

San Jose Federated City Employees' Retirement System

As of March 31, 2020

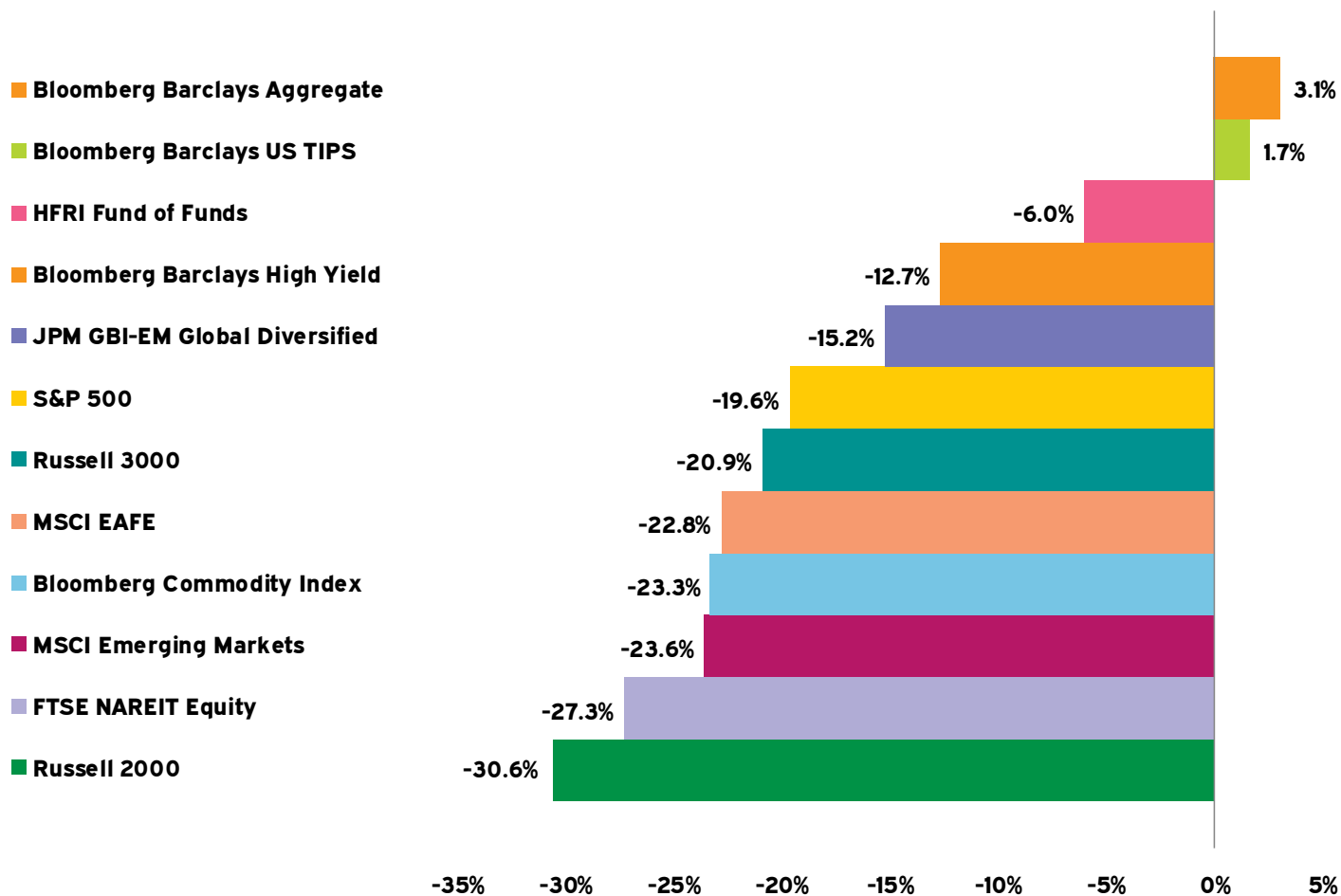
Quarterly Review

FCERS 6-18-20

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The World Markets First Quarter of 2020

The World Markets¹ First Quarter of 2020



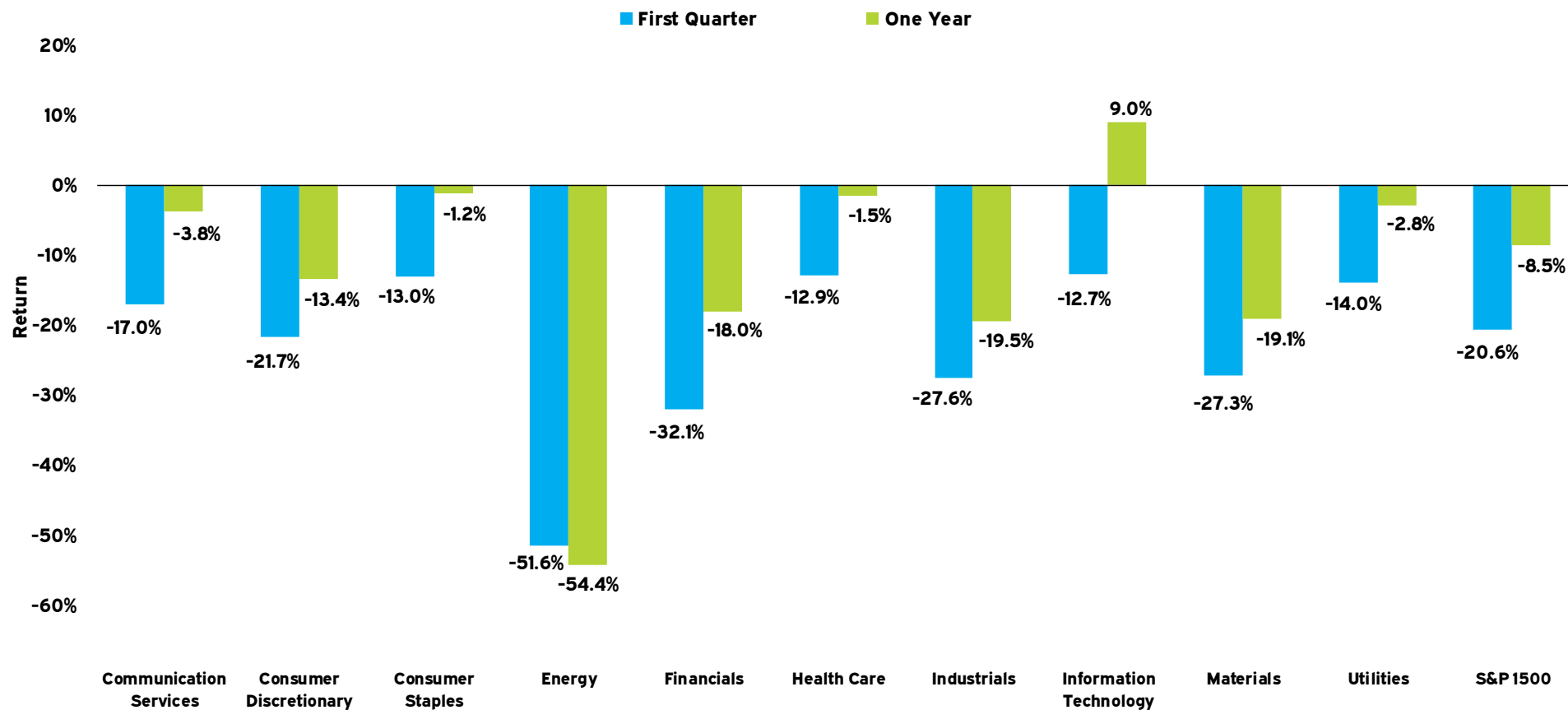
¹ Source: InvestorForce.

Index Returns¹

	1Q20 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Domestic Equity					
S&P 500	-19.6	-7.0	5.1	6.7	10.5
Russell 3000	-20.9	-9.1	4.0	5.8	10.1
Russell 1000	-20.2	-8.0	4.6	6.2	10.4
Russell 1000 Growth	-14.1	0.9	11.3	10.4	13.0
Russell 1000 Value	-26.7	-17.2	-2.2	1.9	7.7
Russell MidCap	-27.1	-18.3	-0.8	1.8	8.8
Russell MidCap Growth	-20.0	-9.4	6.5	5.6	10.9
Russell MidCap Value	-31.7	-24.1	-6.0	-0.8	7.2
Russell 2000	-30.6	-24.0	-4.6	-0.2	6.9
Russell 2000 Growth	-25.8	-18.6	0.1	1.7	8.9
Russell 2000 Value	-35.7	-29.6	-9.5	-2.4	4.8
Foreign Equity					
MSCI ACWI (ex. US)	-23.4	-15.6	-2.0	-0.6	2.1
MSCI EAFE	-22.8	-14.4	-1.8	-0.6	2.7
MSCI EAFE (Local Currency)	-20.5	-12.6	-1.8	-0.1	4.4
MSCI EAFE Small Cap	-27.5	-18.1	-2.9	1.0	4.8
MSCI Emerging Markets	-23.6	-17.7	-1.6	-0.4	0.7
MSCI Emerging Markets (Local Currency)	-19.1	-13.0	1.3	2.0	3.8
Fixed Income					
Bloomberg Barclays Universal	1.3	7.2	4.4	3.4	4.0
Bloomberg Barclays Aggregate	3.1	8.9	4.8	3.4	3.9
Bloomberg Barclays US TIPS	1.7	6.9	3.5	2.7	3.5
Bloomberg Barclays High Yield	-12.7	-6.9	0.8	2.8	5.6
JPM GBI-EM Global Diversified	-15.2	-6.5	-0.8	0.3	0.4
Other					
FTSE NAREIT Equity	-27.3	-21.3	-3.1	-0.3	7.4
Bloomberg Commodity Index	-23.3	-22.3	-8.6	-7.8	-6.7
HFRI Fund of Funds	-6.0	-2.6	1.0	0.6	2.1

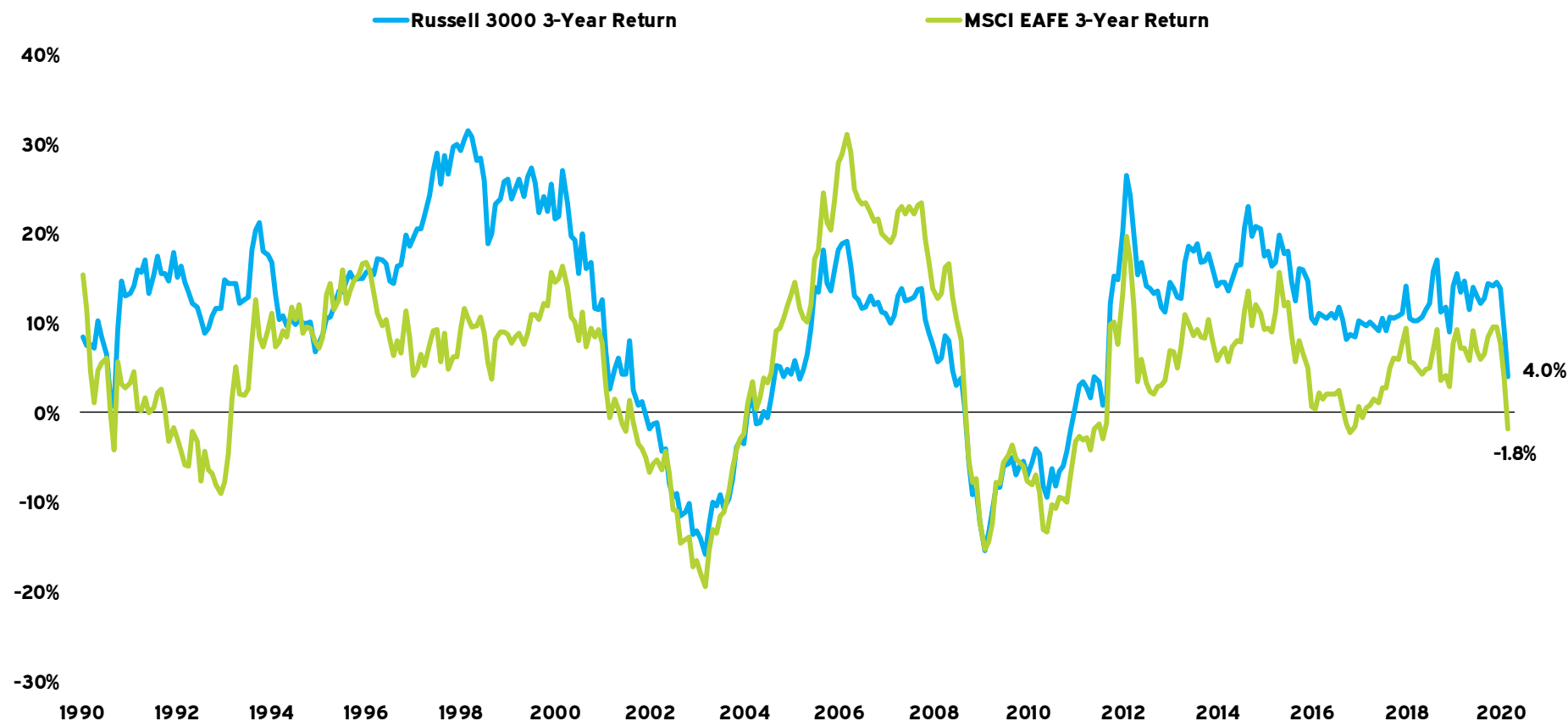
¹ Source: InvestorForce.

S&P Sector Returns¹



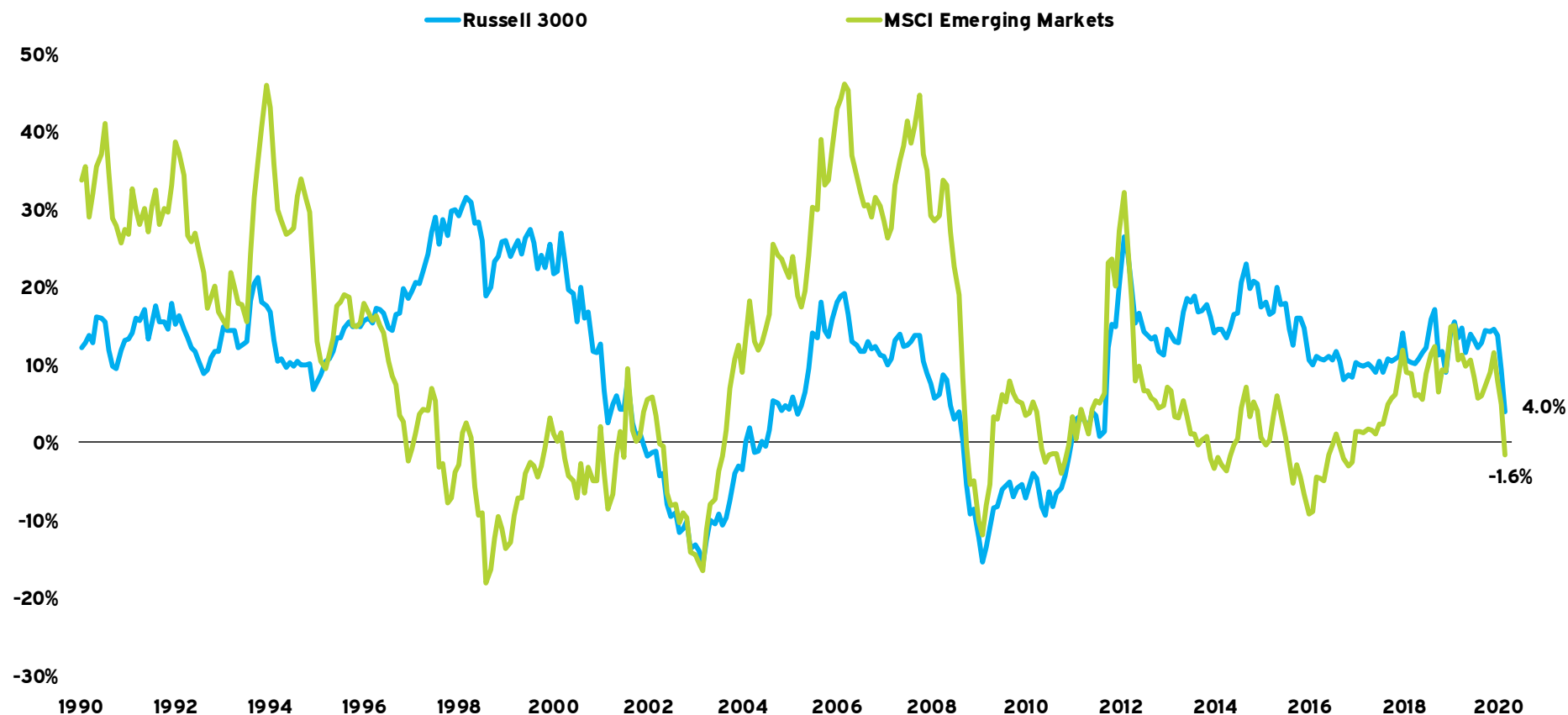
¹ Source: InvestorForce. Represents S&P 1500 (All Cap) data.

US and Developed Market Foreign Equity Rolling Three-Year Returns¹



¹ Source: InvestorForce.

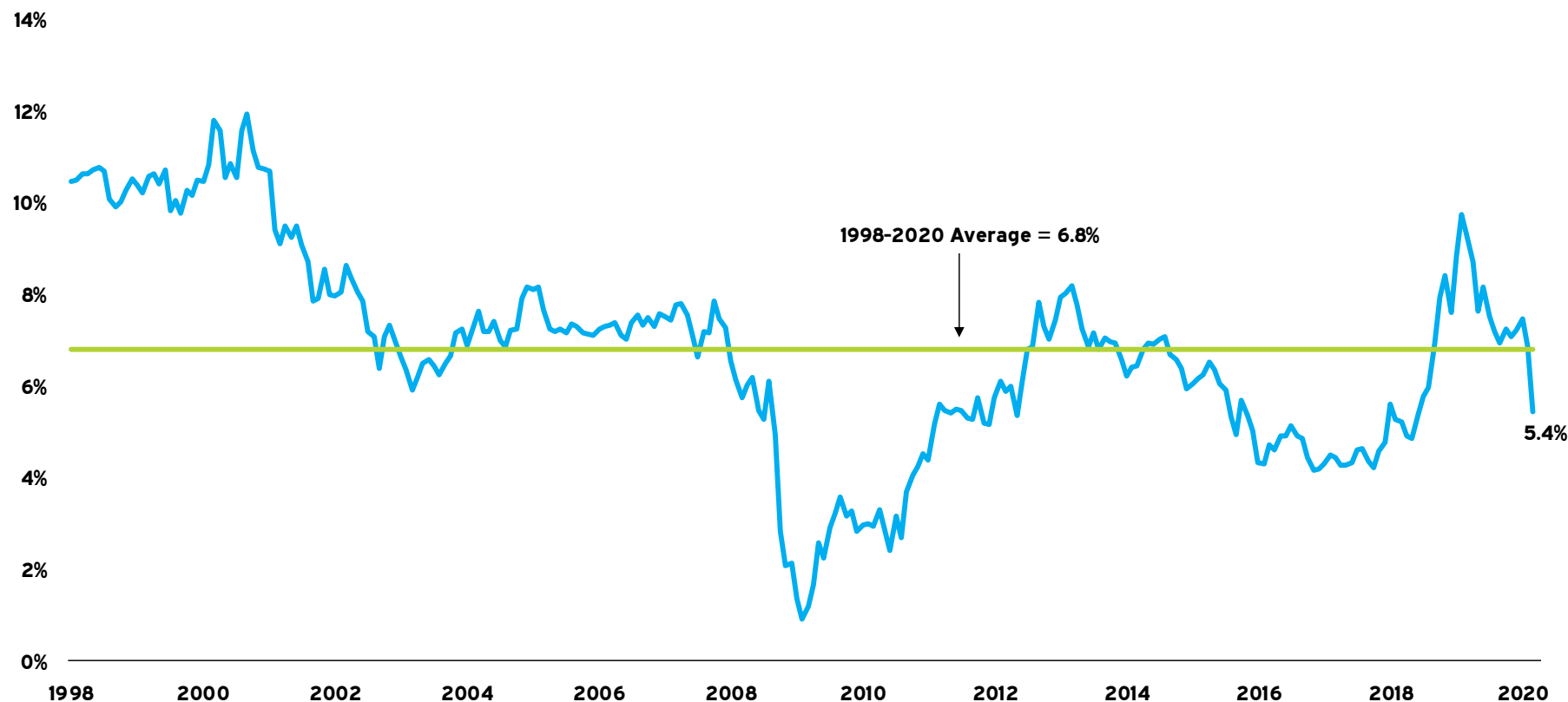
US and Emerging Market Equity Rolling Three-Year Returns¹



¹ Source: InvestorForce.

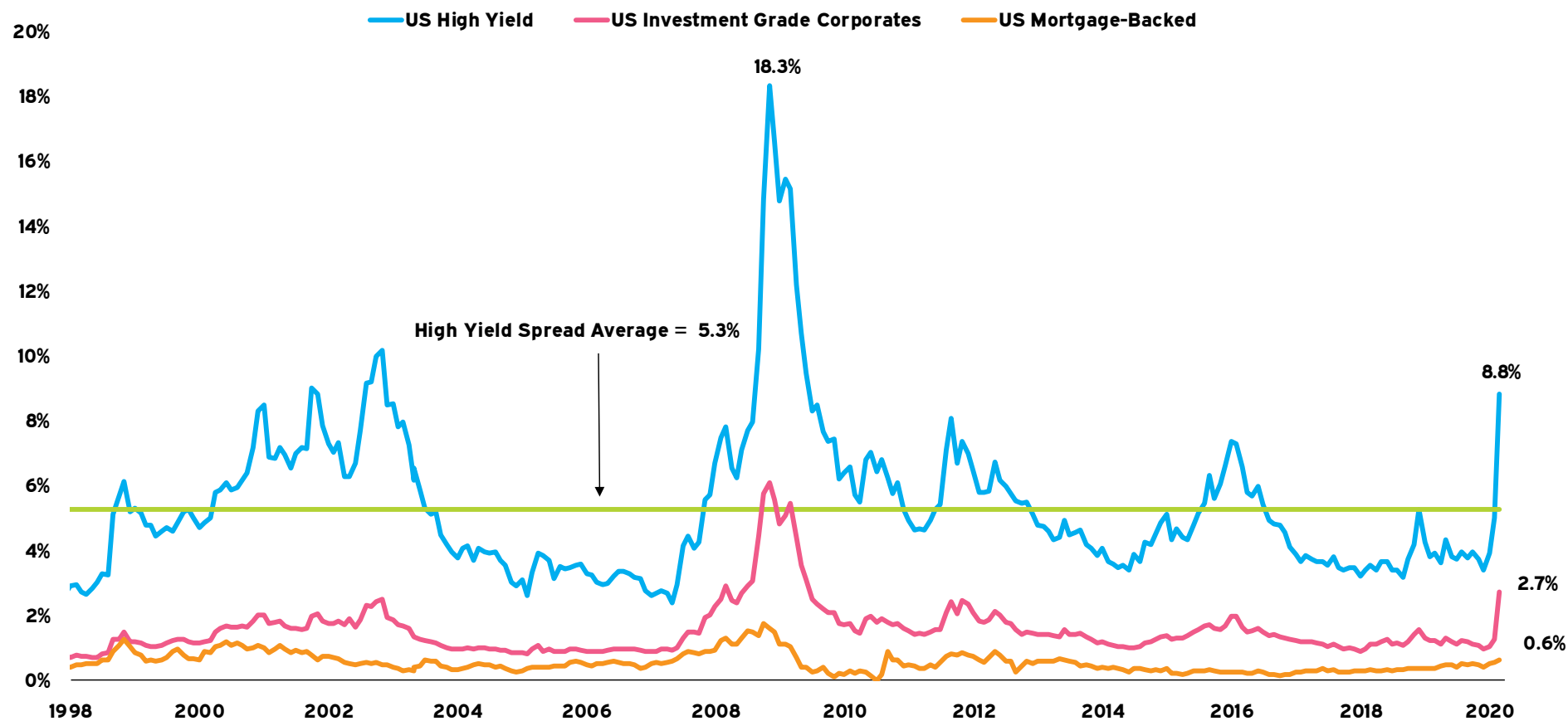
Rolling Ten-Year Returns: 65% Stocks and 35% Bonds¹

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



¹ Source: InvestorForce.

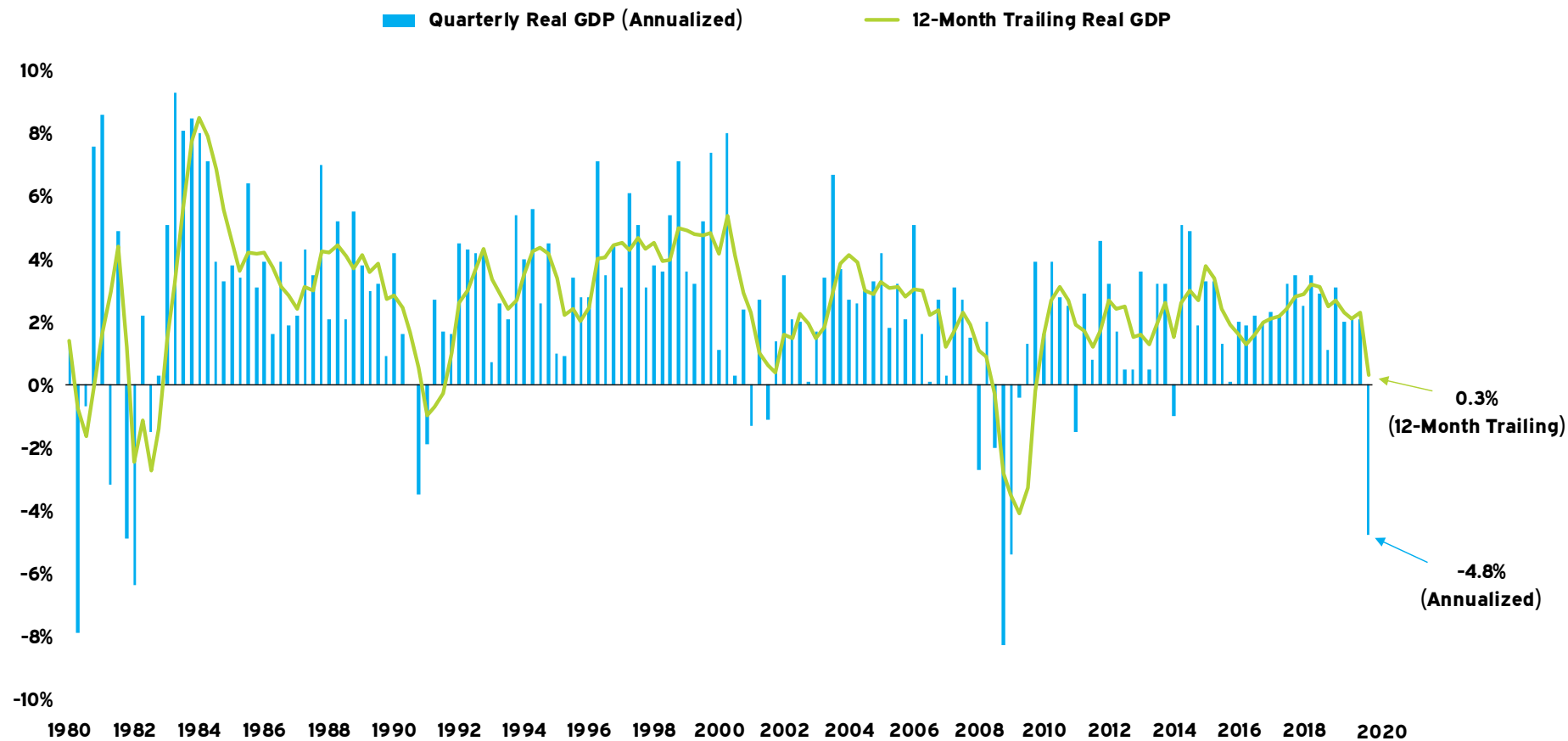
Credit Spreads vs. US Treasury Bonds^{1,2}



¹ Source: Barclays Live. Data represents the OAS.

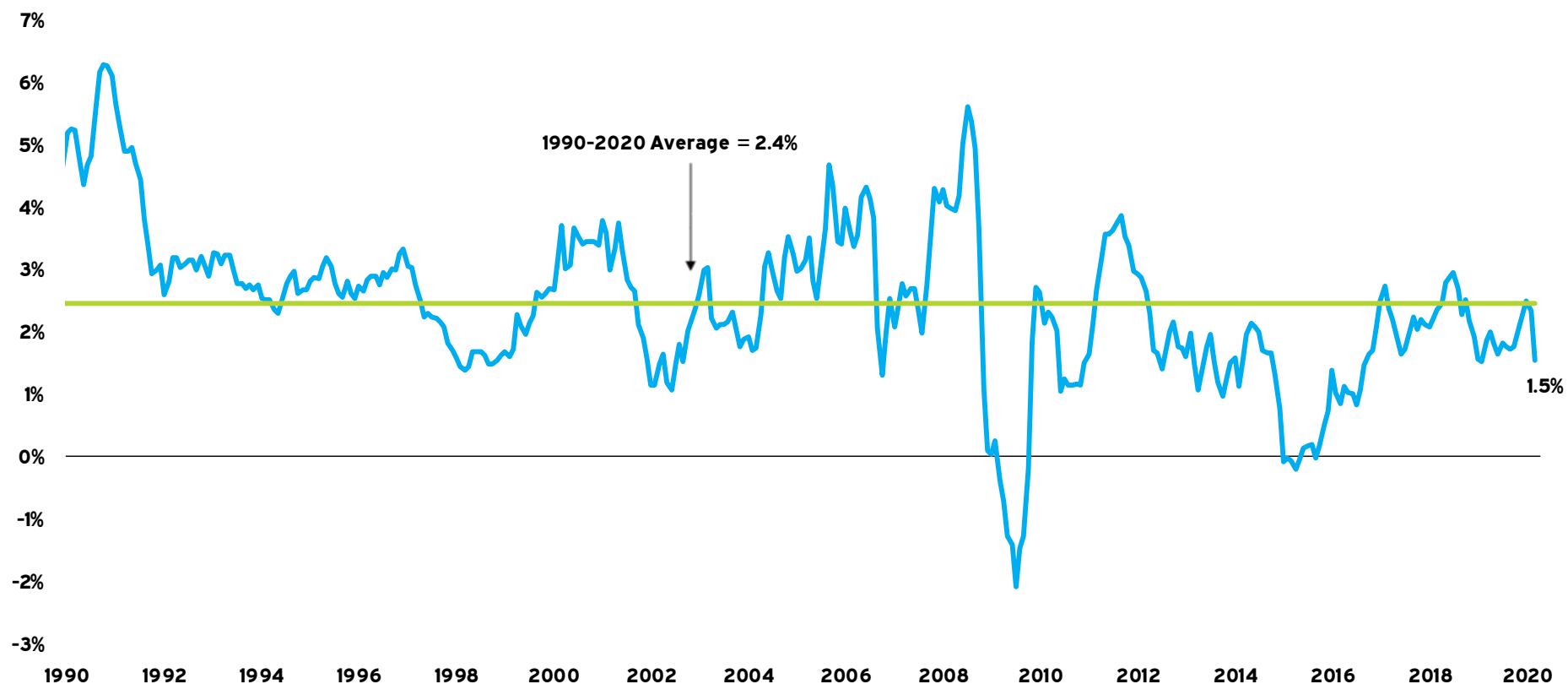
² The median high yield spread was 4.8% from 1997-2020.

US Real Gross Domestic Product (GDP) Growth¹



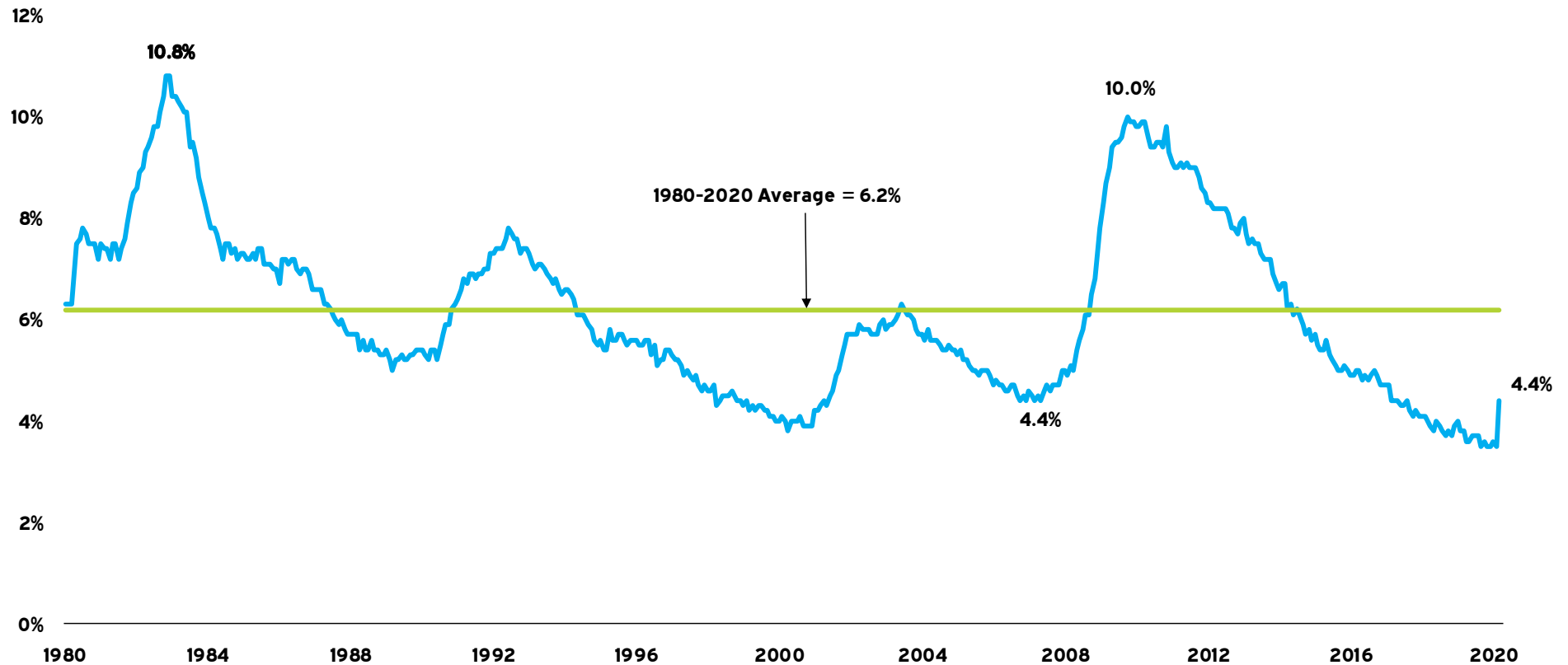
¹ Source: Bureau of Economic Analysis. Data is as of Q1 2020 and represents the first estimate.

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 March 31, 2020.

US Unemployment¹



¹ Source: Bureau of Labor Statistics. Data is as of March 31, 2020.

Executive Summary

As of March 31, 2020

The value of the San Jose Federated City Employees' Retirement System assets was \$2.0 billion on March 31, 2020, a decrease of approximately \$247.5 million from the end of the prior quarter. The System had net cash outflows of \$7.4 million during the quarter.

- The Retirement System's net of fees performance for the quarter was -10.9%, compared to the Policy Benchmark and Investable Benchmark Portfolio, which both returned -10.8%, while outperforming the peer median return of -12.6%.
- The Retirement System returned -4.4% over the trailing one-year period, compared to the Policy Benchmark (-4.3%) and Investable Benchmark Portfolio (-4.4%) returns, while outperforming the peer median return of -5.0%. The Retirement System's standard deviation of returns was 9.9% over the trailing one-year period, exhibiting lower volatility than the peer median (11.4%).
 - Growth returned -17.2% for the quarter and -8.7% over the trailing one-year period, versus -17.3% and -8.5% for the Growth Benchmark over the same periods, respectively.
 - Low Beta returned -0.6% for the quarter and +2.4% over the trailing one-year period versus +1.5% and +3.4% for the Low Beta Benchmark over the same periods, respectively.
 - Other returned -1.7% for the quarter and +1.3% over the trailing one-year period, versus -3.2% and -1.0% for the Other Benchmark over the same periods, respectively.
- The Trustees voted to update its asset allocation policy at a Special Board Meeting on March 27, 2020. During the quarter, the System added two new investments: Northern Trust Russell 3000 (US Equity) and DRA Growth & Income Fund X (Private Real Estate). Additionally, the Retirement System terminated Northern Trust Russell 1000 (US Equity) Northern Trust 0-5 Year TIPS (Short-Term TIPS), and Pine River Volatility Arb (Relative Value).

Artisan

- Artisan Global Opportunities returned -12.6% for the quarter, outperforming the MSCI ACWI Growth NR USD benchmark by 310 basis points. Compared to peers, Artisan ranks in the 5th and 11th percentiles for the quarter and since inception periods, respectively.

Cove Street

- Cove Street Small Cap Value returned -38.5% for the quarter and -33.0% over the trailing one-year period, underperforming the Russell 2000 Value benchmark by 280 and 340 basis points over the same time periods, respectively. Compared to peers, Cove Street ranks in the 79th and 68th percentiles for the quarter and since inception periods, respectively.

Oberweis

- Oberweis International Opportunities returned -24.2% for the quarter and -18.4% over the trailing one-year period, compared to the MSCI World ex USA Small Cap Growth benchmark returns of -25.1% and -15.0% over the same time periods. Compared to peers, Oberweis ranks in the 70th and 61st percentiles for the quarter and since inception periods, respectively.

GQG

- GQG Global Emerging Markets returned -19.5% for the quarter and -12.3% over the trailing one-year period, outperforming the MSCI Emerging Markets benchmark by 410 and 540 basis points over the same time periods, respectively. Compared to peers, GQG ranks in the 6th percentile for both the quarter and since inception time periods.

Investment Manager	Asset Class	Changes/ Announcements	Meketa Recommendation ¹	Comments
Artisan Global Value	Global Equity	Yes	Hold	Personnel Change
Artisan Global Opportunities	Global Equity	Yes	Hold	Personnel Change
Cove Street Small Cap Value	US Equity	---	Hold	Watch List
Oberweis International Opps.	International Equity	---	Hold	Watch List
Dimensional EM Value	Emerging Markets Equity	Yes	Hold	Insurance Update, 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	---	---	---
Senator Global Opportunity	Long-Short Equity	---	---	---
BlueBay EM Select Debt	Emerging Markets Debt	---	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.

Watch List^{1,2}

Investment Manager	Asset Class	Watch List Status	Comments
Cove Street Small Cap Value	US Equity	Monitoring	Underperformance
Oberweis International Opp	International 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.

Artisan

- Within the Value Team, an analyst was hired.
- Within the Growth Team, two team members were promoted to associate portfolio manager and there was a departure by a research associate.

Cove Street

- Over the three-year period, Cove Street (-9.6%) has underperformed the Russell 2000 Value by 10 basis points. Since inception in May 2014, Cove Street has underperformed the benchmark by 120 basis points per year, on average, and ranked in the 68th percentile compared to peers.

Oberweis

- Over the three-year period, Oberweis (-2.1%) has underperformed the MSCI World ex USA Small Cap Growth by 130 basis points. Since inception in November 2015, Oberweis has underperformed the benchmark by 110 basis points per year, on average, and ranked in the 61st percentile compared to peers.

Dimensional

- In the quarter, Dimensional purchased additional cybersecurity insurance.
- In the quarter, Dimensional had six additions and three departures to its investment team.
- Over the three-year period, Dimensional (-8.4%) has underperformed the MSCI Emerging Markets Value by 260 basis points. Since inception in November 2016, Dimensional has underperformed the benchmark by 150 basis points per year, on average, and ranked in the 84th percentile compared to peers.

RWC

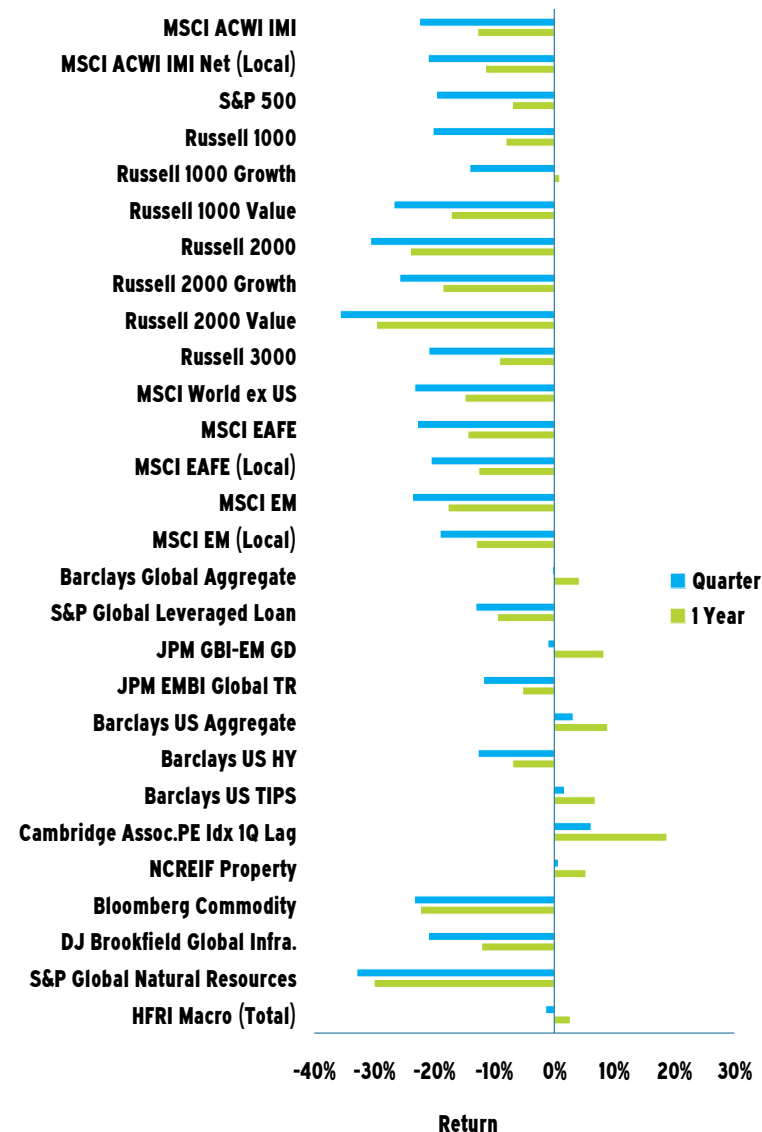
- In the quarter, RWC completed a shareholder transaction with a new long-term partner, Lincoln Peak Capital. The resulting structure increased internal ownership to 70% and the RWC board is now led by Peter Clark as Chairperson, with five Directors appointed by RWC and two by Lincoln Peak.

BlueBay

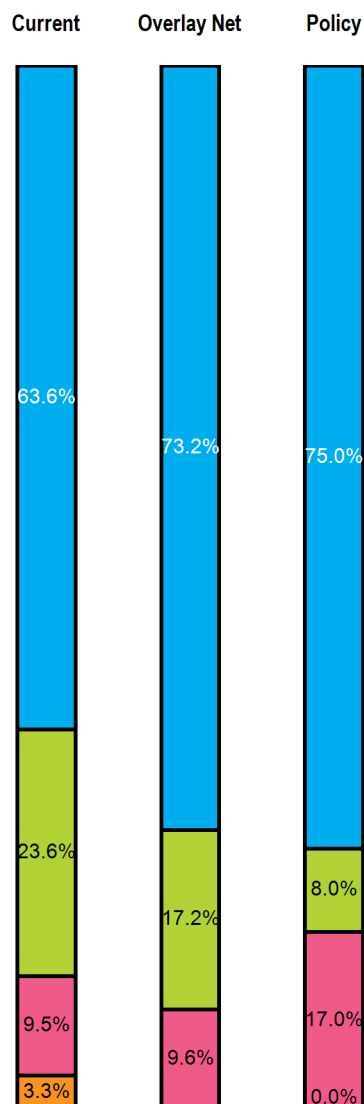
- Over the three-year period, BlueBay (-1.9%) has underperformed the JPM Blended Emerging Markets Index by 180 basis points. Since inception in July 2015, BlueBay (-0.2%) has underperformed the blended benchmark by 200 basis points per year, on average, and ranked in the 81st percentile compared to peers.

Market Environment – 1Q20 Overview

Benchmark	Scope	1Q20 (%)	1 YR (%)	3 YR (%)	5YR (%)	10 YR (%)
Global Equity						
MSCI ACWI IMI	World	-22.4	-12.7	0.8	2.4	5.8
MSCI ACWI IMI Net (Local)	World (Local Currency)	-21.0	-11.5	1.1	2.9	6.8
Domestic Equity						
S&P 500	Large Core	-19.6	-7.0	5.1	6.7	10.5
Russell 1000	Large Core	-20.2	-8.0	4.6	6.2	10.4
Russell 1000 Growth	Large Growth	-14.1	0.9	11.3	10.4	13.0
Russell 1000 Value	Large Value	-26.7	-17.2	-2.2	1.9	7.7
Russell 2000	Small Core	-30.6	-24.0	-4.6	-0.2	6.9
Russell 2000 Growth	Small Growth	-25.8	-18.6	0.1	1.7	8.9
Russell 2000 Value	Small Value	-35.7	-29.6	-9.5	-2.4	4.8
Russell 3000	All Cap Core	-20.9	-9.1	4.0	5.8	10.1
International Equity						
MSCI World ex US	World ex-US	-23.3	-14.9	-2.1	-0.8	2.4
MSCI EAFE	International Developed	-22.8	-14.4	-1.8	-0.6	2.7
MSCI EAFE (Local)	International Developed (Local Currency)	-20.5	-12.6	-1.8	-0.1	4.4
MSCI EM	Emerging Markets	-23.6	-17.7	-1.6	-0.4	0.7
MSCI EM (Local)	Emerging Markets (Local Currency)	-19.1	-13.0	1.3	2.0	3.8
Global Fixed Income						
Barclays Global Aggregate	Global Core Bonds	-0.3	4.2	3.6	2.6	2.5
S&P Global Leveraged Loan	Bank Loans	-13.0	-9.5	-0.7	1.2	2.8
JPM GBI-EM GD	Emerging Markets Bonds (Local Currency)	-1.1	8.3	6.8	6.7	7.3
JPM EMBI Global TR	Emerging Market Bonds	-11.8	-5.3	0.4	2.8	4.8
Domestic Fixed Income						
Barclays US Aggregate	Core Bonds	3.1	8.9	4.8	3.4	3.9
Barclays US HY	High Yield	-12.7	-6.9	0.8	2.8	5.6
Barclays US TIPS	Inflation	1.7	6.9	3.5	2.7	3.5
Other						
Cambridge Assoc. PE Index 1Q Lag	Private Equity	6.1	18.8	17.7	14.6	15.1
NCREIF Property	Real Estate	0.7	5.3	6.4	7.6	10.2
Bloomberg Commodity	Commodities	-23.3	-22.3	-8.6	-7.8	-6.7
DJ Brookfield Global Infrastructure	Infrastructure	-20.9	-12.1	0.3	1.1	7.6
S&P Global Natural Resources	Natural Resources	-32.9	-30.0	-6.4	-2.7	-2.2
HFRI Macro	Hedge Funds	-1.4	2.7	1.0	-0.1	1.1



1Q20 Review



Allocation vs. Targets and Policy				
	Current Balance	Current Allocation	Russell Overlay Net Position	Policy
Growth	\$1,254,488,345	63.6%	73.2%	75.0%
Public Equity	\$771,758,944	39.1%	48.6%	49.0%
Private Markets	\$429,762,086	21.8%	21.8%	21.0%
Emerging Markets Debt	\$52,967,315	2.7%	2.7%	3.0%
High Yield Bonds	\$0	0.0%	0.0%	2.0%
Low Beta	\$466,198,109	23.6%	17.2%	8.0%
Market Neutral Strategies	\$142,368,343	7.2%	7.2%	3.0%
Short-Term IG Bonds	\$169,745,091	8.6%	4.9%	0.0%
Immunized Cash Flows	\$100,957,725	5.1%	5.1%	5.0%
Cash	\$53,126,950	2.7%	0.1%	0.0%
Other	\$187,070,806	9.5%	9.6%	17.0%
Core Real Estate	\$88,899,402	4.5%	4.5%	5.0%
Commodities	\$31,100,507	1.6%	1.6%	0.0%
TIPS	\$47	0.0%	0.0%	2.0%
Investment Grade Bonds	\$67,070,850	3.4%	3.4%	8.0%
Long Term Govt Bonds	\$0	0.0%	0.0%	2.0%
Overlay	\$64,819,463	3.3%	0.0%	0.0%
Total	\$1,972,576,722	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.

² Policy Targets represent approved asset allocation from the Special Board Meeting on March 27th, 2020

Asset Class Net Performance Summary

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund Aggregate	1,972,576,722	100.0	-10.9	-6.7	-4.4	1.7	1.9	4.0	6.1	Jan-94
Policy Benchmark			-10.8	-6.3	-4.3	2.3	2.8	4.7	6.4	Jan-94
Investable Benchmark Portfolio			-10.8	-6.3	-4.4	1.8	2.2	4.0	--	Jan-94
Low-Cost Passive Portfolio			-14.5	-9.9	-8.1	--	--	--	--	Jan-94
60/40 MSCI ACWI IMI/BBgBarc Global Aggregate			-14.0	-9.0	-5.9	2.1	2.8	4.7	--	Jan-94
Liability Benchmark Portfolio			20.9	25.1	32.6	--	--	--	--	Jan-94
InvMetrics Public DB > \$1B Net Median			-12.6	-8.0	-5.0	2.8	3.7	6.4	6.8	Jan-94
InvMetrics Public DB > \$1B Net Rank			23	33	42	85	99	99	82	Jan-94
Growth	1,254,488,345	63.6	-17.2	-11.7	-8.7	1.3	--	--	2.5	Jul-15
Growth Benchmark			-17.3	-11.2	-8.5	2.5	--	--	3.8	Jul-15
Public Equity	771,758,944	39.1	-23.5	-18.2	-15.4	-0.9	1.0	--	5.2	May-10
Public Equity Benchmark			-23.0	-16.5	-14.2	0.6	2.4	--	5.7	May-10
Global Equity	209,868,146	10.6	-22.6	-16.0	-11.8	1.0	--	--	3.6	Jul-15
MSCI ACWI IMI Index			-22.4	-15.6	-12.7	0.8	--	--	2.5	Jul-15
eV All Global Equity Net Median			-21.3	-15.2	-11.9	0.9	2.2	6.2	2.5	Jul-15
eV All Global Equity Net Rank			59	56	50	49	--	--	36	Jul-15
US Equity	171,791,607	8.7	-23.3	-16.1	-12.8	1.4	--	--	4.1	Jul-15
MSCI USA IMI GR USD			-20.9	-12.7	-9.2	4.0	--	--	6.1	Jul-15
eV All US Equity Net Median			-24.5	-18.7	-15.4	0.2	2.6	8.3	2.8	Jul-15
eV All US Equity Net Rank			45	41	43	45	--	--	40	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 (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
International Equity	148,981,061	7.6	-23.1	-18.8	-15.6	-2.5	--	--	-1.0	Jul-15
MSCI World ex USA IMI NR USD			-24.0	-18.3	-15.5	-2.3	--	--	-0.8	Jul-15
eV ACWI ex-US All Cap Equity Net Median			-21.2	-15.4	-11.8	0.2	0.6	4.1	0.3	Jul-15
eV ACWI ex-US All Cap Equity Net Rank			65	72	69	75	--	--	76	Jul-15
Emerging Markets Equity	227,889,070	11.6	-25.6	-21.9	-21.0	-5.6	--	--	-3.4	Jul-15
MSCI Emerging Market IMI Net			-24.4	-19.3	-18.9	-2.5	--	--	-1.2	Jul-15
eV Emg Mkts Equity Net Median			-25.1	-20.1	-19.1	-2.7	-0.9	1.3	-1.1	Jul-15
eV Emg Mkts Equity Net Rank			55	65	68	75	--	--	84	Jul-15
Marketable Alternative Equity	13,229,060	0.7	-6.5	-4.5	-1.1	3.4	2.7	--	4.0	Oct-14
HFRI Equity Hedge (Total) Index			-14.0	-10.4	-9.1	-0.3	1.1	--	1.3	Oct-14
Private Markets	429,762,086	21.8	-8.7	-3.1	0.0	4.7	--	--	4.7	Jul-15
Private Markets Benchmark			-8.7	-3.1	0.0	7.0	--	--	6.9	Jul-15
MSCI ACWI IMI + 100bps			-22.2	-14.9	-11.8	1.8	--	--	3.5	Jul-15
Private Markets ex Russell 3000	299,107,350	15.2	0.5	3.2	5.4	6.7	--	--	6.0	Jul-15
Private Equity	275,684,897	14.0	-11.5	-4.2	-0.7	6.7	5.6	9.7	--	Jan-06
San Jose Custom Private Equity Benchmark			0.0	5.1	10.3	12.9	11.0	12.8	--	Jan-06
Private Equity ex Russell 3000	157,029,363	8.0	3.2	7.5	10.1	12.8	9.1	11.5	7.6	Jan-06
Northern Trust Russell 3000	118,655,534	6.0	-20.8	-12.6	-9.0	--	--	--	-2.2	Jun-18
Russell 3000			-20.9	-12.7	-9.1	--	--	--	-2.3	Jun-18

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.

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Debt	63,152,125	3.2	-9.0	-10.5	-11.2	-6.8	-3.1	--	1.7	Dec-10
<i>S&P Global Leveraged Loan Index +2%</i>			<i>-12.1</i>	<i>-9.3</i>	<i>-7.1</i>	<i>1.5</i>	<i>3.4</i>	<i>--</i>	<i>4.7</i>	<i>Dec-10</i>
Private Real Estate	66,737,132	3.4	3.6	8.4	10.6	15.6	--	--	16.9	Jul-15
<i>NCREIF Property Index</i>			<i>0.7</i>	<i>3.7</i>	<i>5.3</i>	<i>6.4</i>	<i>--</i>	<i>--</i>	<i>7.4</i>	<i>Jul-15</i>
Private Real Assets	24,187,931	1.2	1.7	3.7	14.8	9.4	--	--	7.0	Jul-15
Emerging Markets Debt	52,967,315	2.7	-6.6	-2.6	1.1	1.6	--	--	2.0	Jul-15
<i>50% JPM EMBI GD / 50% JPM GBI-EM</i>			<i>-14.3</i>	<i>-10.9</i>	<i>-6.6</i>	<i>-0.1</i>	<i>--</i>	<i>--</i>	<i>1.8</i>	<i>Jul-15</i>
<i>eV All Emg Mkts Fixed Inc Net Median</i>			<i>-15.7</i>	<i>-12.6</i>	<i>-8.6</i>	<i>-1.2</i>	<i>1.6</i>	<i>3.6</i>	<i>1.8</i>	<i>Jul-15</i>
<i>eV All Emg Mkts Fixed Inc Net Rank</i>			<i>1</i>	<i>1</i>	<i>1</i>	<i>7</i>	<i>--</i>	<i>--</i>	<i>36</i>	<i>Jul-15</i>
Low Beta	466,198,109	23.6	-0.6	0.9	2.4	2.8	--	--	2.0	Jul-15
<i>Low Beta Benchmark</i>			<i>1.5</i>	<i>2.6</i>	<i>3.4</i>	<i>1.7</i>	<i>--</i>	<i>--</i>	<i>1.1</i>	<i>Jul-15</i>
Short-Term IG Bonds	169,745,091	8.6	1.5	2.6	3.3	--	--	--	3.0	Oct-18
<i>91 Day T-Bills</i>			<i>0.4</i>	<i>1.3</i>	<i>1.9</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>2.0</i>	<i>Oct-18</i>
Immunized Cash Flows	100,957,725	5.1	2.5	3.7	5.1	--	--	--	5.0	Oct-18
<i>Immunized Cash Flows Benchmark</i>			<i>2.5</i>	<i>3.7</i>	<i>5.1</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>5.0</i>	<i>Oct-18</i>
Market Neutral Strategies	142,368,343	7.2	-6.8	-4.7	-1.3	2.4	1.4	--	3.0	Nov-12
<i>Market Neutral Strategies Benchmark</i>			<i>0.4</i>	<i>1.4</i>	<i>2.0</i>	<i>1.3</i>	<i>0.0</i>	<i>--</i>	<i>1.3</i>	<i>Nov-12</i>
Macro	81,269,674	4.1	1.6	2.0	7.6	4.2	1.6	--	2.7	Oct-14
<i>HFRI Macro (Total) Index</i>			<i>-1.4</i>	<i>0.1</i>	<i>2.7</i>	<i>1.0</i>	<i>-0.1</i>	<i>--</i>	<i>0.9</i>	<i>Oct-14</i>
Relative Value	61,098,669	3.1	-16.1	-13.1	-11.6	0.1	0.6	--	1.5	Oct-14
<i>HFRI Relative Value (Total) Index</i>			<i>-9.3</i>	<i>-7.5</i>	<i>-6.1</i>	<i>-0.1</i>	<i>1.5</i>	<i>--</i>	<i>1.5</i>	<i>Oct-14</i>

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 (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Cash	53,126,950	2.7	0.4	1.9	2.5	1.8	1.3	--	--	Jan-06
ICE BofAML 91 Days T-Bills TR			0.6	1.6	2.3	1.8	1.2	--	--	Jan-06
Other	187,070,806	9.5	-1.7	0.4	1.3	2.7	1.8	2.9	2.0	Jul-04
Other Benchmark			-3.2	-1.6	-1.0	1.3	--	--	--	Jul-04
Investment Grade Bonds	67,070,850	3.4	3.3	--	--	--	--	--	3.2	Dec-19
BBgBarc US Aggregate TR			3.1	--	--	--	--	--	3.1	Dec-19
Core Private Real Estate	88,899,402	4.5	3.1	5.2	7.1	7.2	8.7	11.2	7.1	Jul-04
NCREIF ODCE Equal Weighted (Net)			0.7	3.2	4.4	6.1	7.8	10.6	6.7	Jul-04
NCREIF ODCE Value-Weighted			0.8	3.1	3.9	5.9	7.5	10.4	6.9	Jul-04
Commodities	31,100,507	1.6	-21.5	-18.1	-19.4	-5.1	-6.2	--	-5.1	May-10
Bloomberg Commodity Index TR USD			-23.3	-21.4	-22.3	-8.6	-7.8	--	-7.0	May-10
Overlay	64,819,463	3.3								

Trailing Net Performance										
	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund Aggregate	1,972,576,722	100.0	-10.9	-6.7	-4.4	1.7	1.9	4.0	6.1	Jan-94
Policy Benchmark			-10.8	-6.3	-4.3	2.3	2.8	4.7	6.4	Jan-94
Investable Benchmark Portfolio			-10.8	-6.3	-4.4	1.8	2.2	4.0	--	Jan-94
Low-Cost Passive Portfolio			-14.5	-9.9	-8.1	--	--	--	--	Jan-94
60/40 MSCI ACWI IMI/BBgBarc Global Aggregate			-14.0	-9.0	-5.9	2.1	2.8	4.7	--	Jan-94
Liability Benchmark Portfolio			20.9	25.1	32.6	--	--	--	--	Jan-94
InvMetrics Public DB > \$1B Net Median			-12.6	-8.0	-5.0	2.8	3.7	6.4	6.8	Jan-94
InvMetrics Public DB > \$1B Net Rank			23	33	42	85	99	99	82	Jan-94
Growth	1,254,488,345	63.6	-17.2	-11.7	-8.7	1.3	--	--	2.5	Jul-15
Growth Benchmark			-17.3	-11.2	-8.5	2.5	--	--	3.8	Jul-15
Public Equity	771,758,944	39.1	-23.5	-18.2	-15.4	-0.9	1.0	--	5.2	May-10
Public Equity Benchmark			-23.0	-16.5	-14.2	0.6	2.4	--	5.7	May-10
Global Equity	209,868,146	10.6	-22.6	-16.0	-11.8	1.0	--	--	3.6	Jul-15
MSCI ACWI IMI Index			-22.4	-15.6	-12.7	0.8	--	--	2.5	Jul-15
eV All Global Equity Net Median			-21.3	-15.2	-11.9	0.9	2.2	6.2	2.5	Jul-15
eV All Global Equity Net Rank			59	56	50	49	--	--	36	Jul-15
Artisan Global Value	102,061,758	5.2	-28.8	-23.3	-19.9	-2.7	1.2	--	6.6	Mar-11
MSCI ACWI Value NR USD			-27.1	-21.8	-20.0	-4.0	-0.5	--	2.4	Mar-11
eV All Global Equity Net Median			-21.3	-15.2	-11.9	0.9	2.2	6.2	5.2	Mar-11
eV All Global Equity Net Rank			86	85	80	76	62	--	27	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 (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Artisan Global Opportunities	107,806,388	5.5	-12.6	-3.8	2.1	--	--	--	6.7	Jul-17
MSCI ACWI Growth NR USD			-15.7	-6.8	-2.3	--	--	--	5.5	Jul-17
eV All Global Equity Net Median			-21.3	-15.2	-11.9	0.9	2.2	6.2	-0.6	Jul-17
eV All Global Equity Net Rank			5	4	3	--	--	--	11	Jul-17
US Equity	171,791,607	8.7	-23.3	-16.1	-12.8	1.4	--	--	4.1	Jul-15
MSCI USA IMI GR USD			-20.9	-12.7	-9.2	4.0	--	--	6.1	Jul-15
eV All US Equity Net Median			-24.5	-18.7	-15.4	0.2	2.6	8.3	2.8	Jul-15
eV All US Equity Net Rank			45	41	43	45	--	--	40	Jul-15
Northern Trust Russell 3000	159,639,037	8.1	--	--	--	--	--	--	0.0	Mar-20
Cove Street Small Cap Value	12,144,734	0.6	-38.5	-35.8	-33.0	-9.6	-3.0	--	-2.1	May-14
Russell 2000 Value			-35.7	-30.6	-29.6	-9.5	-2.4	--	-0.9	May-14
eV US Small Cap Value Equity Net Median			-35.1	-30.5	-29.1	-9.7	-2.9	5.2	-1.2	May-14
eV US Small Cap Value Equity Net Rank			79	86	78	47	52	--	68	May-14
International Equity	148,981,061	7.6	-23.1	-18.8	-15.6	-2.5	--	--	-1.0	Jul-15
MSCI World ex USA IMI NR USD			-24.0	-18.3	-15.5	-2.3	--	--	-0.8	Jul-15
eV ACWI ex-US All Cap Equity Net Median			-21.2	-15.4	-11.8	0.2	0.6	4.1	0.3	Jul-15
eV ACWI ex-US All Cap Equity Net Rank			65	72	69	75	--	--	76	Jul-15
Northern Trust MSCI World ex US	123,836,977	6.3	-22.9	-17.6	-14.2	-1.7	--	--	1.0	Nov-16
MSCI World ex USA			-23.3	-18.0	-14.9	-2.1	--	--	0.6	Nov-16

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Oberweis Intl Opportunities	25,144,085	1.3	-24.2	-21.3	-18.4	-2.1	--	--	0.8	Nov-15
<i>MSCI World ex USA Small Cap Growth NR USD</i>			-25.1	-17.1	-15.0	-0.8	--	--	1.9	Nov-15
<i>eV ACWI ex-US All Cap Equity Net Median</i>			-21.2	-15.4	-11.8	0.2	0.6	4.1	1.7	Nov-15
<i>eV ACWI ex-US All Cap Equity Net Rank</i>			70	84	80	74	--	--	61	Nov-15
Emerging Markets Equity	227,889,070	11.6	-25.6	-21.9	-21.0	-5.6	--	--	-3.4	Jul-15
<i>MSCI Emerging Market IMI Net</i>			-24.4	-19.3	-18.9	-2.5	--	--	-1.2	Jul-15
<i>eV Emg Mkts Equity Net Median</i>			-25.1	-20.1	-19.1	-2.7	-0.9	1.3	-1.1	Jul-15
<i>eV Emg Mkts Equity Net Rank</i>			55	65	68	75	--	--	84	Jul-15
Northern Trust MSCI EM IMI	102,606,600	5.2	-24.9	-19.9	-19.6	--	--	--	-12.8	Oct-18
<i>MSCI Emerging Market IMI Net</i>			-24.4	-19.3	-18.9	--	--	--	-12.2	Oct-18
Dimensional Fund Adv EM Value	27,880,094	1.4	-31.9	-30.5	-30.5	-8.4	--	--	-4.6	Nov-16
<i>MSCI Emerging Markets Value NR USD</i>			-28.0	-26.0	-25.3	-5.8	--	--	-3.1	Nov-16
<i>eV Emg Mkts Equity Net Median</i>			-25.1	-20.1	-19.1	-2.7	-0.9	1.3	-0.5	Nov-16
<i>eV Emg Mkts Equity Net Rank</i>			95	97	98	92	--	--	84	Nov-16
GQG Global Emerging Markets	34,689,110	1.8	-19.5	-17.7	-12.3	--	--	--	-0.5	Jul-17
<i>MSCI Emerging Markets</i>			-23.6	-18.2	-17.7	--	--	--	-3.9	Jul-17
<i>eV Emg Mkts Equity Net Median</i>			-25.1	-20.1	-19.1	-2.7	-0.9	1.3	-5.2	Jul-17
<i>eV Emg Mkts Equity Net Rank</i>			6	33	9	--	--	--	6	Jul-17

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
RWC Emerging Markets Equity	20,449,546	1.0	-28.5	--	--	--	--	--	-18.2	Sep-19
<i>MSCI Emerging Markets</i>			-23.6	--	--	--	--	--	-12.9	Sep-19
<i>eV Emg Mkts Equity Net Median</i>			-25.1	-20.1	-19.1	-2.7	-0.9	1.3	-15.3	Sep-19
<i>eV Emg Mkts Equity Net Rank</i>			77	--	--	--	--	--	73	Sep-19
Wellington Emerging Markets Systematic Equity	42,263,720	2.1	-25.1	--	--	--	--	--	-15.5	Sep-19
<i>MSCI Emerging Markets</i>			-23.6	--	--	--	--	--	-12.9	Sep-19
<i>eV Emg Mkts Equity Net Median</i>			-25.1	-20.1	-19.1	-2.7	-0.9	1.3	-15.3	Sep-19
<i>eV Emg Mkts Equity Net Rank</i>			51	--	--	--	--	--	52	Sep-19
Marketable Alternative Equity	13,229,060	0.7	-6.5	-4.5	-1.1	3.4	2.7	--	4.0	Oct-14
<i>HFRI Equity Hedge (Total) Index</i>			-14.0	-10.4	-9.1	-0.3	1.1	--	1.3	Oct-14
Senator Global Opportunity, LP	13,229,060	0.7	-6.4	-2.6	3.3	3.4	2.1	--	5.2	Apr-13
<i>HFRI Event-Driven (Total) Index</i>			-15.1	-13.5	-12.4	-2.1	0.1	--	1.7	Apr-13
Private Markets	429,762,086	21.8	-8.7	-3.1	0.0	4.7	--	--	4.7	Jul-15
<i>Private Markets Benchmark</i>			-8.7	-3.1	0.0	7.0	--	--	6.9	Jul-15
<i>MSCI ACWI IMI + 100bps</i>			-22.2	-14.9	-11.8	1.8	--	--	3.5	Jul-15

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Markets ex Russell 3000	299,107,350	15.2	0.5	3.2	5.4	6.7	--	--	6.0	Jul-15
Private Equity	275,684,897	14.0	-11.5	-4.2	-0.7	6.7	5.6	9.7	--	Jan-06
<i>San Jose Custom Private Equity Benchmark</i>			<i>0.0</i>	<i>5.1</i>	<i>10.3</i>	<i>12.9</i>	<i>11.0</i>	<i>12.8</i>	<i>--</i>	<i>Jan-06</i>
Private Equity ex Russell 3000	157,029,363	8.0	3.2	7.5	10.1	12.8	9.1	11.5	7.6	Jan-06
PE Strategic Partnership, LP	119,300,256	6.0	3.7	10.1	12.4	--	--	--	8.2	Aug-17
<i>Cambridge PE Composite BM</i>			<i>6.2</i>	<i>19.2</i>	<i>25.2</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>18.4</i>	<i>Aug-17</i>
Pathway Private Eq Fund VIII	2,412,614	0.1	-7.6	-10.5	-14.5	-5.0	-4.1	6.2	6.9	Jul-09
<i>Cambridge PE Composite BM</i>			<i>6.2</i>	<i>19.2</i>	<i>25.2</i>	<i>17.7</i>	<i>13.5</i>	<i>13.8</i>	<i>14.6</i>	<i>Jul-09</i>
Pantheon USA Fund VII, LP	12,816,940	0.6	0.6	0.6	3.8	--	--	--	6.0	Jun-18
<i>Cambridge PE Composite BM</i>			<i>6.2</i>	<i>19.2</i>	<i>25.2</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>18.3</i>	<i>Jun-18</i>
Pantheon Global Secondary III	2,884,221	0.1	-12.3	-12.9	-8.0	2.5	1.3	3.0	3.7	Jul-09
<i>Cambridge PE Composite BM</i>			<i>6.2</i>	<i>19.2</i>	<i>25.2</i>	<i>17.7</i>	<i>13.5</i>	<i>13.8</i>	<i>14.6</i>	<i>Jul-09</i>
Great Hill Equity Partners IV	2,379,912	0.1	3.5	14.2	19.4	59.9	43.3	35.3	31.7	Jul-09
<i>Cambridge PE Composite BM</i>			<i>6.2</i>	<i>19.2</i>	<i>25.2</i>	<i>17.7</i>	<i>13.5</i>	<i>13.8</i>	<i>14.6</i>	<i>Jul-09</i>
Partners Group Secondary 2008	929,250	0.0	-1.9	-0.3	2.5	6.2	1.9	8.5	8.0	Jul-09
<i>Cambridge PE Composite BM</i>			<i>6.2</i>	<i>19.2</i>	<i>25.2</i>	<i>17.7</i>	<i>13.5</i>	<i>13.8</i>	<i>14.6</i>	<i>Jul-09</i>
Partners Group Secondary 2011	5,863,334	0.3	0.0	-6.2	-3.6	6.3	6.9	--	16.4	Nov-12
<i>Cambridge PE Composite BM</i>			<i>6.2</i>	<i>19.2</i>	<i>25.2</i>	<i>17.7</i>	<i>13.5</i>	<i>--</i>	<i>14.2</i>	<i>Nov-12</i>

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Innovation Endeavors III	2,534,178	0.1	45.5	40.7	44.9	--	--	--	1.5	Jun-18
<i>Cambridge PE Composite BM</i>			6.2	19.2	25.2	--	--	--	18.3	Jun-18
Crestline Portfolio Financing	7,908,659	0.4	5.6	11.1	14.3	--	--	--	10.7	Jun-18
<i>Cambridge PE Composite BM</i>			6.2	19.2	25.2	--	--	--	18.3	Jun-18
Northern Trust Russell 3000	118,655,534	6.0	-20.8	-12.6	-9.0	--	--	--	-2.2	Jun-18
<i>Russell 3000</i>			-20.9	-12.7	-9.1	--	--	--	-2.3	Jun-18
Private Debt	63,152,125	3.2	-9.0	-10.5	-11.2	-6.8	-3.1	--	1.7	Dec-10
<i>S&P Global Leveraged Loan Index +2%</i>			-12.1	-9.3	-7.1	1.5	3.4	--	4.7	Dec-10
White Oak Direct Lending	11,333,419	0.6	-8.1	10.7	7.4	-8.0	-4.9	--	-0.1	Feb-11
<i>S&P Global Leveraged Loan Index +2%</i>			-12.1	-9.3	-7.1	1.5	3.4	--	4.4	Feb-11
Blackstone/GSO Cap Partners	6,513,035	0.3	-16.0	-25.6	-27.1	-5.7	-3.7	--	3.4	Mar-11
<i>S&P Global Leveraged Loan Index +2%</i>			-12.1	-9.3	-7.1	1.5	3.4	--	4.3	Mar-11
Medley Opportunity Fund II LP	16,901,047	0.9	-3.1	-13.8	-16.9	-10.3	-4.2	--	0.9	Jun-11
<i>S&P Global Leveraged Loan Index +2%</i>			-12.1	-9.3	-7.1	1.5	3.4	--	4.3	Jun-11
Cross Ocean USD ESS Fund II LP	8,497,549	0.4	2.0	7.0	10.0	7.3	--	--	10.1	Aug-16
<i>S&P Global Leveraged Loan Index +2%</i>			-12.1	-9.3	-7.1	1.5	--	--	2.6	Aug-16
Octagon CLO Opp Fund III	11,999,202	0.6	-28.5	-31.5	-28.3	--	--	--	-24.8	Feb-19
<i>S&P Global Leveraged Loan Index +2%</i>			-12.1	-9.3	-7.1	--	--	--	-5.3	Feb-19

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

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Crestline Co-Investment	1,690,139	0.1	0.9	8.8	8.8	--	--	--	8.1	Mar-19
<i>S&P Global Leveraged Loan Index +2%</i>			-12.1	-9.3	-7.1	--	--	--	-6.9	Mar-19
Cross Ocean USD ESS Fund III, L.P.	6,217,734	0.3	1.6	-0.4	--	--	--	--	-0.4	Jun-19
<i>S&P Global Leveraged Loan Index +2%</i>			-12.1	-9.3	--	--	--	--	-8.4	Jun-19
Private Real Estate	66,737,132	3.4	3.6	8.4	10.6	15.6	--	--	16.9	Jul-15
<i>NCREIF Property Index</i>			0.7	3.7	5.3	6.4	--	--	7.4	Jul-15
DRA Growth & Income Fund VI	648,859	0.0	1.9	7.7	10.2	3.4	7.9	13.3	8.7	Jan-08
<i>NCREIF Property Index</i>			0.7	3.7	5.3	6.4	7.6	10.2	6.1	Jan-08
DRA Growth & Income Fund VII	2,777,053	0.1	29.2	84.3	87.5	53.1	40.3	--	30.6	Apr-12
<i>NCREIF Property Index</i>			0.7	3.7	5.3	6.4	7.6	--	9.1	Apr-12
DRA Growth & Income Fund VIII	10,388,322	0.5	4.4	6.1	7.6	10.6	10.8	--	11.0	Jan-15
<i>NCREIF Property Index</i>			0.7	3.7	5.3	6.4	7.6	--	8.0	Jan-15
Tristan - EPISO IV	13,011,924	0.7	1.7	2.8	7.2	9.8	--	--	8.1	Jan-16
<i>NCREIF Property Index</i>			0.7	3.7	5.3	6.4	--	--	6.8	Jan-16
DRA Growth & Income Fund IX	17,714,234	0.9	2.2	5.9	7.7	13.3	--	--	12.5	Feb-17
<i>NCREIF Property Index</i>			0.7	3.7	5.3	6.4	--	--	6.6	Feb-17
GEM Realty Fund VI	2,827,622	0.1	2.8	-5.2	-8.4	--	--	--	-1.3	Dec-17
<i>NCREIF Property Index</i>			0.7	3.7	5.3	--	--	--	6.7	Dec-17

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Torchlight Debt Opportunity VI	17,157,282	0.9	2.7	6.8	8.6	--	--	--	2.9	Apr-18
<i>NCREIF Property Index</i>			0.7	3.7	5.3	--	--	--	6.0	Apr-18
Tristan - EPISO V	667,100	0.0								
DRA Growth & Income Fund X	1,544,737	0.1								
Private Real Assets	24,187,931	1.2	1.7	3.7	14.8	9.4	--	--	7.0	Jul-15
Global Infra Part III-A/B, LP	20,709,842	1.0	1.4	4.4	15.0	8.5	--	--	1.9	Sep-16
<i>DJ Brookfield Global Infrastructure Net TR USD</i>			-20.9	-15.7	-12.1	0.3	--	--	1.6	Sep-16
Lime Rock Partners VIII	2,452,095	0.1	7.4	4.3	22.0	--	--	--	4.8	Dec-18
<i>DJ Brookfield Global Infrastructure Net TR USD</i>			-20.9	-15.7	-12.1	--	--	--	-2.4	Dec-18
Kimmeridge Energy Fund V, L.P.	1,013,492	0.1								
Global Infra Partners IV	12,502	0.0								
Emerging Markets Debt	52,967,315	2.7	-6.6	-2.6	1.1	1.6	--	--	2.0	Jul-15
<i>50% JPM EMBI GD / 50% JPM GBI-EM</i>			-14.3	-10.9	-6.6	-0.1	--	--	1.8	Jul-15
<i>eV All Emg Mkts Fixed Inc Net Median</i>			-15.7	-12.6	-8.6	-1.2	1.6	3.6	1.8	Jul-15
<i>eV All Emg Mkts Fixed Inc Net Rank</i>			1	1	1	7	--	--	36	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 (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
BlueBay EM Select Bond	17,725,875	0.9	-16.3	-13.3	-9.0	-1.9	--	--	-0.2	Jul-15
50% JPM EMBI GD / 50% JPM GBI-EM			-14.3	-10.9	-6.6	-0.1	--	--	1.8	Jul-15
eV All Emg Mkts Fixed Inc Net Median			-15.7	-12.6	-8.6	-1.2	1.6	3.6	1.8	Jul-15
eV All Emg Mkts Fixed Inc Net Rank			65	64	60	69	--	--	81	Jul-15
Wellington Iguazu Partners LP Fund	35,241,440	1.8	2.4	7.6	--	--	--	--	10.1	May-19
50% JPM EMBI GD / 50% JPM GBI-EM			-14.3	-10.9	--	--	--	--	-6.6	May-19
eV All Emg Mkts Fixed Inc Net Median			-15.7	-12.6	-8.6	-1.2	1.6	3.6	-8.7	May-19
eV All Emg Mkts Fixed Inc Net Rank			1	1	--	--	--	--	1	May-19
Low Beta	466,198,109	23.6	-0.6	0.9	2.4	2.8	--	--	2.0	Jul-15
Low Beta Benchmark			1.5	2.6	3.4	1.7	--	--	1.1	Jul-15
Short-Term IG Bonds	169,745,091	8.6	1.5	2.6	3.3	--	--	--	3.0	Oct-18
91 Day T-Bills			0.4	1.3	1.9	--	--	--	2.0	Oct-18
Blackrock 1-3 Year Gov/Credit	169,745,027	8.6	1.5	--	--	--	--	--	1.7	Nov-19
BBgBarc US Govt/Credit 1-3 Yr. TR			1.7	--	--	--	--	--	1.9	Nov-19
Immunized Cash Flows	100,957,725	5.1	2.5	3.7	5.1	--	--	--	5.0	Oct-18
Immunized Cash Flows Benchmark			2.5	3.7	5.1	--	--	--	5.0	Oct-18
Insight Immunized Cash Flow	100,957,725	5.1	2.5	3.7	--	--	--	--	--	Jun-19
Market Neutral Strategies	142,368,343	7.2	-6.8	-4.7	-1.3	2.4	1.4	--	3.0	Nov-12
Market Neutral Strategies Benchmark			0.4	1.4	2.0	1.3	0.0	--	1.3	Nov-12

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Macro	81,269,674	4.1	1.6	2.0	7.6	4.2	1.6	--	2.7	Oct-14
<i>HFRI Macro (Total) Index</i>			-1.4	0.1	2.7	1.0	-0.1	--	0.9	Oct-14
Kepos Alpha Fund, Ltd	15,295,914	0.8	-1.4	4.9	19.0	5.0	1.2	--	1.8	Mar-13
<i>HFRI Macro: Systematic Diversified Index</i>			-0.5	0.8	4.4	0.9	-1.4	--	0.9	Mar-13
Keynes Lev Quant Strat, Ltd	11,027,295	0.6	-2.6	-1.6	7.7	6.9	--	--	3.2	Jan-16
<i>Barclay BTOP50 Index TR USD</i>			-2.1	-0.9	2.6	0.1	--	--	-1.4	Jan-16
Pharo Management, Ltd.	23,599,374	1.2	5.5	1.7	6.7	7.8	--	--	9.0	Apr-16
<i>HFRI Macro (Total) Index</i>			-1.4	0.1	2.7	1.0	--	--	0.6	Apr-16
AHL Partners LLP	10,572,905	0.5	-6.1	-1.5	-0.3	4.0	--	--	4.4	Jun-16
<i>Barclay BTOP50 Index TR USD</i>			-2.1	-0.9	2.6	0.1	--	--	-1.7	Jun-16
Systematica	20,774,186	1.1	6.4	7.7	11.8	--	--	--	6.4	Jul-17
<i>Barclay BTOP50 Index TR USD</i>			-2.1	-0.9	2.6	--	--	--	1.2	Jul-17
Relative Value	61,098,669	3.1	-16.1	-13.1	-11.6	0.1	0.6	--	1.5	Oct-14
<i>HFRI Relative Value (Total) Index</i>			-9.3	-7.5	-6.1	-0.1	1.5	--	1.5	Oct-14
Pine River Fund, Ltd	656,659	0.0	4.5	15.8	36.5	10.0	5.1	--	5.8	Jan-13
<i>HFRI Relative Value (Total) Index</i>			-9.3	-7.5	-6.1	-0.1	1.5	--	2.8	Jan-13
DE Shaw Composite Fund, LLC	30,317,264	1.5	2.0	8.7	10.1	11.6	9.1	--	11.2	Apr-13
<i>HFRI Fund Weighted Composite Index</i>			-10.9	-8.2	-6.7	-0.2	0.7	--	2.0	Apr-13

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 (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
JD Capital	2,107,602	0.1	-85.7	-85.6	-85.4	-44.7	--	--	-39.7	Oct-16
HFRI Relative Value (Total) Index			-9.3	-7.5	-6.1	-0.1	--	--	1.1	Oct-16
Hudson Bay	28,017,144	1.4	3.9	8.0	10.6	--	--	--	7.4	Aug-17
HFRI Relative Value (Total) Index			-9.3	-7.5	-6.1	--	--	--	-0.5	Aug-17
Cash	53,126,950	2.7	0.4	1.9	2.5	1.8	1.3	--	--	Jan-06
ICE BofAML 91 Days T-Bills TR			0.6	1.6	2.3	1.8	1.2	--	--	Jan-06
Other	187,070,806	9.5	-1.7	0.4	1.3	2.7	1.8	2.9	2.0	Jul-04
Other Benchmark			-3.2	-1.6	-1.0	1.3	--	--	--	Jul-04
Investment Grade Bonds	67,070,850	3.4	3.3	--	--	--	--	--	3.2	Dec-19
BBgBarc US Aggregate TR			3.1	--	--	--	--	--	3.1	Dec-19
Northern Trust Aggregate Bond Index	67,070,850	3.4	3.3	--	--	--	--	--	3.2	Dec-19
BBgBarc US Aggregate TR			3.1	--	--	--	--	--	3.1	Dec-19
Core Private Real Estate	88,899,402	4.5	3.1	5.2	7.1	7.2	8.7	11.2	7.1	Jul-04
NCREIF ODCE Equal Weighted (Net)			0.7	3.2	4.4	6.1	7.8	10.6	6.7	Jul-04
NCREIF ODCE Value-Weighted			0.8	3.1	3.9	5.9	7.5	10.4	6.9	Jul-04
BlackRock Core Property Fund	41,275,074	2.1	3.2	4.3	6.9	--	--	--	5.9	Feb-19
NCREIF ODCE Equal-Weighted			0.7	3.2	4.4	--	--	--	4.6	Feb-19

	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<i>NCREIF ODCE Value-Weighted</i>			0.8	3.1	3.9	--	--	--	4.1	Feb-19
Clarion Lion Properties Fund	47,624,328	2.4	3.0	4.5	--	--	--	--	6.0	Apr-19
<i>NCREIF ODCE Equal Weighted (Net)</i>			0.7	3.2	--	--	--	--	4.4	Apr-19
<i>NCREIF ODCE Value-Weighted</i>			0.8	3.1	--	--	--	--	3.9	Apr-19
Commodities	31,100,507	1.6	-21.5	-18.1	-19.4	-5.1	-6.2	--	-5.1	May-10
<i>Bloomberg Commodity Index TR USD</i>			-23.3	-21.4	-22.3	-8.6	-7.8	--	-7.0	May-10
Credit Suisse Risk Parity	31,100,507	1.6	-21.5	-18.1	-19.3	-6.0	-5.1	--	-6.6	Apr-11
<i>Bloomberg Commodity Index TR USD</i>			-23.3	-21.4	-22.3	-8.6	-7.8	--	-10.0	Apr-11
Overlay	64,819,463	3.3								
Russell Investments Overlay	64,808,953	3.3								

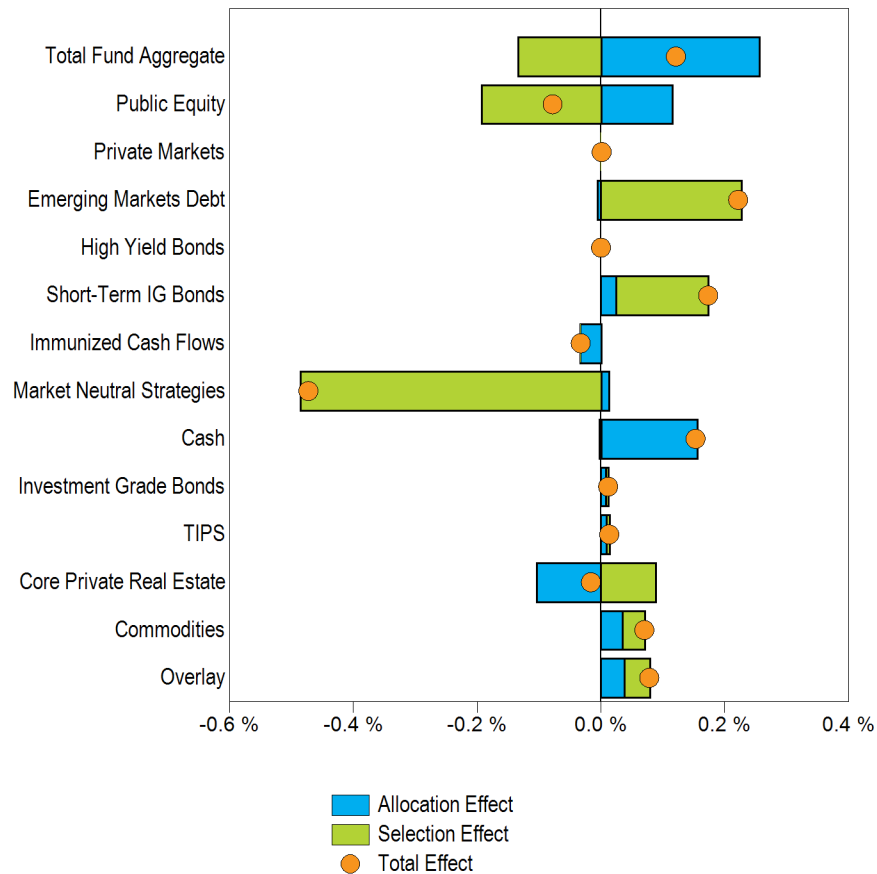
Cash Flow Summary						
Quarter Ending March 31, 2020						
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
AHL Partners LLP	\$11,264,555	\$0	\$0	\$0	-\$691,650	\$10,572,905
Artisan Global Opportunities	\$67,775,829	\$50,000,000	\$0	\$50,000,000	-\$9,969,441	\$107,806,388
Artisan Global Value	\$140,038,418	\$41,776,243	-\$41,776,243	\$0	-\$37,976,661	\$102,061,758
Blackrock 1-3 Year Gov/Credit	\$325,720,557	\$0	-\$160,753,000	-\$160,753,000	\$4,777,470	\$169,745,027
BlackRock 3-Month T-Bill	\$52,093	\$0	-\$52,093	-\$52,093	\$64	\$64
BlackRock Core Property Fund	\$40,691,459	\$0	-\$744,582	-\$744,582	\$1,328,197	\$41,275,074
Blackstone/GSO Cap Partners	\$7,753,587	\$0	\$0	\$0	-\$1,240,553	\$6,513,035
BlueBay EM Select Bond	\$31,892,761	\$0	-\$9,000,000	-\$9,000,000	-\$5,166,886	\$17,725,875
Cash Account	\$23,784,555	\$348,787,709	-\$319,594,254	\$29,193,455	\$148,940	\$53,126,950
Clarion Lion Properties Fund	\$46,602,529	\$0	-\$555,387	-\$555,387	\$1,577,186	\$47,624,328
Cove Street Small Cap Value	\$19,756,995	\$825,343	-\$825,343	\$0	-\$7,612,262	\$12,144,734
Credit Suisse Risk Parity	\$39,629,125	\$0	-\$37,210	-\$37,210	-\$8,491,407	\$31,100,507
Crestline Co-Investment	\$1,675,403	\$0	-\$4,540	-\$4,540	\$19,276	\$1,690,139
Crestline Portfolio Financing	\$6,933,788	\$1,118,068	-\$505,365	\$612,703	\$362,167	\$7,908,659
Cross Ocean USD ESS Fund II LP	\$8,328,209	\$0	-\$14,982	-\$14,982	\$184,323	\$8,497,549
Cross Ocean USD ESS Fund III, L.P.	\$6,122,622	\$0	-\$12,009	-\$12,009	\$107,121	\$6,217,734
DE Shaw Composite Fund, LLC	\$32,548,441	\$0	-\$3,028,784	-\$3,028,784	\$797,607	\$30,317,264
Dimensional Fund Adv EM Value	\$40,935,512	\$0	\$0	\$0	-\$13,055,418	\$27,880,094
DRA Growth & Income Fund IX	\$17,092,885	\$596,447	-\$462,288	\$134,159	\$487,190	\$17,714,234
DRA Growth & Income Fund VI	\$636,641	\$0	\$0	\$0	\$12,218	\$648,859
DRA Growth & Income Fund VII	\$3,697,416	\$0	-\$1,630,017	-\$1,630,017	\$709,654	\$2,777,053
DRA Growth & Income Fund VIII	\$10,286,939	\$0	-\$406,579	-\$406,579	\$507,962	\$10,388,322

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
DRA Growth & Income Fund X	--	\$1,544,737	\$0	\$1,544,737	\$0	\$1,544,737
GEM Realty Fund VI	\$1,749,588	\$1,000,000	-\$28,125	\$971,875	\$106,159	\$2,827,622
Global Infra Part III-A/B, LP	\$20,240,966	\$206,509	-\$121,625	\$84,884	\$383,993	\$20,709,842
Global Infra Partners IV	\$13,128	\$15,282	-\$15,521	-\$239	-\$387	\$12,502
GQG Global Emerging Markets	\$43,093,948	\$0	-\$54,949	-\$54,949	-\$8,349,889	\$34,689,110
Great Hill Equity Partners IV	\$2,298,604	\$0	\$0	\$0	\$81,308	\$2,379,912
Hudson Bay	\$26,964,882	\$0	\$0	\$0	\$1,052,262	\$28,017,144
Innovation Endeavors III	\$1,453,784	\$288,000	-\$29,952	\$258,048	\$822,346	\$2,534,178
Insight Immunized Cash Flow	\$98,371,798	\$5,281,535	-\$5,234,643	\$46,892	\$2,539,034	\$100,957,725
JD Capital	\$14,727,407	\$0	-\$54,926	-\$54,926	-\$12,564,880	\$2,107,602
Kepos Alpha Fund, Ltd	\$15,509,612	\$0	-\$36,835	-\$36,835	-\$176,862	\$15,295,914
Keynes Lev Quant Strat, Ltd	\$11,316,899	\$0	\$0	\$0	-\$289,604	\$11,027,295
Kimmeridge Energy Fund V, L.P.	\$237,219	\$797,162	-\$21,315	\$775,847	\$426	\$1,013,492
Lime Rock Partners VIII	\$2,208,013	\$81,221	-\$16,533	\$64,688	\$179,395	\$2,452,095
Medley Opportunity Fund II LP	\$17,447,398	\$0	-\$48,642	-\$48,642	-\$497,709	\$16,901,047
Northern Tr Russell 2000 Value	\$14,120,080	\$0	-\$9,086,754	-\$9,086,754	-\$5,025,491	\$7,836
Northern Trust 0-5 Year TIPS	\$45,075,925	\$0	-\$44,897,293	-\$44,897,293	-\$178,585	\$47
Northern Trust Aggregate Bond Index	\$64,940,469	\$0	\$0	\$0	\$2,130,381	\$67,070,850
Northern Trust MSCI EM IMI	\$81,147,510	\$41,500,000	\$0	\$41,500,000	-\$20,040,911	\$102,606,600
Northern Trust MSCI World ex US	\$122,520,162	\$29,300,000	\$0	\$29,300,000	-\$27,983,185	\$123,836,977
Northern Trust Russell 1000	\$130,335,709	\$0	-\$104,793,239	-\$104,793,239	-\$25,542,470	\$0
Northern Trust Russell 3000	\$230,251,587	\$0	-\$64,924,746	-\$64,924,746	-\$46,671,307	\$118,655,534

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
Northern Trust Russell 3000	--	\$159,717,986	\$0	\$159,717,986	-\$78,948	\$159,639,037
Oberweis Intl Opportunities	\$33,188,238	\$22,137,533	-\$22,137,533	\$0	-\$8,044,153	\$25,144,085
Octagon CLO Opp Fund III	\$8,095,062	\$7,500,000	-\$314,478	\$7,185,522	-\$3,281,382	\$11,999,202
Pantheon Global Secondary III	\$3,289,698	\$0	-\$38,894	-\$38,894	-\$366,583	\$2,884,221
Pantheon USA Fund VII, LP	\$13,378,006	\$0	-\$695,124	-\$695,124	\$134,058	\$12,816,940
Partners Group Secondary 2008	\$947,402	\$0	\$0	\$0	-\$18,152	\$929,250
Partners Group Secondary 2011	\$6,236,670	\$0	-\$374,368	-\$374,368	\$1,033	\$5,863,334
Pathway Private Eq Fund VIII	\$2,596,155	\$15,744	\$0	\$15,744	-\$199,286	\$2,412,614
PE Strategic Partnership, LP	\$95,828,751	\$19,500,000	-\$136,500	\$19,363,500	\$4,108,005	\$119,300,256
Pharo Management, Ltd.	\$22,368,580	\$0	\$0	\$0	\$1,230,794	\$23,599,374
Pine River Fund, Ltd	\$926,344	\$0	-\$300,692	-\$300,692	\$31,007	\$656,659
Pine River Volatility Arb	\$16,056,800	\$0	-\$16,071,279	-\$16,071,279	\$14,479	\$0
Russell Investments Overlay	\$6,868,017	\$57,000,000	\$0	\$57,000,000	\$940,936	\$64,808,953
RWC Emerging Markets Equity	\$28,590,812	\$0	-\$42,434	-\$42,434	-\$8,098,832	\$20,449,546
Senator Global Opportunity, LP	\$16,810,388	\$0	-\$2,690,469	-\$2,690,469	-\$890,859	\$13,229,060
State Street Terminated Managers	\$10,681	\$0	\$0	\$0	-\$171	\$10,510
Systematica	\$9,506,149	\$10,000,000	\$0	\$10,000,000	\$1,268,036	\$20,774,186
Torchlight Debt Opportunity VI	\$11,472,851	\$5,369,155	-\$101,250	\$5,267,905	\$416,526	\$17,157,282
Tristan - EPISO IV	\$12,551,243	\$243,186	-\$40,805	\$202,381	\$258,300	\$13,011,924
Tristan - EPISO V	\$200,684	\$560,048	-\$82,140	\$477,908	-\$11,493	\$667,100
Wellington Emerging Markets Systematic Equity	\$56,437,776	\$0	-\$33,643	-\$33,643	-\$14,140,413	\$42,263,720
Wellington Iguazu Partners LP Fund	\$34,420,064	\$0	\$0	\$0	\$821,376	\$35,241,440

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
White Oak Direct Lending	\$13,069,223	\$0	-\$713,813	-\$713,813	-\$1,021,991	\$11,333,419
Total	\$2,220,094,606	\$805,161,908	-\$812,541,197	-\$7,379,289	-\$240,138,595	\$1,972,576,722

Attribution Effects 3 Months Ending March 31, 2020

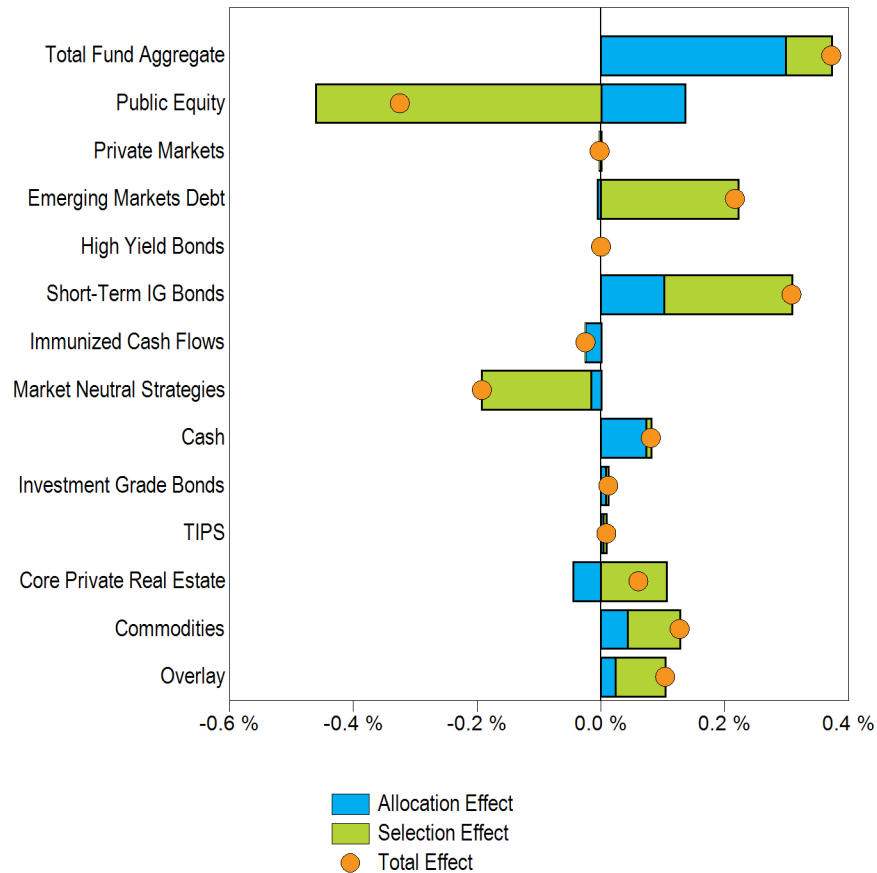


Attribution Summary 3 Months Ending March 31, 2020

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Public Equity	-23.5%	-23.0%	-0.5%	-0.2%	0.1%	-0.1%
Private Markets	-8.7%	-8.7%	0.0%	0.0%	0.0%	0.0%
Emerging Markets Debt	-6.6%	-14.3%	7.7%	0.2%	0.0%	0.2%
High Yield Bonds	--	--	--	--	0.0%	--
Short-Term IG Bonds	1.5%	0.4%	1.1%	0.1%	0.0%	0.2%
Immunized Cash Flows	2.5%	2.5%	0.0%	0.0%	0.0%	0.0%
Market Neutral Strategies	-6.8%	0.4%	-7.2%	-0.5%	0.0%	-0.5%
Cash	0.4%	0.6%	-0.2%	0.0%	0.2%	0.2%
Investment Grade Bonds	3.3%	3.1%	0.1%	0.0%	0.0%	0.0%
TIPS	-0.5%	-0.7%	0.2%	0.0%	0.0%	0.0%
Core Private Real Estate	3.1%	0.7%	2.4%	0.1%	-0.1%	0.0%
Commodities	-21.5%	-23.3%	1.8%	0.0%	0.0%	0.1%
Overlay	14.5%	0.4%	14.2%	0.0%	0.0%	0.1%
Total	-10.8%	-10.9%	0.1%	-0.1%	0.3%	0.1%

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.

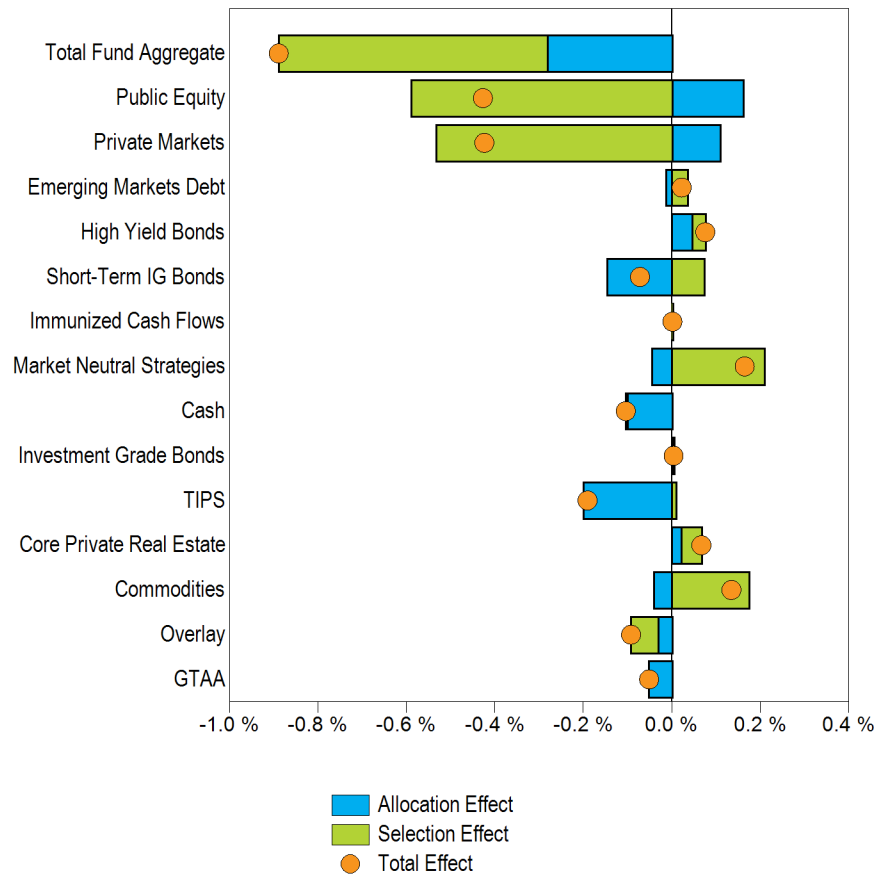
Attribution Effects 1 Year Ending March 31, 2020



Attribution Summary 1 Year Ending March 31, 2020

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Public Equity	-15.4%	-14.2%	-1.2%	-0.5%	0.1%	-0.3%
Private Markets	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Emerging Markets Debt	1.1%	-6.6%	7.7%	0.2%	0.0%	0.2%
High Yield Bonds	--	--	--	--	0.0%	--
Short-Term IG Bonds	3.3%	1.9%	1.4%	0.2%	0.1%	0.3%
Immunized Cash Flows	5.1%	5.1%	0.0%	0.0%	0.0%	0.0%
Market Neutral Strategies	-1.3%	2.0%	-3.4%	-0.2%	0.0%	-0.2%
Cash	2.5%	2.3%	0.3%	0.0%	0.1%	0.1%
Investment Grade Bonds	--	--	--	0.0%	0.0%	0.0%
TIPS	2.7%	2.4%	0.2%	0.0%	0.0%	0.0%
Core Private Real Estate	7.1%	4.4%	2.7%	0.1%	0.0%	0.1%
Commodities	-19.4%	-22.3%	3.0%	0.1%	0.0%	0.1%
Overlay	31.5%	1.9%	29.6%	0.1%	0.0%	0.1%
Total	-4.3%	-4.6%	0.4%	0.1%	0.3%	0.4%

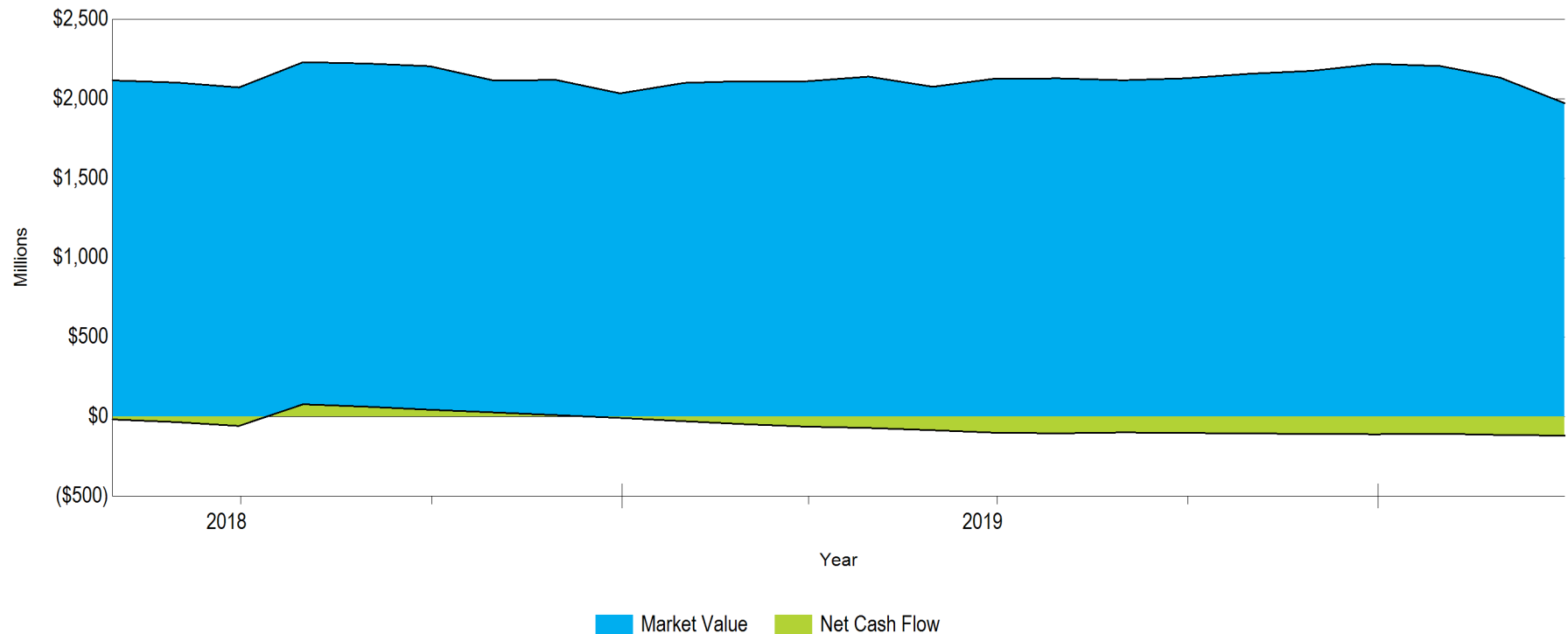
Attribution Effects
3 Years Ending March 31, 2020



Attribution Summary
3 Years Ending March 31, 2020

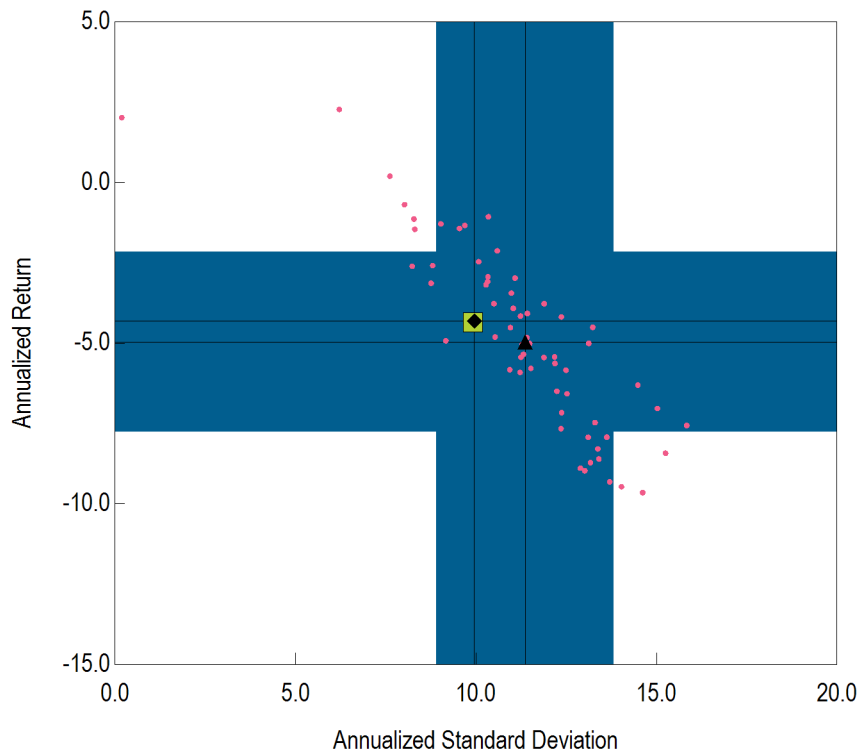
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Public Equity	-0.9%	0.6%	-1.5%	-0.6%	0.2%	-0.4%
Private Markets	4.7%	7.0%	-2.3%	-0.5%	0.1%	-0.4%
Emerging Markets Debt	1.6%	-0.1%	1.7%	0.0%	0.0%	0.0%
High Yield Bonds	--	--	--	0.0%	0.0%	0.1%
Short-Term IG Bonds	--	1.0%	--	0.1%	-0.1%	-0.1%
Immunized Cash Flows	--	--	--	0.0%	0.0%	0.0%
Market Neutral Strategies	2.4%	1.3%	1.1%	0.2%	0.0%	0.2%
Cash	1.8%	1.8%	0.0%	0.0%	-0.1%	-0.1%
Investment Grade Bonds	--	--	--	0.0%	0.0%	0.0%
TIPS	1.8%	1.6%	0.1%	0.0%	-0.2%	-0.2%
Core Private Real Estate	7.2%	6.1%	1.1%	0.0%	0.0%	0.1%
Commodities	-5.1%	-8.6%	3.5%	0.2%	0.0%	0.1%
Overlay	-3.3%	1.7%	-5.0%	-0.1%	0.0%	-0.1%
GTAA	--	--	--	0.0%	-0.1%	-0.1%
Total	2.0%	2.2%	-0.3%	-0.6%	-0.3%	-0.9%

Market Value History
2 Years Ending March 31, 2020



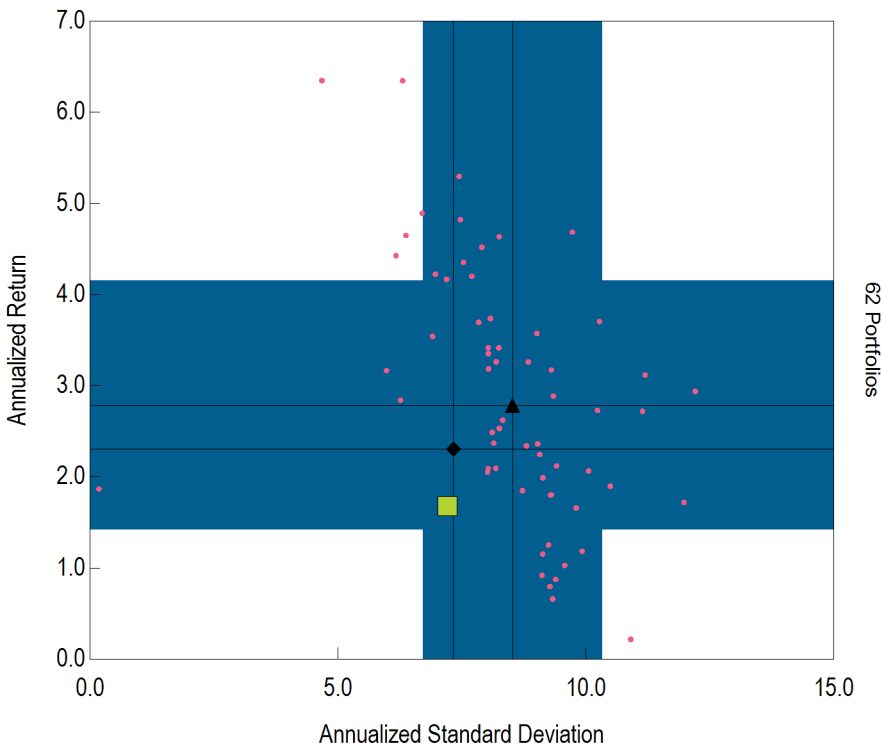
	First Quarter	Fiscal Year-To-Date	One Year	Two Years
Beginning Market Value	\$2,220,094,606	\$2,127,219,653	\$2,110,487,568	\$2,119,673,004
Net Cash Flow	-\$8,417,113	-\$18,195,102	-\$56,620,420	-\$119,505,533
Net Investment Change	-\$239,100,771	-\$136,447,829	-\$81,290,426	-\$27,590,749
Ending Market Value	\$1,972,576,722	\$1,972,576,722	\$1,972,576,722	\$1,972,576,722

Annualized Return vs. Annualized Standard Deviation
1 Year Ending March 31, 2020



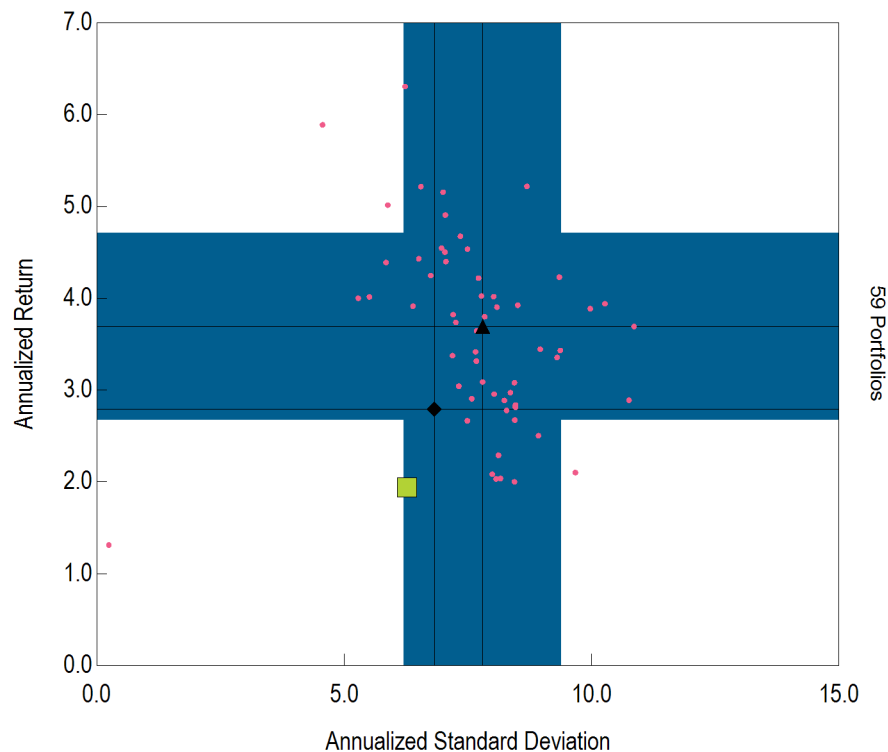
- Total Fund Aggregate
- Policy Benchmark
- Universe Median
- 68% Confidence Interval
- InvMetrics Public DB > \$1B Net

Annualized Return vs. Annualized Standard Deviation
3 Years Ending March 31, 2020



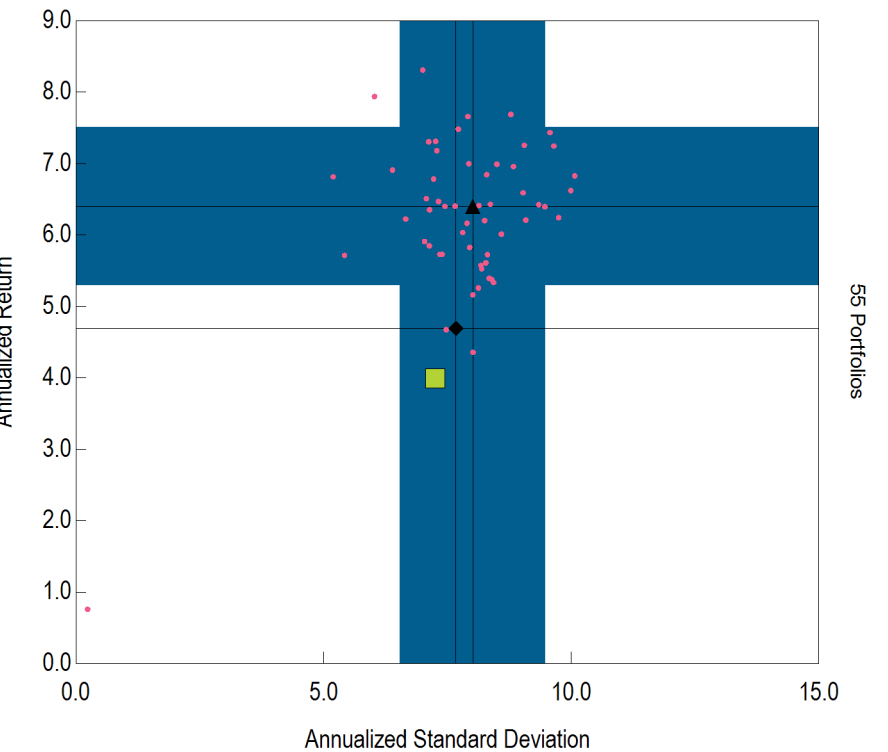
- Total Fund Aggregate
- Policy Benchmark
- Universe Median
- 68% Confidence Interval
- InvMetrics Public DB > \$1B Net

Annualized Return vs. Annualized Standard Deviation
5 Years Ending March 31, 2020



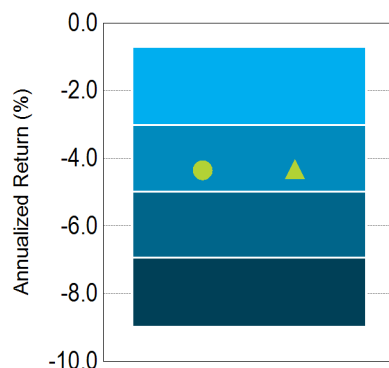
- Total Fund Aggregate
- ◆ Policy Benchmark
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics Public DB > \$1B Net

Annualized Return vs. Annualized Standard Deviation
10 Years Ending March 31, 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 -4.4
Rank 42

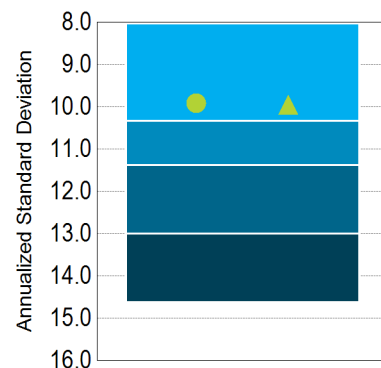
▲ Policy Benchmark

Value -4.3
Rank 42

Universe

5th %tile -0.7
25th %tile -3.0
Median -5.0
75th %tile -6.9
95th %tile -9.0

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



● Total Fund Aggregate

Value 9.9
Rank 21

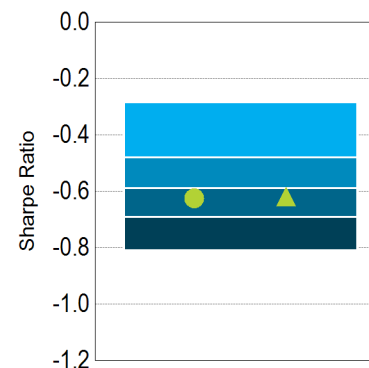
▲ Policy Benchmark

Value 10.0
Rank 21

Universe

5th %tile 8.0
25th %tile 10.3
Median 11.4
75th %tile 13.0
95th %tile 14.6

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



● Total Fund Aggregate

Value -0.6
Rank 64

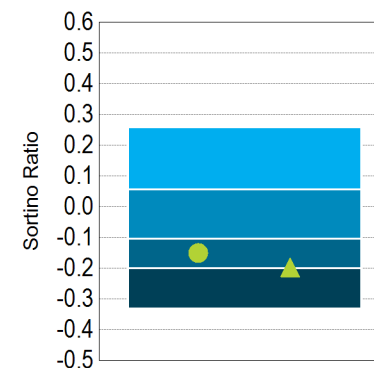
▲ Policy Benchmark

Value -0.6
Rank 63

Universe

5th %tile -0.3
25th %tile -0.5
Median -0.6
75th %tile -0.7
95th %tile -0.8

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



● Total Fund Aggregate

Value -0.2
Rank 61

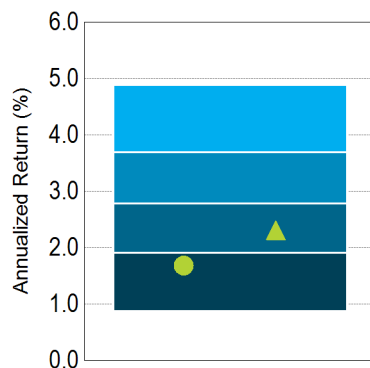
▲ Policy Benchmark

Value -0.2
Rank 74

Universe

5th %tile 0.3
25th %tile 0.1
Median -0.1
75th %tile -0.2
95th %tile -0.3

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



● Total Fund Aggregate

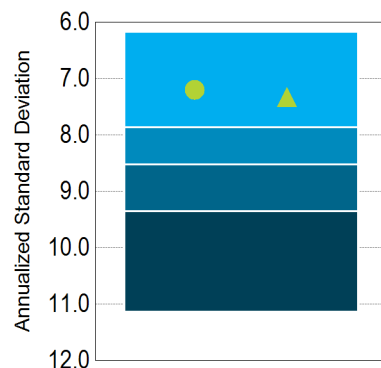
Value 1.7
Rank 85

▲ Policy Benchmark

Value 2.3
Rank 63

Universe
5th %tile 4.9
25th %tile 3.7
Median 2.8
75th %tile 1.9
95th %tile 0.9

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



● Total Fund Aggregate

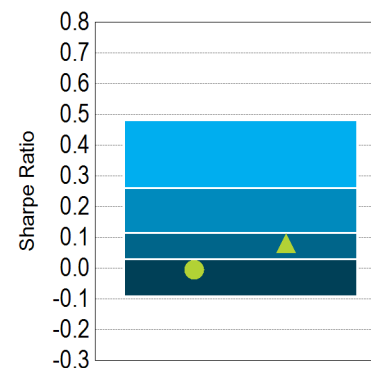
Value 7.2
Rank 17

▲ Policy Benchmark

Value 7.3
Rank 18

Universe
5th %tile 6.2
25th %tile 7.9
Median 8.5
75th %tile 9.3
95th %tile 11.1

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



● Total Fund Aggregate

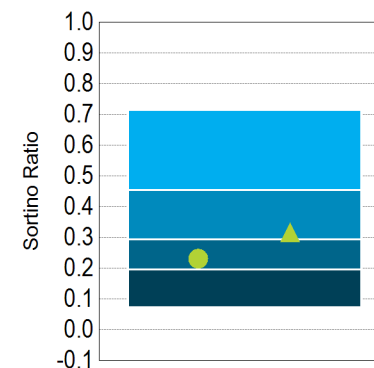
Value 0.0
Rank 86

▲ Policy Benchmark

Value 0.1
Rank 61

Universe
5th %tile 0.5
25th %tile 0.3
Median 0.1
75th %tile 0.0
95th %tile -0.1

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



● Total Fund Aggregate

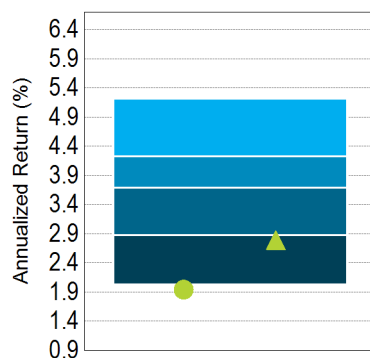
Value 0.2
Rank 67

▲ Policy Benchmark

Value 0.3
Rank 46

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 1.9
Rank 99

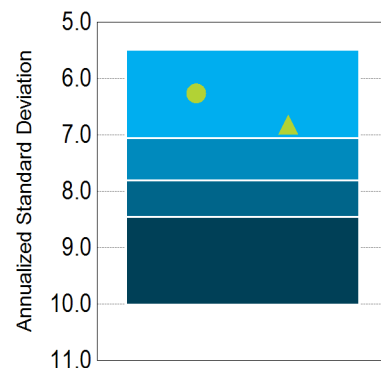
▲ Policy Benchmark

Value 2.8
Rank 83

Universe

5th %tile 5.2
25th %tile 4.2
Median 3.7
75th %tile 2.9
95th %tile 2.0

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



● Total Fund Aggregate

Value 6.3
Rank 11

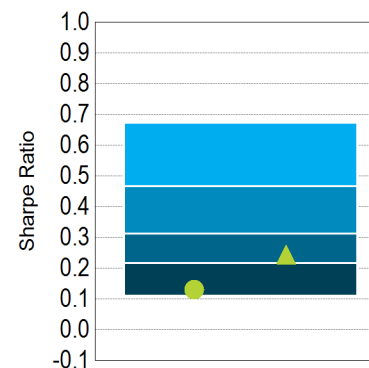
▲ Policy Benchmark

Value 6.8
Rank 18

Universe

5th %tile 5.5
25th %tile 7.0
Median 7.8
75th %tile 8.4
95th %tile 10.0

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



● Total Fund Aggregate

Value 0.1
Rank 93

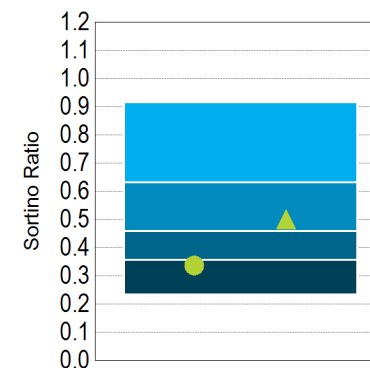
▲ Policy Benchmark

Value 0.2
Rank 65

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 Aggregate

Value 0.3
Rank 85

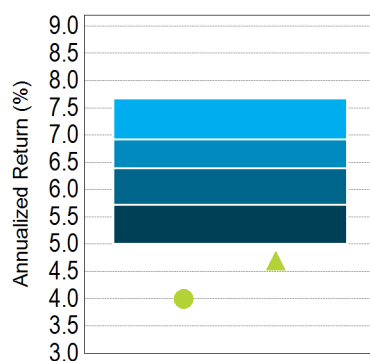
▲ Policy Benchmark

Value 0.5
Rank 44

Universe

5th %tile 0.9
25th %tile 0.6
Median 0.5
75th %tile 0.4
95th %tile 0.2

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



● Total Fund Aggregate

Value 4.0
Rank 99

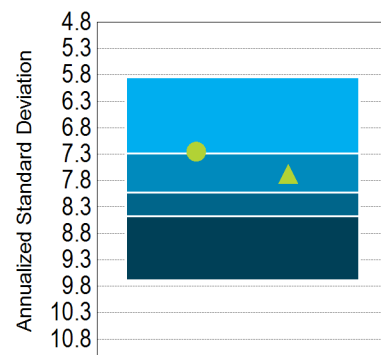
▲ Policy Benchmark

Value 4.7
Rank 97

Universe

5th %tile 7.7
25th %tile 6.9
Median 6.4
75th %tile 5.7
95th %tile 5.0

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



● Total Fund Aggregate

Value 7.3
Rank 24

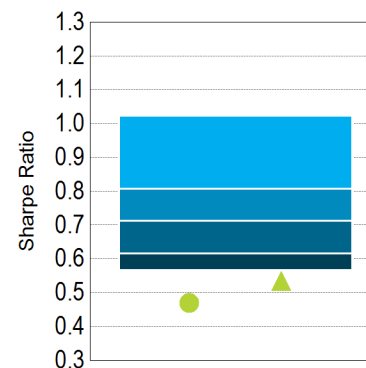
▲ Policy Benchmark

Value 7.7
Rank 38

Universe

5th %tile 5.8
25th %tile 7.3
Median 8.0
75th %tile 8.5
95th %tile 9.7

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



● Total Fund Aggregate

Value 0.5
Rank 99

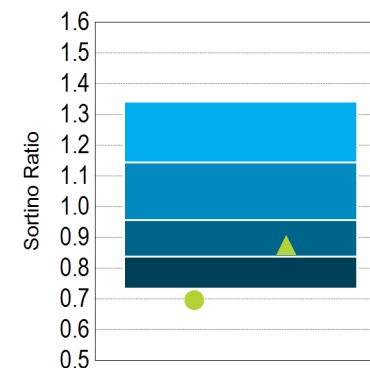
▲ Policy Benchmark

Value 0.5
Rank 99

Universe

5th %tile 1.0
25th %tile 0.8
Median 0.7
75th %tile 0.6
95th %tile 0.6

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



● Total Fund Aggregate

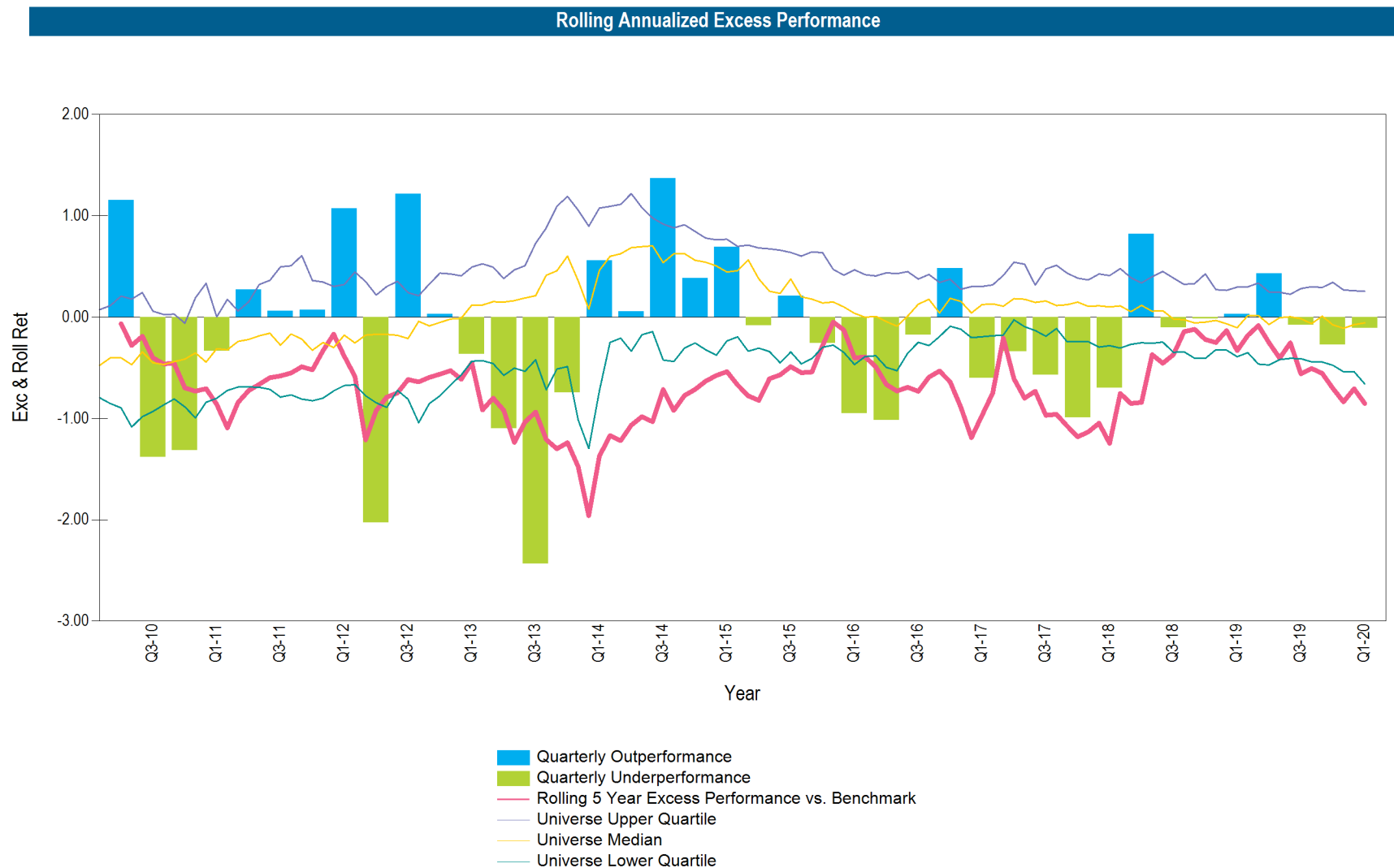
Value 0.7
Rank 98

▲ Policy Benchmark

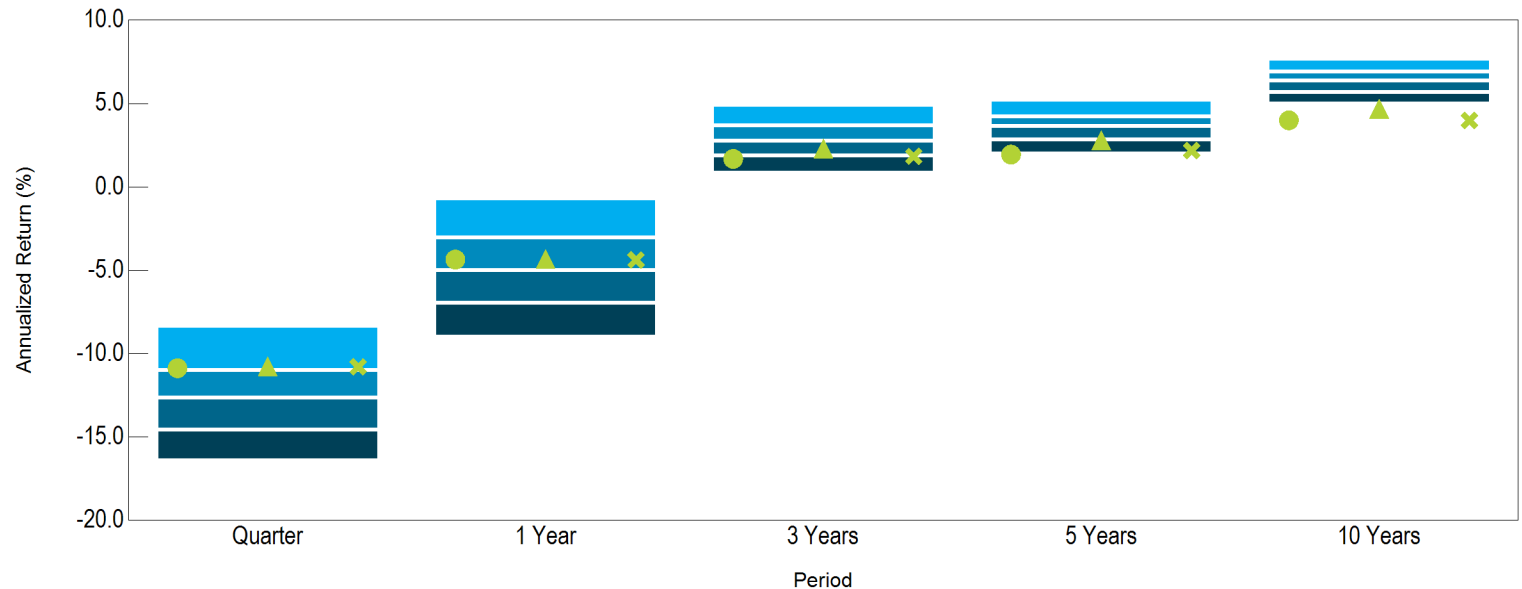
Value 0.9
Rank 65

Universe

5th %tile 1.3
25th %tile 1.1
Median 1.0
75th %tile 0.8
95th %tile 0.7

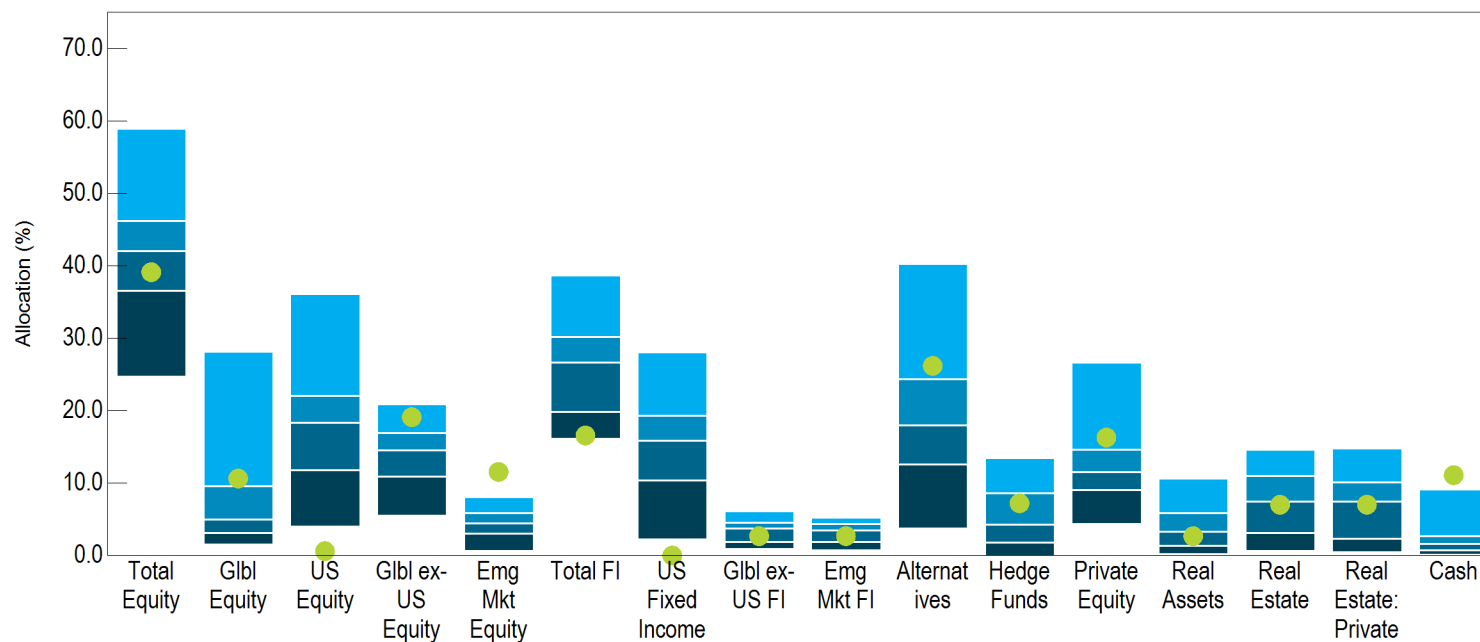



InvMetrics Public DB > \$1B Net Return Comparison
Ending March 31, 2020



	Return (Rank)									
5th Percentile	-8.3		-0.7		4.9		5.2		7.7	
25th Percentile	-10.9		-3.0		3.7		4.2		6.9	
Median	-12.6		-5.0		2.8		3.7		6.4	
75th Percentile	-14.5		-6.9		1.9		2.9		5.7	
95th Percentile	-16.4		-9.0		0.9		2.0		5.0	
# of Portfolios	62		62		62		59		55	
● Total Fund Aggregate	-10.9	(23)	-4.4	(42)	1.7	(85)	1.9	(99)	4.0	(99)
▲ Policy Benchmark	-10.8	(20)	-4.3	(42)	2.3	(63)	2.8	(83)	4.7	(97)
✕ Investable Benchmark Portfolio	-10.8	(20)	-4.4	(42)	1.8	(80)	2.2	(91)	4.0	(99)

Total Plan Allocation vs. InvMetrics Public DB > \$1B Net
As of March 31, 2020



		Allocation																
5th Percentile		58.9	28.1	36.1	20.9	8.1	38.6	28.1	6.1	5.3	40.2	13.5	26.7	10.6	14.6	14.8	9.1	--
25th Percentile		46.3	9.7	22.1	17.0	5.9	30.3	19.4	4.6	4.5	24.5	8.7	14.7	5.9	11.0	10.2	2.8	--
Median		42.2	5.0	18.5	14.7	4.6	26.7	16.0	3.8	3.6	18.1	4.4	11.6	3.4	7.5	7.6	1.7	--
75th Percentile		36.6	3.2	11.8	10.9	3.1	19.9	10.5	2.0	2.0	12.7	1.8	9.1	1.4	3.2	2.4	0.8	--
95th Percentile		24.8	1.6	4.1	5.6	0.7	16.2	2.3	1.0	0.8	3.9	0.0	4.4	0.3	0.7	0.6	0.2	--
# of Portfolios		50	26	39	50	41	50	41	27	24	49	35	48	23	47	43	50	--
	Total Fund Aggregate	39.1	10.6	0.6	19.1	11.6	16.6	0.0	2.7	2.7	26.2	7.2	16.3	2.7	7.0	7.0	11.1	--
	Rank	65	24	99	14	1	94	99	66	57	20	32	17	61	53	52	3	--

Major Benchmark Returns					
Periods Ending March 31, 2020					
Name	Q1-20	1 Yr	3 Yrs	5 Yrs	10 Yrs
US Equity					
Russell 3000	-20.9	-9.1	4.0	5.8	10.1
S&P 500	-19.6	-7.0	5.1	6.7	10.5
Russell 1000	-20.2	-8.0	4.6	6.2	10.4
Russell 1000 Growth	-14.1	0.9	11.3	10.4	13.0
Russell 1000 Value	-26.7	-17.2	-2.2	1.9	7.7
Russell MidCap	-27.1	-18.3	-0.8	1.8	8.8
Russell 2000	-30.6	-24.0	-4.6	-0.2	6.9
Russell 2000 Growth	-25.8	-18.6	0.1	1.7	8.9
Russell 2000 Value	-35.7	-29.6	-9.5	-2.4	4.8
International Equity					
MSCI ACWI	-21.4	-11.3	1.5	2.8	5.9
MSCI World ex USA	-23.3	-14.9	-2.1	-0.8	2.4
MSCI EAFE	-22.8	-14.4	-1.8	-0.6	2.7
MSCI Emerging Markets	-23.6	-17.7	-1.6	-0.4	0.7
Fixed Income					
91 Day T-Bills	0.4	1.9	1.7	1.1	0.6
BBgBarc US Aggregate TR	3.1	8.9	4.8	3.4	3.9
BBgBarc US Govt/Credit TR	3.4	9.8	5.2	3.5	4.1
BBgBarc US Municipal TR	-0.6	3.8	4.0	3.2	4.1
BBgBarc US High Yield TR	-12.7	-6.9	0.8	2.8	5.6
FTSE WGBI TR	2.0	6.2	4.3	3.0	2.2
FTSE WGBI ex US TR	-1.9	1.8	3.1	2.4	1.4
Real Estate					
FTSE NAREIT All REIT	-25.4	-18.2	-0.9	1.5	8.2
NCREIF Property Index	0.7	5.3	6.4	7.6	10.2
Alternatives					
HFRI Fund of Funds Composite Index	-8.8	-5.5	0.0	0.0	1.7
Inflation					
Consumer Price Index	0.4	1.5	1.9	1.8	1.7

Statistics Summary												
3 Years Ending March 31, 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%	1.68%	85	7.20%	17	-0.61%	67	1.08%	-0.59	69	0.97	-0.01
Policy Benchmark	--	2.31%	63	7.33%	18	0.00%	53	0.00%	--	--	1.00	0.08
Growth	63.60%	1.33%	--	11.50%	--	-1.14%	--	1.68%	-0.69	--	0.97	-0.03
Growth Benchmark	--	2.49%	--	11.75%	--	0.00%	--	0.00%	--	--	1.00	0.07
Public Equity	39.12%	-0.94%	--	14.80%	--	-1.59%	--	1.61%	-0.96	--	0.96	-0.18
Public Equity Benchmark	--	0.61%	--	15.36%	--	0.00%	--	0.00%	--	--	1.00	-0.07
Global Equity	10.64%	1.04%	49	15.75%	59	0.31%	49	2.23%	0.13	47	1.02	-0.04
MSCI ACWI IMI Index	--	0.76%	53	15.27%	48	0.00%	52	0.00%	--	--	1.00	-0.06
US Equity	8.71%	1.43%	45	16.51%	37	-2.67%	45	1.93%	-1.34	81	1.04	-0.02
MSCI USA IMI GR USD	--	4.03%	32	15.85%	28	0.00%	32	0.00%	--	--	1.00	0.15
International Equity	7.55%	-2.53%	75	15.55%	54	-0.16%	77	2.28%	-0.11	77	1.02	-0.27
MSCI World ex USA IMI NR USD	--	-2.29%	75	15.08%	36	0.00%	74	0.00%	--	--	1.00	-0.27
Emerging Markets Equity	11.55%	-5.60%	75	17.01%	27	-3.21%	76	2.57%	-1.19	98	0.97	-0.43
MSCI Emerging Market IMI Net	--	-2.53%	46	17.39%	41	0.00%	45	0.00%	--	--	1.00	-0.24
Marketable Alternative Equity	0.67%	3.42%	--	6.11%	--	2.62%	--	6.70%	0.56	--	0.45	0.28
HFRI Equity Hedge (Total) Index	--	-0.31%	--	9.18%	--	0.00%	--	0.00%	--	--	1.00	-0.22
Private Markets	21.79%	4.65%	--	8.59%	--	-1.34%	--	5.17%	-0.45	--	0.81	0.34
Private Markets Benchmark	--	6.97%	--	8.66%	--	0.00%	--	0.00%	--	--	1.00	0.61
Private Equity	13.98%	6.74%	--	10.82%	--	3.63%	--	12.26%	-0.50	--	0.12	0.46
San Jose Custom Private Equity Benchmark	--	12.88%	--	6.66%	--	0.00%	--	0.00%	--	--	1.00	1.68
Private Equity ex Russell 3000	7.96%	12.77%	--	4.49%	--	11.03%	--	9.31%	-0.53	--	0.00	2.46
Cambridge PE Composite BM	--	17.74%	--	8.17%	--	0.00%	--	0.00%	--	--	1.00	1.96

	% 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	3.20%	-6.83%	--	8.66%	--	-8.38%	--	7.66%	-1.08	--	0.64	-0.99
S&P Global Leveraged Loan Index +2%	--	1.45%	--	7.61%	--	0.00%	--	0.00%	--	--	1.00	-0.04
Private Real Estate	3.38%	15.61%	--	6.40%	--	19.07%	--	7.98%	1.15	--	-1.11	2.17
NCREIF Property Index	--	6.41%	--	2.66%	--	0.00%	--	0.00%	--	--	1.00	1.76
Emerging Markets Debt	2.69%	1.61%	7	8.39%	14	1.29%	8	4.37%	0.40	9	0.76	-0.01
50% JPM EMBI GD / 50% JPM GBI-EM	--	-0.13%	32	9.98%	32	0.00%	28	0.00%	--	--	1.00	-0.18
High Yield Bonds	--	--	--	--	--	--	--	--	--	--	--	--
50% BAML Global HY / 50% S&P Global Leveraged Loan	--	-0.16%	--	8.10%	--	0.00%	--	0.00%	--	--	1.00	-0.23
Low Beta	23.63%	2.85%	--	1.83%	--	1.13%	--	2.82%	0.40	--	0.27	0.62
Low Beta Benchmark	--	1.72%	--	3.19%	--	0.00%	--	0.00%	--	--	1.00	0.00
Market Neutral Strategies	7.22%	2.41%	--	5.25%	--	0.87%	--	5.46%	0.21	--	0.39	0.13
Market Neutral Strategies Benchmark	--	1.26%	--	3.16%	--	0.00%	--	0.00%	--	--	1.00	-0.14
Macro	4.12%	4.18%	--	5.01%	--	3.09%	--	3.28%	0.97	--	0.87	0.49
HFRI Macro (Total) Index	--	1.00%	--	4.40%	--	0.00%	--	0.00%	--	--	1.00	-0.16
Relative Value	3.10%	0.09%	--	9.89%	--	1.10%	--	5.25%	0.03	--	1.54	-0.16
HFRI Relative Value (Total) Index	--	-0.06%	--	5.82%	--	0.00%	--	0.00%	--	--	1.00	-0.31
Cash	2.69%	1.81%	--	0.27%	--	0.03%	--	0.26%	-0.09	--	0.53	0.32
ICE BofAML 91 Days T-Bills TR	--	1.83%	--	0.19%	--	0.00%	--	0.00%	--	--	1.00	0.58
Other	9.48%	2.69%	--	2.37%	--	1.18%	--	2.09%	0.64	--	0.56	0.41
Other Benchmark	--	1.35%	--	3.16%	--	0.00%	--	0.00%	--	--	1.00	-0.12
TIPS	0.00%	1.76%	--	1.47%	--	0.14%	--	0.16%	0.91	--	0.95	0.03

	% 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 U.S. TIPS 0-5 Years	--	1.62%	--	1.54%	--	0.00%	--	0.00%	--	--	1.00	-0.07
Core Private Real Estate	4.51%	7.23%	--	1.97%	--	5.62%	--	3.32%	0.33	--	-0.03	2.79
NCREIF ODCE Equal Weighted (Net)	--	6.15%	--	2.60%	--	0.00%	--	0.00%	--	--	1.00	1.70
Commodities	1.58%	-5.13%	--	10.93%	--	1.80%	--	4.33%	0.80	--	0.84	-0.63
Bloomberg Commodity Index TR USD	--	-8.61%	--	12.20%	--	0.00%	--	0.00%	--	--	1.00	-0.85
Core Bonds	--	--	--	--	--	--	--	--	--	--	--	--
BBgBarc Global Aggregate TR	--	3.55%	--	3.90%	--	0.00%	--	0.00%	--	--	1.00	0.47
Overlay	3.29%	-3.27%	--	35.03%	--	-4.99%	--	35.02%	-0.14	--	2.66	-0.14
91 Day T-Bills	--	1.72%	--	0.14%	--	0.00%	--	0.00%	--	--	1.00	0.00

Benchmark History

As of March 31, 2020

Total Fund Aggregate

11/1/2019	Present	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 BofAML 91 Days T-Bills TR / 5% Immunized Cash Flows Benchmark / 7% Absolute Return Benchmark / 5% NCREIF-ODCE / 2% Bloomberg Commodity Index TR USD / 2% BBgBarc US Treasury TIPS 0-5 Yr TR / 3% BBgBarc Global Aggregate TR
10/1/2018	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 / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 20% ICE BofAML 91 Days T-Bills TR / 5% Immunized Cash Flows Benchmark / 7% Absolute Return 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

Low-Cost Portfolio

9/30/2018	Present	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 / 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
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Liability Benchmark Portfolio

10/1/2018	Present	BBgBarc US Treasury Long TR
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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
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 (Lci) / 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 (Lci) / 3.2% 50% BAML Global HY / 50% S&P Global Leveraged Loan

Public Equity		
10/1/2018	Present	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		
7/1/2015	Present	Private Markets
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%
Private Real Estate		
7/1/2015	Present	NCREIF Property Index

6/1/2018	Present	Russell 3000
Private Debt		
12/1/2010	Present	S&P Global Leveraged Loan Index +2%
Private 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		
2/1/2013	Present	50% ICE BofAML Global High Yield Constrained Hedged TR / 50% S&P/LSTA Leveraged Loan TR
Low Beta		
10/1/2018	Present	62.5% ICE BofAML 91 Days T-Bills TR / 15.62% Immunized Cash Flows Benchmark / 21.88% Absolute Return 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 BofAML 91 Days T-Bills TR

Other		
10/1/2018	Present	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	BBgBarc US Aggregate TR
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
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.