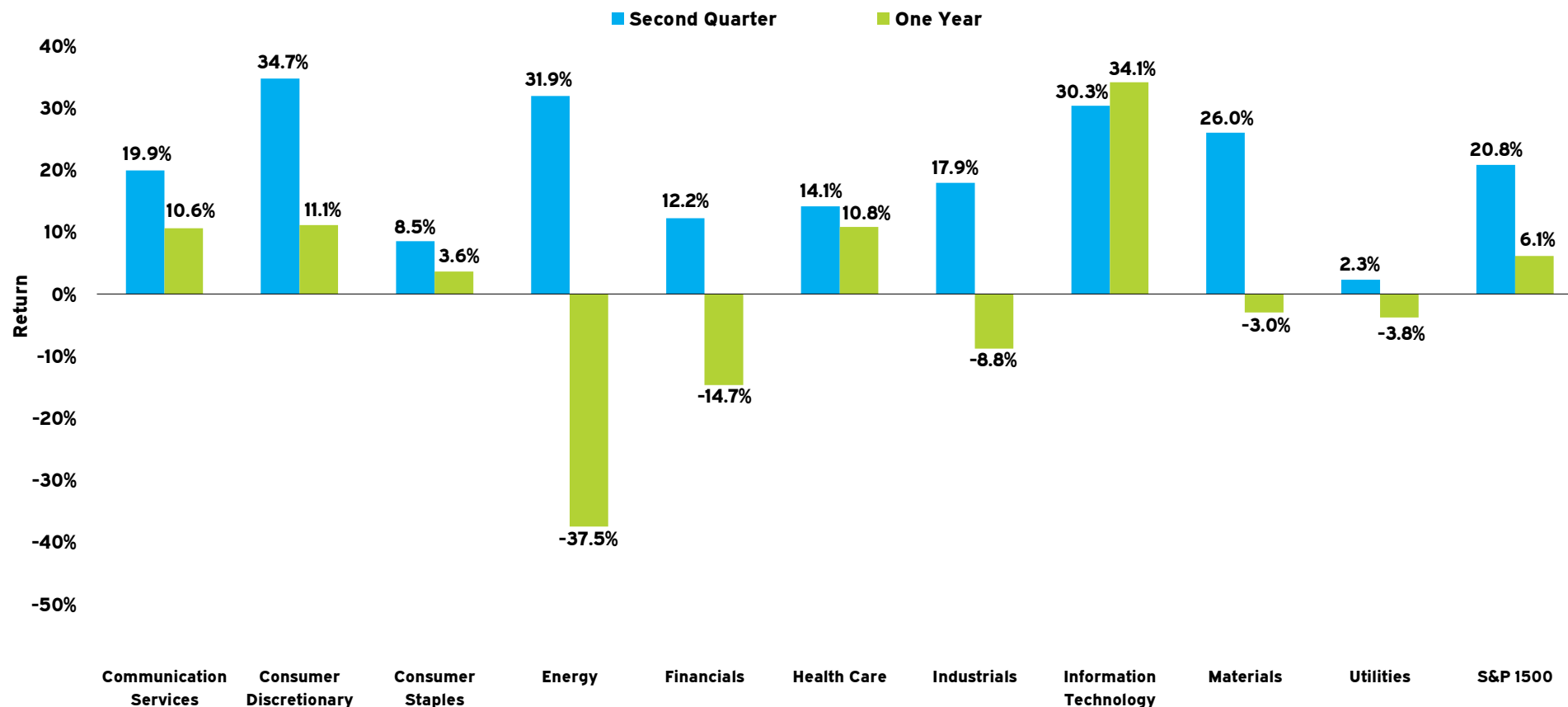
¹ Source: InvestorForce.

Index Returns¹

	2Q20 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Domestic Equity						
S&P 500	20.5	-3.1	7.5	10.7	10.7	14.0
Russell 3000	22.0	-3.5	6.5	10.0	10.0	13.7
Russell 1000	21.8	-2.8	7.5	10.6	10.5	14.0
Russell 1000 Growth	27.8	9.8	23.3	19.0	15.9	17.2
Russell 1000 Value	14.3	-16.3	-8.8	1.8	4.6	10.4
Russell MidCap	24.6	-9.1	-2.2	5.8	6.8	12.3
Russell MidCap Growth	30.3	4.2	11.9	14.8	11.6	15.1
Russell MidCap Value	19.9	-18.1	-11.8	-0.5	3.3	10.3
Russell 2000	25.4	-13.0	-6.6	2.0	4.3	10.5
Russell 2000 Growth	30.6	-3.1	3.5	7.9	6.9	12.9
Russell 2000 Value	18.9	-23.5	-17.5	-4.3	1.3	7.8
Foreign Equity						
MSCI ACWI (ex. US)	16.1	-11.0	-4.8	1.1	2.3	5.0
MSCI EAFE	14.9	-11.3	-5.1	0.8	2.1	5.7
MSCI EAFE (Local Currency)	12.6	-10.5	-4.2	1.3	2.6	6.9
MSCI EAFE Small Cap	19.9	-13.1	-3.5	0.5	3.8	8.0
MSCI Emerging Markets	18.1	-9.8	-3.4	1.9	2.9	3.3
MSCI Emerging Markets (Local Currency)	16.7	-5.5	1.4	4.5	5.1	6.0
Fixed Income						
Bloomberg Barclays Universal	3.8	5.2	7.9	5.2	4.4	4.1
Bloomberg Barclays Aggregate	2.9	6.1	8.7	5.3	4.3	3.8
Bloomberg Barclays US TIPS	4.2	6.0	8.3	5.0	3.7	3.5
Bloomberg Barclays High Yield	10.2	-3.8	0.0	3.3	4.8	6.7
JPM GBI-EM Global Diversified	9.8	-6.9	-2.8	1.1	2.3	1.6
Other						
FTSE NAREIT Equity	11.8	-18.7	-13.0	0.0	4.1	9.1
Bloomberg Commodity Index	5.1	-19.4	-17.4	-6.1	-7.7	-5.8
HFRI Fund of Funds	7.2	-2.2	-0.2	2.0	1.4	2.7

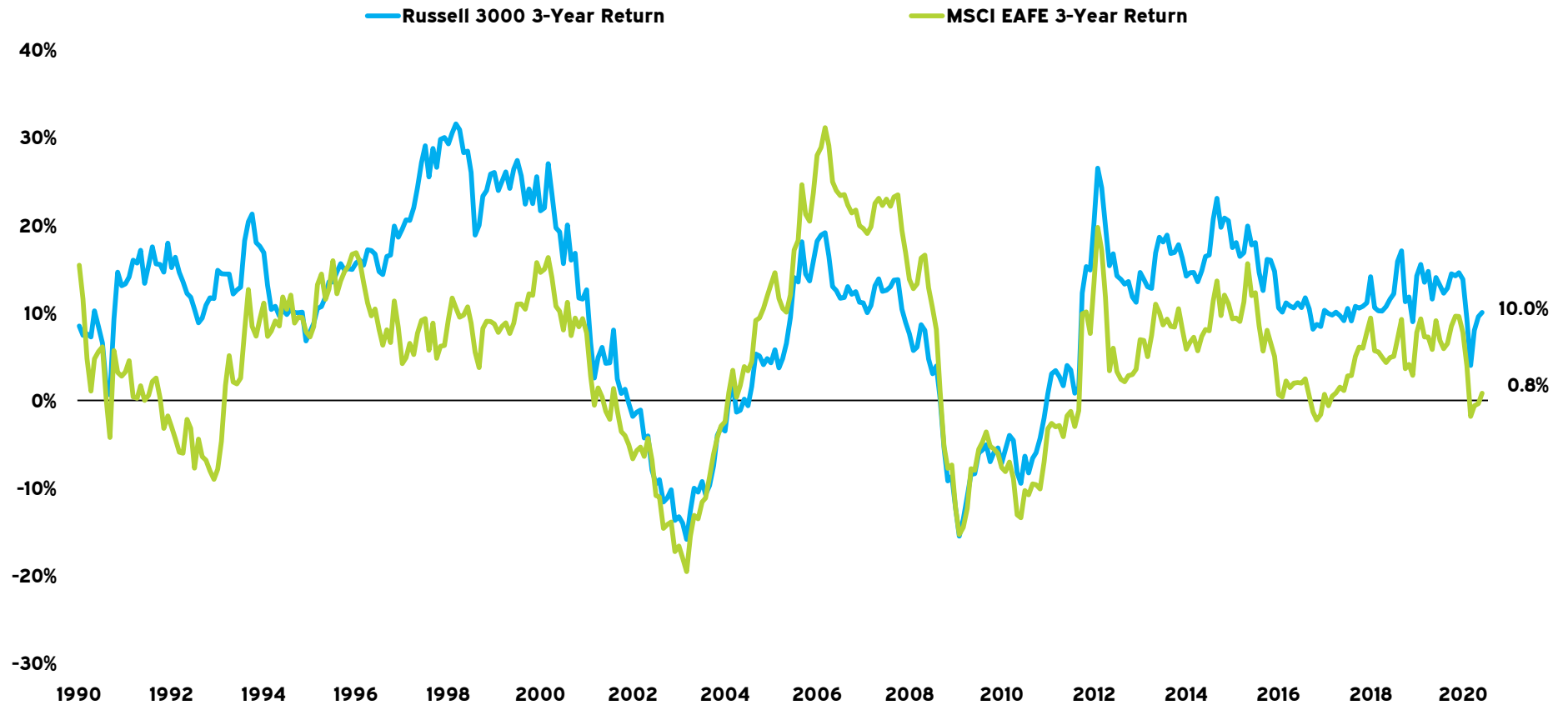
¹ Source: InvestorForce.

S&P Sector Returns¹



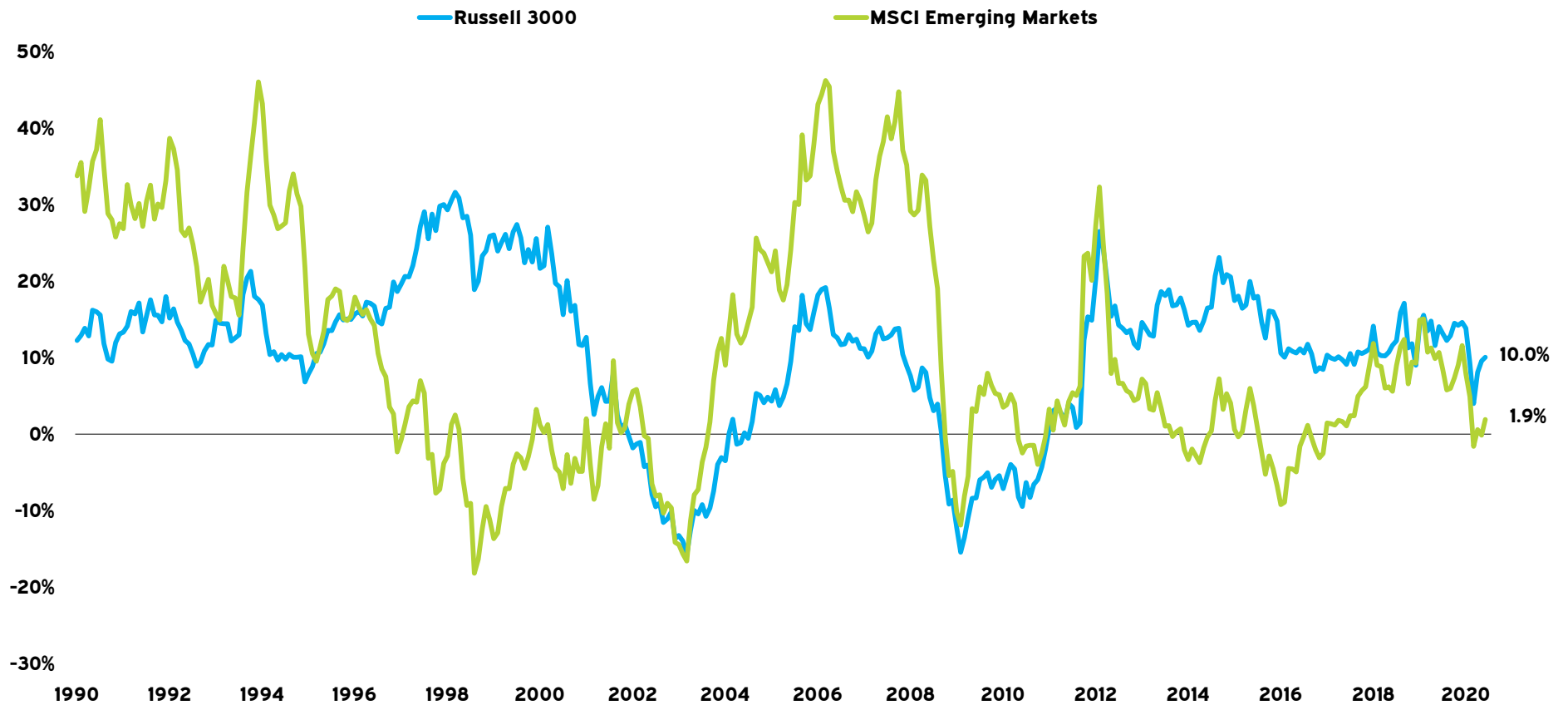
¹ Source: InvestorForce. Represents S&P 1500 (All Cap) data.

US and Developed Market Foreign Equity Rolling Three-Year Returns¹



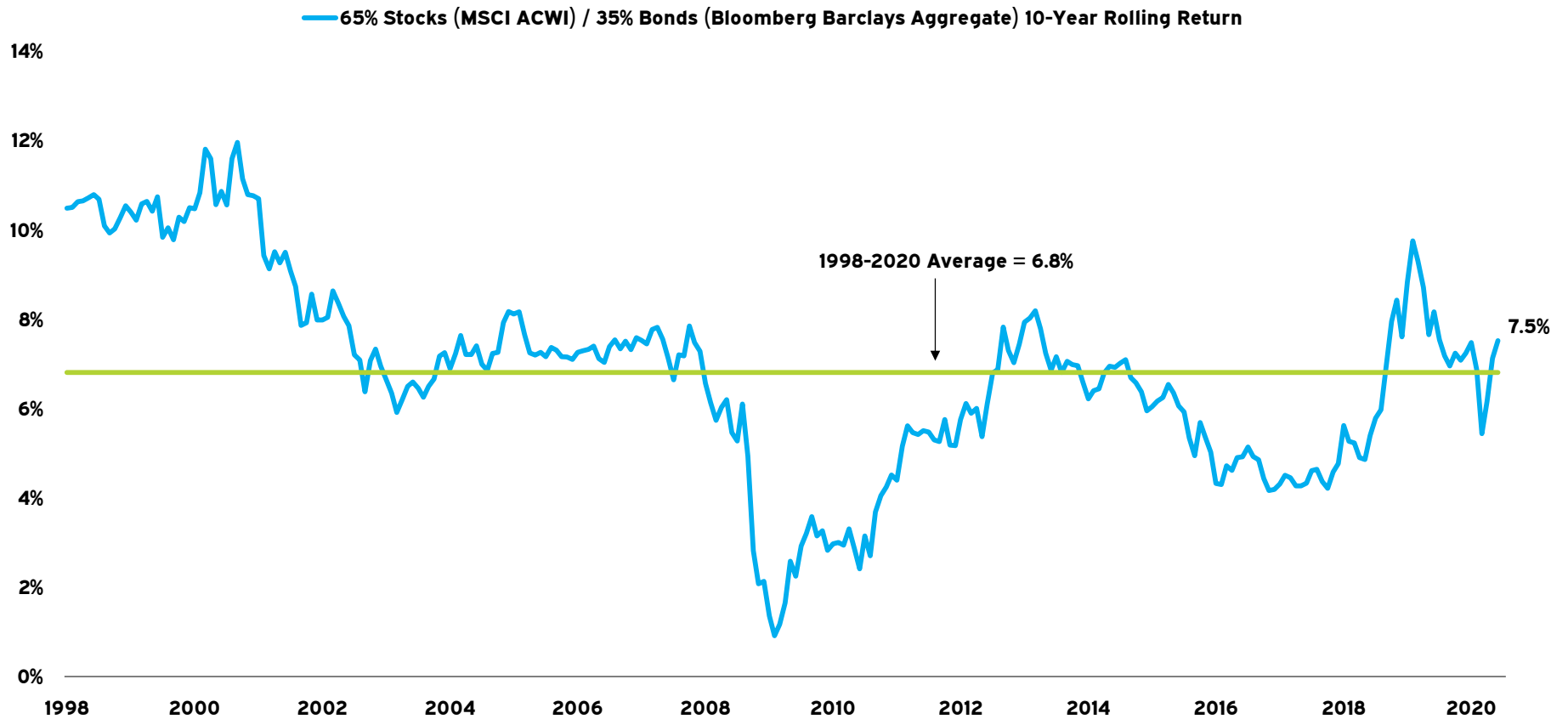
¹ Source: InvestorForce.

US and Emerging Market Equity Rolling Three-Year Returns¹



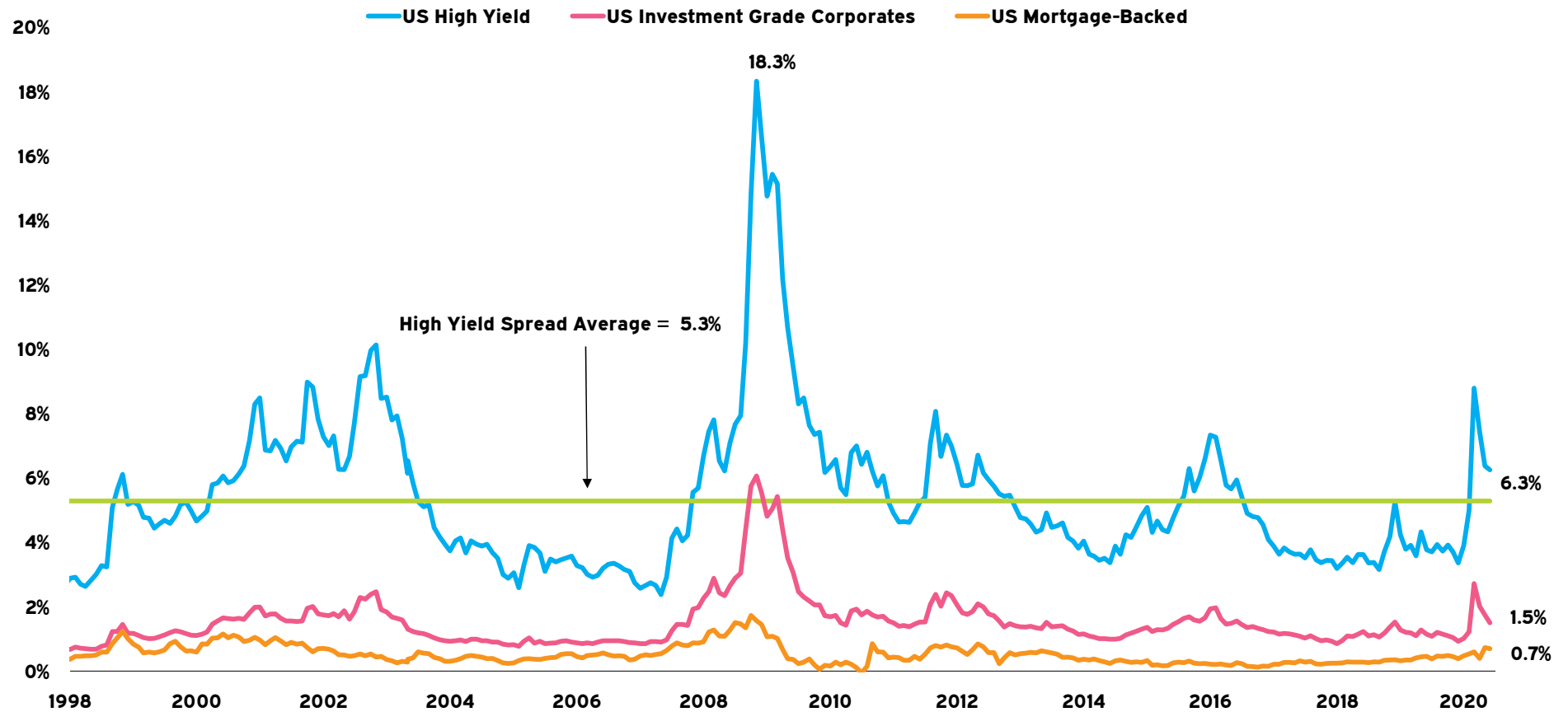
¹ Source: InvestorForce.

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



¹ Source: InvestorForce.

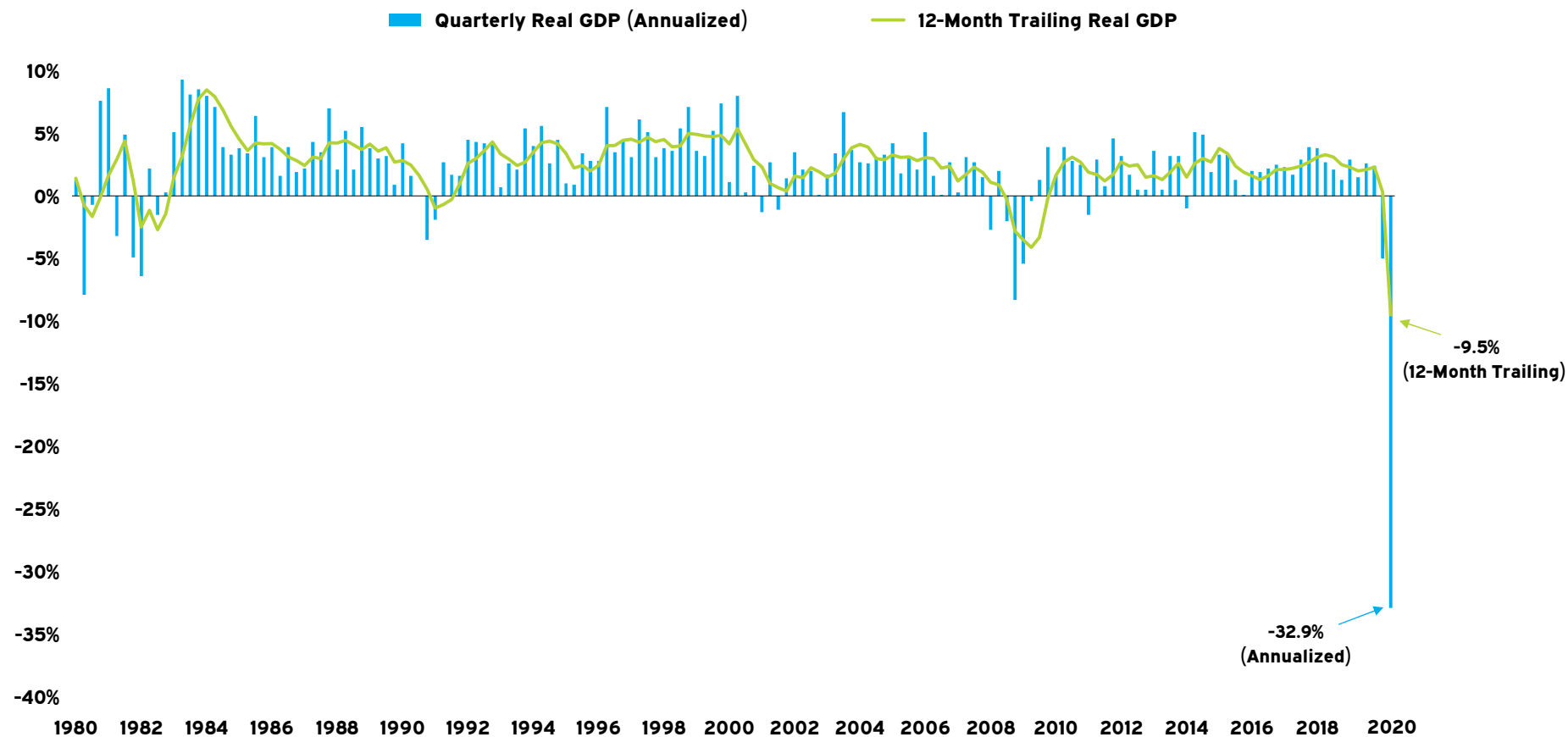
Credit Spreads vs. US Treasury Bonds^{1,2}



¹ Source: Barclays Live. Data represents the OAS.

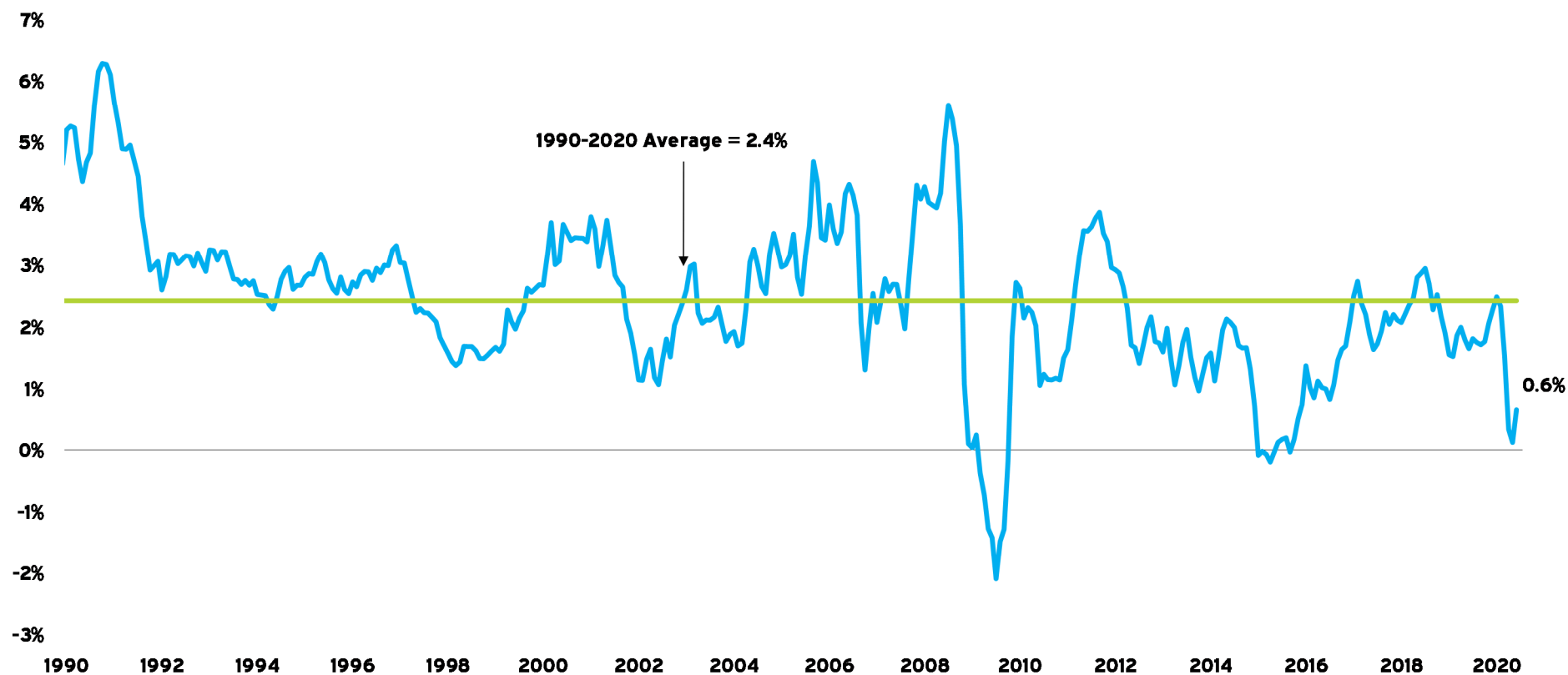
² The median high yield spread was 4.8% from 1997-2020.

US Real Gross Domestic Product (GDP) Growth¹



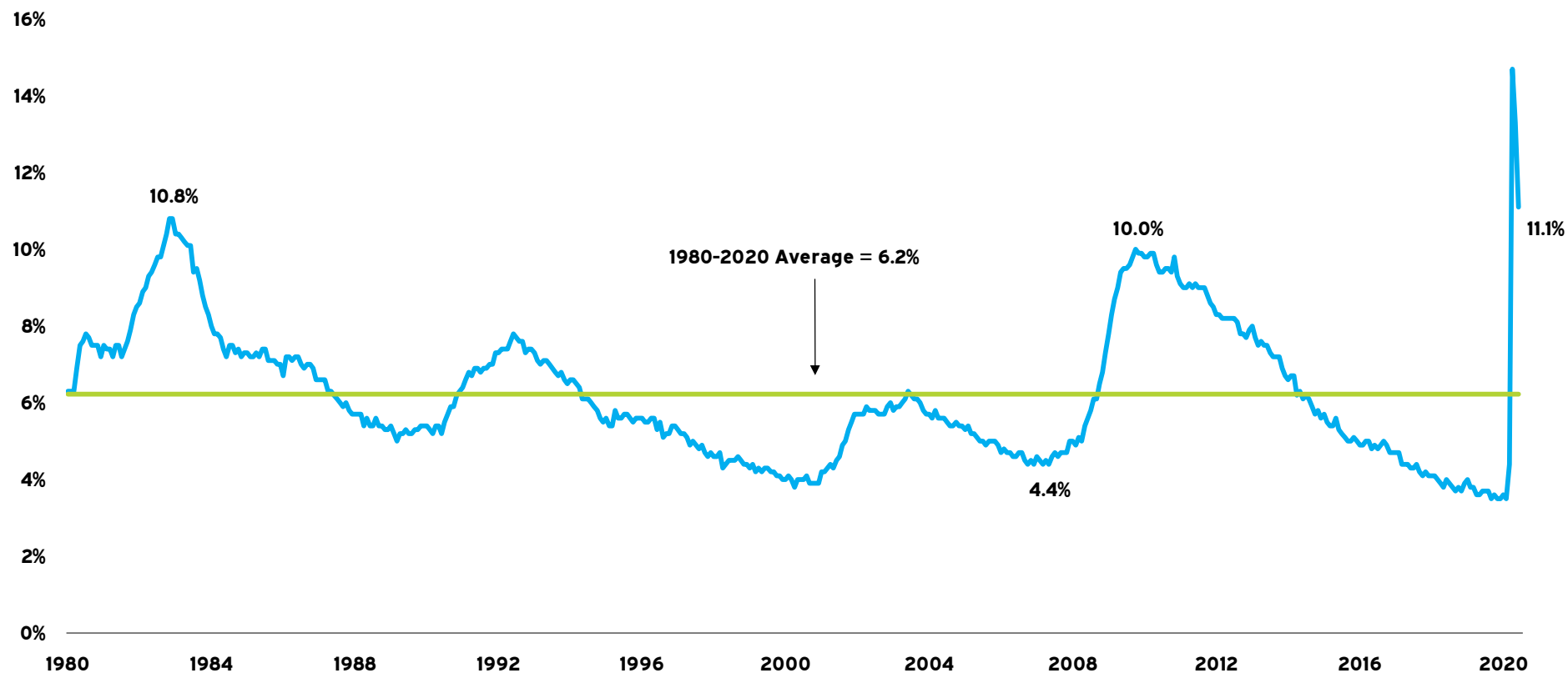
¹ Source: Bureau of Economic Analysis. Data is as of Q2 2020 and represents the first estimate.

US 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, 2020.

US Unemployment¹



¹ Source: Bureau of Labor Statistics. Data is as of June 30, 2020.

Executive Summary

As of June 30, 2020

The value of the San Jose Federated City Employees' Retirement System assets was \$2.18 billion on June 30, 2020, an increase of approximately \$210.8 million from the end of the prior quarter. The System had net cash outflows of \$13.1 million during the quarter.

- The Retirement System's net of fees performance for the quarter was +11.1%, compared to the Policy Benchmark (+10.9%) and Investable Benchmark Portfolio (+10.1%) returns while outperforming the peer median return of +10.1%.
- The Retirement System returned +3.6% over the trailing one-year period, compared to the Policy Benchmark (+3.9%) and Investable Benchmark Portfolio (+3.1%) returns, while outperforming the peer median return of +1.3%. The Retirement System's standard deviation of returns was 11.2% over the trailing one-year period, exhibiting lower volatility than the peer median (+12.1%).
 - Growth returned +14.6% for the quarter and +1.2% over the trailing one-year period, versus +14.4% and +1.6% for the Growth Benchmark over the same periods, respectively.
 - Low Beta returned +1.7% for the quarter and +2.6% over the trailing one-year period versus +0.2% and +2.8% for the Low Beta Benchmark over the same periods, respectively.
 - Other returned +0.8% for the quarter and +1.2% over the trailing one-year period, versus +0.7% and -4.7% for the Other Benchmark over the same periods, respectively.
- During the quarter, the System added seven new investments: Arbour Lane Credit Opportunity Fund II, LP (Private Debt), BlackRock Long Term Gov Bonds (Long-Term Gov Bonds), Eagle Point Defensive Income Fund (Private Debt), Mellon High Yield Beta (High Yield Bonds), Rockpoint Real Estate Fund VI, LP (Private Real Estate), Voya Securitized Credit (Investment Grade Bonds), and Voya TALF (Investment Grade Bonds). Additionally, the Retirement System terminated BlackRock 1-3 Yr Gov/Credit (Short-Term Investment Grade Bonds), Credit Suisse Risk Parity (Commodities), Keynes Lev Quant Strat (Macro Hedge Fund), Pharo Management (Macro Hedge Fund), Senator Global Opportunity (Event Driven Hedge Fund), and Systematica (Macro Hedge Fund).

Artisan

- Artisan Global Opportunities returned +27.8% for the quarter, outperforming the MSCI ACWI Growth NR USD benchmark by 270 basis points. Compared to peers, Artisan ranks in the 14th and 10th percentiles for the quarter and since inception periods, respectively.

Oberweis

- Oberweis International Opportunities returned +47.4% for the quarter and +16.0% over the trailing one-year period, compared to the MSCI World ex USA Small Cap Growth benchmark returns of +26.4% and +4.8% over the same time periods. Compared to peers, Oberweis ranks in the 1st and 11th percentiles for the quarter and since inception periods, respectively.

RWC

- RWC Emerging Markets Equity returned +27.1% for the quarter, outperforming the MSCI EM benchmark by 900 basis points. Compared to peers, RWC ranks in the 15th and 36th percentiles for the quarter and since inception periods, respectively.

Wellington

- Wellington Iguazu Partners returned +6.6% for the quarter and +14.7% over the trailing one-year period, versus the blended benchmark returns of +11.0% and -1.1% over the same periods. Compared to peers, Wellington ranks in the 98th and 1st percentiles for the quarter and since inception periods, respectively.

Investment Manager	Asset Class	Changes/ Announcements	Meketa Recommendation ¹	Comments
Artisan Global Value	Global Equity	---	---	---
Artisan Global Opportunities	Global Equity	---	---	---
Cove Street Small Cap Value	US Equity	---	Hold	Watch List
Oberweis International Opps.	International Equity	---	---	---
Dimensional EM Value	Emerging Markets Equity	Yes	Hold	Personnel Change, Watch List
GQG Partners Global EM	Emerging Markets Equity	---	---	---
RWC Emerging Markets Equity	Emerging Markets Equity	Yes	---	Ownership Change
Wellington EM Systematic	Emerging Markets Equity	---	---	---
BlueBay EM Select Debt	Emerging Markets Debt	---	Hold	Watch List
Iguazu Partners LP Fund	Emerging Markets Debt	---	---	---
Voya TALF	Investment Grade Bonds	---	---	---
Voya Securitized Credit	Investment Grade Bonds	---	---	---

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

Watch List^{1,2}

Investment Manager	Asset Class	Watch List Status	Comments
Cove Street Small Cap Value	US Equity	Monitoring	Underperformance
Dimensional Fund Adv EM Value	Emerging Markets Equity	Monitoring	Underperformance
BlueBay EM Select Debt	Emerging Markets Debt	Monitoring	Underperformance
DE Shaw	Market Neutral Strategies	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.

Cove Street

- Over the three-year period, Cove Street (-4.7%) has underperformed the Russell 2000 Value by 40 basis points. Since inception in May 2014, Cove Street has underperformed the benchmark by 100 basis points per year, on average, and ranked in the 72nd percentile compared to peers.

Dimensional

- During the quarter, Dimensional had one addition (Analyst) and one departure (Portfolio Manager) to its investment team.
- Over the three-year period, Dimensional (-3.9%) has underperformed the MSCI Emerging Markets Value by 130 basis points. Since inception in November 2016, Dimensional has underperformed the benchmark by 20 basis points per year, on average, and ranked in the 87th percentile compared to peers.

RWC

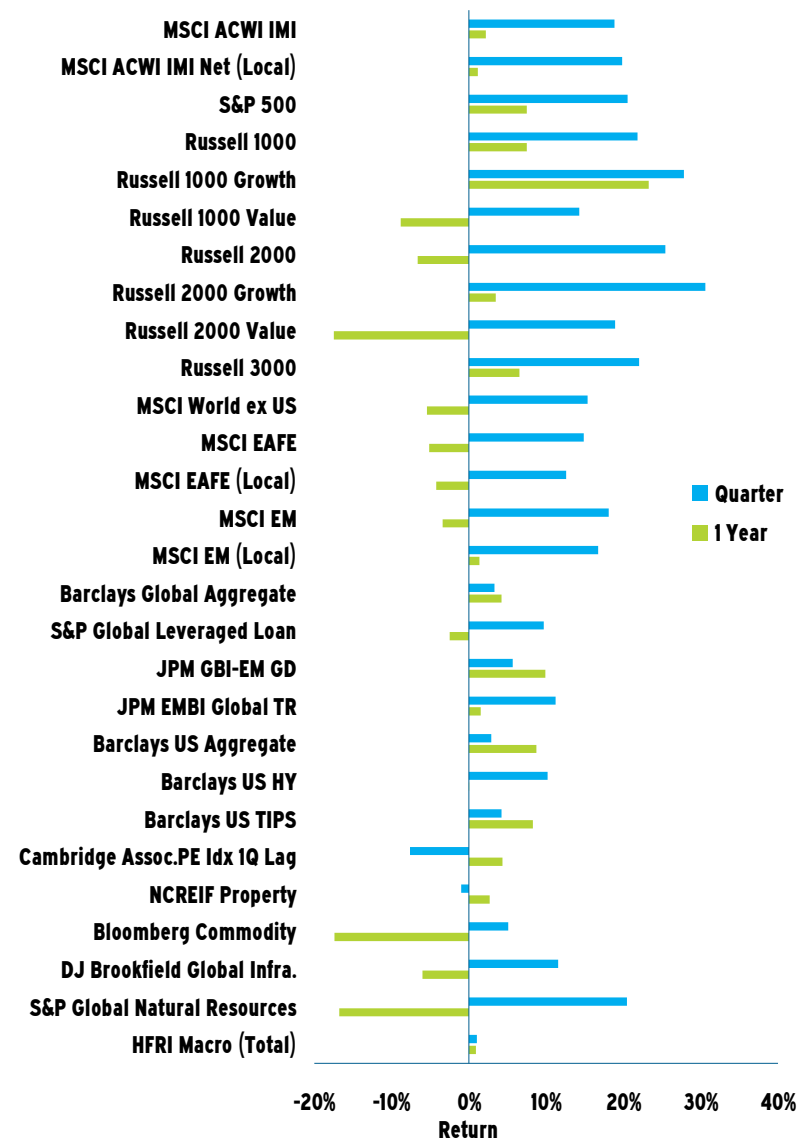
- During the first quarter of 2020, RWC completed a shareholder transaction with a new long-term partner, Lincoln Peak Capital. The resulting structure increased internal ownership to 70% and the RWC board is now led by Peter Clark as Chairperson, with five Directors appointed by RWC and two by Lincoln Peak.

BlueBay

- Over the three-year period, BlueBay (+0.9%) has underperformed the JPM Blended Emerging Markets Index by 150 basis points. Since inception in July 2015, BlueBay (+2.0%) has underperformed the blended benchmark by 190 basis points per year, on average, and ranked in the 81st percentile compared to peers.

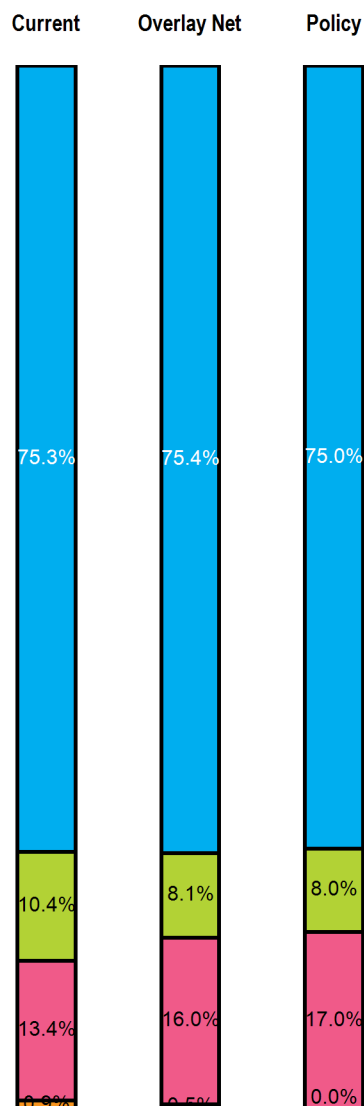
Market Environment – 2Q20 Overview

Benchmark	Scope	2Q20 (%)	1 YR (%)	3 YR (%)	5YR (%)	10 YR (%)
Global Equity						
MSCI ACWI IMI	World	19.8	12	5.5	6.1	9.1
MSCI ACWI IMI Net (Local)	World (Local Currency)	18.9	2.2	6.1	6.6	9.8
Domestic Equity						
S&P 500	Large Core	20.5	7.5	10.7	10.7	14.0
Russell 1000	Large Core	21.8	7.5	10.6	10.5	14.0
Russell 1000 Growth	Large Growth	27.8	23.3	19.0	15.9	17.2
Russell 1000 Value	Large Value	14.3	-8.8	1.8	4.6	10.4
Russell 2000	Small Core	25.4	-6.6	2.0	4.3	10.5
Russell 2000 Growth	Small Growth	30.6	3.5	7.9	6.9	12.9
Russell 2000 Value	Small Value	18.9	-17.5	-4.3	1.3	7.8
Russell 3000	All Cap Core	22.0	6.5	10.0	10.0	13.7
International Equity						
MSCI World ex US	World ex-US	15.3	-5.4	0.8	2.0	5.4
MSCI EAFE	International Developed	14.9	-5.1	0.8	2.1	5.7
MSCI EAFE (Local)	International Developed (Local Currency)	12.6	-4.2	1.3	2.6	6.9
MSCI EM	Emerging Markets	18.1	-3.4	1.9	2.9	3.3
MSCI EM (Local)	Emerging Markets (Local Currency)	16.7	1.4	4.5	5.1	6.0
Global Fixed Income						
Barclays Global Aggregate	Global Core Bonds	3.3	4.2	3.8	3.6	2.8
S&P Global Leveraged Loan	Bank Loans	9.7	-2.5	1.6	2.7	3.9
JPM GBI-EM GD	Emerging Markets Bonds (Local Currency)	5.7	9.9	7.9	8.0	7.6
JPM EMBI Global TR	Emerging Market Bonds	11.2	1.5	3.3	5.1	5.8
Domestic Fixed Income						
Barclays US Aggregate	Core Bonds	2.9	8.7	5.3	4.3	3.8
Barclays US HY	High Yield	10.2	0.0	3.3	4.8	6.7
Barclays US TIPS	Inflation	4.2	8.3	5.0	3.7	3.5
Other						
Cambridge Associates PE Index 1Qtr Lag	Private Equity	-7.6	4.4	13.4	12.5	13.9
NCREIF Property	Real Estate	-1.0	2.7	5.4	6.8	9.7
Bloomberg Commodity	Commodities	5.1	-17.4	-6.1	-7.7	-5.8
DJ Brookfield Global Infrastructure	Infrastructure	11.6	-6.0	2.8	3.9	9.7
S&P Global Natural Resources	Natural Resources	20.5	-16.8	-0.1	0.9	1.5
HFRI Macro	Hedge Funds	1.0	0.9	1.5	0.8	1.3



2Q20 Review

Total Fund | As of June 30, 2020



Allocation vs. Targets and Policy				
	Current Balance	Current Allocation	Russell Overlay Net Position	Policy
Growth	\$1,644,014,041	75.3%	75.4%	75.0%
Public Equity	\$1,075,690,372	49.3%	49.4%	49.0%
Private Markets	\$457,383,974	20.9%	20.9%	21.0%
Emerging Markets Debt	\$67,399,012	3.1%	3.1%	3.0%
High Yield Bonds	\$43,540,684	2.0%	2.0%	2.0%
Low Beta	\$227,501,817	10.4%	8.1%	8.0%
Market Neutral Strategies	\$82,004,581	3.8%	3.8%	3.0%
Immunized Cash Flows	\$93,307,444	4.3%	4.3%	5.0%
Cash	\$52,189,793	2.4%	0.0%	0.0%
Other	\$292,956,167	13.4%	16.0%	17.0%
Core Real Estate	\$86,839,582	4.0%	4.0%	5.0%
TIPS	\$43,560,306	2.0%	2.0%	2.0%
Investment Grade Bonds	\$119,159,056	5.5%	7.9%	8.0%
Long Term Govt Bonds	\$43,397,224	2.0%	2.1%	2.0%
Overlay	\$18,877,118	0.9%	0.0%	0.0%
Total	\$2,183,349,144	100.0%	100.0%	100.0%

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

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 Aggregate	2,183,349,144	100.0	11.1	-1.0	3.6	3.6	4.6	4.1	5.5	6.5	Jan-94
Policy Benchmark			10.9	-1.0	3.9	3.9	5.1	4.9	6.4	6.8	Jan-94
Investable Benchmark Portfolio			10.1	-1.8	3.1	3.1	4.5	4.1	5.4	--	Jan-94
Low-Cost Passive Portfolio			11.1	-5.0	0.1	0.1	--	--	--	--	Jan-94
60/40 MSCI ACWI IMI/BBgBarc Global Aggregate			13.1	-2.7	2.9	2.9	5.2	5.3	6.8	--	Jan-94
Liability Benchmark Portfolio			0.2	21.2	25.4	25.4	--	--	--	--	Jan-94
InvMetrics Public DB > \$1B Net Median			10.1	-4.3	1.3	1.3	5.0	5.4	7.8	7.1	Jan-94
InvMetrics Public DB > \$1B Net Rank			29	1	14	14	69	97	99	82	Jan-94
Growth	1,644,014,041	75.3	14.6	-5.1	1.2	1.2	4.9	5.2	--	5.2	Jul-15
Growth Benchmark			14.4	-5.4	1.6	1.6	6.0	6.4	--	6.4	Jul-15
Public Equity	1,075,690,372	49.3	21.0	-7.4	-1.0	-1.0	4.0	4.8	8.5	7.1	May-10
Public Equity Benchmark			20.0	-7.6	0.2	0.2	5.4	6.1	9.1	7.5	May-10
Global Equity	257,518,427	11.8	22.7	-5.0	3.1	3.1	6.5	7.8	--	7.8	Jul-15
MSCI ACWI IMI Index			19.8	-7.1	1.2	1.2	5.5	6.1	--	6.1	Jul-15
eV All Global Equity Net Median			19.2	-6.6	0.7	0.7	5.2	5.5	9.2	5.5	Jul-15
eV All Global Equity Net Rank			27	43	41	41	42	30	--	30	Jul-15
US Equity	390,453,209	17.9	21.9	-6.5	2.3	2.3	7.3	8.1	--	8.1	Jul-15
MSCI USA IMI GR USD			22.3	-3.3	6.7	6.7	10.2	10.1	--	10.1	Jul-15
eV All US Equity Net Median			21.9	-9.0	-1.1	-1.1	5.7	6.6	11.6	6.6	Jul-15
eV All US Equity Net Rank			50	44	42	42	45	41	--	41	Jul-15

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 Public Equity Aggregate are gross of fees through June 2015 and net of fees thereafter.

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
International Equity	204,898,573	9.4	20.3	-7.5	-2.3	-2.3	1.6	2.7	--	2.7	Jul-15
MSCI World ex USA IMI NR USD			16.2	-11.7	-5.1	-5.1	0.8	2.2	--	2.2	Jul-15
eV ACWI ex-US All Cap Equity Net Median			18.6	-7.7	0.0	0.0	3.8	3.9	7.3	3.9	Jul-15
eV ACWI ex-US All Cap Equity Net Rank			37	50	61	61	67	66	--	66	Jul-15
Emerging Markets Equity	222,820,163	10.2	20.1	-10.6	-6.2	-6.2	-1.2	0.4	--	0.4	Jul-15
MSCI Emerging Market IMI Net			18.9	-10.1	-4.0	-4.0	1.3	2.3	--	2.3	Jul-15
eV Emg Mkts Equity Net Median			20.3	-10.1	-3.7	-3.7	1.2	2.7	3.7	2.7	Jul-15
eV Emg Mkts Equity Net Rank			51	56	63	63	74	78	--	78	Jul-15
Private Markets	457,383,973	20.9	2.9	-6.1	-0.3	-0.3	5.1	5.0	--	5.0	Jul-15
Private Markets Benchmark			2.9	-6.1	-0.3	-0.3	7.1	7.2	--	7.2	Jul-15
MSCI ACWI IMI + 100bps			20.1	-6.6	2.2	2.2	6.6	7.2	--	7.2	Jul-15
Private Markets ex Russell 3000	333,505,436	15.3	-3.5	-3.0	-0.3	-0.3	4.9	4.9	--	4.9	Jul-15
Private Equity	156,661,828	7.2	-4.3	-1.2	2.9	2.9	8.8	7.8	10.8	--	Jan-06
San Jose Custom Private Equity Benchmark			-10.1	-5.8	-1.8	-1.8	8.6	8.9	11.5	--	Jan-06
Private Equity ex Russell 3000	156,661,828	7.2	-4.3	-1.2	2.9	2.9	8.8	7.8	10.8	7.1	Jan-06
Northern Trust Russell 3000	123,878,537	5.7	22.0	-3.4	6.7	6.7	--	--	--	7.9	Jun-18
Russell 3000			22.0	-3.5	6.5	6.5	--	--	--	7.8	Jun-18
Private Debt	76,771,684	3.5	0.0	-9.0	-10.5	-10.5	-6.8	-3.0	--	1.7	Dec-10
S&P Global Leveraged Loan Index +2%			10.1	-3.2	-0.1	-0.1	3.7	4.9	--	5.6	Dec-10

¹ Returns for the Fixed Income, Private Debt, and Real Assets Aggregates are gross of fees through June 2015 and net of fees thereafter.

² Prior to 7/1/2015, Fixed Income Custom Benchmark was 100% Barclays Global Aggregate. After 7/1/2015, Fixed Income Custom Benchmark consists of 80% Barclays Global Aggregate, 5% JPM GBI-EM GD, 5% JPM EMBI GD, 5% S&P Global Leveraged Loan, and 5% BAML Global HY Index.

³ Please see the Appendix for composition of the Private Markets Benchmark.

⁴ Private Equity composite includes Russell 3000 proxy performance history prior to October 1, 2018.

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Growth Real Estate	79,993,478	3.7	-1.1	2.5	7.2	7.2	14.2	15.8	--	15.8	Jul-15
<i>NCREIF Property Index</i>			-1.0	-0.3	2.7	2.7	5.4	6.8	--	6.8	Jul-15
Private Real Assets	20,078,448	0.9	-15.5	-14.1	-12.4	-12.4	3.3	3.1	--	3.1	Jul-15
Emerging Markets Debt	67,399,012	3.1	8.3	1.1	5.5	5.5	3.4	3.6	--	3.6	Jul-15
<i>50% JPM EMBI GD / 50% JPM GBI-EM</i>			11.0	-4.8	-1.1	-1.1	2.4	3.9	--	3.9	Jul-15
<i>eV All Emg Mkts Fixed Inc Net Median</i>			12.5	-4.2	-1.2	-1.2	2.4	4.3	5.1	4.3	Jul-15
<i>eV All Emg Mkts Fixed Inc Net Rank</i>			96	7	5	5	32	63	--	63	Jul-15
High Yield Bonds	43,540,684	2.0	--	--	--	--	--	--	--	0.0	Jun-20
<i>BBgBarc US Corporate High Yield TR</i>			--	--	--	--	--	--	--	1.0	Jun-20
Low Beta	227,501,818	10.4	1.7	1.2	2.6	2.6	3.4	2.3	--	2.3	Jul-15
<i>Low Beta Benchmark</i>			0.2	1.7	2.8	2.8	2.0	1.1	--	1.1	Jul-15
Immunized Cash Flows	93,307,444	4.3	0.2	2.7	3.9	3.9	--	--	--	4.4	Oct-18
<i>Immunized Cash Flows Benchmark</i>			0.2	2.7	3.9	3.9	--	--	--	4.4	Oct-18
Market Neutral Strategies	82,004,581	3.8	2.8	-4.2	-2.0	-2.0	3.4	2.3	--	3.2	Nov-12
<i>Market Neutral Strategies Benchmark</i>			0.2	0.5	1.6	1.6	1.5	0.8	--	1.2	Nov-12
Macro	17,381,104	0.8	0.9	2.5	2.9	2.9	4.8	3.1	--	2.8	Oct-14
<i>HFRI Macro (Total) Index</i>			1.0	-0.6	0.9	0.9	1.5	0.8	--	1.0	Oct-14
Relative Value	64,623,477	3.0	5.8	-11.3	-8.1	-8.1	1.6	1.7	--	2.4	Oct-14
<i>HFRI Relative Value (Total) Index</i>			6.3	-4.6	-2.8	-2.8	1.5	2.3	--	2.3	Oct-14
Cash	52,189,793	2.4	0.0	0.4	2.0	2.0	1.7	1.3	--	--	Jan-06
<i>ICE BofA 91 Days T-Bills TR</i>			0.0	0.6	1.6	1.6	1.8	1.2	--	--	Jan-06

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

² Please see the Appendix for composition of the Low Beta Benchmark, Immunized Cash Flows Benchmark, Market Neutral Strategies Benchmark, and Other Benchmark.

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Other	292,956,167	13.4	0.8	-0.9	1.2	1.2	2.7	1.8	2.4	2.0	Jul-04
Other Benchmark			0.7	-7.1	-4.7	-4.7	-0.3	0.5	--	--	Jul-04
Investment Grade Bonds	119,159,056	5.5	3.1	6.4	--	--	--	--	--	6.3	Dec-19
Custom IG Bonds Benchmark			2.1	5.3	--	--	--	--	--	5.2	Dec-19
TIPS	43,560,306	2.0	1.5	1.0	2.5	2.5	2.4	1.8	--	1.2	Jul-14
BBgBarc U.S. TIPS 0-5 Years			2.6	1.9	3.4	3.4	2.7	2.0	--	1.3	Jul-14
Core Private Real Estate	86,839,582	4.0	-1.5	1.6	3.6	3.6	6.1	7.7	10.4	6.9	Jul-04
NCREIF ODCE Equal Weighted (Net)			-1.5	-0.8	1.7	1.7	5.1	6.7	10.0	6.5	Jul-04
Long Term Government Bonds	43,397,224	2.0	--	--	--	--	--	--	--	0.4	May-20
BBgBarc US Govt Long TR			--	--	--	--	--	--	--	-1.7	May-20
Overlay	18,877,118	0.9									

Trailing Net Performance											
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund Aggregate	2,183,349,144	100.0	11.1	-1.0	3.6	3.6	4.6	4.1	5.5	6.5	Jan-94
Policy Benchmark			10.9	-1.0	3.9	3.9	5.1	4.9	6.4	6.8	Jan-94
Investable Benchmark Portfolio			10.1	-1.8	3.1	3.1	4.5	4.1	5.4	--	Jan-94
Low-Cost Passive Portfolio			11.1	-5.0	0.1	0.1	--	--	--	--	Jan-94
60/40 MSCI ACWI IMI/BBgBarc Global Aggregate			13.1	-2.7	2.9	2.9	5.2	5.3	6.8	--	Jan-94
Liability Benchmark Portfolio			0.2	21.2	25.4	25.4	--	--	--	--	Jan-94
InvMetrics Public DB > \$1B Net Median			10.1	-4.3	1.3	1.3	5.0	5.4	7.8	7.1	Jan-94
InvMetrics Public DB > \$1B Net Rank			29	1	14	14	69	97	99	82	Jan-94
Growth	1,644,014,041	75.3	14.6	-5.1	1.2	1.2	4.9	5.2	--	5.2	Jul-15
Growth Benchmark			14.4	-5.4	1.6	1.6	6.0	6.4	--	6.4	Jul-15
Public Equity	1,075,690,372	49.3	21.0	-7.4	-1.0	-1.0	4.0	4.8	8.5	7.1	May-10
Public Equity Benchmark			20.0	-7.6	0.2	0.2	5.4	6.1	9.1	7.5	May-10
Global Equity	257,518,427	11.8	22.7	-5.0	3.1	3.1	6.5	7.8	--	7.8	Jul-15
MSCI ACWI IMI Index			19.8	-7.1	1.2	1.2	5.5	6.1	--	6.1	Jul-15
eV All Global Equity Net Median			19.2	-6.6	0.7	0.7	5.2	5.5	9.2	5.5	Jul-15
eV All Global Equity Net Rank			27	43	41	41	42	30	--	30	Jul-15
Artisan Global Value	119,794,477	5.5	17.4	-16.5	-9.9	-9.9	0.7	4.3	--	8.2	Mar-11
MSCI ACWI Value NR USD			12.7	-17.8	-11.8	-11.8	-1.0	1.9	--	3.7	Mar-11
eV All Global Equity Net Median			19.2	-6.6	0.7	0.7	5.2	5.5	9.2	7.0	Mar-11
eV All Global Equity Net Rank			62	81	81	81	76	65	--	31	Mar-11

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

² Please see final page of the performance report for composition of the Policy Benchmark.

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Artisan Global Opportunities	137,723,951	6.3	27.8	11.7	22.9	22.9	15.2	--	--	15.2	Jul-17
MSCI ACWI Growth NR USD			25.1	5.5	16.6	16.6	13.2	--	--	13.2	Jul-17
eV All Global Equity Net Median			19.2	-6.6	0.7	0.7	5.2	5.5	9.2	5.2	Jul-17
eV All Global Equity Net Rank			14	8	8	8	10	--	--	10	Jul-17
US Equity	390,453,209	17.9	21.9	-6.5	2.3	2.3	7.3	8.1	--	8.1	Jul-15
MSCI USA IMI GR USD			22.3	-3.3	6.7	6.7	10.2	10.1	--	10.1	Jul-15
eV All US Equity Net Median			21.9	-9.0	-1.1	-1.1	5.7	6.6	11.6	6.6	Jul-15
eV All US Equity Net Rank			50	44	42	42	45	41	--	41	Jul-15
Northern Trust Russell 3000	375,871,172	17.2	22.0	--	--	--	--	--	--	22.0	Mar-20
Russell 3000			22.0	--	--	--	--	--	--	5.2	Mar-20
Cove Street Small Cap Value	14,582,037	0.7	20.1	-26.2	-22.9	-22.9	-4.7	0.1	--	1.0	May-14
Russell 2000 Value			18.9	-23.5	-17.5	-17.5	-4.3	1.3	--	2.0	May-14
eV US Small Cap Value Equity Net Median			20.6	-21.8	-16.2	-16.2	-4.2	0.9	8.3	1.9	May-14
eV US Small Cap Value Equity Net Rank			54	86	90	90	60	68	--	72	May-14
International Equity	204,898,573	9.4	20.3	-7.5	-2.3	-2.3	1.6	2.7	--	2.7	Jul-15
MSCI World ex USA IMI NR USD			16.2	-11.7	-5.1	-5.1	0.8	2.2	--	2.2	Jul-15
eV ACWI ex-US All Cap Equity Net Median			18.6	-7.7	0.0	0.0	3.8	3.9	7.3	3.9	Jul-15
eV ACWI ex-US All Cap Equity Net Rank			37	50	61	61	67	66	--	66	Jul-15
Northern Trust MSCI World ex US	167,833,039	7.7	15.4	-11.0	-4.9	-4.9	1.2	--	--	4.9	Nov-16
MSCI World ex USA			15.3	-11.5	-5.4	-5.4	0.8	--	--	4.5	Nov-16

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Oberweis Intl Opportunities	37,065,534	1.7	47.4	11.7	16.0	16.0	8.3	--	--	9.5	Nov-15
<i>MSCI World ex USA Small Cap Growth NR USD</i>			26.4	-5.3	4.8	4.8	4.5	--	--	7.0	Nov-15
<i>eV ACWI ex-US All Cap Equity Net Median</i>			18.6	-7.7	0.0	0.0	3.8	3.9	7.3	5.6	Nov-15
<i>eV ACWI ex-US All Cap Equity Net Rank</i>			1	5	7	7	13	--	--	11	Nov-15
Emerging Markets Equity	222,820,163	10.2	20.1	-10.6	-6.2	-6.2	-1.2	0.4	--	0.4	Jul-15
<i>MSCI Emerging Market IMI Net</i>			18.9	-10.1	-4.0	-4.0	1.3	2.3	--	2.3	Jul-15
<i>eV Emg Mkts Equity Net Median</i>			20.3	-10.1	-3.7	-3.7	1.2	2.7	3.7	2.7	Jul-15
<i>eV Emg Mkts Equity Net Rank</i>			51	56	63	63	74	78	--	78	Jul-15
Northern Trust MSCI EM IMI	71,843,684	3.3	19.8	-10.0	-4.0	-4.0	--	--	--	-1.4	Oct-18
<i>MSCI Emerging Market IMI Net</i>			18.9	-10.1	-4.0	-4.0	--	--	--	-1.2	Oct-18
Dimensional Fund Adv EM Value	33,189,245	1.5	19.0	-18.9	-17.3	-17.3	-3.9	--	--	0.4	Nov-16
<i>MSCI Emerging Markets Value NR USD</i>			13.8	-18.0	-15.7	-15.7	-2.6	--	--	0.6	Nov-16
<i>eV Emg Mkts Equity Net Median</i>			20.3	-10.1	-3.7	-3.7	1.2	2.7	3.7	4.6	Nov-16
<i>eV Emg Mkts Equity Net Rank</i>			58	92	96	96	91	--	--	87	Nov-16
GQG Global Emerging Markets	42,486,102	1.9	22.5	-1.4	0.7	0.7	6.5	--	--	6.5	Jul-17
<i>MSCI Emerging Markets</i>			18.1	-9.8	-3.4	-3.4	1.9	--	--	1.9	Jul-17
<i>eV Emg Mkts Equity Net Median</i>			20.3	-10.1	-3.7	-3.7	1.2	2.7	3.7	1.2	Jul-17
<i>eV Emg Mkts Equity Net Rank</i>			37	12	27	27	11	--	--	11	Jul-17

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
RWC Emerging Markets Equity	25,991,041	1.2	27.1	-9.1	--	--	--	--	--	4.0	Sep-19
MSCI Emerging Markets			18.1	-9.8	--	--	--	--	--	2.8	Sep-19
eV Emg Mkts Equity Net Median			20.3	-10.1	-3.7	-3.7	1.2	2.7	3.7	2.1	Sep-19
eV Emg Mkts Equity Net Rank			15	41	--	--	--	--	--	36	Sep-19
Wellington Emerging Markets Systematic Equity	49,310,090	2.3	16.7	-12.6	--	--	--	--	--	-1.4	Sep-19
MSCI Emerging Markets			18.1	-9.8	--	--	--	--	--	2.8	Sep-19
eV Emg Mkts Equity Net Median			20.3	-10.1	-3.7	-3.7	1.2	2.7	3.7	2.1	Sep-19
eV Emg Mkts Equity Net Rank			81	72	--	--	--	--	--	68	Sep-19
Private Markets	457,383,973	20.9	2.9	-6.1	-0.3	-0.3	5.1	5.0	--	5.0	Jul-15
Private Markets Benchmark			2.9	-6.1	-0.3	-0.3	7.1	7.2	--	7.2	Jul-15
MSCI ACWI IMI + 100bps			20.1	-6.6	2.2	2.2	6.6	7.2	--	7.2	Jul-15
Private Markets ex Russell 3000	333,505,436	15.3	-3.5	-3.0	-0.3	-0.3	4.9	4.9	--	4.9	Jul-15
Private Equity	156,661,828	7.2	-4.3	-1.2	2.9	2.9	8.8	7.8	10.8	--	Jan-06
San Jose Custom Private Equity Benchmark			-10.1	-5.8	-1.8	-1.8	8.6	8.9	11.5	--	Jan-06
Private Equity ex Russell 3000	156,661,828	7.2	-4.3	-1.2	2.9	2.9	8.8	7.8	10.8	7.1	Jan-06
PE Strategic Partnership, LP	123,540,584	5.7	-2.9	0.7	7.0	7.0	--	--	--	6.4	Aug-17
Cambridge PE Composite BM			-8.8	-3.2	8.7	8.7	--	--	--	13.1	Aug-17
Pathway Private Eq Fund VIII	1,915,440	0.1	-12.5	-19.2	-21.7	-21.7	-10.0	-6.5	4.4	5.4	Jul-09
Cambridge PE Composite BM			-8.8	-3.2	8.7	8.7	12.7	11.3	12.3	13.3	Jul-09

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Pantheon USA Fund VII, LP	10,259,268	0.5	-12.4	-11.9	-11.9	-11.9	--	--	--	-1.2	Jun-18
Cambridge PE Composite BM			-8.8	-3.2	8.7	8.7	--	--	--	10.9	Jun-18
Pantheon Global Secondary III	1,323,093	0.1	-7.7	-19.1	-19.7	-19.7	-0.3	-0.6	2.1	2.9	Jul-09
Cambridge PE Composite BM			-8.8	-3.2	8.7	8.7	12.7	11.3	12.3	13.3	Jul-09
Great Hill Equity Partners IV	2,138,030	0.1	-10.2	-7.0	2.6	2.6	45.6	35.7	32.1	29.6	Jul-09
Cambridge PE Composite BM			-8.8	-3.2	8.7	8.7	12.7	11.3	12.3	13.3	Jul-09
Partners Group Secondary 2008	790,499	0.0	-14.9	-16.6	-15.2	-15.2	-3.1	-0.8	6.6	6.3	Jul-09
Cambridge PE Composite BM			-8.8	-3.2	8.7	8.7	12.7	11.3	12.3	13.3	Jul-09
Partners Group Secondary 2011	4,490,924	0.2	-18.6	-18.6	-23.7	-23.7	-2.4	2.1	--	12.8	Nov-12
Cambridge PE Composite BM			-8.8	-3.2	8.7	8.7	12.7	11.3	--	12.4	Nov-12
Innovation Endeavors III	3,274,798	0.1	1.0	46.9	42.0	42.0	--	--	--	1.8	Jun-18
Cambridge PE Composite BM			-8.8	-3.2	8.7	8.7	--	--	--	10.9	Jun-18
Crestline Portfolio Financing	8,929,192	0.4	1.2	6.8	12.4	12.4	--	--	--	10.0	Jun-18
Cambridge PE Composite BM			-8.8	-3.2	8.7	8.7	--	--	--	10.9	Jun-18
Northern Trust Russell 3000	123,878,537	5.7	22.0	-3.4	6.7	6.7	--	--	--	7.9	Jun-18
Russell 3000			22.0	-3.5	6.5	6.5	--	--	--	7.8	Jun-18

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Debt	76,771,684	3.5	0.0	-9.0	-10.5	-10.5	-6.8	-3.0	--	1.7	Dec-10
<i>S&P Global Leveraged Loan Index +2%</i>			10.1	-3.2	-0.1	-0.1	3.7	4.9	--	5.6	Dec-10
White Oak Direct Lending	10,599,336	0.5	-6.4	-14.0	3.6	3.6	-9.4	-5.2	--	-0.8	Feb-11
<i>S&P Global Leveraged Loan Index +2%</i>			10.1	-3.2	-0.1	-0.1	3.7	4.9	--	5.3	Feb-11
Blackstone/GSO Cap Partners	4,201,631	0.2	-35.5	-45.8	-52.0	-52.0	-18.8	-12.0	--	-1.4	Mar-11
<i>S&P Global Leveraged Loan Index +2%</i>			10.1	-3.2	-0.1	-0.1	3.7	4.9	--	5.3	Mar-11
Medley Opportunity Fund II LP	14,514,597	0.7	-6.1	-9.1	-19.1	-19.1	-12.4	-5.7	--	0.2	Jun-11
<i>S&P Global Leveraged Loan Index +2%</i>			10.1	-3.2	-0.1	-0.1	3.7	4.9	--	5.3	Jun-11
Cross Ocean USD ESS Fund II LP	7,560,062	0.3	-5.7	-3.8	0.8	0.8	3.9	--	--	7.8	Aug-16
<i>S&P Global Leveraged Loan Index +2%</i>			10.1	-3.2	-0.1	-0.1	3.7	--	--	5.0	Aug-16
Octagon CLO Opp Fund III	16,884,180	0.8	22.5	-12.4	-16.1	-16.1	--	--	--	-8.7	Feb-19
<i>S&P Global Leveraged Loan Index +2%</i>			10.1	-3.2	-0.1	-0.1	--	--	--	2.3	Feb-19
Crestline Co-Investment	1,727,839	0.1	2.2	3.1	11.3	11.3	--	--	--	8.3	Mar-19
<i>S&P Global Leveraged Loan Index +2%</i>			10.1	-3.2	-0.1	-0.1	--	--	--	1.4	Mar-19
Cross Ocean USD ESS Fund III, L.P.	9,762,248	0.4	0.1	1.6	-0.3	-0.3	--	--	--	-0.3	Jun-19
<i>S&P Global Leveraged Loan Index +2%</i>			10.1	-3.2	-0.1	-0.1	--	--	--	0.7	Jun-19
Arbour Lane Credit Opportunity Fund II, L.P.	6,721,790	0.3	48.2	--	--	--	--	--	--	48.2	Apr-20
<i>S&P Global Leveraged Loan Index +2%</i>			10.1	--	--	--	--	--	--	5.2	Apr-20

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

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Eagle Point Defensive Income Fund	4,800,000	0.2	--	--	--	--	--	--	--	0.0	Jun-20
S&P Global Leveraged Loan Index +2%			--	--	--	--	--	--	--	1.3	Jun-20
Growth Real Estate	79,993,478	3.7	-1.1	2.5	7.2	7.2	14.2	15.8	--	15.8	Jul-15
NCREIF Property Index			-1.0	-0.3	2.7	2.7	5.4	6.8	--	6.8	Jul-15
DRA Growth & Income Fund VI	604,389	0.0	1.0	2.9	8.8	8.8	5.1	7.6	13.2	8.6	Jan-08
NCREIF Property Index			-1.0	-0.3	2.7	2.7	5.4	6.8	9.7	5.9	Jan-08
DRA Growth & Income Fund VII	2,656,354	0.1	0.3	29.5	84.7	84.7	50.7	39.4	--	29.6	Apr-12
NCREIF Property Index			-1.0	-0.3	2.7	2.7	5.4	6.8	--	8.6	Apr-12
DRA Growth & Income Fund VIII	10,471,557	0.5	0.8	5.3	7.0	7.0	10.0	10.7	--	10.6	Jan-15
NCREIF Property Index			-1.0	-0.3	2.7	2.7	5.4	6.8	--	7.4	Jan-15
Tristan - EPISO IV	12,010,286	0.6	-2.5	-0.8	0.3	0.3	6.7	--	--	7.0	Jan-16
NCREIF Property Index			-1.0	-0.3	2.7	2.7	5.4	--	--	6.1	Jan-16
DRA Growth & Income Fund IX	17,586,846	0.8	1.8	4.0	7.8	7.8	12.4	--	--	12.1	Feb-17
NCREIF Property Index			-1.0	-0.3	2.7	2.7	5.4	--	--	5.8	Feb-17
GEM Realty Fund VI	3,326,359	0.2	0.0	2.8	-5.2	-5.2	--	--	--	-1.2	Dec-17
NCREIF Property Index			-1.0	-0.3	2.7	2.7	--	--	--	5.7	Dec-17
Torchlight Debt Opportunity VI	29,692,764	1.4	-4.2	-1.5	2.4	2.4	--	--	--	0.6	Apr-18
NCREIF Property Index			-1.0	-0.3	2.7	2.7	--	--	--	4.9	Apr-18

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Tristan - EPISO V	990,294	0.0	--	--	--	--	--	--	--	--	May-19
DRA Growth & Income Fund X	1,595,602	0.1	--	--	--	--	--	--	--	--	Mar-20
Rockpoint Real Estate Fund VI, L.P.	1,059,027	0.0	--	--	--	--	--	--	--	--	May-20
Private Real Assets	20,078,448	0.9	-15.5	-14.1	-12.4	-12.4	3.3	3.1	--	3.1	Jul-15
Global Infra Part III-A/B, LP	17,501,996	0.8	-13.8	-12.6	-10.0	-10.0	-2.5	--	--	-2.1	Sep-16
<i>DJ Brookfield Global Infrastructure Net TR USD</i>			11.6	-11.8	-6.0	-6.0	2.8	--	--	4.4	Sep-16
Lime Rock Partners VIII	1,704,945	0.1	-30.2	-25.0	-27.1	-27.1	--	--	--	-17.1	Dec-18
<i>DJ Brookfield Global Infrastructure Net TR USD</i>			11.6	-11.8	-6.0	-6.0	--	--	--	5.0	Dec-18
Kimmeridge Energy Fund V, L.P.	858,585	0.0	--	--	--	--	--	--	--	--	Aug-19
Global Infra Partners IV	12,922	0.0	--	--	--	--	--	--	--	--	Aug-19
Emerging Markets Debt	67,399,012	3.1	8.3	1.1	5.5	5.5	3.4	3.6	--	3.6	Jul-15
<i>50% JPM EMBI GD / 50% JPM GBI-EM</i>			11.0	-4.8	-1.1	-1.1	2.4	3.9	--	3.9	Jul-15
<i>eV All Emg Mkts Fixed Inc Net Median</i>			12.5	-4.2	-1.2	-1.2	2.4	4.3	5.1	4.3	Jul-15
<i>eV All Emg Mkts Fixed Inc Net Rank</i>			96	7	5	5	32	63	--	63	Jul-15
BlueBay EM Select Bond	29,829,252	1.4	11.7	-6.6	-3.1	-3.1	0.9	2.0	--	2.0	Jul-15
<i>50% JPM EMBI GD / 50% JPM GBI-EM</i>			11.0	-4.8	-1.1	-1.1	2.4	3.9	--	3.9	Jul-15
<i>eV All Emg Mkts Fixed Inc Net Median</i>			12.5	-4.2	-1.2	-1.2	2.4	4.3	5.1	4.3	Jul-15
<i>eV All Emg Mkts Fixed Inc Net Rank</i>			69	73	70	70	72	81	--	81	Jul-15

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

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Wellington Iguazu Partners LP Fund	37,569,760	1.7	6.6	9.2	14.7	14.7	--	--	--	14.7	May-19
50% JPM EMBI GD / 50% JPM GBI-EM			11.0	-4.8	-1.1	-1.1	--	--	--	3.1	May-19
eV All Emg Mkts Fixed Inc Net Median			12.5	-4.2	-1.2	-1.2	2.4	4.3	5.1	2.5	May-19
eV All Emg Mkts Fixed Inc Net Rank			98	1	1	1	--	--	--	1	May-19
High Yield Bonds	43,540,684	2.0	--	--	--	--	--	--	--	0.0	Jun-20
BBgBarc US Corporate High Yield TR			--	--	--	--	--	--	--	1.0	Jun-20
Mellon High Yield Beta	43,540,684	2.0	--	--	--	--	--	--	--	0.0	Jun-20
BBgBarc US Corporate High Yield TR			--	--	--	--	--	--	--	1.0	Jun-20
Low Beta	227,501,818	10.4	1.7	1.2	2.6	2.6	3.4	2.3	--	2.3	Jul-15
Low Beta Benchmark			0.2	1.7	2.8	2.8	2.0	1.1	--	1.1	Jul-15
Immunized Cash Flows	93,307,444	4.3	0.2	2.7	3.9	3.9	--	--	--	4.4	Oct-18
Immunized Cash Flows Benchmark			0.2	2.7	3.9	3.9	--	--	--	4.4	Oct-18
Insight Immunized Cash Flow	93,307,444	4.3	0.2	2.7	3.9	3.9	--	--	--	--	Jun-19
Market Neutral Strategies	82,004,581	3.8	2.8	-4.2	-2.0	-2.0	3.4	2.3	--	3.2	Nov-12
Market Neutral Strategies Benchmark			0.2	0.5	1.6	1.6	1.5	0.8	--	1.2	Nov-12
Macro	17,381,104	0.8	0.9	2.5	2.9	2.9	4.8	3.1	--	2.8	Oct-14
HFRI Macro (Total) Index			1.0	-0.6	0.9	0.9	1.5	0.8	--	1.0	Oct-14
Kepos Alpha Fund, Ltd	17,381,104	0.8	13.6	12.1	19.2	19.2	12.3	5.4	--	3.5	Mar-13
HFRI Macro: Systematic Diversified Index			-2.6	-3.1	-1.8	-1.8	0.5	-0.6	--	0.5	Mar-13

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Relative Value	64,623,477	3.0	5.8	-11.3	-8.1	-8.1	1.6	1.7	--	2.4	Oct-14
<i>HFRI Relative Value (Total) Index</i>			6.3	-4.6	-2.8	-2.8	1.5	2.3	--	2.3	Oct-14
Pine River Fund, Ltd	625,028	0.0	-4.8	-0.6	10.2	10.2	8.8	3.6	--	4.9	Jan-13
<i>HFRI Relative Value (Total) Index</i>			6.3	-4.6	-2.8	-2.8	1.5	2.3	--	3.4	Jan-13
DE Shaw Composite Fund, LLC	31,766,986	1.5	4.8	6.8	13.9	13.9	11.9	9.8	--	11.5	Apr-13
<i>HFRI Fund Weighted Composite Index</i>			9.2	-3.4	-0.6	-0.6	2.1	2.3	--	3.1	Apr-13
JD Capital	2,051,688	0.1	-2.7	-86.1	-86.0	-86.0	-45.6	--	--	-38.1	Oct-16
<i>HFRI Relative Value (Total) Index</i>			6.3	-4.6	-2.8	-2.8	1.5	--	--	2.4	Oct-16
Hudson Bay	30,179,775	1.4	7.7	11.9	16.3	16.3	--	--	--	9.5	Aug-17
<i>HFRI Relative Value (Total) Index</i>			6.3	-4.6	-2.8	-2.8	--	--	--	1.3	Aug-17
Cash	52,189,793	2.4	0.0	0.4	2.0	2.0	1.7	1.3	--	--	Jan-06
<i>ICE BofA 91 Days T-Bills TR</i>			0.0	0.6	1.6	1.6	1.8	1.2	--	--	Jan-06
Other	292,956,167	13.4	0.8	-0.9	1.2	1.2	2.7	1.8	2.4	2.0	Jul-04
<i>Other Benchmark</i>			0.7	-7.1	-4.7	-4.7	-0.3	0.5	--	--	Jul-04
Investment Grade Bonds	119,159,056	5.5	3.1	6.4	--	--	--	--	--	6.3	Dec-19
<i>Custom IG Bonds Benchmark</i>			2.1	5.3	--	--	--	--	--	5.2	Dec-19
Northern Trust Aggregate Bond Index	87,068,539	4.0	2.8	6.2	--	--	--	--	--	6.1	Dec-19
<i>BBgBarc US Aggregate TR</i>			2.9	6.1	--	--	--	--	--	6.1	Dec-19

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

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Voya TALF	500,000	0.0	--	--	--	--	--	--	--	0.0	Jun-20
BBgBarc US ABS TR			--	--	--	--	--	--	--	1.1	Jun-20
Voya Securitized Credit	31,590,517	1.4	--	--	--	--	--	--	--	1.7	May-20
BBgBarc US ABS TR			--	--	--	--	--	--	--	2.2	May-20
TIPS	43,560,306	2.0	1.5	1.0	2.5	2.5	2.4	1.8	--	1.2	Jul-14
BBgBarc U.S. TIPS 0-5 Years			2.6	1.9	3.4	3.4	2.7	2.0	--	1.3	Jul-14
Northern Trust 0-5 Year TIPS	43,560,306	2.0	1.5	2.5	4.0	4.0	2.9	2.1	--	1.5	Jul-14
BBgBarc US Treasury TIPS 0-5 Yr TR			2.6	1.9	3.4	3.4	2.7	2.0	--	1.3	Jul-14
Core Private Real Estate	86,839,582	4.0	-1.5	1.6	3.6	3.6	6.1	7.7	10.4	6.9	Jul-04
NCREIF ODCE Equal Weighted (Net)			-1.5	-0.8	1.7	1.7	5.1	6.7	10.0	6.5	Jul-04
BlackRock Core Property Fund	40,603,553	1.9	-0.6	2.5	3.7	3.7	--	--	--	4.3	Feb-19
NCREIF ODCE Equal-Weighted			-1.5	-0.8	1.7	1.7	--	--	--	2.7	Feb-19
NCREIF ODCE Value-Weighted			-1.8	-1.0	1.3	1.3	--	--	--	2.1	Feb-19
Clarion Lion Properties Fund	46,236,029	2.1	-2.2	0.7	2.2	2.2	--	--	--	3.1	Apr-19
NCREIF ODCE Equal Weighted (Net)			-1.5	-0.8	1.7	1.7	--	--	--	2.4	Apr-19
NCREIF ODCE Value-Weighted			-1.8	-1.0	1.3	1.3	--	--	--	1.8	Apr-19

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Long Term Government Bonds	43,397,224	2.0	--	--	--	--	--	--	--	0.4	May-20
BBgBarc US Govt Long TR			--	--	--	--	--	--	--	-1.7	May-20
BlackRock Long Term Gov Bonds	43,397,224	2.0	--	--	--	--	--	--	--	0.4	May-20
BBgBarc US Govt TR			--	--	--	--	--	--	--	-0.1	May-20
Overlay	18,877,118	0.9									
Russell Investments Overlay	18,868,614	0.9									

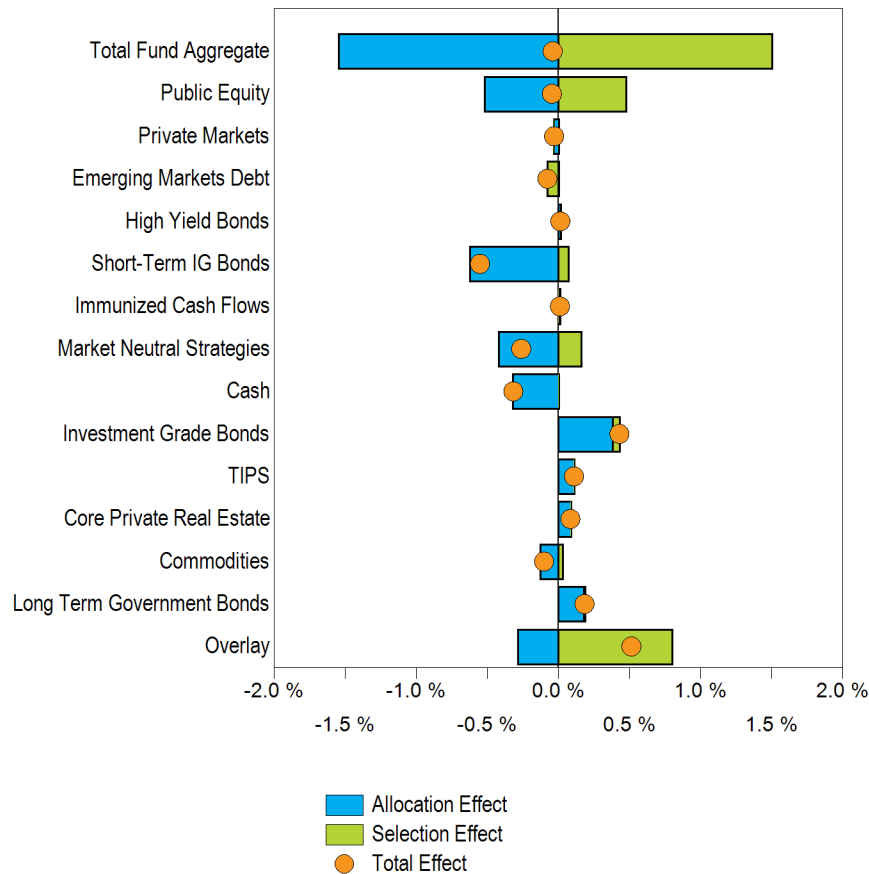
Cash Flow Summary						
Quarter Ending June 30, 2020						
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
AHL Partners LLP	\$10,572,905	\$0	-\$10,572,905	-\$10,572,905	\$0	\$0
Arbour Lane Credit Opportunity Fund II, L.P.	\$0	\$4,747,384	-\$167,779	\$4,579,605	\$2,142,184	\$6,721,790
Artisan Global Opportunities	\$107,806,388	\$0	\$0	\$0	\$29,917,562	\$137,723,951
Artisan Global Value	\$102,061,758	\$21,378,960	-\$21,378,960	\$0	\$17,732,719	\$119,794,477
Blackrock 1-3 Year Gov/Credit	\$169,745,027	\$0	-\$170,597,193	-\$170,597,193	\$852,166	\$0
BlackRock 3-Month T-Bill	\$64	\$0	-\$64	-\$64	\$0	\$0
BlackRock Core Property Fund	\$41,275,074	\$0	-\$453,081	-\$453,081	-\$218,441	\$40,603,553
BlackRock Long Term Gov Bonds	--	\$43,249,146	\$0	\$43,249,146	\$148,078	\$43,397,224
Blackstone/GSO Cap Partners	\$6,513,035	\$0	\$0	\$0	-\$2,311,404	\$4,201,631
BlueBay EM Select Bond	\$17,725,875	\$10,000,000	\$0	\$10,000,000	\$2,103,377	\$29,829,252
Cash Account	\$53,126,950	\$449,821,064	-\$450,768,918	-\$947,854	\$10,697	\$52,189,793
Clarion Lion Properties Fund	\$47,624,328	\$0	-\$433,998	-\$433,998	-\$954,301	\$46,236,029
Cove Street Small Cap Value	\$12,144,734	\$581,514	-\$581,514	\$0	\$2,437,303	\$14,582,037
Credit Suisse Risk Parity	\$31,100,507	\$0	-\$31,379,091	-\$31,379,091	\$278,583	--
Crestline Co-Investment	\$1,690,139	\$0	-\$3,883	-\$3,883	\$41,584	\$1,727,839
Crestline Portfolio Financing	\$7,908,659	\$1,082,290	-\$153,345	\$928,945	\$91,588	\$8,929,192
Cross Ocean USD ESS Fund II LP	\$8,497,549	\$0	-\$477,871	-\$477,871	-\$459,616	\$7,560,062
Cross Ocean USD ESS Fund III, L.P.	\$6,217,734	\$3,573,837	-\$66,451	\$3,507,386	\$37,128	\$9,762,248
DE Shaw Composite Fund, LLC	\$30,317,264	\$0	-\$233,083	-\$233,083	\$1,682,805	\$31,766,986
Dimensional Fund Adv EM Value	\$27,880,094	\$0	\$0	\$0	\$5,309,151	\$33,189,245
DRA Growth & Income Fund IX	\$17,714,234	\$0	-\$545,069	-\$545,069	\$417,681	\$17,586,846
DRA Growth & Income Fund VI	\$648,859	\$0	-\$51,000	-\$51,000	\$6,530	\$604,389

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
DRA Growth & Income Fund VII	\$2,777,053	\$0	-\$145,054	-\$145,054	\$24,355	\$2,656,354
DRA Growth & Income Fund VIII	\$10,388,322	\$0	-\$50,353	-\$50,353	\$133,588	\$10,471,557
DRA Growth & Income Fund X	\$1,544,737	\$0	-\$45,648	-\$45,648	\$96,513	\$1,595,602
Eagle Point Defensive Income Fund	--	\$4,800,000	\$0	\$4,800,000	\$0	\$4,800,000
GEM Realty Fund VI	\$2,827,622	\$500,000	-\$39,375	\$460,625	\$38,112	\$3,326,359
Global Infra Part III-A/B, LP	\$20,709,842	\$0	-\$490,601	-\$490,601	-\$2,717,246	\$17,501,996
Global Infra Partners IV	\$12,502	\$14,002	-\$13,544	\$457	-\$38	\$12,922
GQG Global Emerging Markets	\$34,689,110	\$0	-\$55,911	-\$55,911	\$7,852,903	\$42,486,102
Great Hill Equity Partners IV	\$2,379,912	\$0	\$0	\$0	-\$241,882	\$2,138,030
Hudson Bay	\$28,017,144	\$0	\$0	\$0	\$2,162,631	\$30,179,775
Innovation Endeavors III	\$2,534,178	\$720,000	-\$52,560	\$667,440	\$73,180	\$3,274,798
Insight Immunized Cash Flow	\$100,957,725	\$0	-\$7,851,964	-\$7,851,964	\$201,683	\$93,307,444
JD Capital	\$2,107,602	\$0	-\$7,860	-\$7,860	-\$48,053	\$2,051,688
Kepos Alpha Fund, Ltd	\$15,295,914	\$0	-\$36,328	-\$36,328	\$2,121,517	\$17,381,104
Keynes Lev Quant Strat, Ltd	\$11,027,295	\$0	-\$11,003,017	-\$11,003,017	-\$24,278	\$0
Kimmeridge Energy Fund V, L.P.	\$1,013,492	\$0	-\$13,828	-\$13,828	-\$141,078	\$858,585
Lime Rock Partners VIII	\$2,452,095	\$0	-\$23,579	-\$23,579	-\$723,571	\$1,704,945
Medley Opportunity Fund II LP	\$16,901,047	\$0	-\$1,414,003	-\$1,414,003	-\$972,447	\$14,514,597
Mellon High Yield Beta	--	\$44,000,000	\$0	\$44,000,000	-\$459,316	\$43,540,684
Northern Tr Russell 2000 Value	\$7,836	\$0	-\$1,063	-\$1,063	-\$6,772	\$0
Northern Trust 0-5 Year TIPS	\$47	\$43,000,000	\$0	\$43,000,000	\$560,260	\$43,560,306
Northern Trust Aggregate Bond Index	\$67,070,850	\$18,000,000	\$0	\$18,000,000	\$1,997,689	\$87,068,539

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
Northern Trust MSCI EM IMI	\$102,606,600	\$0	-\$47,000,000	-\$47,000,000	\$16,237,085	\$71,843,684
Northern Trust MSCI World ex US	\$123,836,977	\$23,000,000	\$0	\$23,000,000	\$20,996,062	\$167,833,039
Northern Trust Russell 3000	\$118,655,534	\$4,000,000	-\$22,516,009	-\$18,516,009	\$23,739,012	\$123,878,537
Northern Trust Russell 3000	\$159,639,037	\$160,423,092	-\$3,523,167	\$156,899,925	\$59,332,209	\$375,871,172
Oberweis Intl Opportunities	\$25,144,085	\$13,504,798	-\$13,504,798	\$0	\$11,921,449	\$37,065,534
Octagon CLO Opp Fund III	\$11,999,202	\$2,500,000	-\$353,856	\$2,146,144	\$2,738,833	\$16,884,180
Pantheon Global Secondary III	\$2,884,221	\$0	-\$1,399,640	-\$1,399,640	-\$161,488	\$1,323,093
Pantheon USA Fund VII, LP	\$12,816,940	\$0	-\$1,048,939	-\$1,048,939	-\$1,508,732	\$10,259,268
Partners Group Secondary 2008	\$929,250	\$0	\$0	\$0	-\$138,752	\$790,499
Partners Group Secondary 2011	\$5,863,334	\$0	-\$281,314	-\$281,314	-\$1,091,096	\$4,490,924
Pathway Private Eq Fund VIII	\$2,412,614	\$18,859	-\$228,123	-\$209,264	-\$287,909	\$1,915,440
PE Strategic Partnership, LP	\$119,300,256	\$7,800,000	-\$136,500	\$7,663,500	-\$3,423,172	\$123,540,584
Pharo Management, Ltd.	\$23,599,374	\$0	-\$21,959,500	-\$21,959,500	-\$1,639,874	\$0
Pine River Fund, Ltd	\$656,659	\$0	-\$785	-\$785	-\$30,845	\$625,028
Rockpoint Real Estate Fund VI, L.P.	--	\$1,059,027	\$0	\$1,059,027	\$0	\$1,059,027
Russell Investments Overlay	\$64,808,953	\$0	-\$60,000,000	-\$60,000,000	\$14,059,661	\$18,868,614
RWC Emerging Markets Equity	\$20,449,546	\$0	-\$42,373	-\$42,373	\$5,583,868	\$25,991,041
Senator Global Opportunity, LP	\$13,229,060	\$0	-\$14,208,812	-\$14,208,812	\$979,752	\$0
State Street Terminated Managers	\$10,510	\$0	\$0	\$0	-\$2,005	\$8,504
Systematica	\$20,774,186	\$0	-\$20,040,081	-\$20,040,081	-\$734,104	--
Torchlight Debt Opportunity VI	\$17,157,282	\$13,500,000	-\$101,250	\$13,398,750	-\$863,267	\$29,692,764
Tristan - EPISO IV	\$13,011,924	\$0	-\$725,826	-\$725,826	-\$275,812	\$12,010,286

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
Tristan - EPISO V	\$667,100	\$366,697	-\$41,070	\$325,627	-\$2,433	\$990,294
Voya Securitized Credit	--	\$31,068,724	\$0	\$31,068,724	\$521,793	\$31,590,517
Voya TALF	--	\$500,000	\$0	\$500,000	\$0	\$500,000
Wellington Emerging Markets Systematic Equity	\$42,263,720	\$0	-\$30,563	-\$30,563	\$7,076,933	\$49,310,090
Wellington Iguazu Partners LP Fund	\$35,241,440	\$0	\$0	\$0	\$2,328,320	\$37,569,760
White Oak Direct Lending	\$11,333,419	\$0	-\$40,991	-\$40,991	-\$693,092	\$10,599,336
Total	\$1,972,576,722	\$903,209,394	-\$916,292,491	-\$13,083,096	\$223,855,518	\$2,183,349,144

Attribution Effects 3 Months Ending June 30, 2020

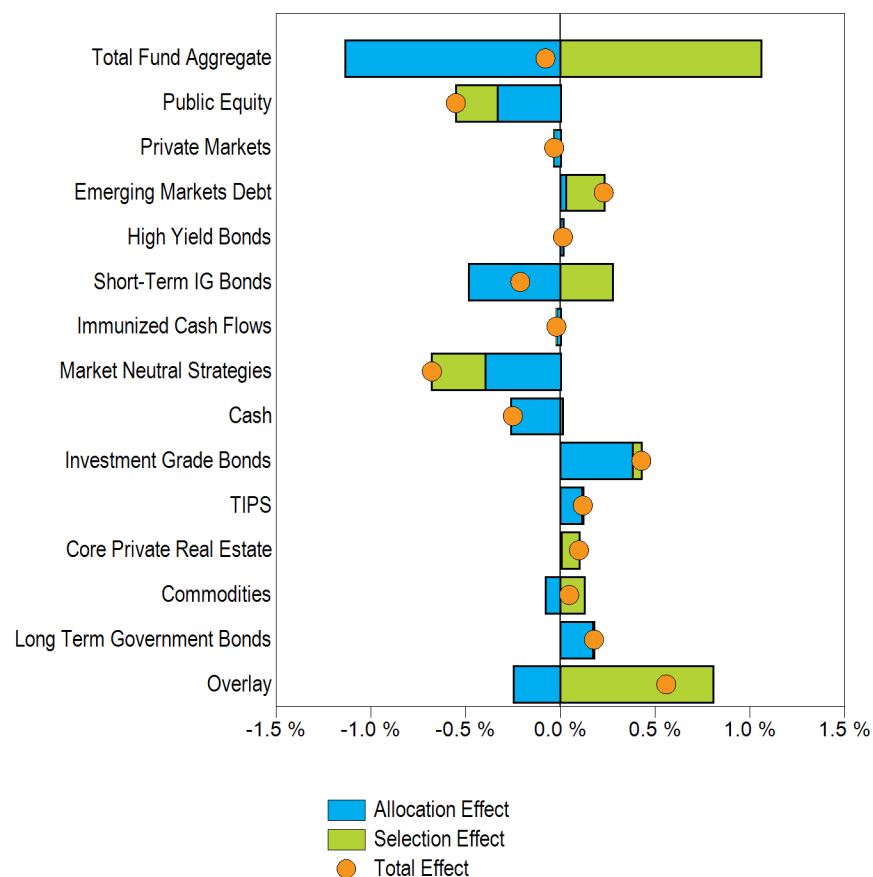


Attribution Summary 3 Months Ending June 30, 2020

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Public Equity	21.0%	20.0%	1.0%	0.5%	-0.5%	0.0%
Private Markets	2.9%	2.9%	0.0%	0.0%	0.0%	0.0%
Emerging Markets Debt	8.3%	11.0%	-2.8%	-0.1%	0.0%	-0.1%
High Yield Bonds	0.0%	10.2%	-10.2%	0.0%	0.0%	0.0%
Short-Term IG Bonds	1.1%	0.0%	1.1%	0.1%	-0.6%	-0.6%
Immunized Cash Flows	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%
Market Neutral Strategies	2.8%	0.2%	2.7%	0.2%	-0.4%	-0.3%
Cash	0.0%	0.0%	0.0%	0.0%	-0.3%	-0.3%
Investment Grade Bonds	3.1%	2.1%	1.0%	0.0%	0.4%	0.4%
TIPS	1.5%	2.6%	-1.2%	0.0%	0.1%	0.1%
Core Private Real Estate	-1.5%	-1.5%	0.0%	0.0%	0.1%	0.1%
Commodities	0.0%	5.1%	-5.1%	0.0%	-0.1%	-0.1%
Long Term Government Bonds	0.4%	0.3%	0.1%	0.0%	0.2%	0.2%
Overlay	26.5%	0.0%	26.5%	0.8%	-0.3%	0.5%
Total	10.9%	10.9%	0.0%	1.5%	-1.5%	0.0%

¹ 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.

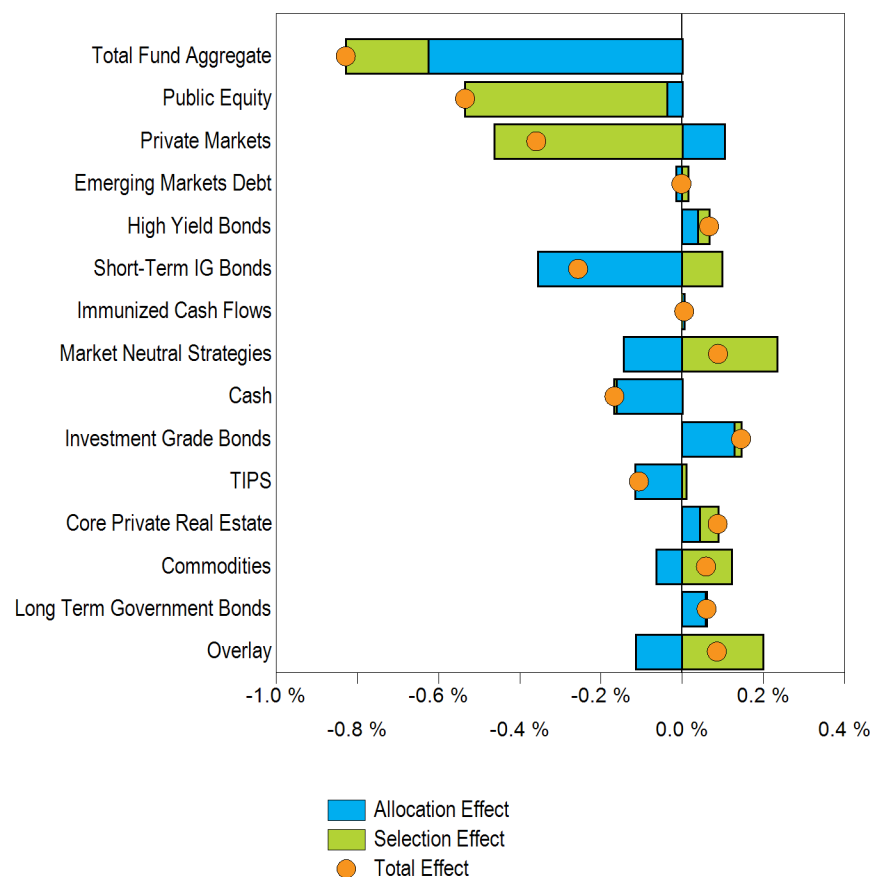
Attribution Effects 1 Year Ending June 30, 2020



Attribution Summary 1 Year Ending June 30, 2020

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Public Equity	-1.0%	0.2%	-1.2%	-0.2%	-0.3%	-0.6%
Private Markets	-0.3%	-0.3%	0.0%	0.0%	0.0%	0.0%
Emerging Markets Debt	5.5%	-1.1%	6.6%	0.2%	0.0%	0.2%
High Yield Bonds	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Short-Term IG Bonds	3.7%	1.3%	2.4%	0.3%	-0.5%	-0.2%
Immunized Cash Flows	3.9%	3.9%	0.0%	0.0%	0.0%	0.0%
Market Neutral Strategies	-2.0%	1.6%	-3.6%	-0.3%	-0.4%	-0.7%
Cash	2.0%	1.6%	0.3%	0.0%	-0.3%	-0.3%
Investment Grade Bonds	6.3%	5.2%	1.1%	0.0%	0.4%	0.4%
TIPS	2.5%	3.4%	-1.0%	0.0%	0.1%	0.1%
Core Private Real Estate	3.6%	1.7%	1.9%	0.1%	0.0%	0.1%
Commodities	-18.1%	-17.4%	-0.8%	0.1%	-0.1%	0.0%
Long Term Government Bonds	0.4%	0.3%	0.1%	0.0%	0.2%	0.2%
Overlay	40.2%	1.3%	38.9%	0.8%	-0.2%	0.6%
Total	3.5%	3.6%	-0.1%	1.1%	-1.1%	-0.1%

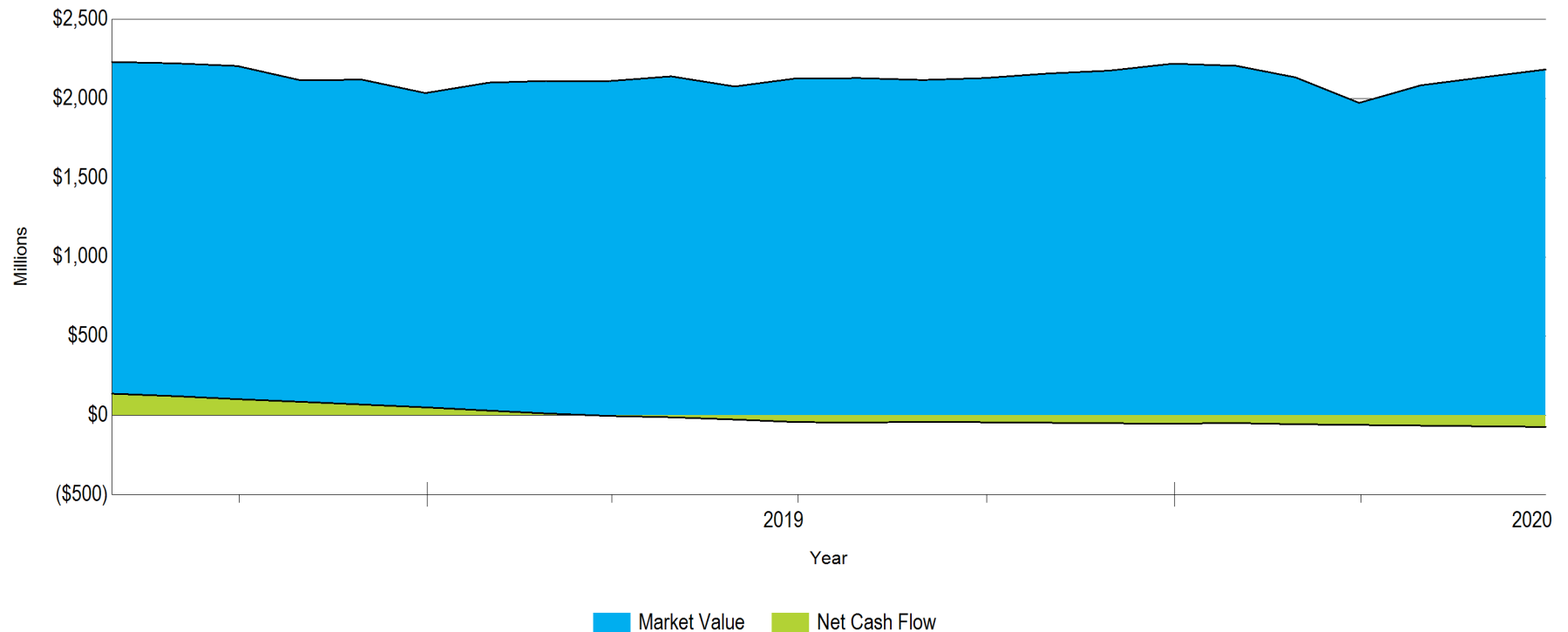
Attribution Effects
3 Years Ending June 30, 2020



Attribution Summary
3 Years Ending June 30, 2020

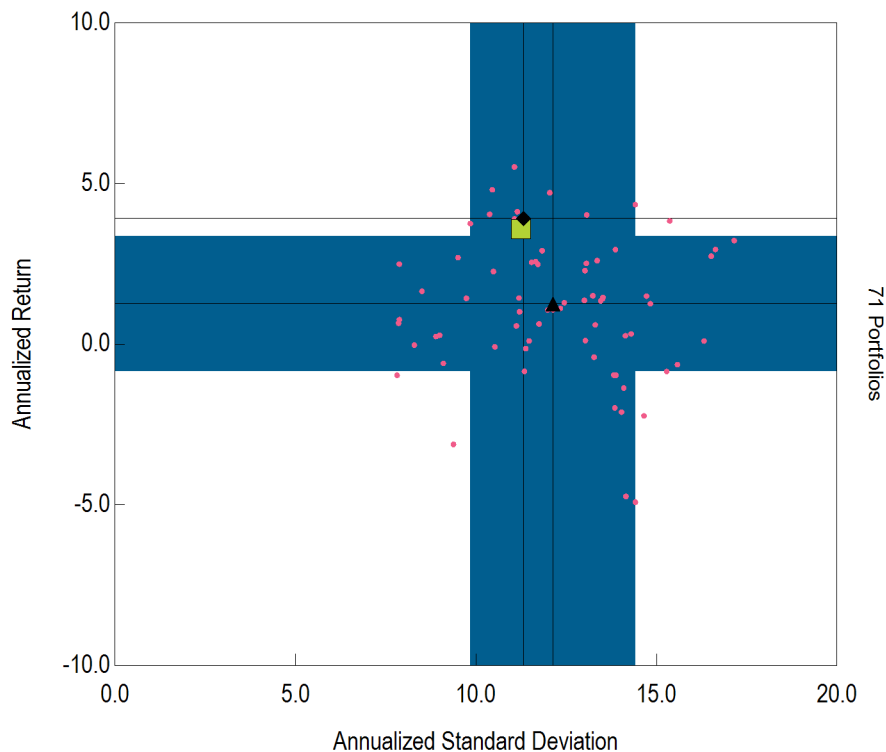
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Public Equity	4.0%	5.4%	-1.5%	-0.5%	0.0%	-0.5%
Private Markets	5.1%	7.1%	-2.0%	-0.5%	0.1%	-0.4%
Emerging Markets Debt	3.4%	2.4%	1.0%	0.0%	0.0%	0.0%
High Yield Bonds	1.5%	3.3%	-1.8%	0.0%	0.0%	0.1%
Short-Term IG Bonds	1.8%	1.0%	0.8%	0.1%	-0.4%	-0.3%
Immunized Cash Flows	2.5%	2.5%	0.0%	0.0%	0.0%	0.0%
Market Neutral Strategies	3.4%	1.5%	1.9%	0.2%	-0.1%	0.1%
Cash	1.7%	1.8%	0.0%	0.0%	-0.2%	-0.2%
Investment Grade Bonds	2.1%	1.7%	0.4%	0.0%	0.1%	0.1%
TIPS	2.4%	2.7%	-0.2%	0.0%	-0.1%	-0.1%
Core Private Real Estate	6.1%	5.1%	1.0%	0.0%	0.0%	0.1%
Commodities	-5.0%	-6.1%	1.1%	0.1%	-0.1%	0.1%
Long Term Government Bonds	0.1%	0.1%	0.0%	0.0%	0.1%	0.1%
Overlay	4.5%	1.7%	2.8%	0.2%	-0.1%	0.1%
Total	4.8%	5.0%	-0.2%	-0.2%	-0.6%	-0.8%

Market Value History
2 Years Ending June 30, 2020



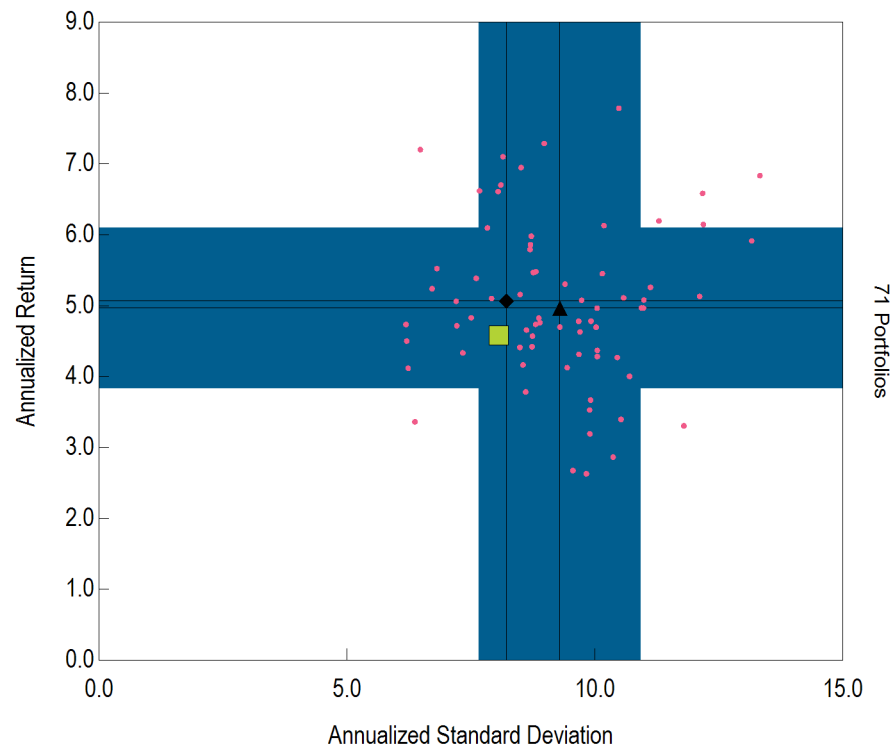
	Second Quarter	Fiscal Year-To-Date	One Year	Two Years
Beginning Market Value	\$1,972,576,722	\$2,127,219,653	\$2,127,219,653	\$2,071,707,543
Net Cash Flow	-\$12,429,982	-\$30,625,084	-\$30,625,084	-\$73,214,326
Net Investment Change	\$223,202,404	\$86,754,575	\$86,754,575	\$184,855,927
Ending Market Value	\$2,183,349,144	\$2,183,349,144	\$2,183,349,144	\$2,183,349,144

Annualized Return vs. Annualized Standard Deviation
1 Year Ending June 30, 2020



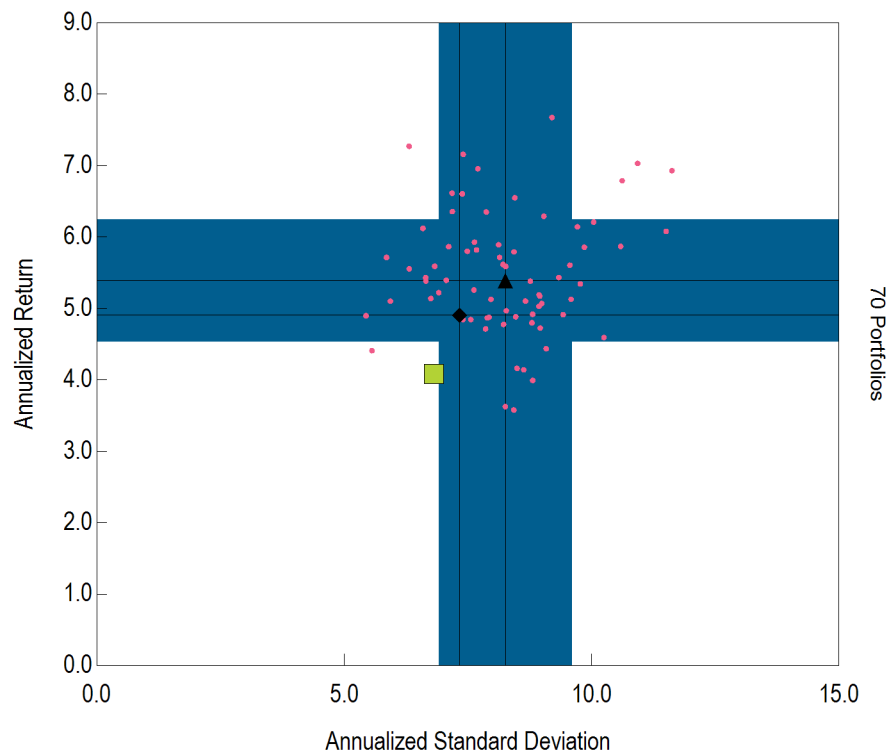
- Total Fund Aggregate
- ◆ Policy Benchmark
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics Public DB > \$1B Net

Annualized Return vs. Annualized Standard Deviation
3 Years Ending June 30, 2020



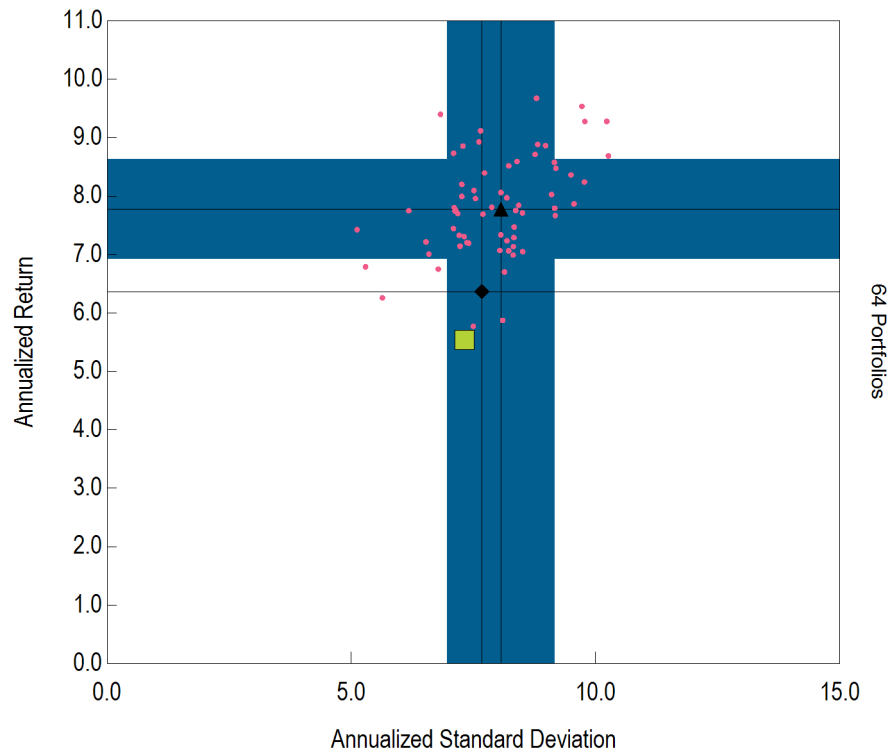
- Total Fund Aggregate
- ◆ Policy Benchmark
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics Public DB > \$1B Net

Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2020



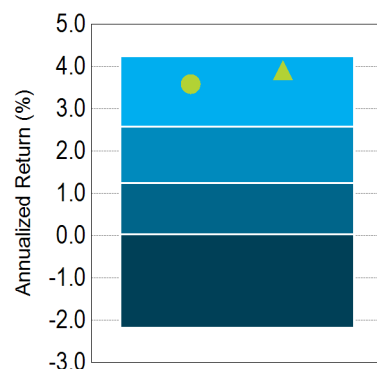
- Total Fund Aggregate
- Policy Benchmark
- Universe Median
- 68% Confidence Interval
- InvMetrics Public DB > \$1B Net

Annualized Return vs. Annualized Standard Deviation
10 Years Ending June 30, 2020



- Total Fund Aggregate
- Policy Benchmark
- Universe Median
- 68% Confidence Interval
- InvMetrics Public DB > \$1B Net

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



● Total Fund Aggregate

Value 3.6
Rank 14

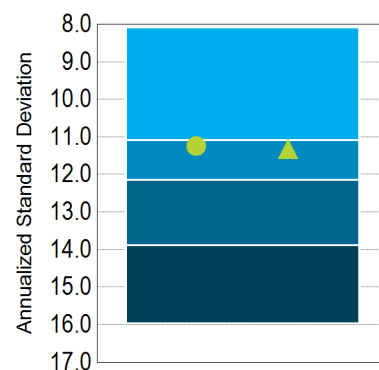
▲ Policy Benchmark

Value 3.9
Rank 10

Universe

5th %tile 4.2
25th %tile 2.6
Median 1.3
75th %tile 0.0
95th %tile -2.2

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



● Total Fund Aggregate

Value 11.2
Rank 34

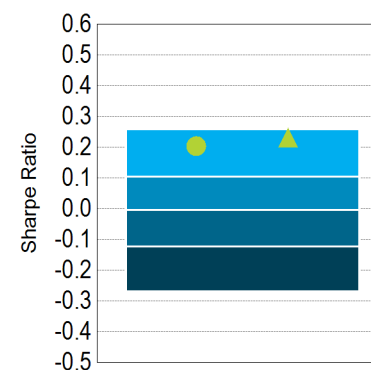
▲ Policy Benchmark

Value 11.3
Rank 35

Universe

5th %tile 8.1
25th %tile 11.1
Median 12.1
75th %tile 13.9
95th %tile 15.9

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



● Total Fund Aggregate

Value 0.2
Rank 12

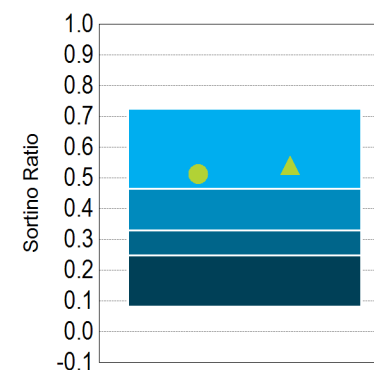
▲ Policy Benchmark

Value 0.2
Rank 9

Universe

5th %tile 0.3
25th %tile 0.1
Median 0.0
75th %tile -0.1
95th %tile -0.3

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



● Total Fund Aggregate

Value 0.5
Rank 19

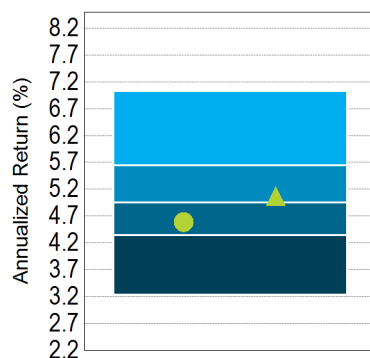
▲ Policy Benchmark

Value 0.5
Rank 18

Universe

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

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



● Total Fund Aggregate

Value 4.6
Rank 69

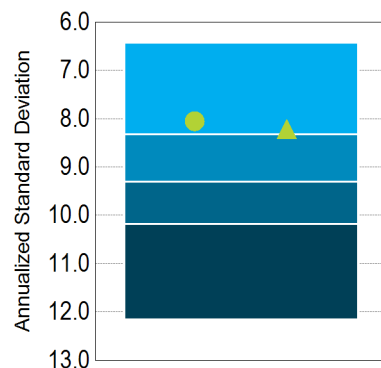
▲ Policy Benchmark

Value 5.1
Rank 46

Universe

5th %tile 7.0
25th %tile 5.7
Median 5.0
75th %tile 4.4
95th %tile 3.2

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



● Total Fund Aggregate

Value 8.1
Rank 22

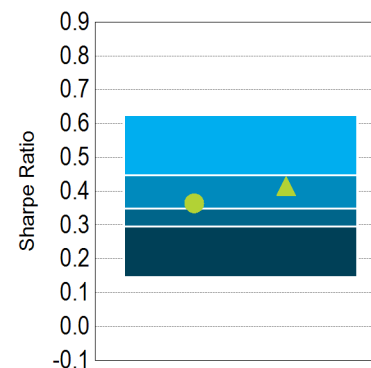
▲ Policy Benchmark

Value 8.2
Rank 25

Universe

5th %tile 6.4
25th %tile 8.3
Median 9.3
75th %tile 10.2
95th %tile 12.1

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



● Total Fund Aggregate

Value 0.4
Rank 46

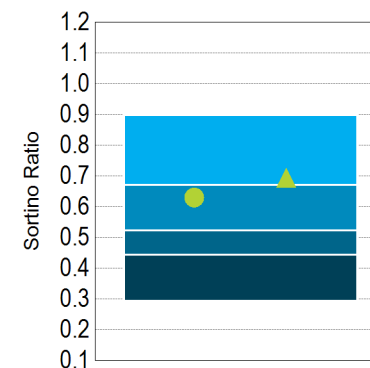
▲ Policy Benchmark

Value 0.4
Rank 34

Universe

5th %tile 0.6
25th %tile 0.4
Median 0.4
75th %tile 0.3
95th %tile 0.1

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



● Total Fund Aggregate

Value 0.6
Rank 34

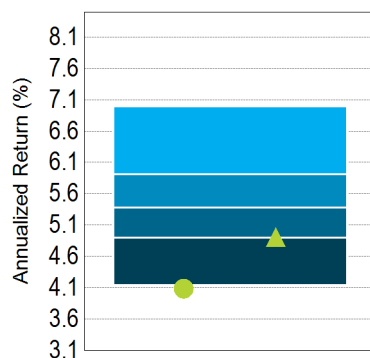
▲ Policy Benchmark

Value 0.7
Rank 21

Universe

5th %tile 0.9
25th %tile 0.7
Median 0.5
75th %tile 0.4
95th %tile 0.3

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



● Total Fund Aggregate

Value 4.1
Rank 97

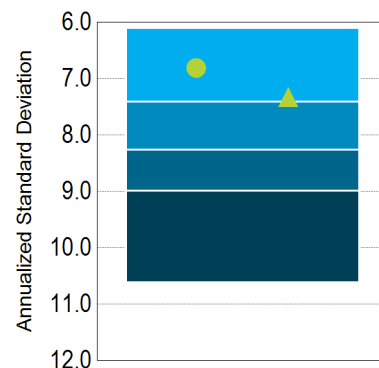
▲ Policy Benchmark

Value 4.9
Rank 75

Universe

5th %tile 7.0
25th %tile 5.9
Median 5.4
75th %tile 4.9
95th %tile 4.2

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



● Total Fund Aggregate

Value 6.8
Rank 15

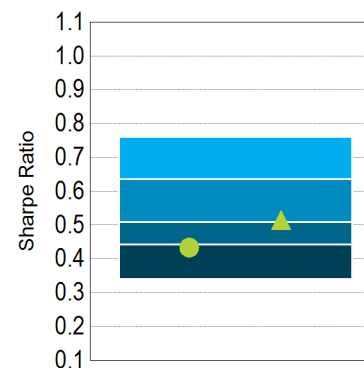
▲ Policy Benchmark

Value 7.3
Rank 23

Universe

5th %tile 6.1
25th %tile 7.4
Median 8.3
75th %tile 9.0
95th %tile 10.6

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



● Total Fund Aggregate

Value 0.4
Rank 81

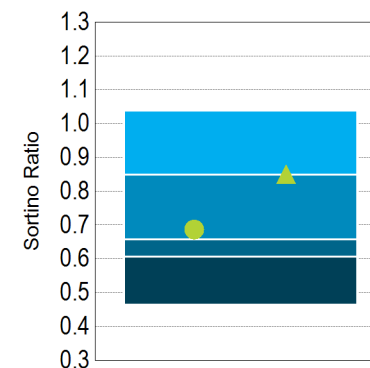
▲ Policy Benchmark

Value 0.5
Rank 50

Universe

5th %tile 0.8
25th %tile 0.6
Median 0.5
75th %tile 0.4
95th %tile 0.3

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



● Total Fund Aggregate

Value 0.7
Rank 49

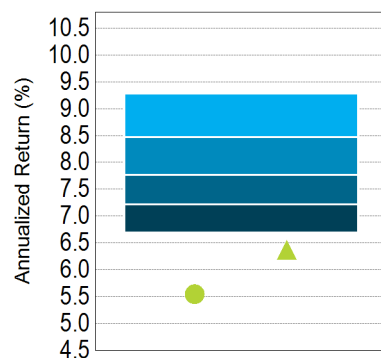
▲ Policy Benchmark

Value 0.8
Rank 26

Universe

5th %tile 1.0
25th %tile 0.9
Median 0.7
75th %tile 0.6
95th %tile 0.5

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



● Total Fund Aggregate

Value 5.5
Rank 99

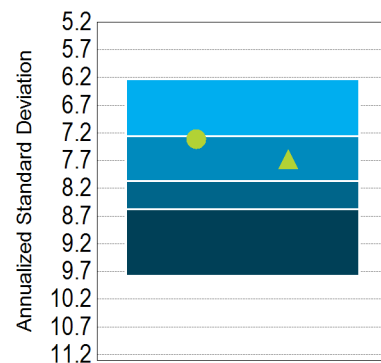
▲ Policy Benchmark

Value 6.4
Rank 97

Universe

5th %tile 9.3
25th %tile 8.5
Median 7.8
75th %tile 7.2
95th %tile 6.7

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



● Total Fund Aggregate

Value 7.3
Rank 31

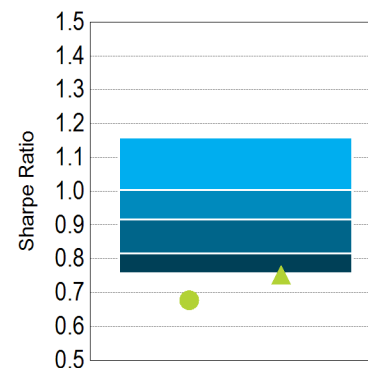
▲ Policy Benchmark

Value 7.7
Rank 43

Universe

5th %tile 6.2
25th %tile 7.3
Median 8.1
75th %tile 8.6
95th %tile 9.8

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



● Total Fund Aggregate

Value 0.7
Rank 99

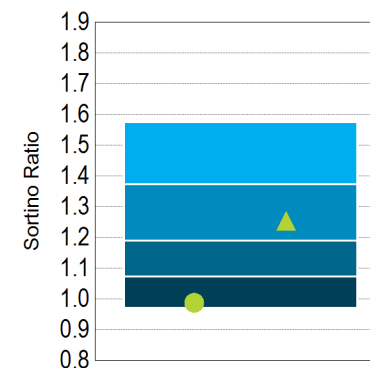
▲ Policy Benchmark

Value 0.8
Rank 97

Universe

5th %tile 1.2
25th %tile 1.0
Median 0.9
75th %tile 0.8
95th %tile 0.8

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



● Total Fund Aggregate

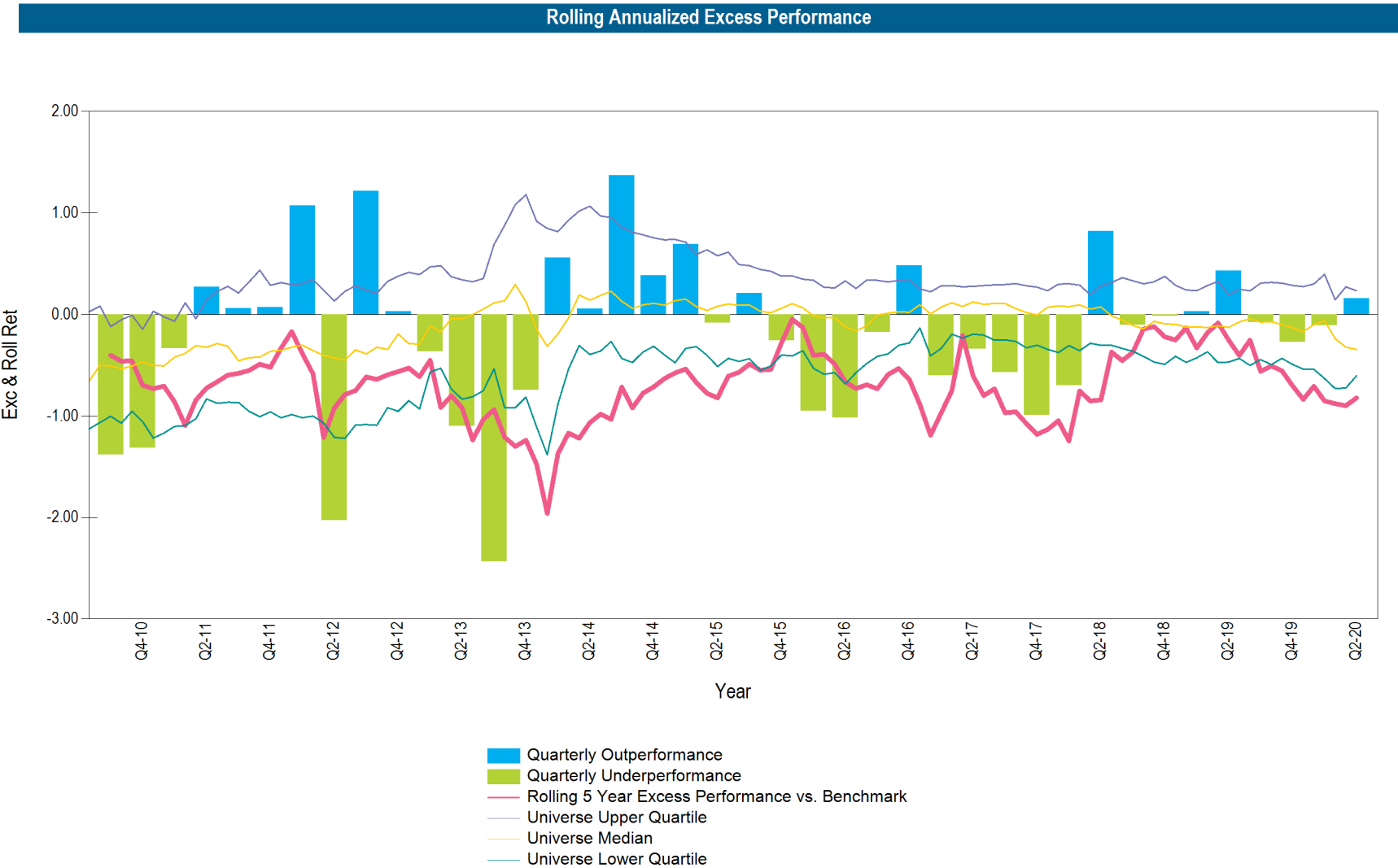
Value 1.0
Rank 93

▲ Policy Benchmark

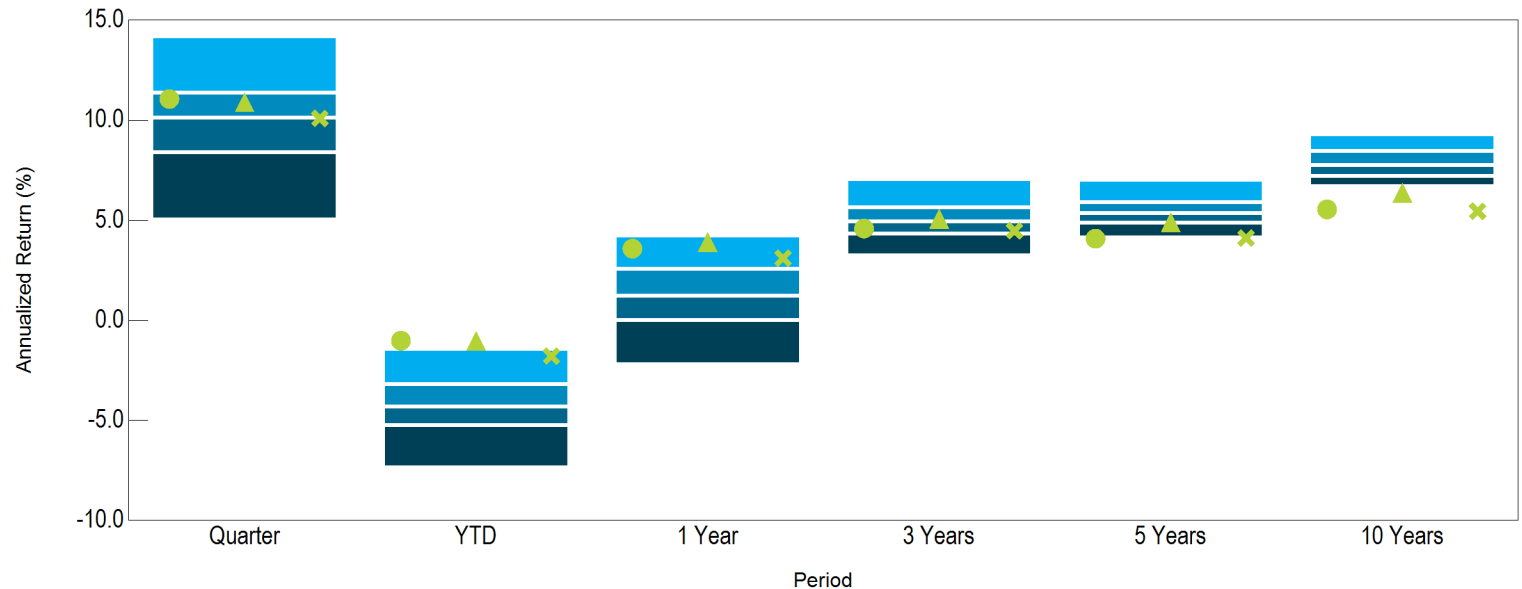
Value 1.3
Rank 45

Universe

5th %tile 1.6
25th %tile 1.4
Median 1.2
75th %tile 1.1
95th %tile 1.0

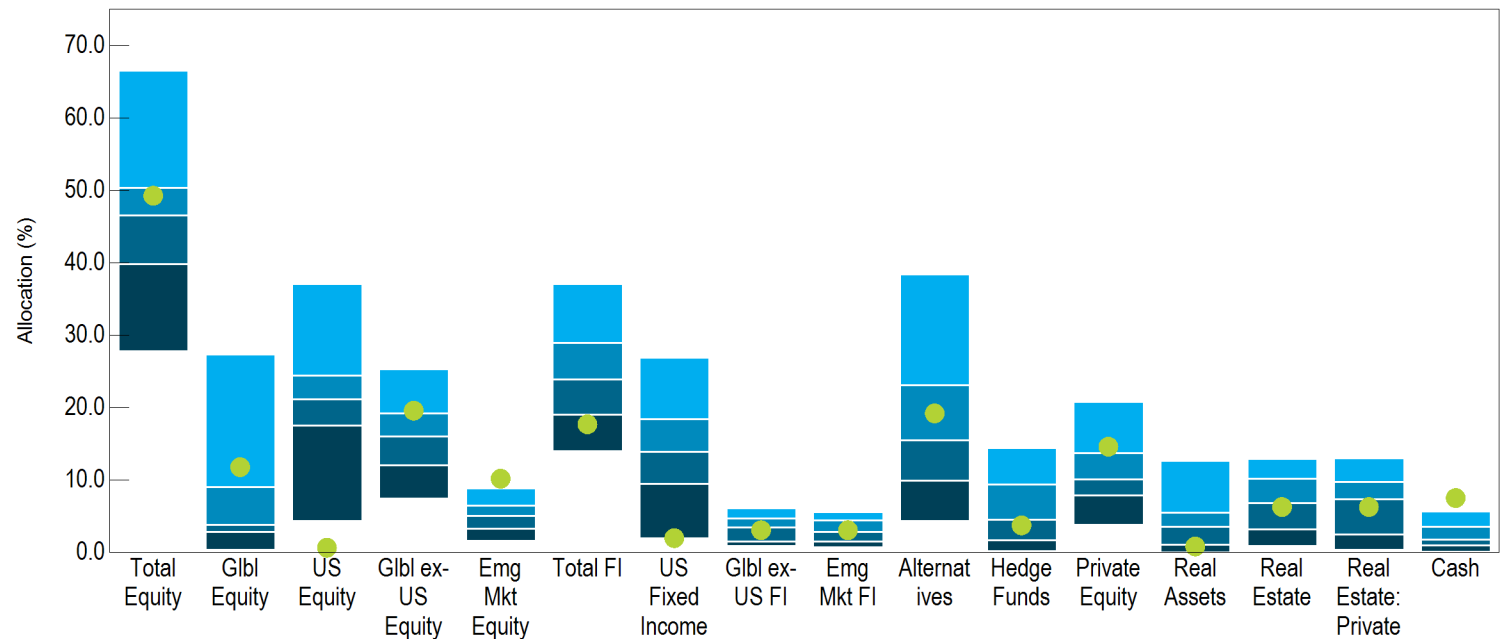


InvMetrics Public DB > \$1B Net Return Comparison
Ending June 30, 2020



	Return (Rank)											
5th Percentile	14.2		-1.5		4.2		7.0		7.0	9.3		
25th Percentile	11.4		-3.2		2.6		5.7		5.9	8.5		
Median	10.1		-4.3		1.3		5.0		5.4	7.8		
75th Percentile	8.4		-5.2		0.0		4.4		4.9	7.2		
95th Percentile	5.0		-7.3		-2.2		3.2		4.2	6.7		
# of Portfolios	71		71		71		71		70	64		
● Total Fund Aggregate	11.1	(29)	-1.0	(1)	3.6	(14)	4.6	(69)	4.1	(97)	5.5	(99)
▲ Policy Benchmark	10.9	(31)	-1.0	(1)	3.9	(10)	5.1	(46)	4.9	(75)	6.4	(97)
✘ Investable Benchmark Portfolio	10.1	(52)	-1.8	(10)	3.1	(17)	4.5	(71)	4.1	(96)	5.4	(99)

Total Plan Allocation vs. InvMetrics Public DB > \$1B Net
As of June 30, 2020



		Allocation																
5th Percentile		66.5	27.4	37.1	25.3	8.8	37.1	26.9	6.1	5.6	38.4	14.4	20.8	12.7	13.0	13.0	5.7	--
25th Percentile		50.5	9.1	24.5	19.3	6.6	29.0	18.5	4.8	4.6	23.2	9.5	13.8	5.6	10.3	9.9	3.6	--
Median		46.6	3.9	21.3	16.1	5.2	24.0	14.0	3.6	3.0	15.6	4.6	10.2	3.6	6.9	7.5	1.9	--
75th Percentile		39.9	2.9	17.6	12.1	3.4	19.1	9.6	1.6	1.6	10.0	1.8	8.0	1.1	3.3	2.6	1.1	--
95th Percentile		27.9	0.5	4.4	7.5	1.7	14.1	2.0	1.0	0.8	4.4	0.3	3.9	0.1	1.0	0.5	0.2	--
# of Portfolios		50	25	40	49	39	50	41	29	28	48	33	46	27	47	43	50	--
●	Total Fund Aggregate	49.3	11.8	0.7	19.6	10.2	17.7	2.0	3.1	3.1	19.2	3.8	14.6	0.8	6.3	6.3	7.5	--
	Rank	32	12	99	25	3	85	96	54	48	40	56	21	79	57	53	1	

Name	Major Benchmark Returns				
	Periods Ending June 30, 2020				
	Q2-20	1 Yr	3 Yrs	5 Yrs	10 Yrs
US Equity					
Russell 3000	22.0	6.5	10.0	10.0	13.7
S&P 500	20.5	7.5	10.7	10.7	14.0
Russell 1000	21.8	7.5	10.6	10.5	14.0
Russell 1000 Growth	27.8	23.3	19.0	15.9	17.2
Russell 1000 Value	14.3	-8.8	1.8	4.6	10.4
Russell MidCap	24.6	-2.2	5.8	6.8	12.3
Russell 2000	25.4	-6.6	2.0	4.3	10.5
Russell 2000 Growth	30.6	3.5	7.9	6.9	12.9
Russell 2000 Value	18.9	-17.5	-4.3	1.3	7.8
International Equity					
MSCI ACWI	19.2	2.1	6.1	6.5	9.2
MSCI World ex USA	15.3	-5.4	0.8	2.0	5.4
MSCI EAFE	14.9	-5.1	0.8	2.1	5.7
MSCI Emerging Markets	18.1	-3.4	1.9	2.9	3.3
Fixed Income					
91 Day T-Bills	0.0	1.3	1.7	1.1	0.6
BBgBarc US Aggregate TR	2.9	8.7	5.3	4.3	3.8
BBgBarc US Govt/Credit TR	3.7	10.0	5.9	4.7	4.1
BBgBarc US Municipal TR	2.7	4.4	4.2	3.9	4.2
BBgBarc US High Yield TR	10.2	0.0	3.3	4.8	6.7
FTSE WGBI TR	2.0	4.6	4.0	3.7	2.4
FTSE WGBI ex US TR	3.0	0.9	2.9	3.3	1.8
Real Estate					
FTSE NAREIT All REIT	14.0	-8.4	2.7	6.1	10.1
NCREIF Property Index	-1.0	2.7	5.4	6.8	9.7
Alternatives					
HFRI Fund of Funds Composite Index	7.9	0.5	2.3	1.5	2.8
Inflation					
Consumer Price Index	-0.1	0.6	1.7	1.6	1.7

Statistics Summary												
3 Years Ending June 30, 2020												
	% of Total MV	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Anlzd Alpha J	Anlzd Alpha J Rank	Tracking Error	Information Ratio	Information Ratio Rank	Beta	Sharpe Ratio
Total Fund Aggregate	100.00%	4.59%	69	8.05%	22	-0.39%	51	1.09%	-0.44	61	0.97	0.36
Policy Benchmark	--	5.07%	46	8.21%	25	0.00%	42	0.00%	--	--	1.00	0.42
Growth	75.30%	4.89%	--	12.43%	--	-0.99%	--	1.65%	-0.68	--	0.97	0.26
Growth Benchmark	--	6.00%	--	12.71%	--	0.00%	--	0.00%	--	--	1.00	0.34
Public Equity	49.27%	3.98%	--	16.36%	--	-1.35%	--	1.66%	-0.88	--	0.97	0.14
Public Equity Benchmark	--	5.45%	--	16.80%	--	0.00%	--	0.00%	--	--	1.00	0.23
Global Equity	11.79%	6.46%	42	17.31%	62	0.81%	44	2.26%	0.40	38	1.03	0.28
MSCI ACWI IMI Index	--	5.55%	47	16.72%	51	0.00%	49	0.00%	--	--	1.00	0.23
US Equity	17.88%	7.34%	45	18.36%	38	-3.07%	46	1.77%	-1.59	87	1.03	0.31
MSCI USA IMI GR USD	--	10.15%	32	17.73%	32	0.00%	32	0.00%	--	--	1.00	0.48
International Equity	9.38%	1.56%	67	16.67%	52	0.79%	67	2.67%	0.29	67	1.04	-0.01
MSCI World ex USA IMI NR USD	--	0.80%	72	15.88%	34	0.00%	72	0.00%	--	--	1.00	-0.05
Emerging Markets Equity	10.21%	-1.19%	74	18.52%	37	-2.55%	74	2.65%	-0.96	94	0.98	-0.15
MSCI Emerging Market IMI Net	--	1.35%	49	18.68%	41	0.00%	49	0.00%	--	--	1.00	-0.02
Marketable Alternative Equity	0.00%	4.79%	--	6.58%	--	2.53%	--	7.26%	0.25	--	0.46	0.48
HFRI Equity Hedge (Total) Index	--	2.97%	--	10.43%	--	0.00%	--	0.00%	--	--	1.00	0.13
Private Markets	20.95%	5.12%	--	8.62%	--	-1.01%	--	5.05%	-0.39	--	0.83	0.40
Private Markets Benchmark	--	7.09%	--	8.66%	--	0.00%	--	0.00%	--	--	1.00	0.63
Private Equity	7.18%	8.80%	59	4.90%	4	6.29%	38	9.37%	0.02	52	0.12	1.46
San Jose Custom Private Equity Benchmark	--	8.65%	62	9.20%	70	0.00%	79	0.00%	--	--	1.00	0.76
Private Equity ex Russell 3000	7.18%	8.80%	--	4.90%	--	6.22%	--	10.29%	-0.38	--	0.08	1.46
Cambridge PE Composite BM	--	12.67%	--	9.92%	--	0.00%	--	0.00%	--	--	1.00	1.11

	% 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
Private Debt	3.52%	-6.84%	--	9.20%	--	-9.51%	--	9.24%	-1.14	--	0.49	-0.92
S&P Global Leveraged Loan Index +2%	--	3.73%	--	8.29%	--	0.00%	--	0.00%	--	--	1.00	0.25
Growth Real Estate	3.66%	14.22%	1	6.44%	95	15.63%	1	7.78%	1.13	1	-0.81	1.95
NCREIF Property Index	--	5.44%	52	2.70%	64	0.00%	68	0.00%	--	--	1.00	1.40
Emerging Markets Debt	3.09%	3.41%	32	9.01%	13	1.15%	31	4.56%	0.21	34	0.77	0.19
50% JPM EMBI GD / 50% JPM GBI-EM	--	2.43%	47	10.63%	29	0.00%	46	0.00%	--	--	1.00	0.07
Low Beta	10.42%	3.43%	--	1.97%	--	1.68%	--	2.95%	0.48	--	0.25	0.90
Low Beta Benchmark	--	2.01%	--	3.13%	--	0.00%	--	0.00%	--	--	1.00	0.11
Market Neutral Strategies	3.76%	3.39%	--	5.65%	--	1.77%	--	5.88%	0.31	--	0.36	0.31
Market Neutral Strategies Benchmark	--	1.54%	--	3.11%	--	0.00%	--	0.00%	--	--	1.00	-0.04
Macro	0.80%	4.83%	--	5.80%	--	3.29%	--	4.83%	0.69	--	0.76	0.55
HFRI Macro (Total) Index	--	1.50%	--	4.41%	--	0.00%	--	0.00%	--	--	1.00	-0.03
Relative Value	2.96%	1.60%	--	10.08%	--	0.22%	--	4.84%	0.03	--	1.38	-0.01
HFRI Relative Value (Total) Index	--	1.46%	--	6.67%	--	0.00%	--	0.00%	--	--	1.00	-0.03
Cash	2.39%	1.73%	--	0.29%	--	0.00%	--	0.26%	-0.13	--	0.69	0.27
ICE BofA 91 Days T-Bills TR	--	1.77%	--	0.22%	--	0.00%	--	0.00%	--	--	1.00	0.50
Other	13.42%	2.66%	--	2.43%	--	1.70%	--	3.34%	0.88	--	0.36	0.41
Other Benchmark	--	-0.28%	--	4.36%	--	0.00%	--	0.00%	--	--	1.00	-0.44
TIPS	2.00%	2.43%	--	1.49%	--	-0.06%	--	0.70%	-0.35	--	0.82	0.52
BBgBarc U.S. TIPS 0-5 Years	--	2.67%	--	1.66%	--	0.00%	--	0.00%	--	--	1.00	0.61
Core Private Real Estate	3.98%	6.09%	--	2.40%	--	3.88%	--	3.31%	0.30	--	0.16	1.85

	% 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
NCREIF ODCE Equal Weighted (Net)	--	5.10%	--	2.77%	--	0.00%	--	0.00%	--	--	1.00	1.24
Commodities	0.00%	-5.02%	--	10.92%	--	-0.53%	--	5.19%	0.21	--	0.79	-0.61
Bloomberg Commodity Index TR USD	--	-6.14%	--	12.64%	--	0.00%	--	0.00%	--	--	1.00	-0.62
Core Bonds	--	--	--	--	--	--	--	--	--	--	--	--
BBgBarc Global Aggregate TR	--	3.79%	--	3.93%	--	0.00%	--	0.00%	--	--	1.00	0.54
Overlay	0.86%	4.49%	--	37.05%	--	2.83%	--	37.08%	0.08	--	-30.99	0.08
91 Day T-Bills	--	1.66%	--	0.18%	--	0.00%	--	0.00%	--	--	1.00	0.00

Benchmark History

As of June 30, 2020

Total Fund Aggregate

4/1/2020	Present	25% MSCI USA IMI NR USD / 12% MSCI World ex USA IMI NR USD / 12% MSCI Emerging Market IMI Net / 21% Private Markets Benchmark / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 2% BBgBarc US Corporate High Yield TR / 5% Immunized Cash Flows Benchmark / 3% Market Neutral Strategies Benchmark / 5% NCREIF-ODCE / 2% BBgBarc US Govt Long TR / 2% BBgBarc US Treasury TIPS 0-5 Yr TR / 8% BBgBarc Global Aggregate TR
12/1/2019	3/31/2020	13% MSCI USA IMI NR USD / 10% MSCI World ex USA IMI NR USD / 12% MSCI Emerging Market IMI Net / 23% Private Markets Benchmark / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 15% ICE BofA 91 Days T-Bills TR / 5% Immunized Cash Flows Benchmark / 7% Market Neutral Strategies Benchmark / 5% NCREIF-ODCE / 2% Bloomberg Commodity Index TR USD / 2% BBgBarc US Treasury TIPS 0-5 Yr TR / 3% BBgBarc Global Aggregate TR
11/1/2019	11/30/2019	13% MSCI USA IMI NR USD / 10% MSCI World ex USA IMI NR USD / 12% MSCI Emerging Market IMI Net / 23% Private Markets Benchmark / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 18% ICE BofA 91 Days T-Bills TR / 5% Immunized Cash Flows Benchmark / 7% Market Neutral Strategies Benchmark / 5% NCREIF-ODCE / 2% Bloomberg Commodity Index TR USD / 2% BBgBarc US Treasury TIPS 0-5 Yr TR
10/1/2019	10/31/2019	13% MSCI USA IMI NR USD / 7% MSCI World ex USA IMI NR USD / 10% MSCI Emerging Market IMI Net / 25% Private Markets Benchmark / 5% 50% JPM EMBI GD / 50% JPM GBI-EM / 18% ICE BofA 91 Days T-Bills TR / 5% Immunized Cash Flows Benchmark / 7% Market Neutral Strategies Benchmark / 5% NCREIF-ODCE / 3% Bloomberg Commodity Index TR USD / 2% BBgBarc US Treasury TIPS 0-5 Yr TR
10/1/2018	9/30/2019	13% MSCI USA IMI NR USD / 7% MSCI World ex USA IMI NR USD / 10% MSCI Emerging Market IMI Net / 25% Private Markets Benchmark / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 20% ICE BofA 91 Days T-Bills TR / 5% Immunized Cash Flows Benchmark / 7% Market Neutral Strategies Benchmark / 5% NCREIF-ODCE / 3% Bloomberg Commodity Index TR USD / 2% BBgBarc US Treasury TIPS 0-5 Yr TR
11/1/2017	9/30/2018	28% MSCI ACWI IMI Net USD / 9% Cambridge PE Composite BM / 33% Fixed Income Custom Benchmark / 6% S&P Global Leveraged Loan Index +2% / 8% NCREIF Property Index / 4% Bloomberg Commodity Index TR USD / 1% DJ Brookfield Global Infrastructure Net TR USD / 11% HFRI Macro (Total) Index
7/1/2015	10/31/2017	28% MSCI ACWI IMI Net USD / 9% Cambridge Associates Private Equity Composite / 19% Fixed Income Custom Benchmark / 5% S&P Global Leveraged Loan Index +2% / 7% NCREIF Property Index / 6% Bloomberg Commodity Index TR USD / 5% DJ Brookfield Global Infrastructure Net TR USD / 5% S&P Global LargeMidCap Commodity and Resources GR USD / 11% HFRI Macro (Total) Index / 5% 60/40 MSCI ACWI IMI/BC Global

Liability Benchmark Portfolio

10/1/2018	Present	100% BBgBarc US Treasury Long TR
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Low Cost Passive Benchmark		
4/1/2020	Present	25% MSCI USA IMI NR USD / 12% MSCI World ex USA IMI NR USD / 12% MSCI Emerging Market IMI Net / 10% Russell 3000 / 11% BBgBarc US Aggregate TR / 2% BBgBarc US Corporate High Yield TR 8% / 3% FTSE EPRA/NAREIT Global NR USD / 2% BBgBarc US Govt Long TR / 5% ICE BofAML 91 Days T-Bills TR / 3% 3-Month Libor +1% / 2% BBgBarc US Treasury TIPS 0-5 Yr TR
12/1/2019	3/31/2020	13% MSCI USA IMI NR USD / 10% MSCI World ex USA IMI NR USD / 12% MSCI Emerging Market IMI Net / 13% Russell 3000 / 7% BBgBarc US Aggregate TR / 8% FTSE EPRA/NAREIT Global NR USD / 3% S&P Global Natural Resources Net USD / 5% 50% JPM EMBI GD / 50% JPM GBI-EM / 5% 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 / 15% BBgBarc US Govt/Credit 1-3 Yr. TR
11/1/2019	11/30/2019	13% MSCI USA IMI NR USD / 10% MSCI World ex USA IMI NR USD / 12% MSCI Emerging Market IMI Net / 13% Russell 3000 / 7% BBgBarc US Aggregate TR / 8% FTSE EPRA/NAREIT Global NR USD / 3% S&P Global Natural Resources Net USD / 5% 50% JPM EMBI GD / 50% JPM GBI-EM / 5% 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 / 18% BBgBarc US Govt/Credit 1-3 Yr. TR
10/1/2019	10/31/2019	13% MSCI USA IMI NR USD / 7% MSCI World ex USA IMI NR USD / 10% MSCI Emerging Market IMI Net / 15% Russell 3000 / 4% BBgBarc US Aggregate TR / 8% FTSE EPRA/NAREIT Global NR USD / 3% S&P Global Natural Resources Net USD / 5% 50% JPM EMBI GD / 50% JPM GBI-EM / 5% ICE BofAML 91 Days T-Bills TR / 7% 3-Month Libor +1% / 2% BBgBarc US Treasury TIPS 0-5 Yr TR / 3% Bloomberg Commodity Index TR USD / 18% BBgBarc US Govt/Credit 1-3 Yr. TR
10/1/2018	9/30/2019	13% MSCI USA IMI NR USD / 10% MSCI World ex USA IMI NR USD / 13% 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 / 5% ICE BofAML 91 Days T-Bills TR / 5% 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/17% BBgBarc US Govt/Credit 1-3 Yr. TR

Growth		
4/1/2020	Present	65.33% Public Equity Benchmark / 28% Private Markets Benchmark / 6.67% 50% JPM EMBI GD / 50% JPM GBI-EM / 4.08% BBgBarc US Corporate High Yield TR
11/1/2019	3/31/2020	57.38% Public Equity Benchmark / 37.7% Private Markets Benchmark / 4.92% 50% JPM EMBI GD / 50% JPM GBI-EM
10/1/2019	10/31/2019	50% Public Equity Benchmark / 41.67% Private Markets Benchmark / 8.33% 50% JPM EMBI GD / 50% JPM GBI-EM
10/1/2018	9/30/2019	51.73% Public Equity Benchmark / 43.1% Private Markets Benchmark / 5.17% 50% JPM EMBI GD / 50% JPM GBI-EM
11/1/2017	9/30/2018	51.29% MSCI ACWI IMI Net USD / 16.48% Cambridge PE Composite BM / 10.99% S&P Global Leveraged Loan Index +2% / 7.33% NCREIF Property Index / 60.4% 50% JPM EMBI GD (US) / 50% JPM GBIEM GD (Lcl) / 60.4% 50% BAML Global HY / 50% S&P Global Leveraged Loan / 1.83% DJ Brookfield Global Infrastructure Net TR USD
7/1/2015	10/31/2017	47.23% MSCI ACWI IMI Net USD / 15.18% Cambridge PE Composite BM / 8.43% S&P Global Leveraged Loan Index +2% / 8.43% DJ Brookfield Global Infrastructure Net TR USD / 8.43% S&P Global Natural Resources Index TR USD / 5.9% NCREIF Property Index / 3.2% 50% JPM EMBI GD (US) / 50% JPM GBIEM GD (Lcl) / 3.2% 50% BAML Global HY / 50% S&P Global Leveraged Loan
Public Equity		
4/1/2020	Present	51.02% MSCI USA IMI NR USD / 24.49% MSCI World ex USA IMI NR USD / 24.49% MSCI Emerging Market IMI Net
11/1/2019	3/31/2020	37.14% MSCI USA IMI NR USD / 28.57% MSCI World ex USA IMI NR USD / 34.29% MSCI Emerging Market IMI Net
10/1/2018	10/31/2019	43.33% MSCI USA IMI NR USD / 23.33% MSCI World ex USA IMI NR USD / 33.33% MSCI Emerging Market IMI Net
5/1/2010	9/30/2018	MSCI ACWI IMI Net USD
Global Equity		
7/1/2015	Present	MSCI ACWI IMI Index
US Equity		
7/1/2015	Present	MSCI USA IMI GR USD
International Equity		
7/1/2015	Present	MSCI World ex USA IMI NR USD
Emerging Markets Equity		
7/1/2015	Present	MSCI Emerging Market IMI Net

Marketable Alternative Equity		
10/1/2014	Present	HFRI Equity Hedge (Total) Index
Private Markets		
7/1/2015	Present	Private Markets
Private Markets ex Russell 3000		
No Benchmark Selected		
Private Equity		
1/1/2006	Present	San Jose Custom Private Equity Benchmark
Private Equity ex Russell 3000		
7/1/2018	Present	Cambridge Associates Global Private Equity Index
Northern Trust Russell 3000		
6/1/2018	Present	Russell 3000
Private Debt		
12/1/2010	Present	S&P Global Leveraged Loan Index +2%
Growth Real Estate		
7/1/2015	Present	NCREIF Property Index
Private Real Assets		
No Benchmark Selected		
Emerging Markets Debt		
7/1/2015	Present	50% JP Morgan GBI EM Global Diversified TR USD / 50% JP Morgan EMBI Global Diversified
High Yield Bonds		
6/1/2020	Present	BBgBarc US Corporate High Yield TR
Low Beta		
4/1/2020	Present	62.5% Immunized Cash Flows Benchmark / 37.5% Market Neutral Strategies Benchmark
12/1/2019	3/31/2020	55.56% ICE BofA 91 Days T-Bills TR / 25.93% Immunized Cash Flows Benchmark / 18.52% Market Neutral Strategies Benchmark
10/1/2019	11/30/2019	60% ICE BofA 91 Days T-Bills TR / 23.33% Immunized Cash Flows Benchmark / 6.67% Market Neutral Strategies Benchmark
10/1/2018	9/30/2019	62.5% ICE BofA 91 Days T-Bills TR / 15.62% Immunized Cash Flows Benchmark / 21.88% Market Neutral Strategies Benchmark

7/1/2015	9/30/2018	HFRI Macro (Total) Index
Short-Term IG Bonds		
10/1/2018	Present	91 Day T-Bills
Immunized Cash Flows		
10/1/2018	Present	Immunized Cash Flows
Market Neutral Strategies		
10/1/2018	Present	3-Month Libor Total Return USD
11/1/2012	9/30/2018	HFRI Macro (Total) Index
Macro		
10/1/2014	Present	HFRI Macro (Total) Index
Relative Value		
10/1/2014	Present	HFRI Relative Value (Total) Index
Cash		
1/1/2006	Present	ICE BofA 91 Days T-Bills TR
Other		
4/1/2020	Present	29.41% NCREIF-ODCE / 11.76% BBgBarc US Govt Long TR / 11.77% BBgBarc U.S. TIPS 0-5 Years / 47.06% Custom IG Bonds Benchmark
12/1/2019	3/31/2020	41.67% NCREIF-ODCE / 16.67% Bloomberg Commodity Index TR USD / 16.67% BBgBarc U.S. TIPS 0-5 Years / 25% BBgBarc Global Aggregate TR
11/1/2019	11/30/2019	55.55% NCREIF-ODCE / 22.22% Bloomberg Commodity Index TR USD / 22.22% BBgBarc U.S. TIPS 0-5 Years
10/1/2018	10/31/2019	50% NCREIF-ODCE / 30% Bloomberg Commodity Index TR USD / 20% BBgBarc U.S. TIPS 0-5 Years
11/1/2017	9/30/2018	76.74% BBgBarc Global Aggregate TR / 11.63% NCREIF Property Index / 11.63% Bloomberg Commodity Index TR USD
7/1/2015	10/31/2017	51.18% BBgBarc Global Aggregate TR / 11.78% NCREIF Property Index / 20.2% Bloomberg Commodity Index TR USD / 16.84% 60/40 MSCI ACWI/BBgBarc Global Aggregate
Investment Grade Bonds		
12/1/2019	Present	Custom IG Bonds Benchmark
TIPS		
3/1/2017	Present	100% BBgBarc US Treasury TIPS 0-5 Yr TR

Core Private Real Estate		
7/1/2004	Present	NCREIF ODCE Equal Weighted (Net)
Commodities		
5/1/2010	Present	Bloomberg Commodity Index TR USD
Long Term Government Bonds		
5/1/2020	Present	BBgBarc US Govt Long TR
Core Bonds		
7/1/2015	Present	BBgBarc Global Aggregate TR
Overlay		
11/1/2011	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. $\text{Portfolio Return} - [\text{Risk Free Rate} + \text{Beta} \times (\text{market return} - \text{Risk Free Rate})]$.

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.

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.

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.

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.

Tracking Error: A divergence between the price behavior of a position or a portfolio and the price behavior of a benchmark, as defined by the difference in standard deviation.

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%.

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

Yield to Worst: The lowest potential yield that can be received on a bond without the issuer actually defaulting. The yield to worst is calculated by making worst-case scenario assumptions on the issue by calculating the returns that would be received if provisions, including prepayment, call, or sinking fund, are used by the issuer.

NCREIF Property Index (NPI): Measures unleveraged investment performance of a very large pool of individual commercial real estate properties acquired in the private market by tax-exempt institutional investors for investment purposes only. The NPI index is capitalization-weighted for a quarterly time series composite total rate of return.

NCREIF Fund Index - Open End Diversified Core Equity (NFI-ODCE): Measures the investment performance of 28 open-end commingled funds pursuing a core investment strategy that reflects funds' leverage and cash positions. The NFI-ODCE index is equal-weighted and is reported gross and net of fees for a quarterly time series composite total rate of return.

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.