

MEKETA

INVESTMENT GROUP

San Joaquin County Employees' Retirement Association (SJCERA)

Q3 2021

Quarterly Report

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Introduction



Summary of Cash Flows		
	Third Quarter	One Year
Beginning Market Value	\$3,809,830,770	\$3,244,486,466
Net Cash Flow	-\$508,582	\$23,740,591
Net Investment Change	\$30,653,111	\$571,748,243
Ending Market Value	\$3,839,975,299	\$3,839,975,299

Introduction

The SJCERA Total Portfolio had an aggregate value of \$3.8 billion as of September 30, 2021. During the latest quarter, the Total Portfolio increased in value by \$30.1 million, and over the one-year period, the Total Portfolio increased by \$548.0 million. The increase over the quarter and one-year periods was primarily due to positive investment returns. The IMF is forecasting U.S. growth in 2021 of 6.0% with a quarter-over-quarter (annualized) decrease of 4.7% in the third quarter of 2021 (2.0% growth in 3Q vs. 6.7% in 2Q). The IMF also forecasts global GDP to increase by 5.9% for 2021. Over the last year, global risk assets produced significant returns, largely driven by record fiscal and monetary policy stimulus and positive developments with the efficacy of the COVID-19 vaccine. In the third quarter of 2021, commodities produced strong returns largely driven by inflation proving to be stickier than the initial “transitory” consensus. Shorter-dated rates have been largely unmoved given Fed policy, while longer-dated rates rose slightly in September but remain below their recent peak in March 2021. Equity markets broadly declined in September with the US and China trailing other markets. Gridlock in Washington and continued supply chain issues weighed on US equities while government intervention and Evergrande weighed on markets in China. In the third quarter, the dollar appreciated modestly as US interest rates once again rose.

Returns for US stocks, as measured by the Russell 1000, and US Treasuries, as measured by the Barclays Long US Government bond index, for the third quarter of 2021 were 0.2% and 0.5%, respectively. Commodities were up 6.6% for the quarter, as measured by the Bloomberg Commodity Index and global equity returns, as measured by the MSCI ACWI IMI, were down -1.1% for the quarter ended September 30, 2021.

Recent Investment Performance

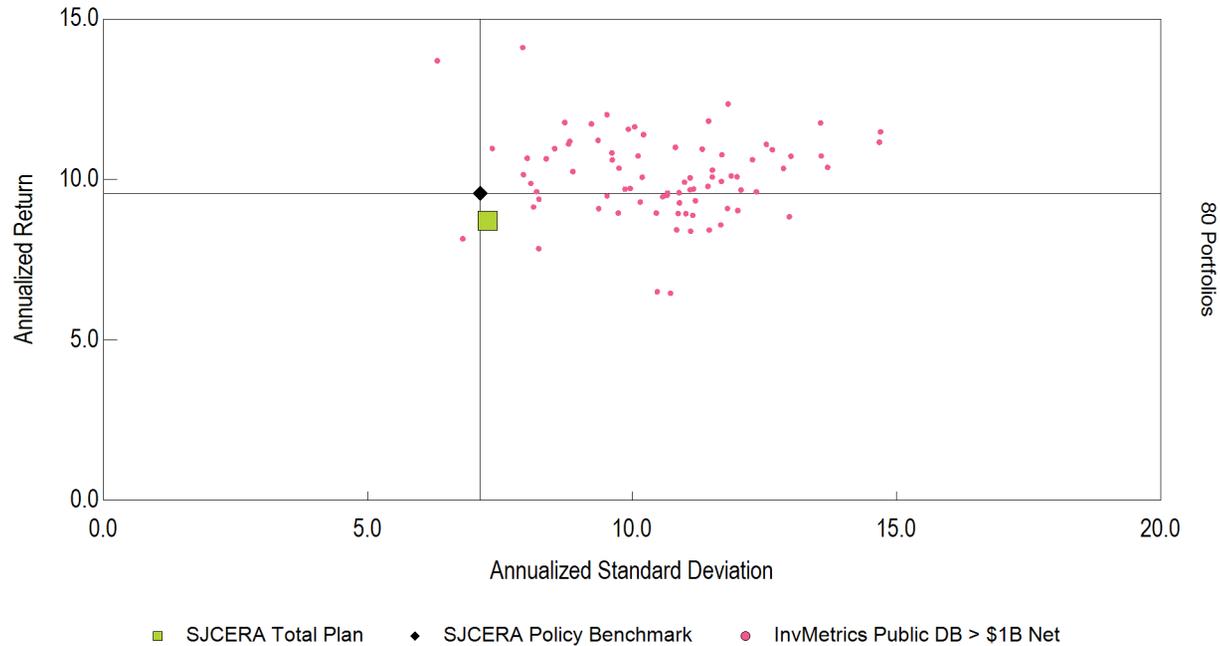
The Total Portfolio outperformed the policy benchmark for the 1-year period by 1.4% and the Median Public Fund for the quarter by 0.6%. Over the quarter, 3-, 5-, 10-, 15-, 20-, and 25-year periods, the portfolio trailed its benchmark by (0.4%), (0.9%), (0.9%), (0.7%), (1.2%), (0.5%), and (0.2%), respectively, and trailed the Median Public Fund by for the 1-, 3-, 5-, 10-, 15-, 20-, and 25-year periods by (3.8%), (1.4%), (1.9%), (2.4%), (2.1%), (1.1%), and (1.7%), respectively. However, the portfolio earned higher risk adjusted returns, as measured by the Sharpe Ratio, than the Median Public Fund over the 1-, 3-, 5-, and 10-year time periods.

	QTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	20 Yrs	25 Yrs
SJCERA Total Plan - Net	0.8	17.4	8.7	8.0	7.2	4.7	6.2	6.7
SJCERA Total Plan - Gross	0.9	18.0	9.3	8.8	8.0	5.5	6.8	7.2
<i>SJCERA Policy Benchmark</i>	<i>1.2</i>	<i>16.0</i>	<i>9.6</i>	<i>8.9</i>	<i>7.9</i>	<i>5.9</i>	<i>6.7</i>	<i>6.9</i>
Over/Under (vs. Net)	-0.4	1.4	-0.9	-0.9	-0.7	-1.2	-0.5	-0.2
<i>InvMetrics Public DB > \$1B Net Median</i>	<i>0.2</i>	<i>21.2</i>	<i>10.1</i>	<i>9.9</i>	<i>9.6</i>	<i>6.8</i>	<i>7.3</i>	<i>7.4</i>

¹Investment Metrics Total Fund Public Universe >\$1 Billion, net of fees.

²Policy Benchmark composition is listed in the Appendix.

Total Fund Risk/Return Analysis Latest 3 Years



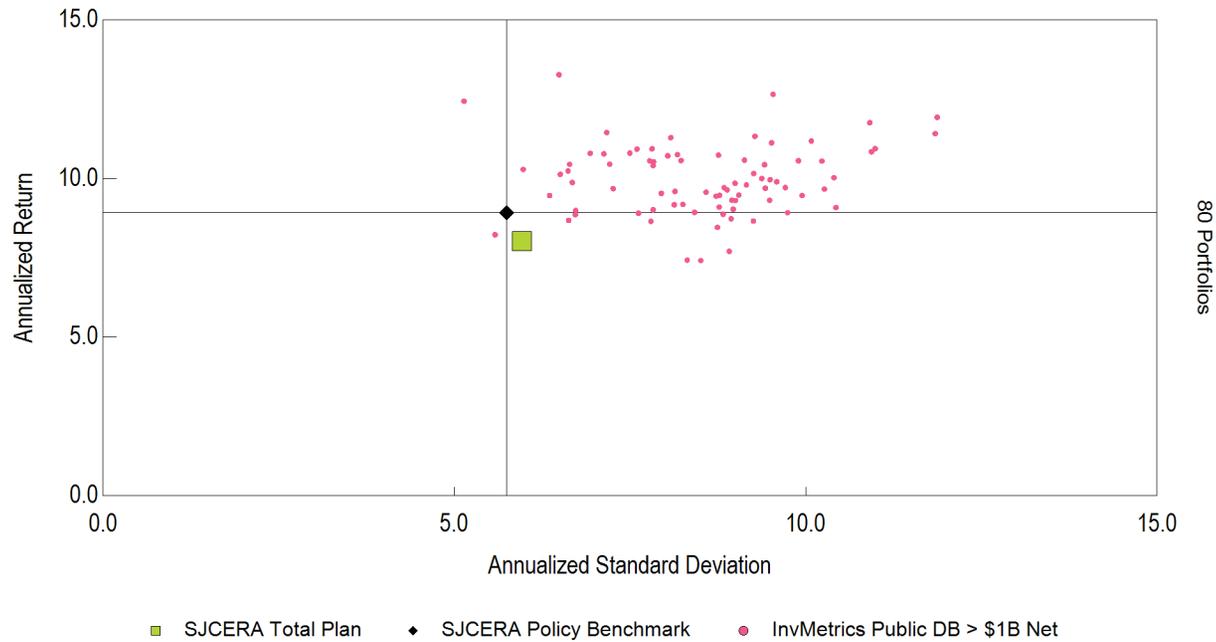
	Anlzd Return ¹	Anlzd Standard Deviation	Sharpe Ratio ²
SJCERA Total Plan	8.71%	7.26%	1.06
SJCERA Policy Benchmark	9.57%	7.13%	1.20
InvMetrics Public DB > \$1B Net Median ³	10.07%	10.77%	0.81

¹Returns are net of fees.

²Computed as annualized return less the risk free rate, divided by the annualized standard deviation.

³Investment Metrics Total Fund Public Universe >\$1 Billion, net of fees.

Total Fund Risk/Return Analysis Latest 5 Years



	Anlzd Return ¹	Anlzd Standard Deviation	Sharpe Ratio ²
SJCERA Total Plan	8.03%	5.96%	1.16
SJCERA Policy Benchmark	8.92%	5.75%	1.36
InvMetrics Public DB > \$1B Net Median ³	9.86%	8.75%	0.98

¹Returns are net of fees.

²Computed as annualized return less the risk free rate, divided by the annualized standard deviation.

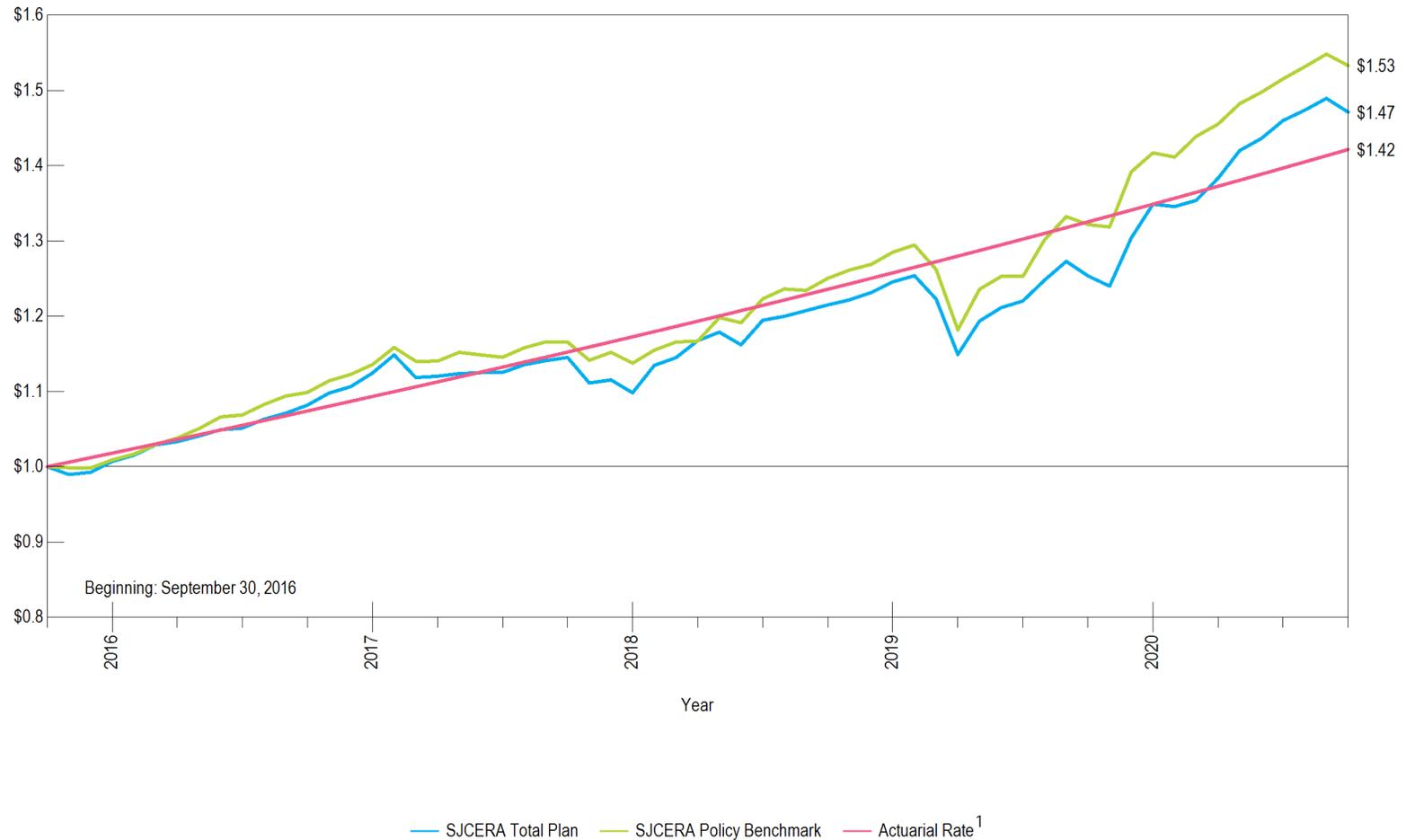
³Investment Metrics Total Fund Public Universe >\$1 Billion, net of fees.

Risk-Adjusted Return vs Peers ²				
	1 Yr	3 Yrs	5 Yrs	10 Yrs
SJCERA Total Plan - Net	17.4	8.7	8.0	7.2
Risk Adjusted Median ¹	17.1	6.8	6.7	7.0
Excess Return	0.3	1.9	1.3	0.1

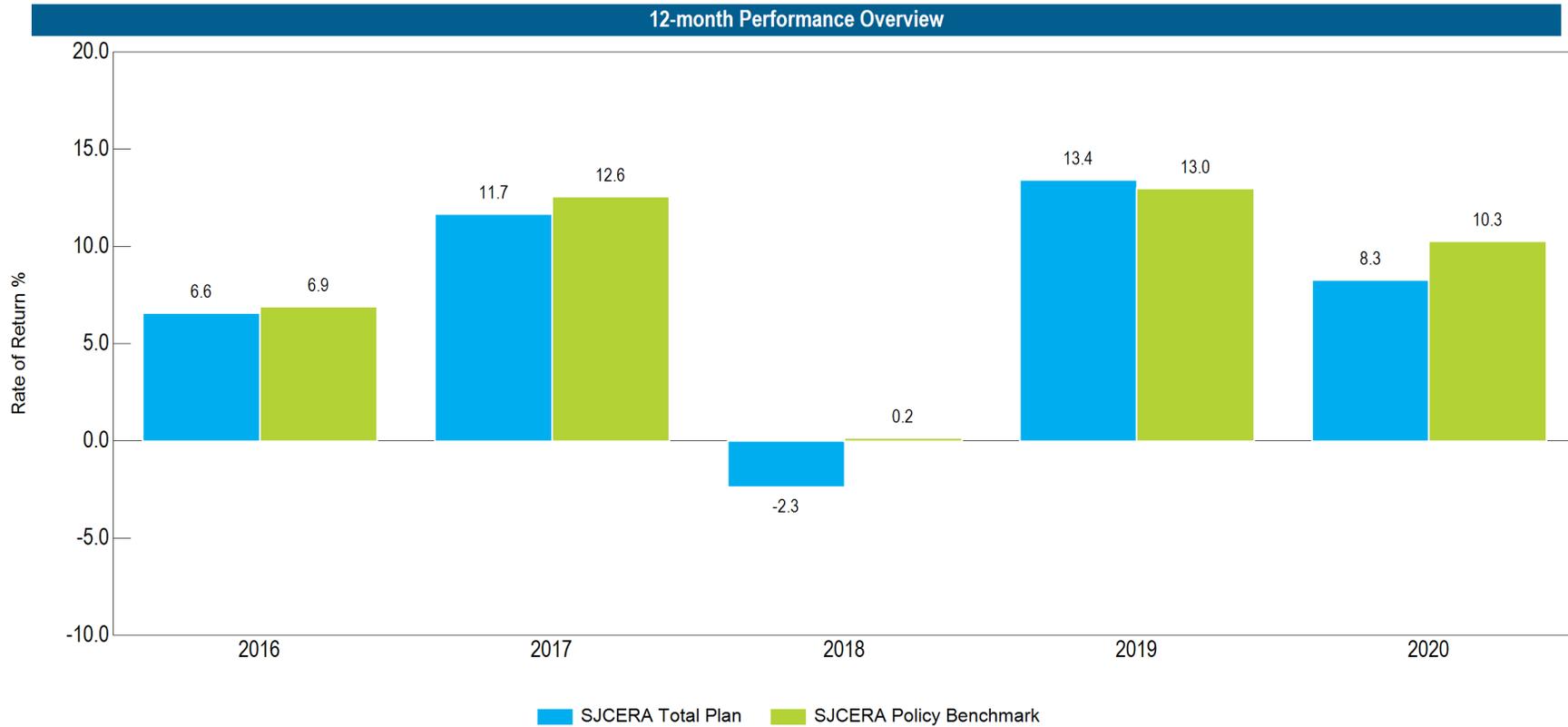
¹ Investment Metrics Total Fund Public Universe >\$1 Billion, net of fees.

² Policy Benchmark composition is listed in the Appendix.

Growth of a Dollar - Latest 5 Years



¹7.0% Actuarial Rate from 1/1/2020 to present. 7.25% Actuarial Rate from 1/1/2018 to 12/31/2019. 7.4% Actuarial Rate from 8/1/2016-12/31/2017. 7.5% Actuarial Rate from 1/1/2012-7/31/2016; previously 8.0%



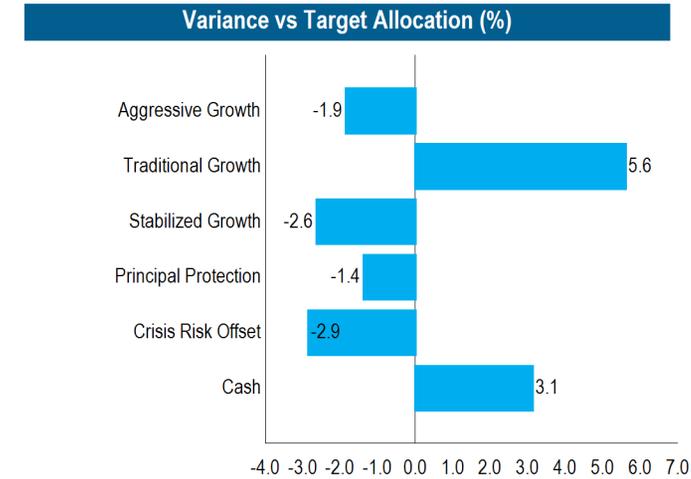
12-month absolute results have been positive over four of the last five calendar year periods, net of fees. The SJCERA Total Portfolio outperformed the policy target benchmark during one of these five periods, net of fees.

Portfolio Review

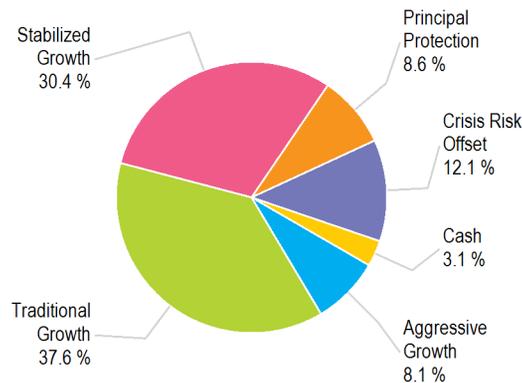
Asset Allocation | As of September 30, 2021

Asset Allocation vs. Target				
	Current ¹	Current	Policy	Difference*
Broad Growth	\$2,922,964,254	76.1%	75.0%	1.1%
Aggressive Growth	\$312,731,062	8.1%	10.0%	-1.9%
Traditional Growth	\$1,443,914,059	37.6%	32.0%	5.6%
Stabilized Growth	\$1,166,319,133	30.4%	33.0%	-2.6%
Diversified Growth	\$797,235,011	20.8%	25.0%	-4.2%
Principal Protection	\$331,131,423	8.6%	10.0%	-1.4%
Crisis Risk Offset	\$466,103,587	12.1%	15.0%	-2.9%
Cash²	\$119,776,035	3.1%	0.0%	3.1%
Cash	\$119,776,035	3.1%	0.0%	3.1%
Total	\$3,839,975,299	100.0%	100.0%	

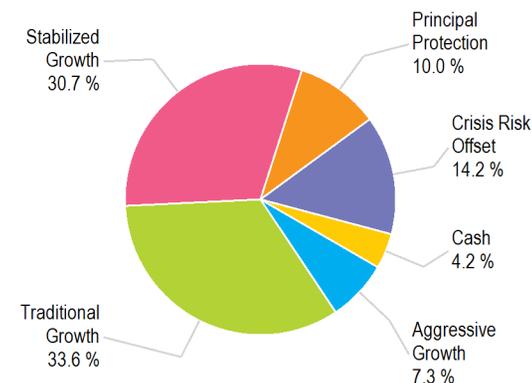
*Difference between Policy and Current Allocation



As of September 30, 2021



As of September 30, 2020



¹ Market values may not add up due to rounding.

² Cash asset allocation includes Parametric Overlay.

Asset Class Performance Net-of-Fees | As of September 30, 2021

	Market Value ¹ (\$)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
SJCERA Total Plan	3,839,975,299	100.0	0.8	17.4	8.7	8.0	7.2
<i>SJCERA Policy Benchmark²</i>			<i>1.2</i>	<i>16.0</i>	<i>9.6</i>	<i>8.9</i>	<i>7.9</i>
Broad Growth	2,922,964,254	76.1	1.0	23.0	9.9	9.9	8.6
Aggressive Growth Lag	312,731,062	8.1	8.2	37.8	14.5	13.6	11.6
<i>Aggressive Growth Blend³</i>			<i>6.0</i>	<i>29.5</i>	<i>12.7</i>	<i>11.2</i>	<i>10.1</i>
Traditional Growth	1,443,914,059	37.6	-0.6	30.3	10.1	11.9	11.2
<i>MSCI ACWI IMI Net</i>			<i>-1.1</i>	<i>28.9</i>	<i>13.5</i>	<i>14.0</i>	<i>12.6</i>
Stabilized Growth	1,166,319,133	30.4	1.3	11.6	8.3	6.9	4.5
<i>SJCERA Stabilized Growth Benchmark</i>			<i>0.5</i>	<i>2.5</i>	<i>1.8</i>	<i>1.9</i>	<i>2.1</i>
Diversifying Strategies	797,235,011	20.8	0.2	1.4	4.4	2.6	4.0
Principal Protection	331,131,423	8.6	0.2	2.2	3.9	3.3	4.4
<i>Bloomberg US Aggregate TR</i>			<i>0.1</i>	<i>-0.9</i>	<i>5.4</i>	<i>2.9</i>	<i>3.0</i>
Crisis Risk Offset Asset Class	466,103,587	12.1	0.2	0.8	4.5	2.1	4.3
<i>CRO Benchmark⁴</i>			<i>1.3</i>	<i>3.1</i>	<i>6.9</i>	<i>3.7</i>	<i>4.5</i>
Cash and Misc Asset Class	70,467,083	1.8	0.0	0.1	0.9	0.9	0.5
<i>ICE BofA 91 Days T-Bills TR</i>			<i>0.0</i>	<i>0.1</i>	<i>1.2</i>	<i>1.2</i>	<i>0.6</i>

¹ Market values may not add up due to rounding.

² Policy Benchmark composition is listed in the Appendix.

³ Aggressive Growth Blend; footnote should be 50% MSCI ACWI +2% Lag, 50% NCREIF ODCE + 1% ** Add 4 - Stabilized Growth Benchmark; footnote should be 10% ICE 3 month US TBill + 4%, 17% 50% BB High Yield/50% S&P Lev Loans, 6% NCREIF ODCE + 1% Lag

⁴ (1/3) BC Long Duration Treasuries, (1/3) BTOP50 Index, (1/3) 5% Annual.

Asset Class Performance Net-of-Fees | As of September 30, 2021

	Market Value ¹ (\\$)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Aggressive Growth Lag²	312,731,062	100.0	8.2	37.8	14.5	13.6	11.6
<i>Aggressive Growth Blend</i>			6.0	29.5	12.7	11.2	10.1
Blackrock Global Energy and Power Lag ²	19,582,066	6.3	1.6	4.6	--	--	--
<i>MSCI ACWI +2% Blend</i>			8.0	42.6	--	--	--
Morgan Creek III Lag ²	8,096,284	2.6	-0.8	13.0	-5.6	2.5	--
<i>MSCI ACWI +2% Blend</i>			8.0	42.6	16.4	13.4	--
Morgan Creek V Lag ²	9,453,588	3.0	3.8	29.7	13.6	12.6	--
<i>MSCI ACWI +2% Blend</i>			8.0	42.6	16.4	13.4	--
Morgan Creek VI Lag ²	26,703,319	8.5	12.3	43.6	21.4	18.1	--
<i>MSCI ACWI +2% Blend</i>			8.0	42.6	16.4	13.4	--
Ocean Avenue II Lag ²	36,204,179	11.6	10.7	99.9	30.5	28.6	--
<i>MSCI ACWI +2% Blend</i>			8.0	42.6	16.4	13.4	--
Ocean Avenue III Lag ²	59,100,795	18.9	6.9	39.1	24.6	24.9	--
<i>MSCI ACWI +2% Blend</i>			8.0	42.6	16.4	13.4	--
Ocean Avenue IV Lag ²	35,617,418	11.4	8.8	48.7	--	--	--
<i>MSCI ACWI +2% Lag</i>			8.0	42.6	--	--	--
Non-Core Real Assets Lag ^{2,3}	113,067,213	36.2	10.4	24.9	7.3	7.1	8.6
<i>NCREIF ODCE +1% lag (blend)</i>			3.9	8.2	5.6	6.7	9.6
Stellex Capital Partners II Lag ²	4,906,200	1.6	--	--	--	--	--
<i>MSCI ACWI +2% Lag</i>			--	--	--	--	--

¹Market values may not add up due to rounding.

²Lagged 1 quarter.

³Trailing Non-Core real estate performance includes returns provided by prior real estate consultant from inception through Q419.

Aggressive Growth

During the latest three-month period ending September 30, 2021, three of SJCERA's seven aggressive growth portfolios outperformed their MSCI ACWI +2% Blended benchmark. Non-core real assets also outperformed. Please note that returns data for this asset class are lagged one quarter and the benchmark returned 42.6% for the trailing 1-year period.

BlackRock Global Energy and Power, a recently added fund with a focus on infrastructure, underperformed its target benchmark over the quarter and 1-year periods by (6.4%) and (38.0%), respectively.

Morgan Creek III produced a quarterly return of (0.8%), underperforming its benchmark by (8.8%). The manager also underperformed the benchmark over the 1-, 3- and 5-year periods by (29.6%), (22.0%) and (10.9%), respectively.

Morgan Creek V underperformed its benchmark over the quarter, 1-, 3- and 5-year periods by (4.2%), (12.9%), (2.8%) and (0.8%), respectively.

Morgan Creek VI outperformed for the quarter, 1-, 3- and 5-year periods by 4.3%, 1.0%, 5.0% and 4.7%, respectively.

Ocean Avenue II, a Private Equity Buyout fund-of-funds manager, outperformed its benchmark for the quarter, 1-, 3- and 5-year periods by 4.7%, 47.9%, 14.1% and 15.2%, respectively.

Ocean Avenue III, a Private Equity Buyout fund-of-funds manager, trailed its benchmark for the quarter and 1-year periods by (1.1%) and (2.5%), respectively. It outperformed for the 3- and 5-year periods by 8.2% and 11.5%, respectively.

Ocean Avenue IV outperformed its benchmark for the quarter and 1-year time periods by 0.8% and 6.1%, respectively.

Non-Core Private Real Assets underperformed its NCREIF ODCE +1% benchmark over the 10-year period by (1.0%). The sub-asset class outperformed its benchmark over the quarter, 1-, 3- and 5-year time periods by 6.5%, 16.7%, 1.7% and 0.4%, respectively.

Stellex II, the newest manager in the asset class, was funded during the quarter and does not have returns data.

Asset Class Performance Net-of-Fees | As of September 30, 2021

	Market Value ¹ (\$)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Traditional Growth	1,443,914,059	100.0	-0.6	30.3	10.1	11.9	11.2
<i>MSCI ACWI IMI Net</i>			-1.1	28.9	13.5	14.0	12.6
SJCERA Transition	3,324	0.0					
Northern Trust MSCI World	1,252,070,583	86.7	-0.2	30.4	--	--	--
<i>MSCI World IMI Net USD</i>			-0.2	30.1	--	--	--
PIMCO RAE Emerging Markets	78,767,232	5.5	-3.9	46.6	7.7	9.3	6.2
<i>MSCI Emerging Markets Gross</i>			-8.0	18.6	9.0	9.6	6.5
GQG Active Emerging Markets	65,201,766	4.5	-5.2	14.4	--	--	--
<i>MSCI Emerging Markets</i>			-8.1	18.2	--	--	--
Invesco REIT	47,871,153	3.3	0.8	28.5	9.9	7.3	11.1
<i>FTSE NAREIT Equity REIT</i>			1.0	37.4	10.0	6.8	11.3

¹Market values may not add up due to rounding.

Traditional Growth

During the latest three-month period ending September 30, 2021, the traditional growth asset class outperformed its MSCI ACWI IMI benchmark by 0.5% with all four managers matching or outperforming their benchmarks.

Northern Trust MSCI World, the Plan's new Passive Global Equity manager, matched its benchmark over the past quarter and outperformed it by 0.3% over the trailing 1-year period.

PIMCO RAE Fundamental - Emerging, one of SJCERA's Active Emerging Markets Equity manager, outperformed its MSCI Emerging Markets Index benchmark over the quarter and 1-year time periods by 4.1% and 28.0%, respectively, and underperformed its benchmark over the 3-, 5- and 10-year periods by (1.3%), (0.3%) and (0.3%), respectively.

GQG, the Plan's new Active Emerging Markets Equity manager, was opened during the third quarter of 2020. It outperformed its MSCI Emerging Markets benchmark by 2.9% for the quarter and underperformed by (3.8%) for the trailing 1-year period.

Invesco, the Plan's Core US REIT manager, underperformed the FTSE NAREIT Equity REIT Index for the quarter, 1-, 3- and 10-year periods by (0.2%), (8.9%), (0.1%) and (0.2%) respectively, and outperformed its benchmark over the 5-year period by 0.5%.

Asset Class Performance Net-of-Fees | As of September 30, 2021

	Market Value ¹ (\$)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Stabilized Growth	1,166,319,133	100.0	1.3	11.6	8.3	6.9	4.5
<i>SJCERA Stabilized Growth Benchmark²</i>			<i>0.5</i>	<i>2.5</i>	<i>1.8</i>	<i>1.9</i>	<i>2.1</i>
Risk Parity Asset Class	435,017,455	37.3	0.6	15.8	10.7	7.6	3.6
<i>ICE BofAML 3mo US TBill+4%</i>			<i>1.0</i>	<i>4.1</i>	<i>5.2</i>	<i>5.2</i>	<i>4.7</i>
Bridgewater All Weather	213,248,121	18.3	1.1	15.9	9.3	7.4	--
<i>Bridgewater All Weather (blend)</i>			<i>1.0</i>	<i>4.1</i>	<i>5.2</i>	<i>5.2</i>	--
PanAgora Diversified Risk Multi Asset	221,769,334	19.0	0.1	15.7	12.0	7.9	--
<i>ICE BofAML 3mo US TBill+4%</i>			<i>1.0</i>	<i>4.1</i>	<i>5.2</i>	<i>5.2</i>	--
Liquid Credit	237,148,539	20.3	0.2	7.5	4.2	4.1	4.0
<i>50% Bloomberg US HY/50% S&P LSTA Lev Loan</i>			<i>1.0</i>	<i>9.8</i>	<i>5.5</i>	<i>5.6</i>	<i>6.2</i>
Neuberger Berman	106,503,310	9.1	0.3	8.1	--	--	--
<i>33% ICEBofAMLUSHY /33%JPMEMBI Global Div /33% S&P LSTA Lev Loan</i>			<i>0.4</i>	<i>8.0</i>	--	--	--
Stone Harbor Absolute Return	130,645,229	11.2	0.2	7.0	3.7	3.6	3.7
<i>ICE BofA-ML LIBOR</i>			<i>0.0</i>	<i>0.2</i>	<i>1.5</i>	<i>1.4</i>	<i>0.9</i>
Private Credit Lag	319,638,267	27.4	1.7	8.2	3.3	3.2	4.4
<i>Custom Credit Benchmark</i>			<i>2.1</i>	<i>13.5</i>	<i>5.9</i>	<i>6.2</i>	<i>5.5</i>
Blackrock Direct Lending Lag	37,377,435	3.2	0.9	10.4	--	--	--
<i>CPI + 6% BLK Blend</i>			<i>4.1</i>	<i>14.6</i>	--	--	--
Crestline Opportunity II Lag	20,377,954	1.7	5.1	15.5	1.0	4.4	--
<i>Credit Blend CPI +6%</i>			<i>4.1</i>	<i>11.7</i>	<i>8.7</i>	<i>8.9</i>	--
Davidson Kempner Long-Term Distressed Opportunities Fund V, L.P. Lag	24,176,345	2.1	5.4	--	--	--	--
<i>Credit Blend CPI +6%</i>			<i>4.1</i>	--	--	--	--

¹Market values may not add up due to rounding.

²Stabilized Growth Benchmark Change to: 10% ICE 3 month US TBill + 4%, 17% 50% BB High Yield/50% S&P Lev Loans, 6% NCREIF ODCE + 1% Lag

Asset Class Performance Net-of-Fees | As of September 30, 2021

	Market Value ¹ (\$)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
HPS European Asset Value II, LP Lag	18,601,819	1.6	1.3	14.7	--	--	--
<i>Credit Blend CPI +6%</i>			4.1	11.7	--	--	--
Medley Opportunity II Lag	10,229,923	0.9	0.1	0.8	-10.5	-6.5	--
<i>Credit Blend CPI +6%</i>			4.1	11.7	8.7	8.9	--
Mesa West III Lag	36,476	0.0	3.7	-8.2	-0.7	3.4	--
<i>Credit Blend CPI +6%</i>			4.1	11.7	8.7	8.9	--
Mesa West IV Lag	29,344,469	2.5	1.9	6.6	7.6	--	--
<i>Credit Blend CPI +6%</i>			4.1	11.7	8.7	--	--
Oaktree Middle-Market Direct Lending Lag	31,908,345	2.7	2.9	18.4	14.3	--	--
<i>CPI + 6% Oaktree Blend</i>			4.1	18.6	10.4	--	--
Raven Opportunity II Lag	9,331,766	0.8	-4.5	-2.5	-5.4	-4.3	--
<i>Credit Blend CPI +6%</i>			4.1	11.7	8.7	8.9	--
Raven Opportunity III Lag	48,132,680	4.1	1.8	10.1	6.9	4.3	--
<i>Credit Blend CPI +6%</i>			4.1	11.7	8.7	8.9	--
White Oak Summit Peer Lag	41,619,121	3.6	0.7	5.9	5.8	6.9	--
<i>Credit Blend CPI +6%</i>			4.1	11.7	8.7	8.9	--
White Oak Yield Spectrum Master V Lag	48,501,934	4.2	0.5	3.3	--	--	--
<i>Credit Blend CPI +6%</i>			4.1	11.7	--	--	--
Private Core Real Assets Lag	174,514,873	15.0	3.6	13.3	9.5	10.4	12.7
<i>NCREIF ODCE +1% lag (blend)</i> ²			3.9	8.2	5.6	6.7	9.6

¹Market values may not add up due to rounding.

²NCREIF ODCE Net + 1% 10/1/2012-present. NCREIF Property Index previously.

Stabilized Growth

During the latest three-month period ending September 30, 2021, four of SJCERA's sixteen Stabilized Growth managers outperformed their benchmarks while the other twelve managers underperformed. Several managers in this asset class are in the process of investing capital and may underperform as assets are invested (typically known as the J-curve effect). Also, private core real assets outperformed its benchmark for the quarter.

Bridgewater All Weather, one of the Plan's Risk Parity managers, outperformed its benchmark over the quarter, 1-, 3- and 5-year periods by 0.1%, 11.8%, 4.1% and 2.2%, respectively.

PanAgora DRMA, one of the Plan's Risk Parity managers, underperformed its T-Bill +4% benchmark over the quarter by (0.9%) but outperformed its benchmark over the trailing 1-, 3- and 5-year periods by 11.6%, 6.8% and 2.7%, respectively.

Neuberger Berman, one of the Plan's Liquid Credit managers, underperformed its benchmark for the quarter by (0.1%) and outperformed for the 1-year period by 0.1%.

Stone Harbor, the Plan's Absolute Return Fixed Income manager, outperformed the ICE BofAML LIBOR index over the quarter, 1-, 3-, 5- and 10-year periods by 0.2%, 6.8%, 2.2%, 2.2% and 2.8%, respectively.

BlackRock Direct Lending, one of the Plan's newer Private Credit manager, underperformed its CPI +6% benchmark by for the quarter and 1-year periods (3.2%) and (4.2%), respectively.

Crestline Opportunity II, the Plan's Credit, Niche Alternatives and Hedge Fund Secondaries manager, trailed its benchmark over the 3- and 5-year periods by (6.7%) and (4.5%), respectively, but outperformed for the quarter and 1-year periods by 1.0% and 3.8%, respectively.

Davidson Kempner, the Plan's newest Private Credit manager, was opened during the fourth quarter of 2020 and outperformed its CPI +6% annual benchmark by 1.3% over the past quarter.

HPS EU, one of the Plan's newer Direct Lending manager, was opened during the third quarter of 2020 and outperformed its CPI +6% benchmark for the 1-year period by 3.0% but underperformed for the quarter by (2.8%).

Stabilized Growth (Continued)

Medley Opportunity II, one of the Plan's Direct Lending managers, underperformed its CPI +6% annual return target over the quarter, 1-, 3- and 5-year time periods by (4.0%), (10.3%), (19.2%) and (15.4%), respectively.

Mesa West RE Income III, one of the Plan's Commercial Mortgage managers, produced a positive quarterly return of 3.7%, underperforming its CPI +6% annual benchmark by (0.4%). It also underperformed its benchmark over the 1-, 3- and 5-year periods by (19.9%), (9.4%) and (5.5%), respectively.

Mesa West RE Income IV, one of the Plan's Commercial Mortgage managers, produced a quarterly return of 1.9%, underperforming its CPI +6% annual benchmark by (2.2%). Over the 1- and 3-year periods, the fund underperformed its benchmark by (5.1%) and (1.1%), respectively.

Oaktree, a Middle-Market Direct Lending manager, underperformed its MSCI ACWI +2% Blended benchmark for the quarter and 1-year time periods by (1.2%) and (0.2%), respectively, and outperformed over the 1-year period by 3.9%.

Raven Capital II, one of the Plan's Direct Lending managers, produced a negative quarterly return of (4.5%) and trailed its target over the quarter, 1-, 3- and 5-year periods by (8.6%), (14.2%), (14.1%) and (13.2%), respectively.

Raven Capital III underperformed its CPI +6% annual target over the quarter, 1-, 3- and 5-year periods by (2.3%), (1.6%), (1.8%), and (4.6%), respectively.

White Oak Summit Peer, one of the Plan's Direct Lending managers, underperformed its CPI +6% index over the quarter, 1-, 3- and 5-year periods by (3.4%), (5.8%), (2.9%) and (3.0%), respectively.

White Oak Yield Spectrum Master V trailed its CPI +6% benchmark over both the quarter and 1-year periods by (3.6%) and (8.4%), respectively.

Private Core Private Real Estate, investing in Core Real Assets, outperformed its NCREIF ODCE +1% benchmark over the trailing 1-, 3-, 5- and 10-year time periods by 5.1%, 3.9%, 3.7% and 3.1%, respectively, but underperformed for the quarter by (0.3%).

Asset Class Performance Net-of-Fees | As of September 30, 2021

	Market Value ¹ (\\$)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Principal Protection	331,131,423	100.0	0.2	2.2	3.9	3.3	4.4
<i>Bloomberg US Aggregate TR</i>			<i>0.1</i>	<i>-0.9</i>	<i>5.4</i>	<i>2.9</i>	<i>3.0</i>
Dodge & Cox Fixed Income	217,414,749	65.7	0.1	2.0	6.3	4.4	4.6
<i>Bloomberg US Aggregate TR</i>			<i>0.1</i>	<i>-0.9</i>	<i>5.4</i>	<i>2.9</i>	<i>3.0</i>
DoubleLine	113,716,674	34.3	0.4	2.8	4.4	3.5	--
<i>Bloomberg US Aggregate TR</i>			<i>0.1</i>	<i>-0.9</i>	<i>5.4</i>	<i>2.9</i>	<i>--</i>

¹Market values may not add up due to rounding.

Principal Protection

During the latest three-month period ending September 30, 2021, both of SJCERA's Principal Protection managers matched or exceeded their Bloomberg US Aggregate Index benchmark.

Dodge & Cox, the Plan's Core Fixed Income manager, earned a quarterly return of 0.1%, matching its benchmark and outperformed over the 1-, 3-, 5- and 10-year periods by 2.9%, 0.9%, 1.5%, and 1.6%, respectively.

DoubleLine, the Plan's Mortgage-Backed Securities manager, provided a quarterly return of 0.4%, outperforming its benchmark by 0.3%. The manager also outperformed its benchmark over the 1- and 5-year time periods by 3.7% and 0.6%, respectively, but underperformed its benchmark over the 3-year time period by (1.0%).

Asset Class Performance Net-of-Fees | As of September 30, 2021

	Market Value ¹ (\$)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Crisis Risk Offset Asset Class	466,103,587	100.0	0.2	0.8	4.5	2.1	4.3
<i>CRO Benchmark²</i>			<i>1.3</i>	<i>3.1</i>	<i>6.9</i>	<i>3.7</i>	<i>4.5</i>
Long Duration	151,953,242	32.6	0.4	-9.4	8.8	3.1	--
<i>Bloomberg US Treasury Long TR</i>			<i>0.5</i>	<i>-10.3</i>	<i>9.2</i>	<i>3.3</i>	<i>--</i>
Dodge & Cox Long Duration	151,953,242	32.6	0.4	-9.4	8.8	3.1	--
<i>Bloomberg US Treasury Long TR</i>			<i>0.5</i>	<i>-10.3</i>	<i>9.2</i>	<i>3.3</i>	<i>--</i>
Systematic Trend Following	189,271,619	40.6	-1.1	23.0	4.3	0.0	5.3
<i>BTOP 50 (blend)</i>			<i>2.2</i>	<i>15.5</i>	<i>6.0</i>	<i>2.4</i>	<i>3.5</i>
Graham Tactical Trend	90,095,240	19.3	-2.3	12.8	3.3	0.8	--
<i>SG Trend</i>			<i>2.9</i>	<i>19.9</i>	<i>6.8</i>	<i>3.1</i>	<i>--</i>
Mount Lucas	99,176,379	21.3	0.0	34.1	5.0	-1.3	4.7
<i>BTOP 50 (blend)</i>			<i>2.2</i>	<i>15.5</i>	<i>6.0</i>	<i>2.4</i>	<i>3.5</i>
Alternative Risk Premium	124,878,727	26.8	1.9	-11.3	-1.5	1.2	1.3
<i>5% Annual (blend)</i>			<i>1.2</i>	<i>5.0</i>	<i>5.0</i>	<i>5.0</i>	<i>7.5</i>
AQR Style Premia	29,330,745	6.3	2.2	15.4	-9.6	-4.6	--
<i>5% Annual</i>			<i>1.2</i>	<i>5.0</i>	<i>5.0</i>	<i>5.0</i>	<i>--</i>
Lombard Odier	59,993,117	12.9	0.1	-10.8	--	--	--
<i>5% Annual</i>			<i>1.2</i>	<i>5.0</i>	<i>--</i>	<i>--</i>	<i>--</i>
P/E Diversified Global Macro	35,554,865	7.6	5.1	-26.2	-3.7	-1.7	--
<i>5% Annual</i>			<i>1.2</i>	<i>5.0</i>	<i>5.0</i>	<i>5.0</i>	<i>--</i>

¹Market values may not add up due to rounding.

²(1/3) BB Long Duration Treasuries, (1/3) BTOP50 Index, (1/3) 5% Annual.

Crisis Risk Offset

During the latest three-month period ending September 30, 2021, two of SJCERA's six Crisis Risk Offset managers outperformed their respective benchmarks.

Dodge & Cox Long Duration produced a quarterly return of 0.4%, underperforming the Bloomberg US Long Duration Treasuries by (0.1%). The manager outperformed the benchmark over the 1-year time period by 0.9% but underperformed its over the 3- and 5-year periods by (0.4%) and (0.2%), respectively.

Graham, one of the Plan's Systematic Trend Following managers, had a negative quarterly return of (2.3%), underperforming the SG Trend Index by (5.2%). The fund also underperformed its benchmark over the trailing 1-, 3- and 5-year periods by (7.1%), (3.5%), and (2.3%), respectively.

Mount Lucas, one of the Plan's Systematic Trend Following managers, produced flat quarterly returns, underperforming the Barclays BTOP 50 Index by (2.2%). The fund led its benchmark over the 1- and 10-year periods by 18.6% and 1.2%, respectively, but underperformed for the 3- and 5-year periods by (1.0%) and (3.7%), respectively.

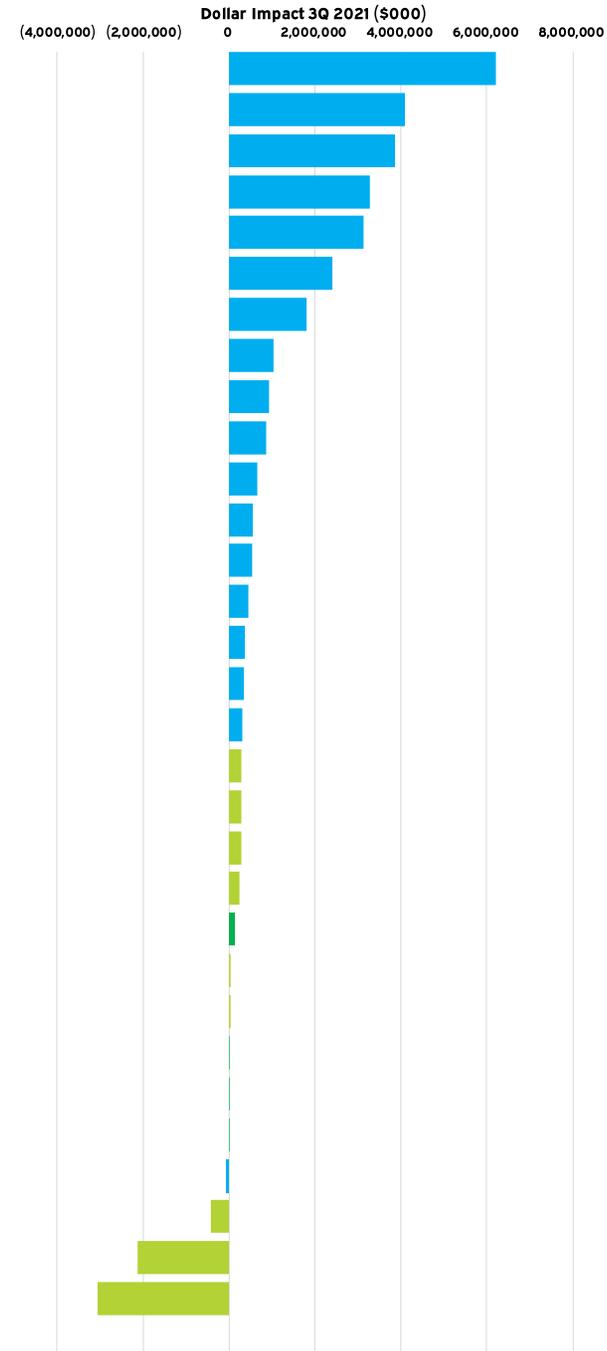
AQR, one of the Plan's Alternative Risk Premium managers, posted positive returns and outperformed its 5% Annual target for the quarter and 1-year periods by 1.0% and 10.4%, respectively. It posted negative returns for the trailing 3- and 5-year periods and underperformed its benchmark for these periods by (14.6%) and (9.6%), respectively.

Lombard Odier, an Alternative Risk Premium manager, earned a quarterly return of 0.1%, underperforming its 5% Annual target (1.1%). The manager also underperformed its benchmark for the 1-year period by (15.8%).

P/E Diversified, one of the Plan's Alternative Risk Premium managers, outperformed its 5% Annual target for the quarter by 3.9%. It underperformed its benchmark for the 1-, 3- and 5-year time periods by (31.2%), (8.7%) and (6.7%), respectively.

Manager Commentary

Manager/Mandate	Manager Return	Benchmark Return	Dollar Impact	Benchmark Added Value	Manager BNAV
9/30/2021			2,193,635,795		2,193,635,795
SJCERA Total	2.5%	2.7%			
Policy Benchmark					
Private Core Real Estate	3.6%	3.9%	6,214,475		174,514,873
Private Real Estate Benchmark					
Ocean Avenue III	6.9%	8.0%	4,094,503		59,100,795
MSCI ACWI +2% Blend					
Ocean Avenue II	10.7%	8.0%	3,858,279		36,204,179
MSCI ACWI +2% Blend					
Morgan Creek VI	12.3%	8.0%	3,275,963		26,703,319
MSCI ACWI +2% Blend					
Ocean Avenue IV	8.8%	8.0%	3,135,045		35,617,418
MSCI ACWI +2% Blend					
Bridgewater All Weather	11%	10%	2,399,041		213,248,121
T-bill + 4%					
P/E Diversified Global Macro	5.1%	12%	1,803,698		35,554,865
5% Annual					
Crestline Opportunity II	5.1%	4.1%	1,040,091		20,377,954
CPI + 6% Annual					
Oaktree	2.9%	8.0%	930,766		31,908,345
MSCI ACWI +2% Blend					
Raven III	1.8%	4.1%	865,907		48,132,680
CPI + 6% Annual					
AQR	2.2%	12%	649,969		29,330,745
5% Annual					
Mesa West IV	1.9%	8.0%	556,958		29,344,469
CPI + 6% Annual					
Dodge & Cox Long Duration	0.4%	0.1%	545,512		151,953,242
BB US Long Duration Treasuries					
DoubleLine	0.4%	0.1%	446,907		113,716,674
BB Aggregate					
Invesco REIT	0.8%	1.0%	359,991		47,871,153
FTSE NAREIT Index					
BlackRock Direct Lending	0.9%	4.1%	341,630		37,377,435
CPI + 6% Annual					
BlackRock Global Energy & Power	1.6%	8.0%	314,684		19,582,066
MSCI ACWI +2% Blend					
PanAgora Diversified Risk Multi Asset	0.1%	1.0%	281,647		221,769,334
T-bill + 4%					
Neuberger Berman	0.3%	0.4%	280,104		106,503,310
Global Credit Hybrid					
White Oak Summit Peer	0.7%	4.1%	276,351		41,619,121
CPI + 6% Annual					
Stone Harbor Absolute Return	0.2%	0.0%	237,774		130,645,229
3-Month Libor TR USD					
Dodge & Cox Fixed Income	0.1%	0.1%	115,230		217,414,749
BB Aggregate					
Lombard Odier	0.1%	1.2%	34,196		59,993,117
5% Annual					
Mount Lucas	0.0%	2.2%	32,728		99,176,379
BTOP 50					
Medley Opportunity II	0.1%	4.1%	13,606		10,229,923
CPI + 6% Annual					
Mesa West III	3.7%	4.1%	1,347		36,476
CPI + 6% Annual					
Morgan Creek V	0.0%	8.0%	945		9,453,588
MSCI ACWI +2% Blend					
Morgan Creek III	-0.8%	8.0%	(61,289)		8,096,284
MSCI ACWI +2% Blend					
Raven II	-4.5%	4.1%	(422,916)		9,331,766
CPI + 6% Annual					
Graham Tactical Trend	-2.3%	2.9%	(2115,532)		90,060,954
SG Trend Index					
PIMCO RAE Emerging Markets	-3.9%	-8.0%	(3,067,196)		78,767,232
MSCI Emerging Markets					
Total Portfolio MV as of 9/30/2021			3,839,975,299		

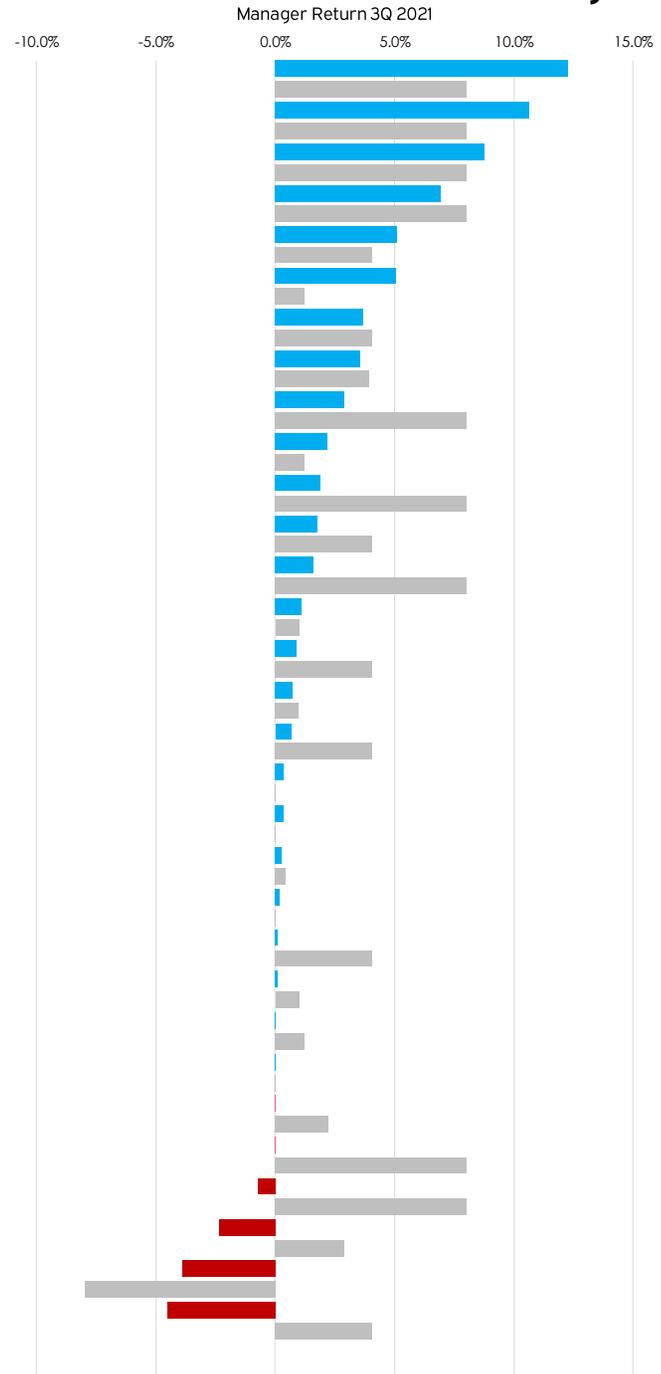


Benchmark Added Value Manager BNAV

2,193,635,795

Manager Commentary

Manager/Mandate	9/30/2021	Manager Return	Benchmark Return	Dollar Impact
SJCERA Total		2.5%	2.7%	2,193,635,795
Policy Benchmark				
Morgan Creek VI		12.3%	8.0%	3,275,963
MSCI ACWI +2% Blend				
Ocean Avenue II		10.7%	8.0%	3,858,279
MSCI ACWI +2% Blend				
Ocean Avenue IV		8.8%	8.0%	3,135,045
MSCI ACWI +2% Blend				
Ocean Avenue III		6.9%	8.0%	4,094,503
MSCI ACWI +2% Blend				
Crestline Opportunity II		5.1%	4.1%	1,040,091
CPI + 6% Annual				
P/E Diversified Global Macro		5.1%	12%	1,803,698
5% Annual				
Mesa West III		3.7%	4.1%	1,347
CPI + 6% Annual				
Private Core Real Estate		3.6%	3.9%	6,214,475
Private Real Estate Benchmark				
Oaktree		2.9%	8.0%	930,766
MSCI ACWI +2% Blend				
AQR		2.2%	12%	649,969
5% Annual				
Mesa West IV		1.9%	8.0%	556,958
CPI + 6% Annual				
Raven III		1.8%	4.1%	865,907
CPI + 6% Annual				
BlackRock Global Energy & Power		1.6%	8.0%	314,684
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5% Annual				
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BTOP 50				
Morgan Creek V		0.0%	8.0%	945
MSCI ACWI +2% Blend				
Morgan Creek III		-0.8%	8.0%	(61,289)
MSCI ACWI +2% Blend				
Graham Tactical Trend		-2.3%	2.9%	(2,115,532)
SG Trend Index				
PIMCO RAE Emerging Markets		-3.9%	-8.0%	(3,067,196)
MSCI Emerging Markets				
Raven II		-4.5%	4.1%	(422,916)
CPI + 6% Annual				
Total Portfolio MV as of 9/30/2021				3,839,975,299

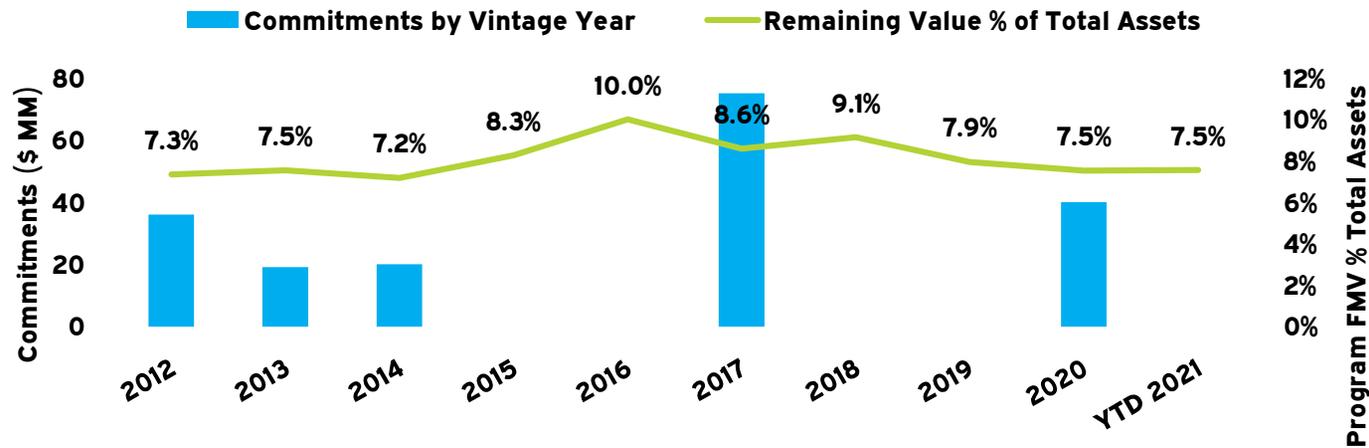


Real Estate Program
September 30, 2021

1. Overview
2. Program Activity
 - Commitments
 - Cash Flows
 - Significant Events
3. Performance Analysis
 - By Strategy and Vintage
 - Across Time Periods
 - Net Changes in Value
 - Time-Weighted Performance
 - Fund Performance: Sorted by Vintage and Strategy
4. Diversification Fund Level
 - Strategy
 - Vintage
 - Geographic Focus
5. Market Analysis
6. End Notes & Disclosures

Introduction

The Retirement Association's target allocation towards real estate assets is 10-12%. As of March 31, 2021, the Retirement Association had invested with eighteen real estate managers (three private open-end and fifteen private closed-end). The aggregate reported value of the Retirement Association's real estate investments was \$274.1 million.



Program Status

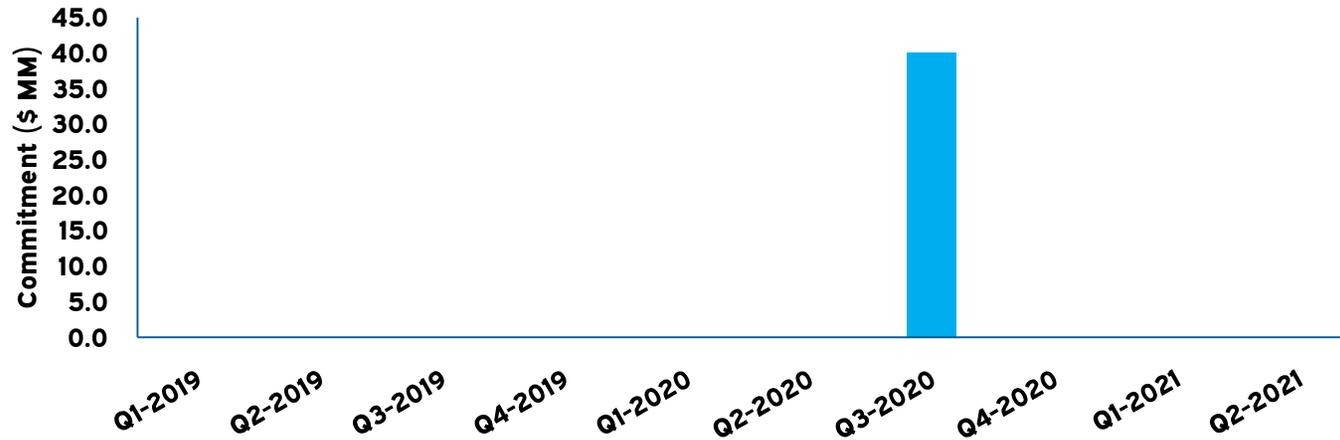
No. of Investments	18
Committed (\$ MM)	501.6
Contributed (\$ MM)	429.8
Distributed (\$ MM)	319.4
Remaining Value (\$ MM)	287.6

Performance Since Inception

	Program	Peer Universe
DPI	0.74x	0.88x
TVPI	1.41x	1.31x
IRR	6.6%	6.5%

Commitments

Recent Quarterly Commitments



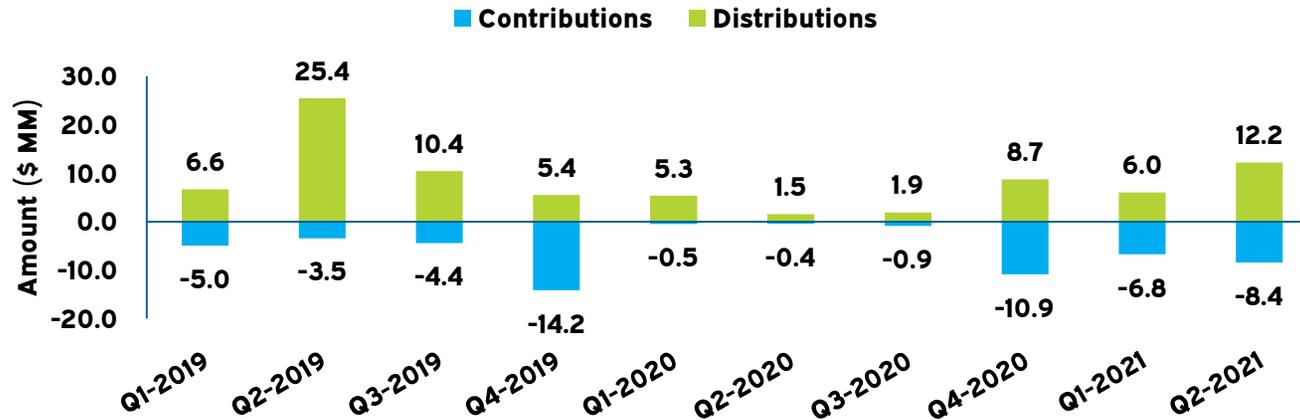
Commitments This Quarter

Fund	Strategy	Region	Amount (MM)
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None to report.

Cash Flows

Recent Quarterly Cash Flows



Largest Contributions This Quarter

Fund	Vintage	Strategy	Region	Amount (\$MM)
Greenfield VIII	2017	Opportunistic	North America	6.55
Berkeley V	2020	Value-Added	North America	1.19
Prologis Logistics	1970	Core	North America	0.69

Largest Distributions This Quarter

Fund	Vintage	Strategy	Region	Amount (\$MM)
Greenfield VIII	2017	Opportunistic	North America	6.34
Stockbridge RE III	2017	Value-Added	North America	2.06
AG Core Plus IV	2014	Value-Added	North America	1.50

Significant Events

- During the second quarter, Berkeley Partners Value Industrial Fund V closed nine acquisitions, totaling \$82.4 million and nearly 770,000 square feet. Of the new investments, three are located in Massachusetts, three in Georgia, two in Texas, and one in Pennsylvania. To date, the Fund has called 25.0% of capital to finance investments.
- In April 2021, Stockbridge Real Estate Value Fund III closed on the disposition of 23 Sycamore, an industrial property in Boston, for a gross sale price of \$25.8 million, as well as the disposition of the multifamily land parcel at Barrett Pavilion in Kennesaw, Georgia for a sale price of \$8.6 million. During the second quarter, Stockbridge Real Estate Value Fund III distributed \$16.4 million to its Limited Partners, primarily funded from the sale of 23 Sycamore and operating cash flows.
- During the second quarter, AG Core Plus Realty Fund IV completed two dispositions. In June, the Fund sold 1720 El Camino, a medical office building in Burlingame, CA, for \$64.4 million. Additionally, in late June, the Fund closed on the sale of Falcon Landing Apartments, a 198-unit multifamily property located in Las Vegas, NV.
- During the second quarter, Greenfield Acquisition Partners VIII (Grandview I) closed on the acquisition of three new investments: I-75 Logistics Center, a 165-acre industrial development site in Pasco County, Florida, Forney Industrial Center, a 47-acre land site in Forney, Texas, and the Cottages at Ravinia, a 148-unit single-family build-for-rent development site in Port St. Lucie, Florida. Accordingly, the Fund called \$32 million from investors to fund these new deals, as well as existing investments. The Fund also had one disposition during the quarter through the sale of 7600 Assateague, resulting in a distribution of \$28.67 million to the Limited Partners.



San Joaquin County Employees' Retirement Association Real Estate Program

Performance Analysis | As of June 30, 2021

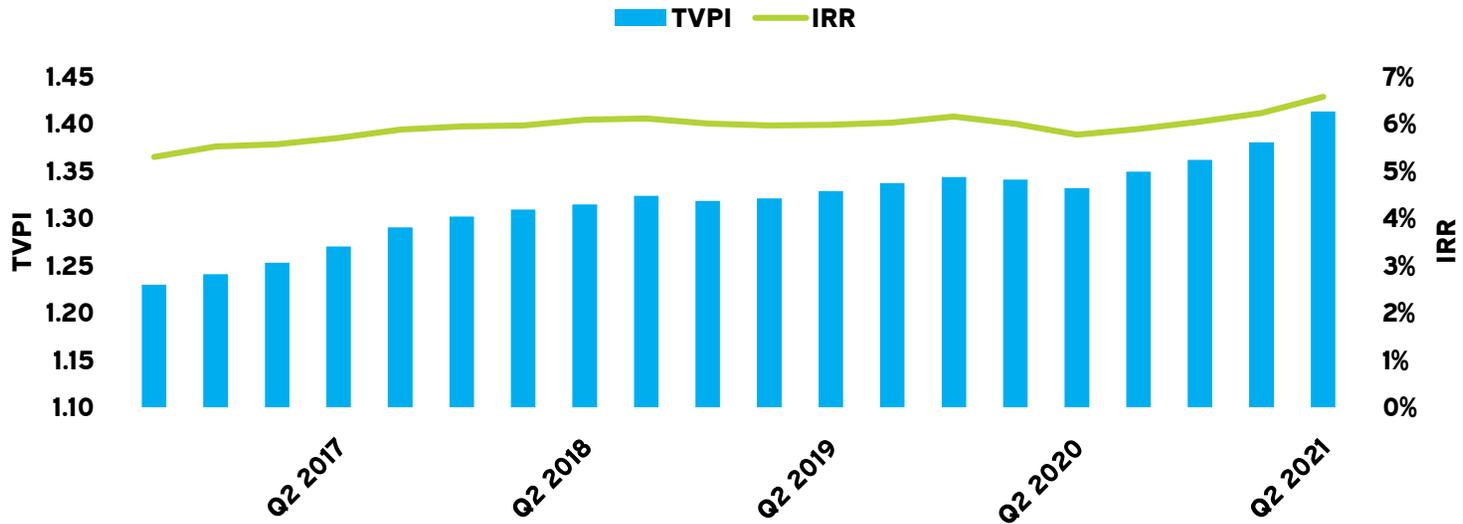
By Strategy

Group	Number	Committed (\$ MM)	Contributed (\$ MM)	Unfunded (\$ MM)	Distributed (\$ MM)	Remaining Value (\$ MM)	Exposure (\$ MM)	DPI (X)	TVPI (X)	IRR (%)
Core	3	120.5	123.5	0.0	27.2	174.5	174.5	0.22	1.63	6.8
Opportunistic	9	204.1	180.3	24.7	198.0	41.2	65.9	1.10	1.33	5.5
Value-Added	6	177.0	126.0	52.7	94.3	71.9	124.5	0.75	1.32	8.8
Total	18	501.6	429.8	77.4	319.4	287.6	364.9	0.74	1.41	6.6

By Vintage

Group	Number	Committed (\$ MM)	Contributed (\$ MM)	Unfunded (\$ MM)	Distributed (\$ MM)	Remaining Value (\$ MM)	Exposure (\$ MM)	DPI (X)	TVPI (X)	IRR (%)
Open-end	3	120.5	123.5	0.0	27.2	174.5	174.5	0.22	1.63	6.8
2005	2	45.0	44.5	0.0	37.6	2.1	2.1	0.85	0.89	-1.5
2007	4	96.0	84.0	12.0	114.9	5.8	17.8	1.37	1.44	7.3
2011	2	50.0	38.3	11.7	47.2	4.0	15.7	1.23	1.34	9.6
2012	2	36.0	33.8	3.0	48.8	0.3	3.3	1.45	1.46	12.6
2013	1	19.1	18.3	0.8	21.0	9.7	10.5	1.15	1.68	13.4
2014	1	20.0	19.0	1.8	6.6	18.6	20.3	0.34	1.32	8.4
2017	2	75.0	58.4	18.1	16.1	61.5	79.6	0.28	1.33	16.0
2020	1	40.0	10.2	30.0	0.1	11.1	41.1	0.01	1.10	NM
Total	18	501.6	429.8	77.4	319.4	287.6	364.9	0.74	1.41	6.6

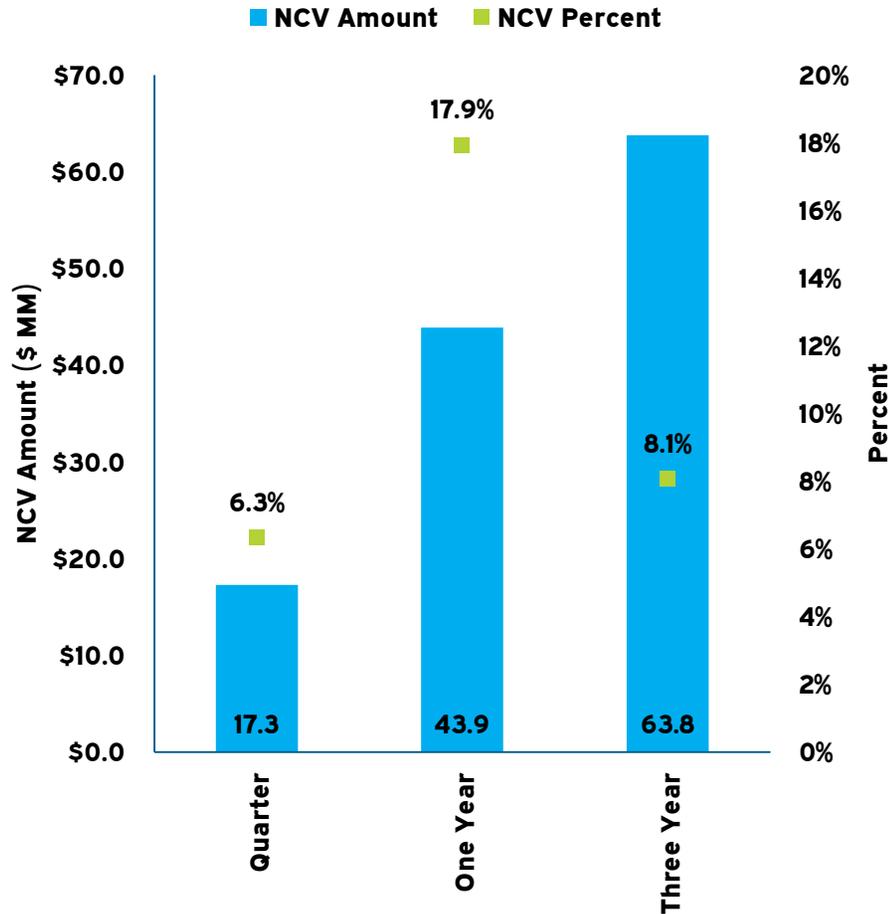
Since Inception Performance Over Time



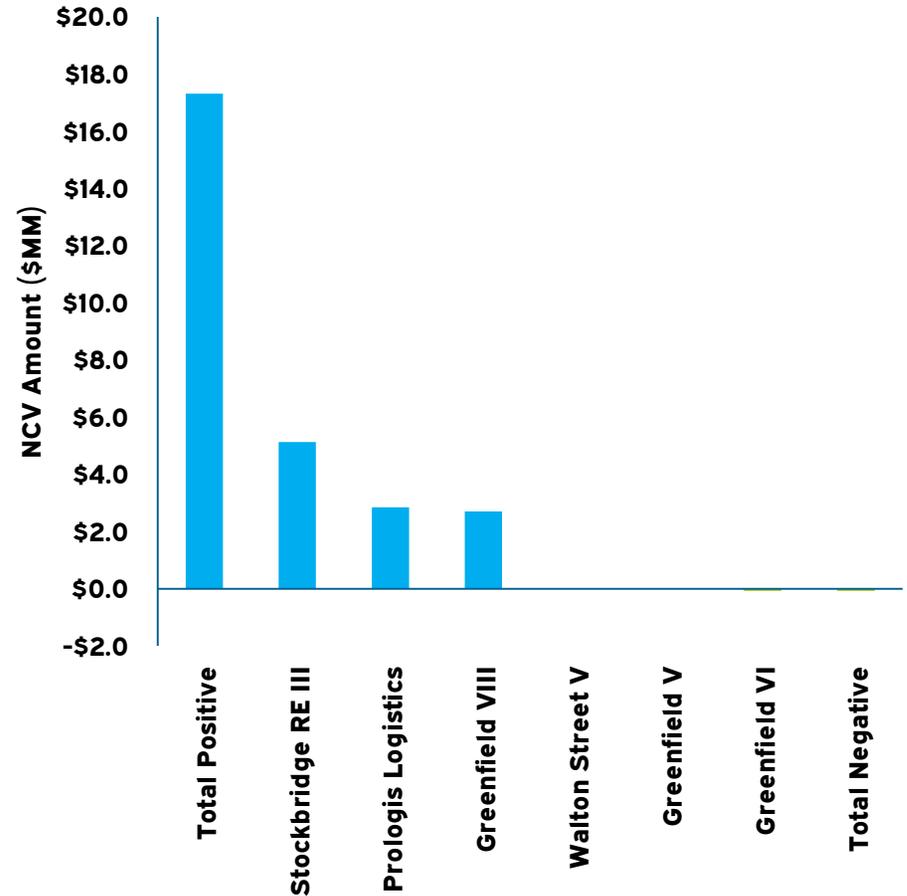
Horizon IRRs

	1 Year (%)	3 Year (%)	5 Year (%)	10 Year (%)	Since Inception (%)
Aggregate Portfolio	17.8	8.3	8.7	10.3	6.6
Public Market Equivalent	34.8	8.3	5.1	8.7	8.7

Periodic NCV



1 Quarter Drivers Of NCV





San Joaquin County Employees' Retirement Association Real Estate Program

Performance Analysis | As of June 30, 2021

Fund Performance: Sorted By Vintage And Strategy

By Investment	Vintage	Strategy	Committed (\$ MM)	Contributed (\$ MM)	Unfunded (\$ MM)	Distributed (\$ MM)	Remaining Value (\$ MM)	TVPI (X)	Peer TVPI (X)	IRR (%)	Peer IRR (%)
Principal US	Open-end	Core	25.0	25.0	0.0	0.0	36.4	1.46	NM	7.0	NM
Prologis Logistics	Open-end	Core	50.5	53.5	0.0	18.9	85.6	1.96	NM	6.9	NM
RREEF America II	Open-end	Core	45.0	45.0	0.0	8.3	52.5	1.35	NM	6.6	NM
Miller GLocal Fund V	2005	Opportunistic	15.0	14.5	0.0	17.6	0.0	1.21	1.02	3.3	0.4
Walton Street V	2005	Opportunistic	30.0	30.0	0.0	20.1	2.1	0.74	1.02	-3.3	0.4
Greenfield V	2007	Opportunistic	30.0	29.6	0.4	40.4	0.2	1.37	1.18	8.3	3.2
Miller Global VI	2007	Opportunistic	30.0	21.1	8.9	32.3	0.6	1.56	1.18	7.6	3.2
Walton Street VI	2007	Opportunistic	15.0	13.3	1.7	15.2	5.0	1.52	1.18	7.9	3.2
Colony Realty III	2007	Value-Added	21.0	20.0	1.0	26.9	0.0	1.35	1.18	5.3	3.2
Greenfield VI	2011	Opportunistic	20.0	19.2	0.8	26.2	0.1	1.37	1.48	9.6	11.9
Almanac Realty VI	2011	Value-Added	30.0	19.1	10.9	21.0	3.9	1.31	1.48	9.5	11.9
Miller Global VII	2012	Opportunistic	15.0	12.0	3.0	15.9	0.3	1.35	1.45	14.8	10.7
Colony Realty IV	2012	Value-Added	21.0	21.7	0.0	32.9	0.0	1.51	1.45	11.9	10.7
Greenfield VII	2013	Opportunistic	19.1	18.3	0.8	21.0	9.7	1.68	1.34	13.4	9.4
AG Core Plus IV	2014	Value-Added	20.0	19.0	1.0	6.6	18.6	1.32	1.37	8.4	9.9



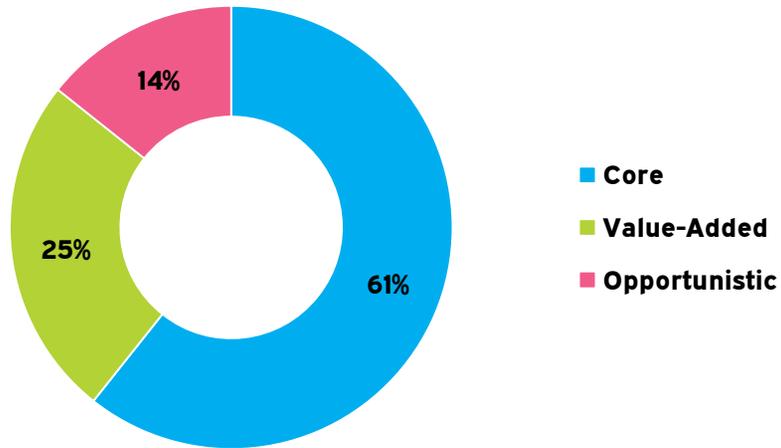
San Joaquin County Employees' Retirement Association Real Estate Program

Performance Analysis | As of June 30, 2021

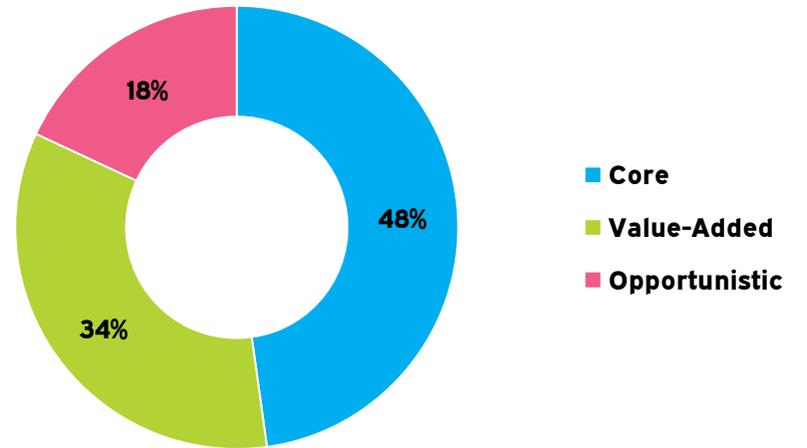
By Investment	Vintage	Strategy	Committed (\$ MM)	Contributed (\$ MM)	Unfunded (\$ MM)	Distributed (\$ MM)	Remaining Value (\$ MM)	TVPI (X)	Peer TVPI (X)	IRR (%)	Peer IRR (%)
Greenfield VIII	2017	Opportunistic	30.0	22.4	9.1	9.3	23.2	1.46	1.26	21.3	11.8
Stockbridge RE III	2017	Value-Added	45.0	36.0	9.0	6.8	38.2	1.25	1.26	12.4	11.8
Berkeley V	2020	Value-Added	40.0	10.2	30.0	0.1	11.1	1.10	1.05	NM	NM
Total			501.6	429.8	77.4	319.4	287.6	1.41	1.31	6.6	6.5

By Strategy

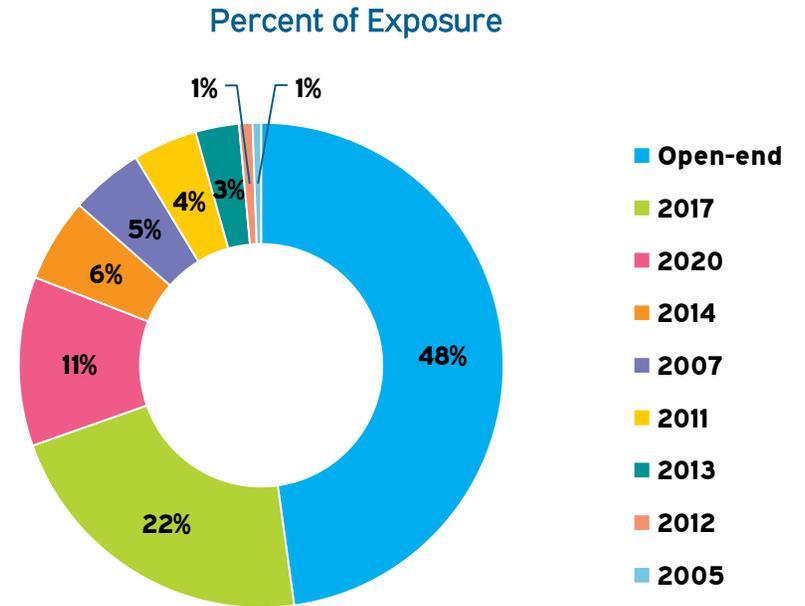
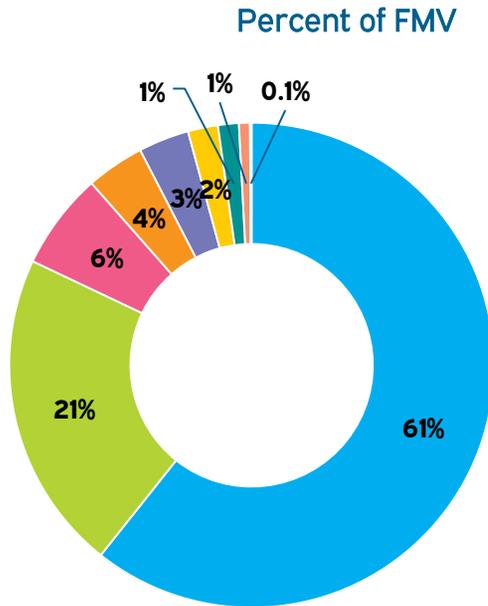
Percent of FMV



Percent of Exposure



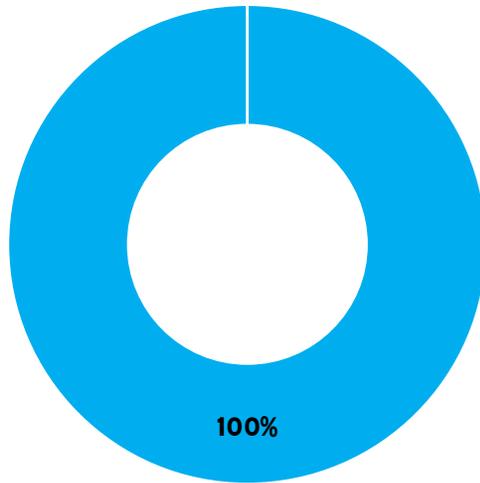
By Vintage



By Geographic Focus

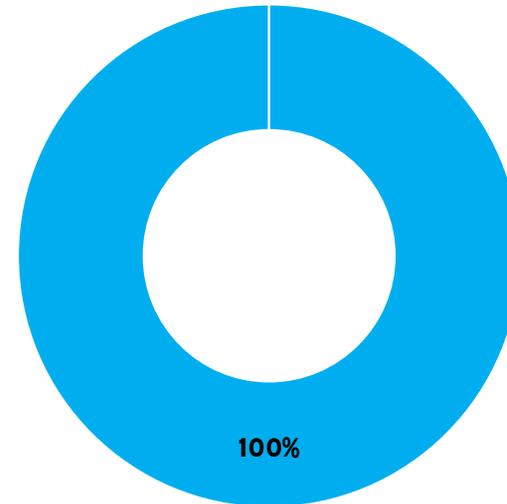
Percent of FMV

■ North America



Percent of Exposure

■ North America



Below are details on specific terminology and calculation methodologies used throughout this report:

Committed	The original commitment amount made to a given fund. Some funds may be denominated in non-USD currencies, and such commitment amounts represent the sum of fund contributions translated to USD at their daily conversion rates plus the unfunded balance translated at the rate as of the date of this report.
Contributed	The amount of capital called by a fund manager against the commitment amount. Contributions may be used for new or follow-on investments, fees, and expenses, as outlined in each fund's limited partnership agreement. Some capital distributions from funds may reduce contributed capital balances. Some funds may be denominated in non-USD currencies, and such aggregate contributions represent the sum of each fund contribution translated to USD at its daily conversion rate.
Distributed	The amount of capital returned from a fund manager for returns of invested capital, profits, interest, and other investment related income. Some distributions may be subject to re-investment, as outlined in each fund's limited partnership agreement. Some funds may be denominated in non-USD currencies, and such aggregate distributions represent the sum of each fund distribution translated to USD at its daily conversion rate.
DPI	Acronym for "Distributed-to-Paid-In", which is a performance measurement for Private Market investments. The performance calculation equals Distributed divided by Contributed. DPIs for funds and groupings of funds are net of all fund fees and expenses as reported to by fund managers to Meketa.
Exposure	Represents the sum of the investor's Unfunded and Remaining Value.
IRR	Acronym for "Internal Rate of Return", which is a performance measurement for Private Market investments. IRRs are calculated by Meketa based on daily cash flows and Remaining Values as of the date of this report. IRRs for funds and groupings of funds are net of all fund fees and expenses as reported by fund managers to Meketa.
NCV	Acronym for "Net Change in Value", which is a performance measurement for Private Market investments. The performance calculation equals the appreciation or depreciation over a time period neutralized for the impact of cash flows that occurred during the time period.
NM	Acronym for "Not Meaningful", which indicates that a performance calculation is based on data over too short a timeframe to yet be meaningful or not yet possible due to inadequate data. Meketa begins reporting IRR calculations for investments once they have reached more than two years since first capital call. NM is also used within this report in uncommon cases where the manager has reported a negative Remaining Value for an investment.

Peer Universe

The performance for a set of comparable private market funds. The peer returns used in this report are provided by Thomson ONE, based on data from Cambridge Associates as of the date of this report. Program-level peer universe performance represents the pooled return for a set of funds of corresponding vintages and strategies across all regions globally. Fund-level peer performance represents the median return for a set of funds of the same vintage and the program's set of corresponding strategies across all regions globally. Data sets that include less than five funds display performance as "NM". Meketa utilizes the following Thomson ONE strategies for peer universes:

Infrastructure: Infrastructure

Natural Resources: Private Equity Energy, Upstream Energy & Royalties, and Timber

Private Debt: Subordinated Capital, Credit Opportunities, Senior Debt, and Control-Oriented Distressed

Private Equity (including Private Debt): Venture Capital, Growth Equity, Buyout, Subordinated Capital, Credit Opportunities, Senior Debt, and Control-Oriented Distressed

Private Equity (excluding Private Debt): Venture Capital, Growth Equity, and Buyout

Real Assets (excluding Real Estate): Infrastructure, Private Equity Energy, Upstream Energy & Royalties, and Timber

Real Assets (including Real Estate): Infrastructure, Private Equity Energy, Upstream Energy & Royalties, Timber, and Real Estate

Real Estate: Real Estate

Public Market Equivalent ("PME")

A calculation methodology that seeks to compare the performance of a portfolio of private market investments with public market indices. The figures presented in this report are based on the PME+ framework, which represents a net IRR value based on the actual timing and size of the private market program's daily cash flows and the daily appreciation or depreciation of an equivalent public market index. Meketa utilizes the following indices for private market program PME+ calculations:

Infrastructure: Dow Jones Brookfield Global Infrastructure Index

Natural Resources: S&P Global Natural Resources Index

Private Debt: Barclays Capital U.S. Corporate High Yield Bond Index

Private Equity: MSCI ACWI Investable Market Index

Real Assets (excluding Real Estate): Equal blend of Dow Jones Brookfield Global Infrastructure Index and S&P Global Natural Resources Index

	<p>Real Assets (including Real Estate): Equal blend of Dow Jones Brookfield Global Infrastructure Index, S&P Global Natural Resources Index, and Dow Jones U.S. Select Real Estate Securities Index</p> <p>Real Estate: Dow Jones U.S. Select Real Estate Securities Index</p>
<p>Remaining Value</p>	<p>The investor's value as reported by a fund manager on the investor's capital account statement. All investor values in this report are as of the date of this report, unless otherwise noted. Some funds may be denominated in non-USD currencies, and such remaining values represent the fund's local currency value translated to USD at the rate as of the date of this report.</p>
<p>TVPI</p>	<p>Acronym for "Total Value-to-Paid-In", which is a performance measurement for Private Market investments. The performance calculations represents Distributed plus Remaining Value, then divided by Contributed. TVPIs for funds and groupings of funds are net of all fund fees and expenses as reported to by fund managers to Meketa.</p>
<p>Unfunded</p>	<p>The remaining balance of capital that a fund manager has yet to call against a commitment amount. Meketa updates unfunded balances for funds to reflect all information provided by fund managers provided in their cash flow notices. Some funds may be denominated in non-USD currencies, and such unfunded balances represent the fund's local currency unfunded balance translated to USD at the rate as of the date of this report.</p>



San Joaquin County Employees' Retirement Association Real Estate Program

Disclaimer | As of June 30, 2021

The material contained in this report is confidential and may not be reproduced, disclosed, or distributed, in whole or in part, to any person or entity other than the intended recipient. The data are provided for informational purposes only, may not be complete, and cannot be relied upon for any purpose other than for discussion.

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

If we manage your assets on a discretionary basis, please contact us if there are any changes in your financial situation or investment objectives, or if you want to impose any reasonable restrictions on our management of your account or reasonably modify existing restrictions.

In general, the valuation numbers presented in this report are prepared by the custodian bank for listed securities, and by the fund manager or appropriate General Partner in the case of unlisted securities. The data used in the market comparison sections of this report are sourced from various databases. These data are continuously updated and are subject to change.

This report does not contain all the information necessary to fully evaluate the potential risks of any of the investments described herein. Because of inherent uncertainties involved in the valuations of investments that are not publicly traded, any estimated fair values shown in this report may differ significantly from the values that would have been used had a ready market for the underlying securities existed, and the differences could be material.

This document may contain certain forward-looking statements, forecasts, estimates, projections, and opinions ("Forward Statements"). No representation is made or will be made that any Forward Statements will be achieved or will prove to be correct. A number of factors, in addition to any risk factors stated in this material, could cause actual future results to vary materially from the Forward Statements. No representation is given that the assumptions disclosed in this document upon which Forward Statements may be based are reasonable. There can be no assurance that the investment strategy or objective of any fund or investment will be achieved, or that the client will receive a return of the amount invested.

In some cases Meketa Investment Group assists the client in handling capital calls or asset transfers among investment managers. In these cases we do not make any representations as to the managers' use of the funds, but do confirm that the capital called or transferred is within the amounts authorized by the client.

Because there is no readily accessible market for private markets assets (companies and partnerships), the values placed on private markets assets are calculated by General Partners using conservative and industry standard pricing procedures. Annually, an independent auditor reviews the pricing procedures employed by the General Partner of each partnership.

The values of companies and partnerships are audited at year-end, and are not audited at other quarter-end periods. While financial information may be audited, there is some discretion as to the method employed to price private companies and, therefore, private markets partnerships. At all times, Meketa Investment Group expects General Partners to utilize conservative and industry standard pricing procedures, and requires the General Partners to disclose those procedures in their reports. However, because of the inherent uncertainty of valuation, these estimated values may differ from the values that would be used if a ready market for the investments existed, and the differences could be significant.

Capital Markets Outlook & Risk Metrics

As of October 31, 2021

Capital Markets Outlook

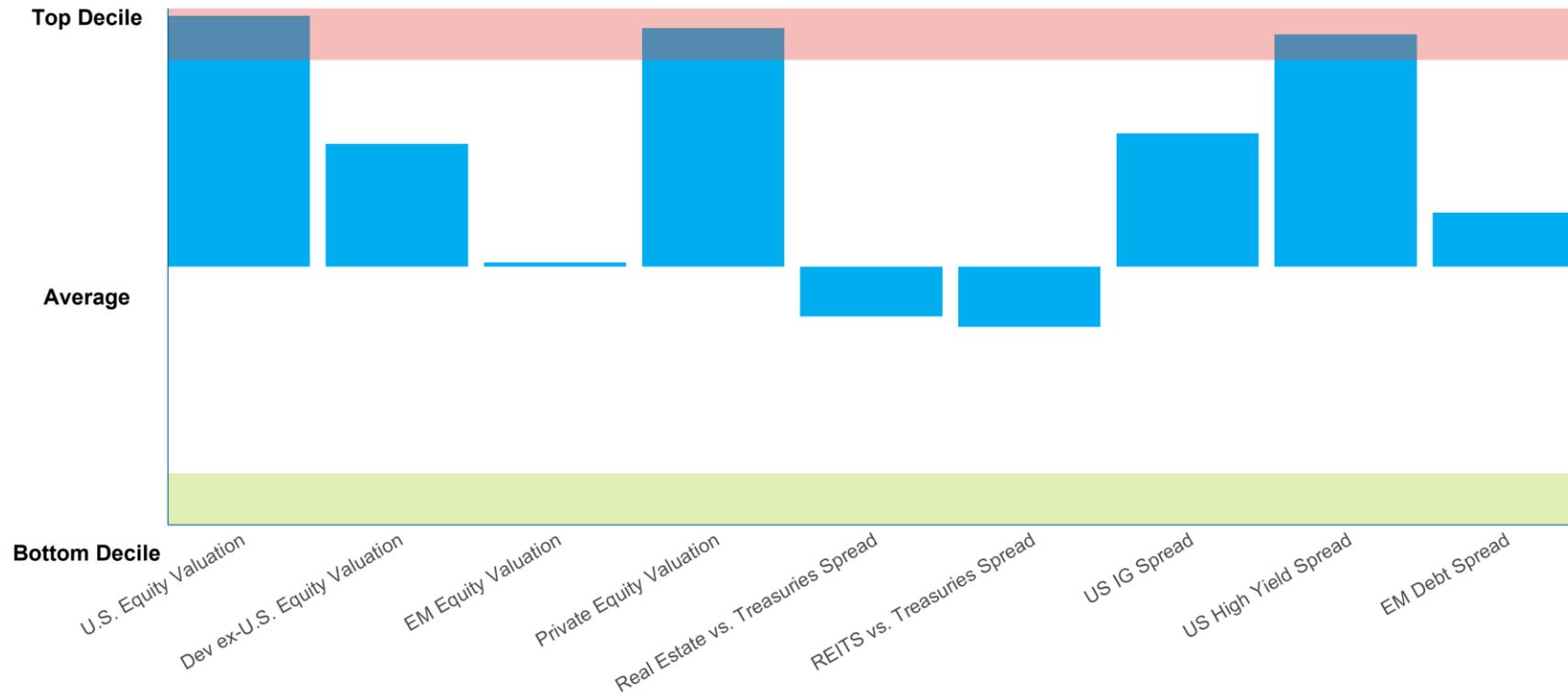
Markets

- After a difficult September, global equity markets posted positive returns in October even as global supply chain disruptions and robust consumer demand drove inflation higher. Significant financial entities (e.g., IMF) are analyzing the potential for mounting inflationary forces to disrupt the outlook for the global recovery.
- Global equity markets posted returns generally between 1% and 9% in the month of October, with US equities outperforming non-US equities.
- Reversing September's outperformance, US value stocks lagged growth stocks across all market capitalizations in October. For example, the Russell 1000 Growth index returned 8.7% in the month, versus the Russell 1000 Value index's return of 5.1%.
- China's equity markets recovered in October and returned 3.2%, outperforming the MSCI Emerging Markets index which returned 1.0%.
- Bond markets saw mixed returns as rising inflation expectations dampened returns. The Bloomberg US Aggregate index returning 0.0%, while TIPS generated positive returns with the Bloomberg TIPS index return 1.1%.
- The Bloomberg US Long Government Bond index returned 1.8% as the market adjusted long-term inflation risks lower.

Capital Markets Outlook

- Global and US REITS posted strong positive returns in the month of October with the MSCI US REITS index returning 7.7%, and the FTSE NAREIT Equity Index returning 7.6%.
- Natural resource equities outperformed the broad commodity index with the S&P Global Natural Resource index returning 4.8%, while the Bloomberg Commodity index returned 2.6% for the month.
- US headline inflation for September reached 5.4% year-on-year, largely driven by higher energy costs, which rose 24.8% year-on-year, while core inflation (CPI ex. food and energy) rose 4% year-on-year.
- Energy prices continued to rise in October. In China, flooding and high natural gas prices have prompted energy rationing schemes and higher energy costs for manufacturers. In Europe, natural gas prices have driven power costs higher and pushed inflation to multi-decade highs.
- In October, the US Senate agreed to fund a temporary extension of the debt ceiling for \$480 billion.
- In China, the potential default of mega-real estate company, Evergrande, put a strain on markets. Investors worry whether a potential default will be limited to just Evergrande's creditors or if its troubles are a symptom of a broader real estate and economic downturn in China.
- Vaccine efficacy remains uncertain as some countries enact targeted booster programs, while Delta variant cases appear to be falling in the US and Europe. Meanwhile, China has reinstated some targeted local lockdowns in response to COVID outbreaks.

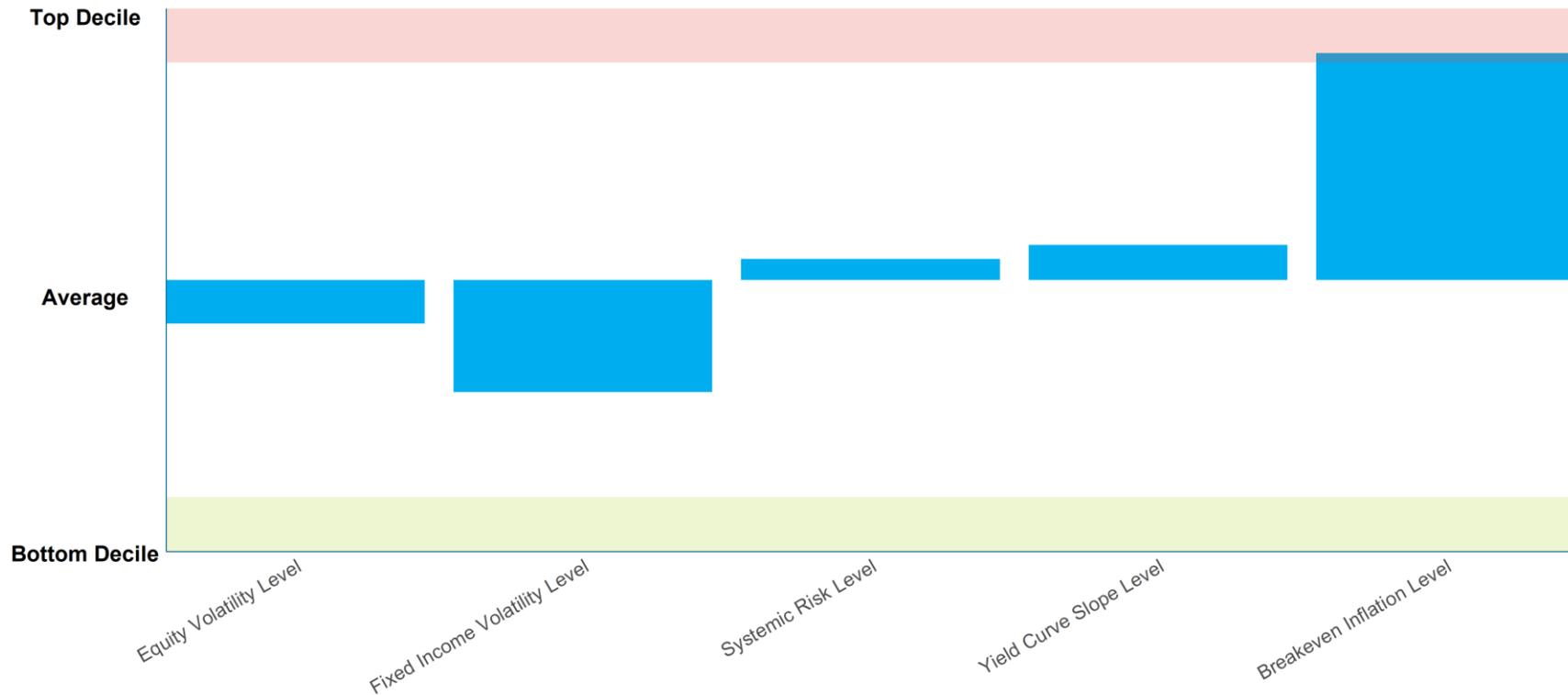
Risk Overview/Dashboard (1) (As of October 31, 2021)¹



- Dashboard (1) summarizes the current state of the different valuation metrics per asset class relative to their own history.

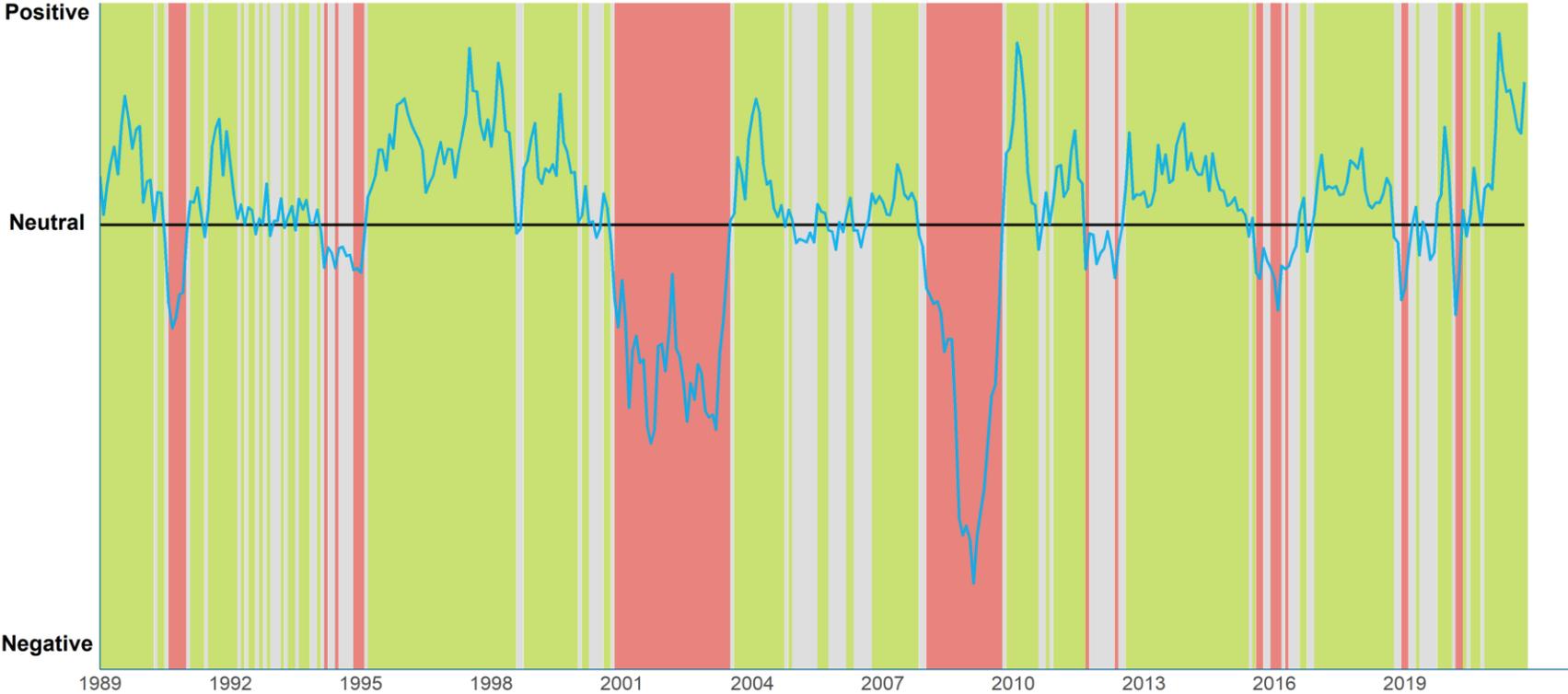
¹ With the exception of Private Equity Valuation, that is YTD as of December 31, 2020.

Risk Overview/Dashboard (2) (As of October 31, 2021)

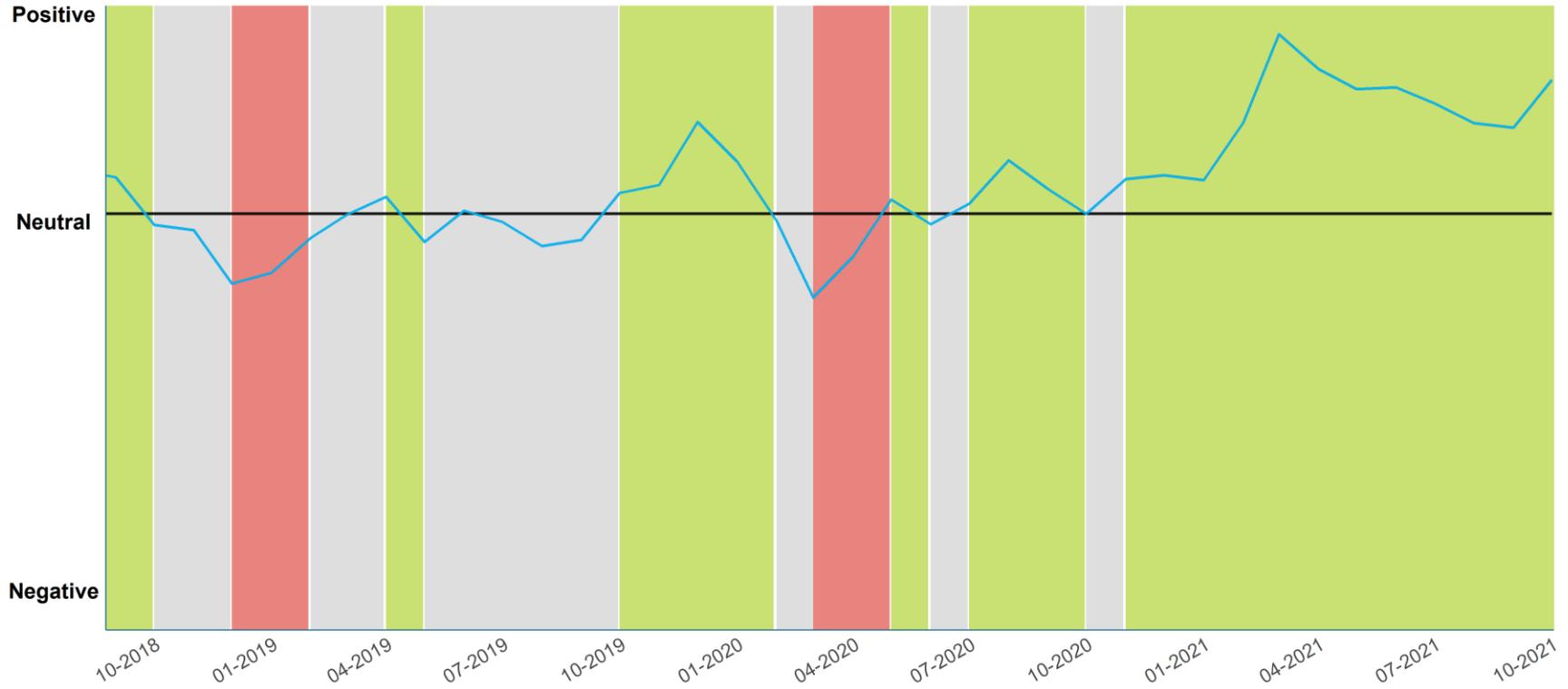


- Dashboard (2) shows how the current level of each indicator compares to its respective history.

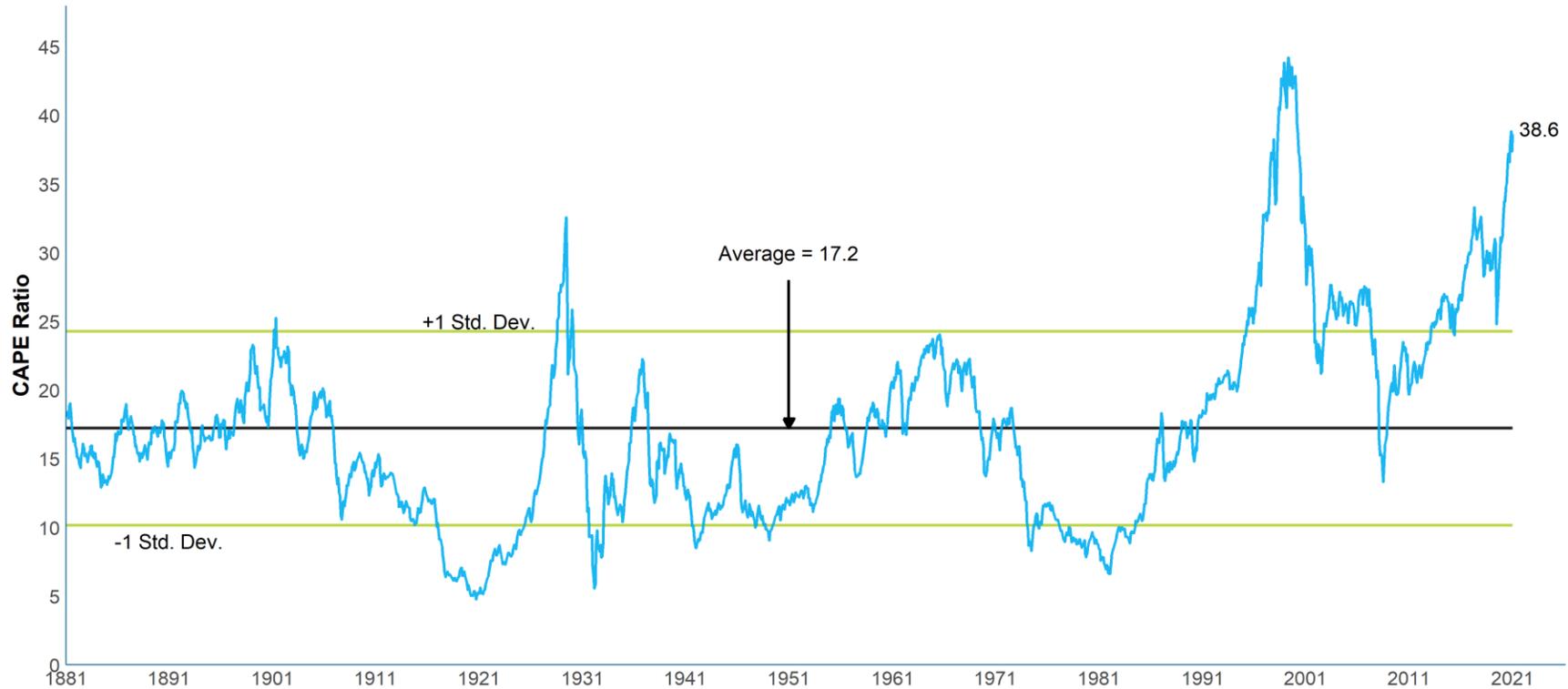
Market Sentiment Indicator (All History)
(As of October 31, 2021)



Market Sentiment Indicator (Last Three Years)
(As of October 31, 2021)



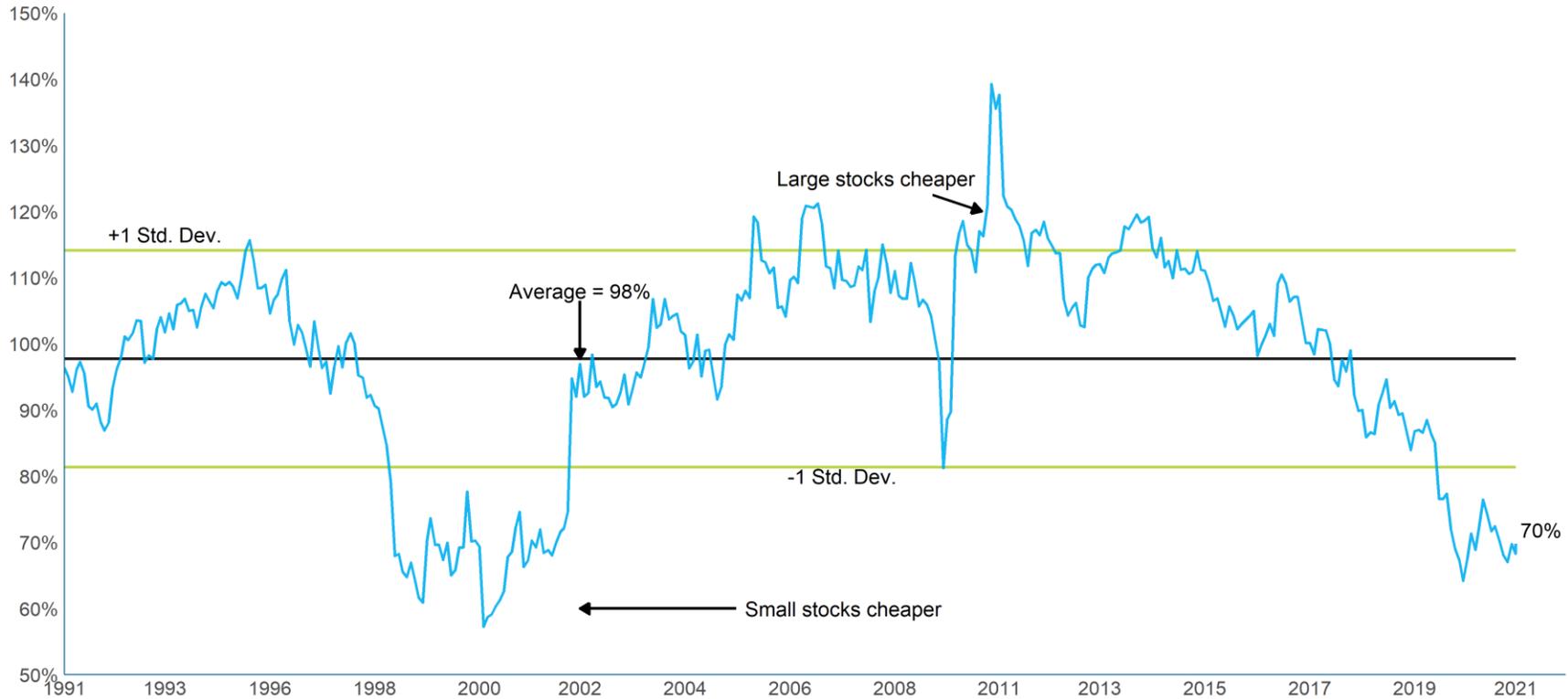
US Equity Cyclically Adjusted P/E¹
(As of October 31, 2021)



- This chart details one valuation metric for US equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

¹ US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group.

Small Cap P/E vs. Large Cap P/E¹ (As of October 31, 2021)



- This chart compares the relative attractiveness of small cap US equities vs. large cap US equities on a valuation basis. A higher (lower) figure indicates that large cap (small cap) is more attractive.

¹ Small Cap P/E (Russell 2000 Index) vs. Large Cap P/E (Russell 1000 Index) - Source: Russell Investments. Earnings figures represent 12-month "as reported" earnings.

Growth P/E vs. Value P/E¹ (As of October 31, 2021)



- This chart compares the relative attractiveness of US growth equities vs. US value equities on a valuation basis. A higher (lower) figure indicates that value (growth) is more attractive.

¹ Growth P/E (Russell 3000 Growth Index) vs. Value (Russell 3000 Value Index) P/E - Source: Bloomberg, MSCI, and Meketa Investment Group. Earnings figures represent 12-month "as reported" earnings.

Developed International Equity Cyclically Adjusted P/E¹ (As of October 31, 2021)



- This chart details one valuation metric for developed international equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

¹ Developed International Equity (MSCI EAFE Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years.

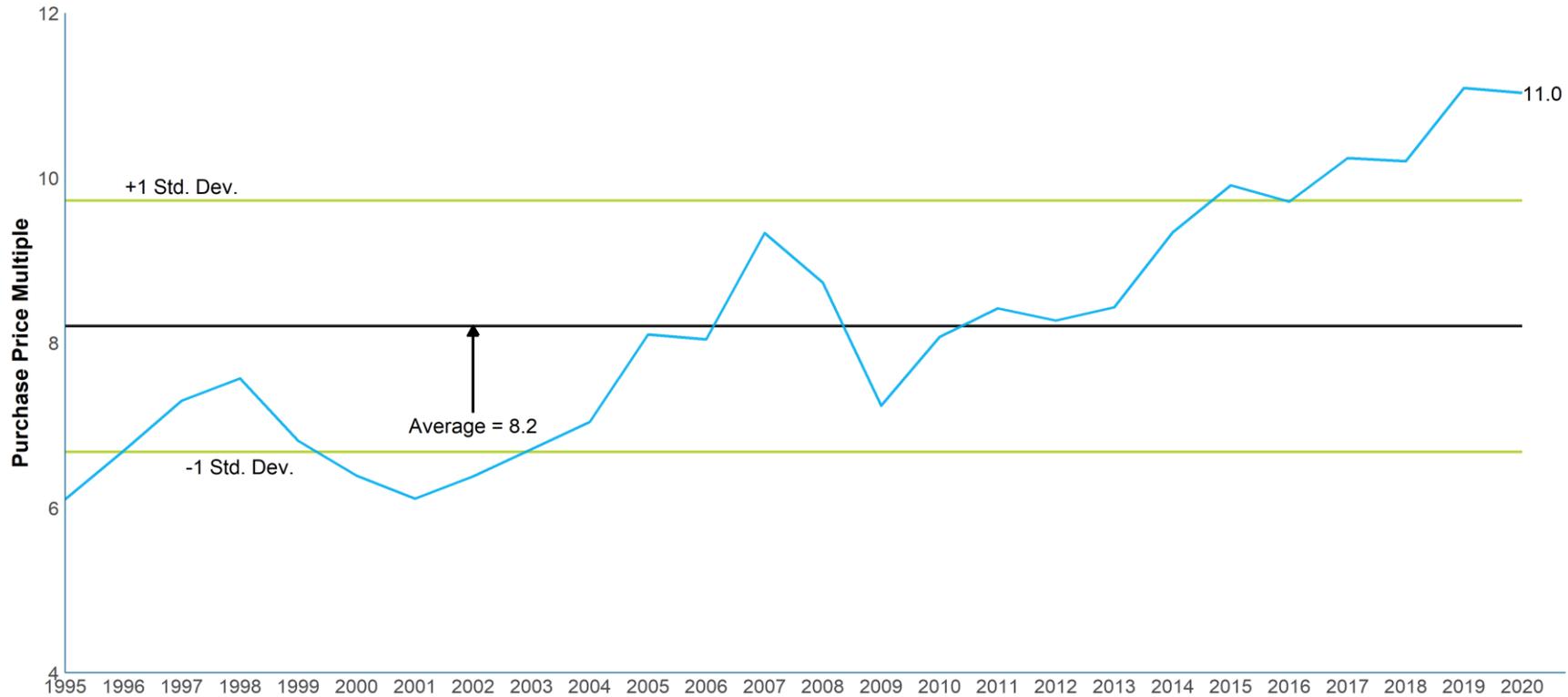
Emerging Market Equity Cyclically Adjusted P/E¹
(As of October 31, 2021)



- This chart details one valuation metric for emerging markets equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

¹ Emerging Market Equity (MSCI Emerging Markets Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years.

Private Equity Multiples¹ (As of February 28, 2021)²

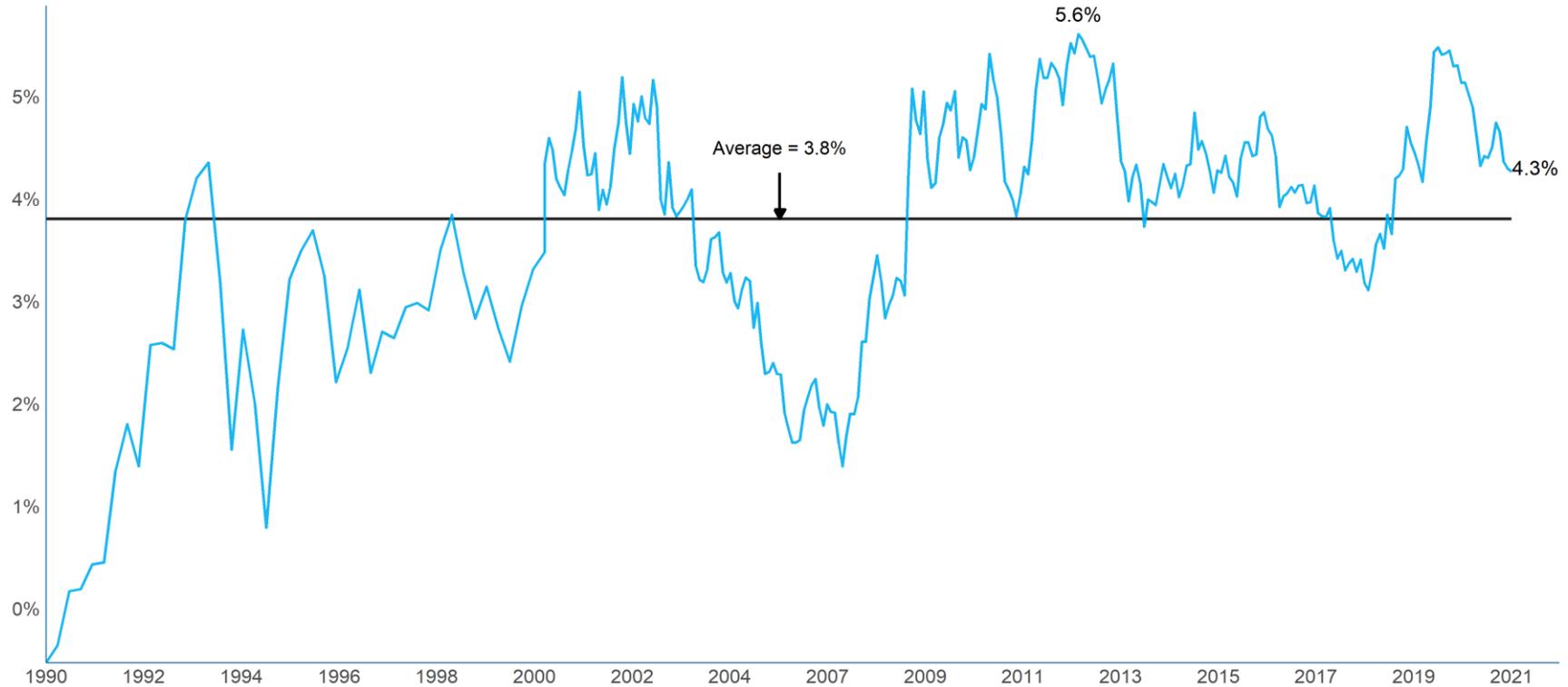


- This chart details one valuation metric for the private equity market. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

¹ Private Equity Multiples – Source: S&P LCD Average EBITDA Multiples Paid in All LBOs.

² Annual Data, as of December 31, 2020

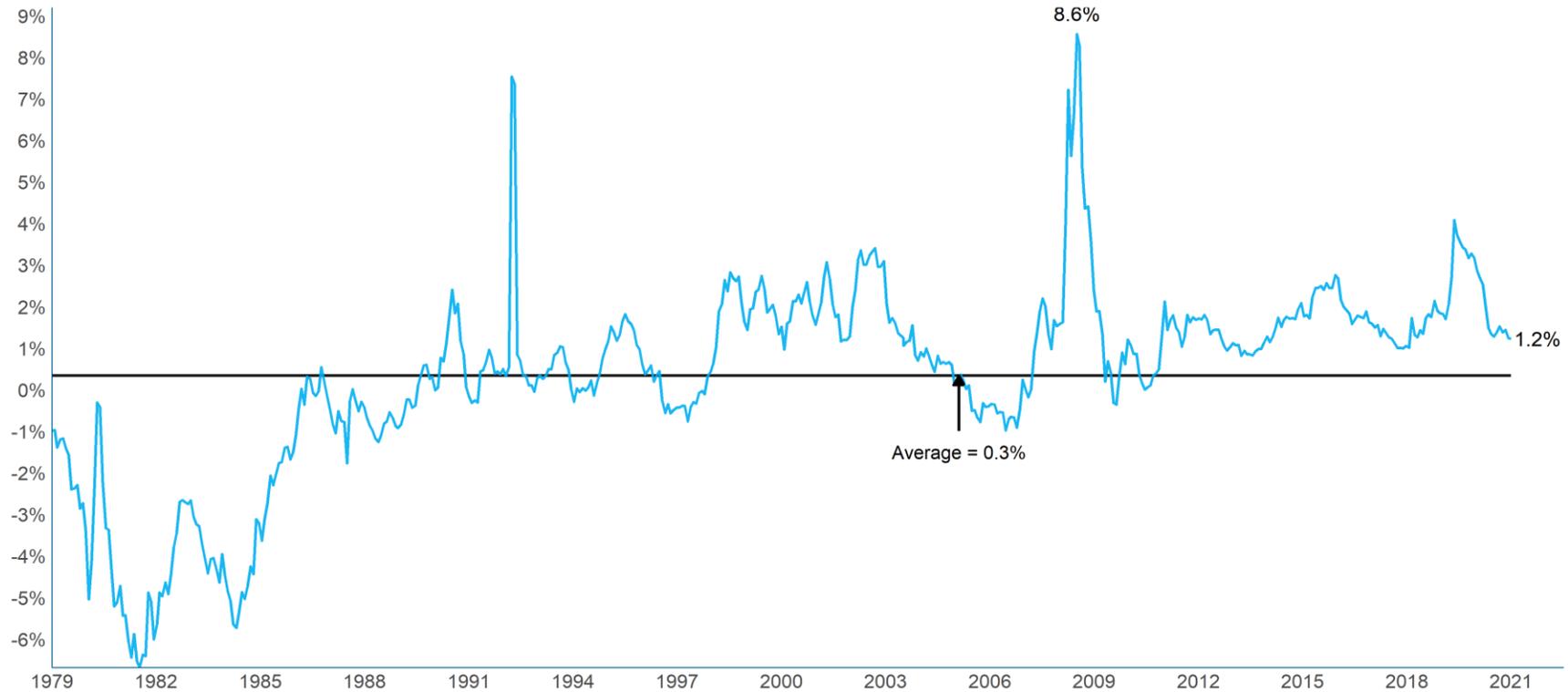
Core Real Estate Spread vs. Ten-Year Treasury¹ (As of October 31, 2021)



- This chart details one valuation metric for the private core real estate market. A higher (lower) figure indicates cheaper (more expensive) valuation.

¹ Core Real Estate Spread vs. Ten-Year Treasury – Source: Real Capital Analytics, US Treasury, Bloomberg, and Meketa Investment Group. Core Real Estate is proxied by weighted sector transaction-based indices from Real Capital Analytics and Meketa Investment Group.

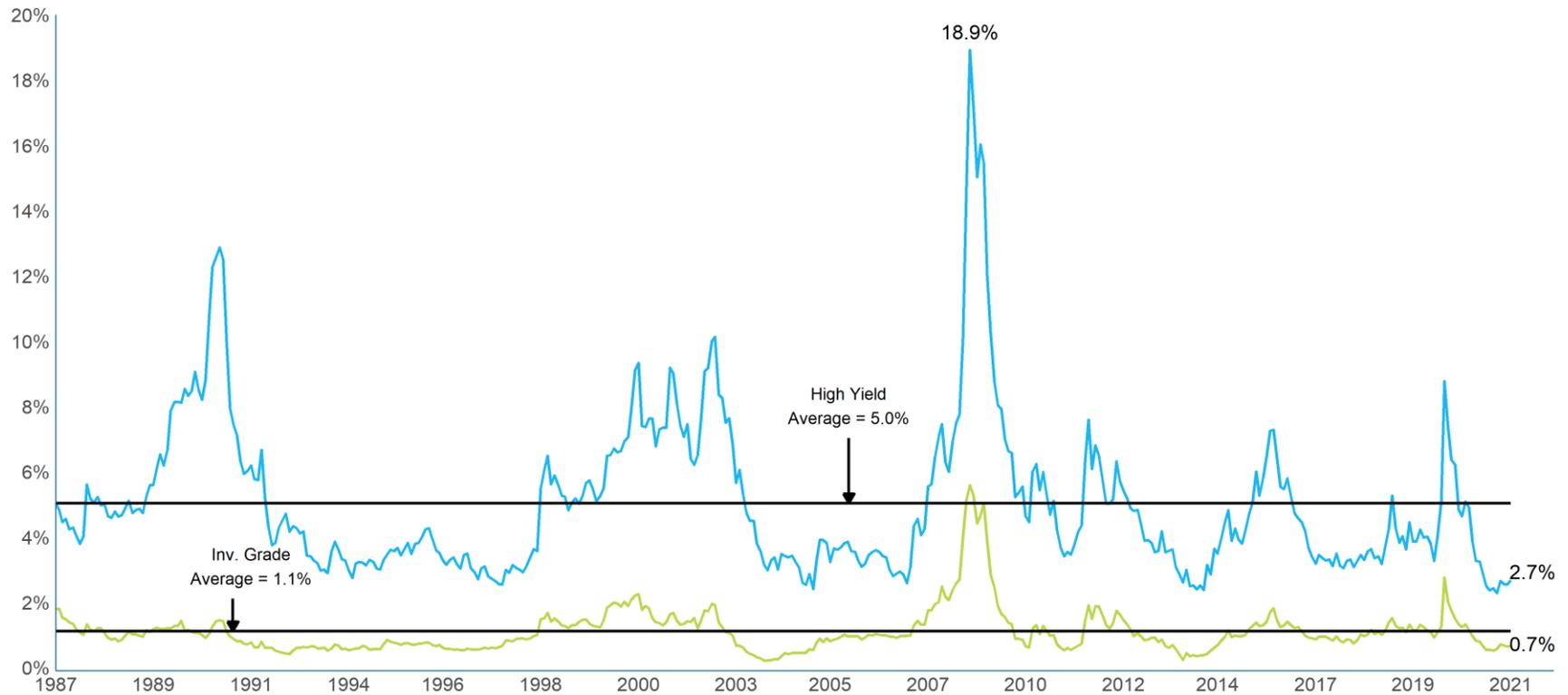
REITs Dividend Yield Spread vs. Ten-Year Treasury¹
 (As of October 31, 2021)



- This chart details one valuation metric for the public REITs market. A higher (lower) figure indicates cheaper (more expensive) valuation.

¹ REITs Dividend Yield Spread vs. Ten-Year Treasury – Source: NAREIT, US Treasury. REITs are proxied by the yield for the NAREIT Equity Index.

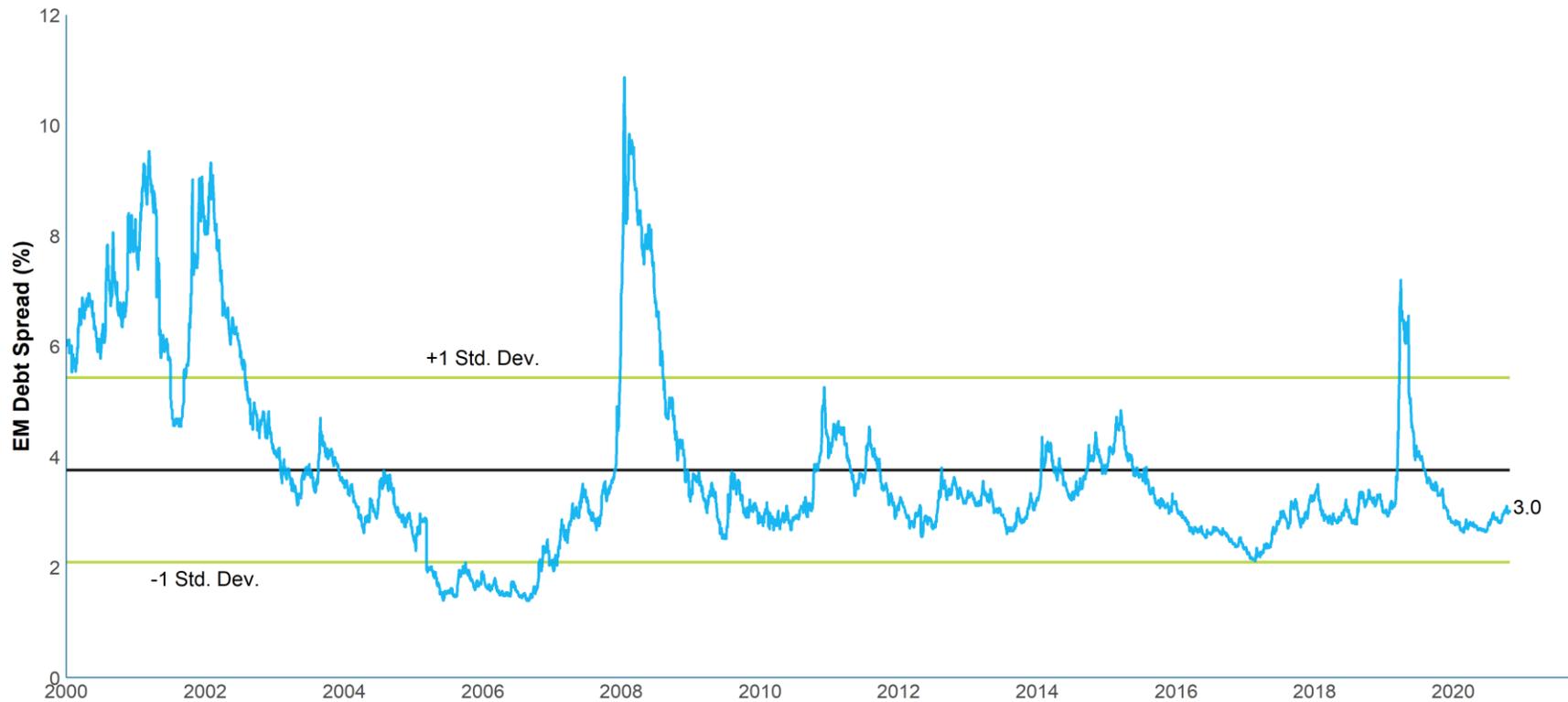
Credit Spreads¹
(As of October 31, 2021)



- This chart details one valuation metric for the US credit markets. A higher (lower) figure indicates cheaper (more expensive) valuation relative to history.

¹ Credit Spreads – Source: Barclays Capital. High Yield is proxied by the Barclays High Yield Index and Investment Grade Corporates are proxied by the Barclays US Corporate Investment Grade Index. Spread is calculated as the difference between the Yield to Worst of the respective index and the 10-Year US Treasury yield.

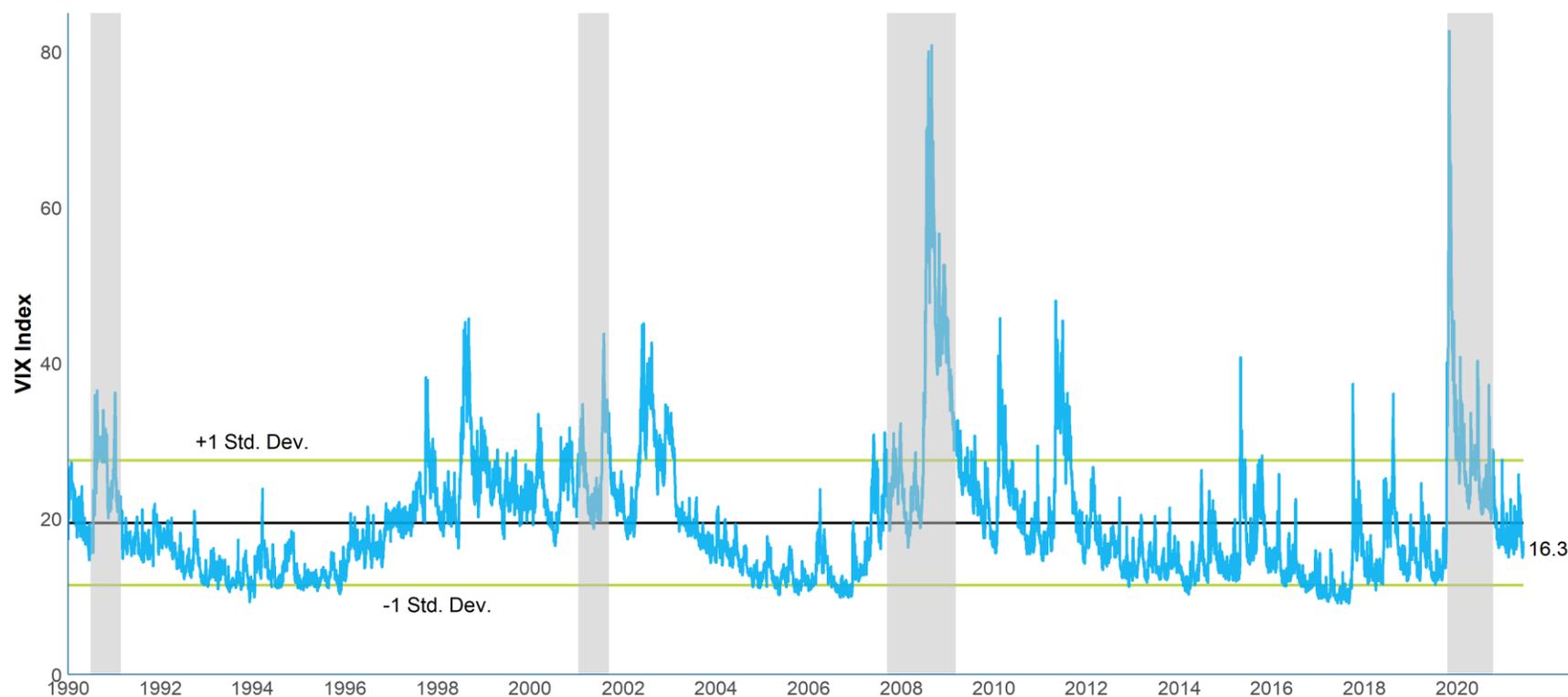
Emerging Market Debt Spreads¹
(As of October 31, 2021)



- This chart details one valuation metric for the EM debt markets. A higher (lower) figure indicates cheaper (more expensive) valuation relative to history.

¹ EM Spreads – Source: Bloomberg. Option Adjusted Spread (OAS) for the Bloomberg Barclays EM USD Aggregate Index.

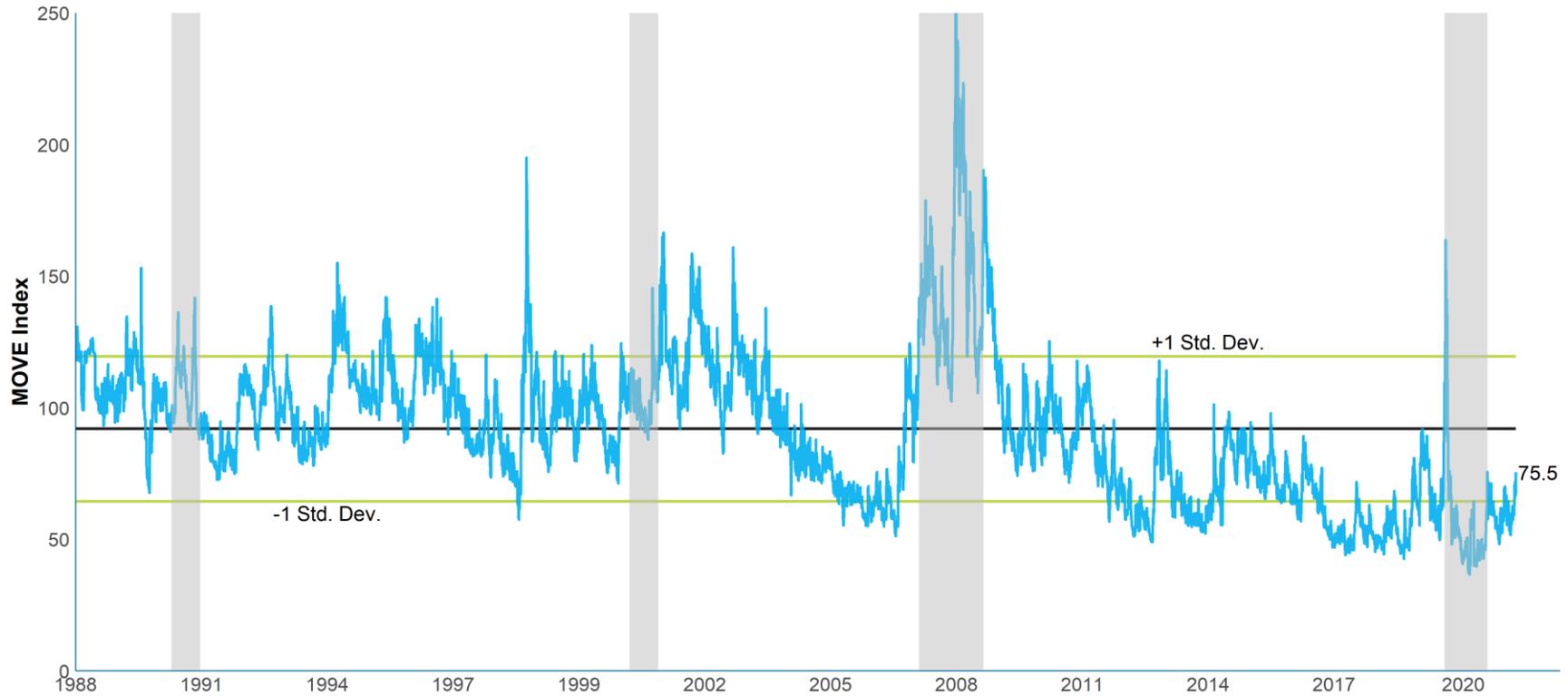
Equity Volatility¹ (As of October 31, 2021)



- This chart details historical implied equity market volatility. This metric tends to increase during times of stress/fear and while declining during more benign periods.

¹ Equity Volatility – Source: Bloomberg, and Meketa Investment Group. Equity Volatility proxied by VIX Index, a Measure of implied option volatility for US equity markets.

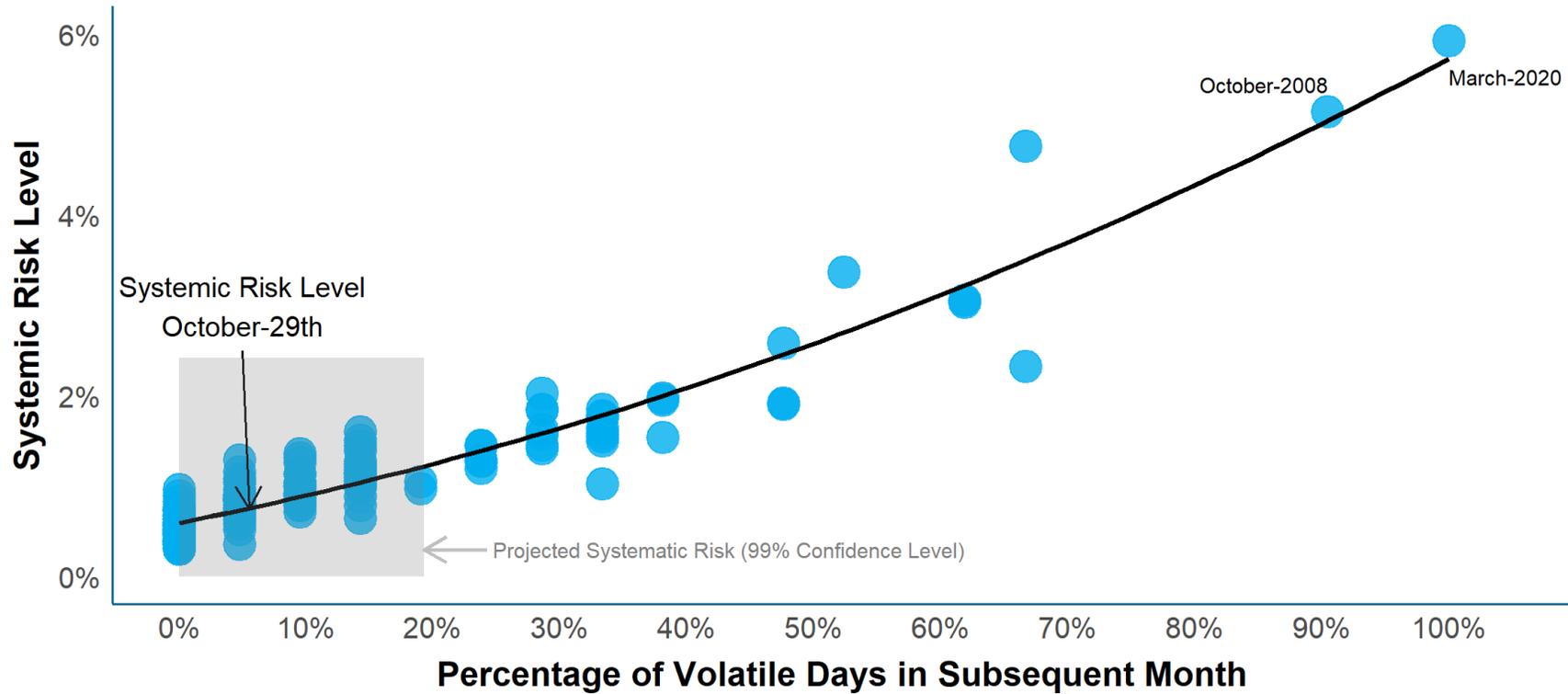
Fixed Income Volatility¹
(As of October 31, 2021)



- This chart details historical implied fixed income market volatility. This metric tends to increase during times of stress/fear and while declining during more benign periods.

¹ Fixed Income Volatility – Source: Bloomberg, and Meketa Investment Group. Fixed Income Volatility proxied by MOVE Index, a Measure of implied option volatility for US Treasury markets.

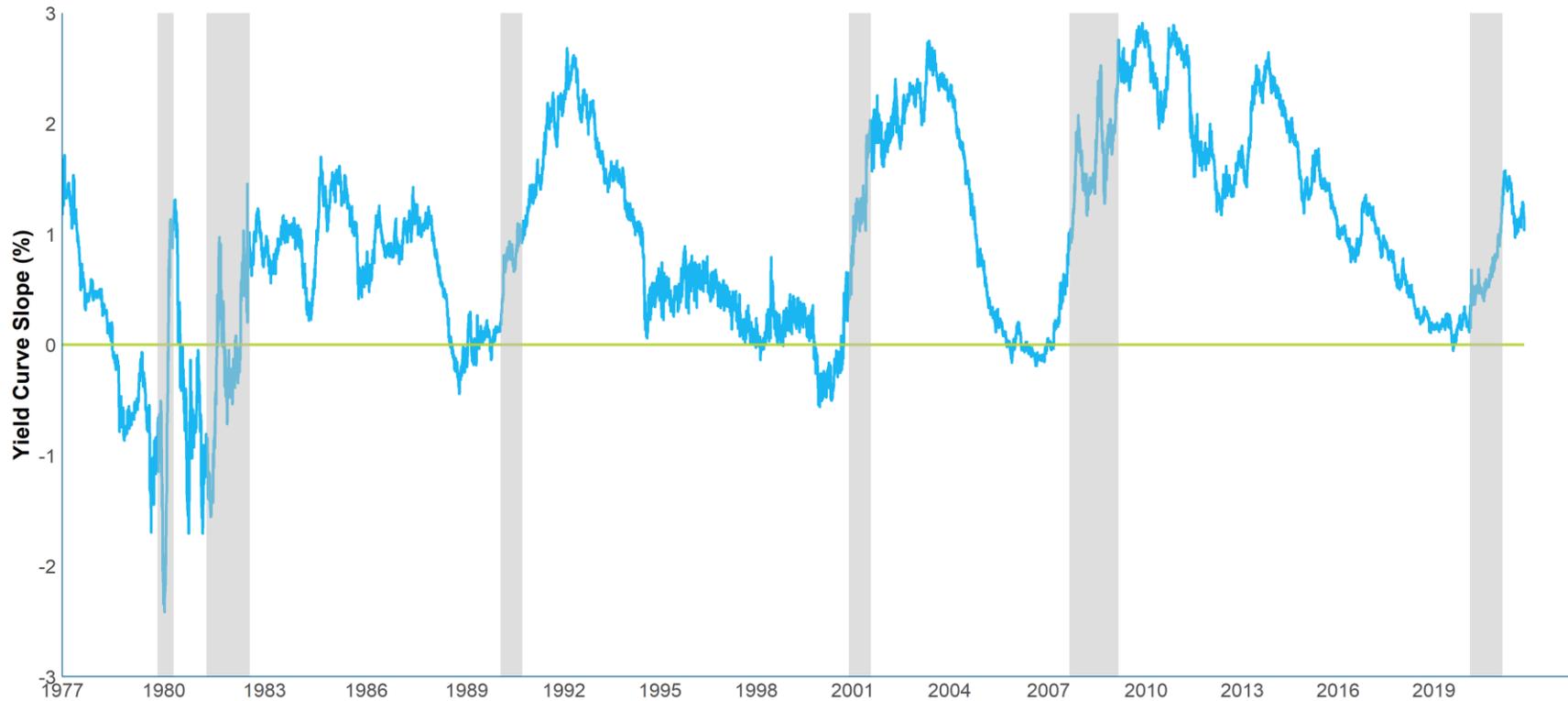
Systemic Risk and Volatile Market Days¹
(As of October 31, 2021)



- Systemic Risk is a measure of 'System-wide' risk, which indicates herding type behavior.

¹ Source: Meketa Investment Group. Volatile days are defined as the top 10 percent of realized turbulence, which is a multivariate distance between asset returns.

Yield Curve Slope (Ten Minus Two)¹
(As of October 31, 2021)



- This chart details the historical difference in yields between ten-year and two-year US Treasury bonds/notes. A higher (lower) figure indicates a steeper (flatter) yield curve slope.

¹ Yield Curve Slope (Ten Minus Two) – Source: Bloomberg, and Meketa Investment Group. Yield curve slope is calculated as the difference between the 10-Year US Treasury Yield and 2-Year US Treasury Yield.

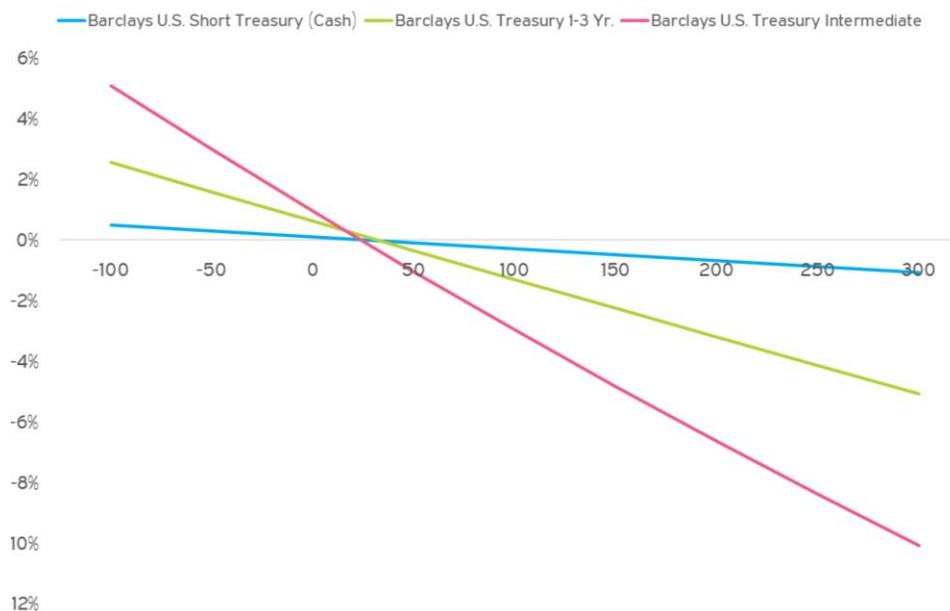
Ten-Year Breakeven Inflation¹
(As of October 31, 2021)



- This chart details the difference between nominal and inflation-adjusted US Treasury bonds. A higher (lower) figure indicates higher (lower) inflation expectations.

¹ Ten-Year Breakeven Inflation – Source: US Treasury and Federal Reserve. Inflation is measured by the Consumer Price Index (CPI-U NSA).

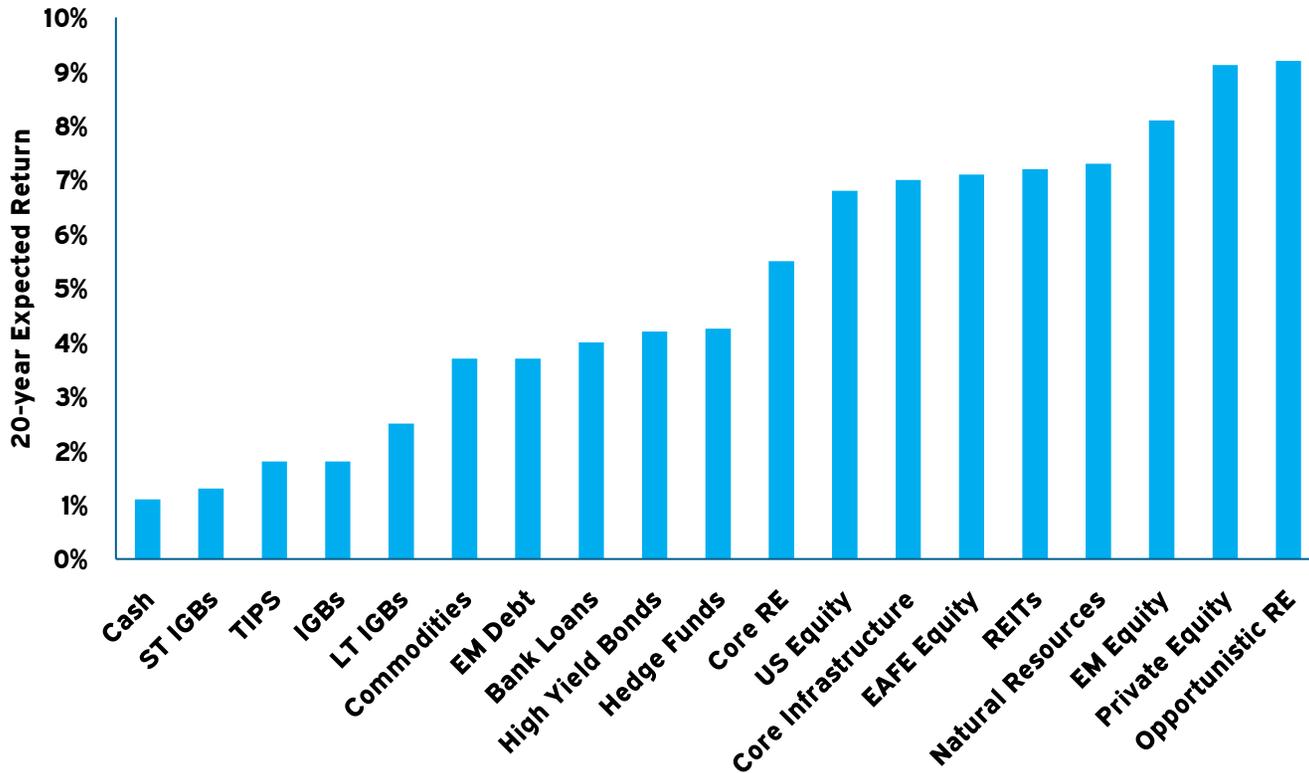
Total Return Given Changes in Interest Rates (bps)¹ (As of October 31, 2021)



	Total Return for Given Changes in Interest Rates (bps)									Statistics	
	-100	-50	0	50	100	150	200	250	300	Duration	YTW
Barclays US Short Treasury (Cash)	0.5%	0.3%	0.1%	-0.1%	-0.3%	-0.5%	-0.7%	-0.9%	-1.1%	0.39	0.08%
Barclays US Treasury 1-3 Yr.	2.5%	1.6%	0.6%	-0.4%	-1.3%	-2.3%	-3.2%	-4.2%	-5.1%	1.93	0.60%
Barclays US Treasury Intermediate	5.1%	3.0%	0.9%	-1.1%	-3.0%	-4.8%	-6.7%	-8.4%	-10.1%	4.03	0.93%
Barclays US Treasury Long	22.7%	11.8%	1.9%	-6.8%	-14.5%	-21.1%	-26.7%	-31.2%	-34.6%	18.59	1.94%

¹ Data represents the expected total return from a given change in interest rates (shown in basis points) over a 12-month period assuming a parallel shift in rates. Source: Bloomberg, and Meketa Investment Group.

Long-Term Outlook – 20-Year Annualized Expected Returns¹



- This chart details Meketa’s long-term forward-looking expectations for total returns across asset classes.

¹ Source: Meketa Investment Group’s 2021 Annual Asset Study.

Appendix

Data Sources and Explanations¹

- US Equity Cyclically Adjusted P/E on S&P 500 Index – Source: Robert Shiller and Yale University.
- Small Cap P/E (Russell 2000 Index) vs. Large Cap P/E (Russell 1000 Index) - Source: Russell Investments. Earnings figures represent 12-month “as reported” earnings.
- Growth P/E (Russell 3000 Growth Index) vs. Value (Russell 3000 Value Index) P/E - Source: Bloomberg, MSCI, and Meketa Investment Group. Earnings figures represent 12-month “as reported” earnings.
- Developed International Equity (MSCI EAFE) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years.
- Emerging Market Equity (MSCI Emerging Markets Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years.
- Private Equity Multiples – Source: S&P LCD Average EBITDA Multiples Paid in All LBOs.
- Core Real Estate Spread vs. Ten-Year Treasury – Source: Real Capital Analytics, US Treasury, Bloomberg, and Meketa Investment Group. Core Real Estate is proxied by weighted sector transaction-based indices from Real Capital Analytics and Meketa Investment Group.

¹ All Data as of October 31, 2021 unless otherwise noted.

Appendix

Data Sources and Explanations¹

- REITs Dividend Yield Spread vs. Ten-Year Treasury – Source: NAREIT, US Treasury. REITs are proxied by the yield for the NAREIT Equity Index.
- Credit Spreads – Source: Barclays Capital. High Yield is proxied by the Barclays High Yield Index and Investment Grade Corporates are proxied by the Barclays US Corporate Investment Grade Index.
 - Spread is calculated as the difference between the Yield to Worst of the respective index and the 10-Year Treasury Yield.
- EM Debt Spreads – Source: Bloomberg, and Meketa Investment Group. Option Adjusted Spread (OAS) for the Bloomberg Barclays EM USD Aggregate Index.
- Equity Volatility – Source: Bloomberg, and Meketa Investment Group. Equity Volatility proxied by VIX Index, a Measure of implied option volatility for US equity markets.
- Fixed Income Volatility – Source: Bloomberg, and Meketa Investment Group. Equity Volatility proxied by MOVE Index, a Measure of implied option volatility for US Treasury markets.
- Systemic Risk and Volatile Market Days – Source: Meketa Investment Group. Volatile days are defined as the top 10 percent of realized turbulence, which is a multivariate distance between asset returns.
- Systemic Risk, which measures risk across markets, is important because the more contagion of risk that exists between assets, the more likely it is that markets will experience volatile periods.

¹ All Data as of October 31, 2021 unless otherwise noted.

Appendix

Data Sources and Explanations¹

- Yield Curve Slope (Ten Minus Two) – Source: Bloomberg, and Meketa Investment Group. Yield curve slope is calculated as the difference between the 10-Year US Treasury Yield and 2-Year US Treasury Yield.
- Ten-Year Breakeven Inflation – Source: US Treasury and Federal Reserve. Inflation is measured by the Consumer Price Index (CPI-U NSA).

¹ All Data as of October 31, 2021 unless otherwise noted.

Meketa Market Sentiment Indicator Explanation, Construction and Q&A

Meketa has created the MIG Market Sentiment Indicator (MIG-MSI) to complement our valuation-focused Risk Metrics. This measure of sentiment is meant to capture significant and persistent shifts in long-lived market trends of economic growth risk, either towards a risk-seeking trend or a risk-aversion trend.

This appendix explores:

- What is the Meketa Market Sentiment Indicator?
- How do I read the indicator graph?
- How is the Meketa Market Sentiment Indicator constructed?
- What do changes in the indicator mean?

Meketa has created a market sentiment indicator for monthly publication (the MIG-MSI – see below) to complement Meketa’s Risk Metrics.

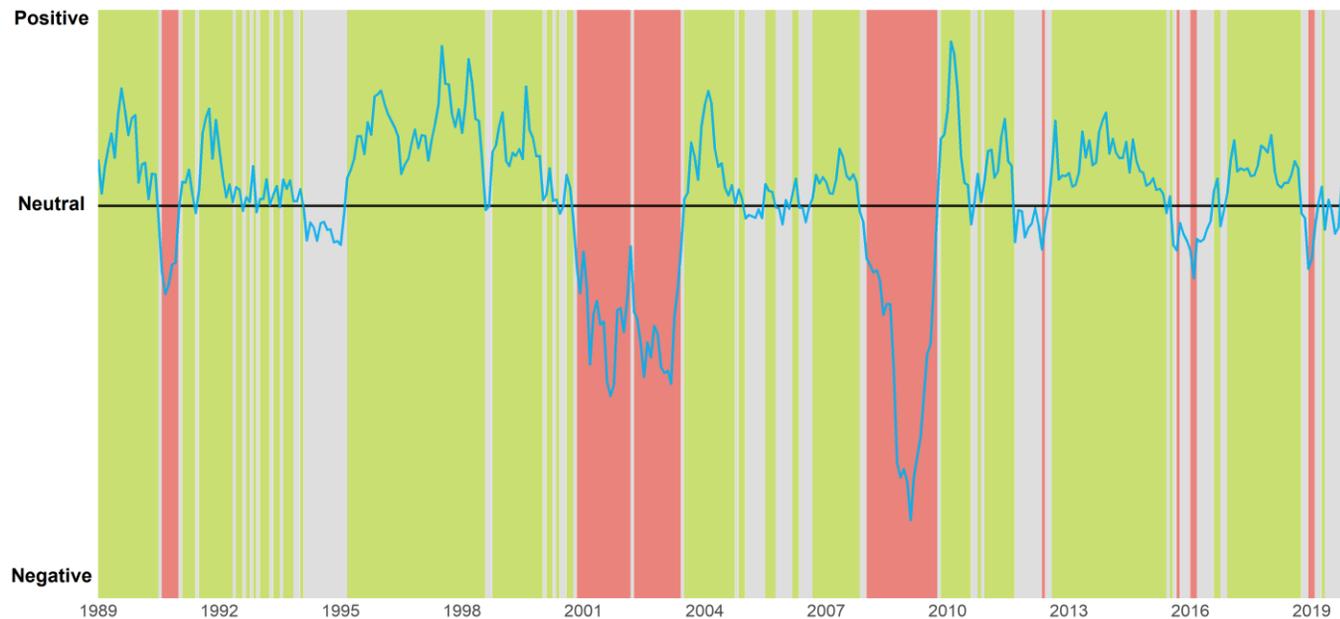
- Meketa’s Risk Metrics, which rely significantly on standard market measures of relative valuation, often provide valid early signals of increasing long-term risk levels in the global investment markets. However, as is the case with numerous valuation measures, the Risk Metrics may convey such risk concerns long before a market correction take place. The MIG-MSI helps to address this early-warning bias by measuring whether the markets are beginning to acknowledge key Risk Metrics trends, and / or indicating non-valuation based concerns. Once the MIG-MSI indicates that the market sentiment has shifted, it is our belief that investors should consider significant action, particularly if confirmed by the Risk Metrics. Importantly, Meketa believes the Risk Metrics and MIG-MSI should always be used in conjunction with one another and never in isolation. The questions and answers below highlight and discuss the basic underpinnings of the Meketa MIG-MSI:

What is the Meketa Market Sentiment Indicator (MIG-MSI)?

- The MIG-MSI is a measure meant to gauge the market’s sentiment regarding economic growth risk. Growth risk cuts across most financial assets and is the largest risk exposure that most portfolios bear. The MIG-MSI takes into account the momentum (trend over time, positive or negative) of the economic growth risk exposure of publicly traded stocks and bonds, as a signal of the future direction of growth risk returns; either positive (risk seeking market sentiment), or negative (risk averse market sentiment).

How do I read the Meketa Market Sentiment Indicator graph?

- Simply put, the MIG-MSI is a color-coded indicator that signals the market's sentiment regarding economic growth risk. It is read left to right chronologically. A green indicator on the MIG-MSI indicates that the market's sentiment towards growth risk is positive. A gray indicator indicates that the market's sentiment towards growth risk is neutral or inconclusive. A red indicator indicates that the market's sentiment towards growth risk is negative. The black line on the graph is the level of the MIG-MSI. The degree of the signal above or below the neutral reading is an indication the signal's current strength.
- Momentum as we are defining it is the use of the past behavior of a series as a predictor of its future behavior.



How is the Meketa Market Sentiment Indicator (MIG-MSI) Constructed?

- The MIG-MSI is constructed from two sub-elements representing investor sentiment in stocks and bonds:
 - Stock return momentum: Return momentum for the S&P 500 Equity Index (trailing 12-months).
 - Bond yield spread momentum: Momentum of bond yield spreads (excess of the measured bond yield over the identical duration US Treasury bond yield) for corporate bonds (trailing 12-months) for both investment grade bonds (75% weight) and high yield bonds (25% weight).
 - Both measures are converted to Z-scores and then combined to get an “apples to apples” comparison without the need of re-scaling.
- The black line reading on the graph is calculated as the average of the stock return momentum measure and the bonds spread momentum measure¹. The color reading on the graph is determined as follows:
 - If both stock return momentum and bond spread momentum are positive = GREEN (positive).
 - If one of the momentum indicators is positive, and the other negative = GRAY (inconclusive).
 - If both stock return momentum and bond spread momentum are negative = RED (negative).

¹ Momentum as we are defining it is the use of the past behavior of a series as a predictor of its future behavior.

“Time Series Momentum” Moskowitz, Ooi, Pedersen, August 2010. <http://pages.stern.nyu.edu/~lpederse/papers/TimeSeriesMomentum.pdf>

What does the Meketa Market Sentiment Indicator (MIG-MSI) mean? Why might it be useful?

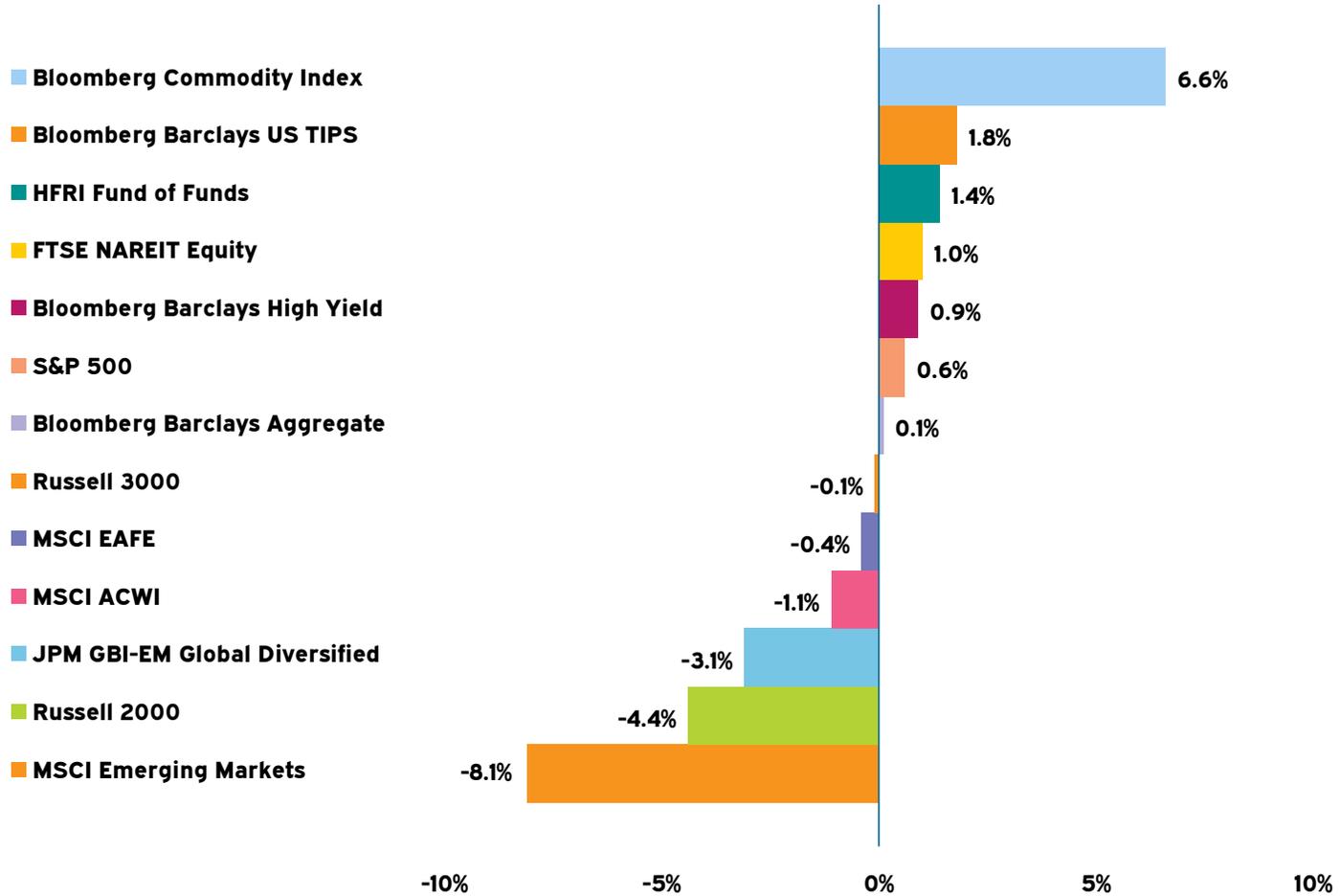
- There is strong evidence that time series momentum is significant and persistent. In particular, across an extensive array of asset classes, the sign of the trailing 12-month return (positive or negative) is indicative of future returns (positive or negative) over the next 12-month period. The MIG-MSI is constructed to measure this momentum in stocks and corporate bond spreads. A reading of green or red is agreement of both the equity and bond measures, indicating that it is likely that this trend (positive or negative) will continue over the next 12 months. When the measures disagree, the indicator turns gray. A gray reading does not necessarily mean a new trend is occurring, as the indicator may move back to green, or into the red from there. The level of the reading (black line) and the number of months at the red or green reading, gives the user additional information on which to form an opinion, and potentially take action.

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The World Markets Third Quarter of 2021

The World Markets¹ Third Quarter of 2021



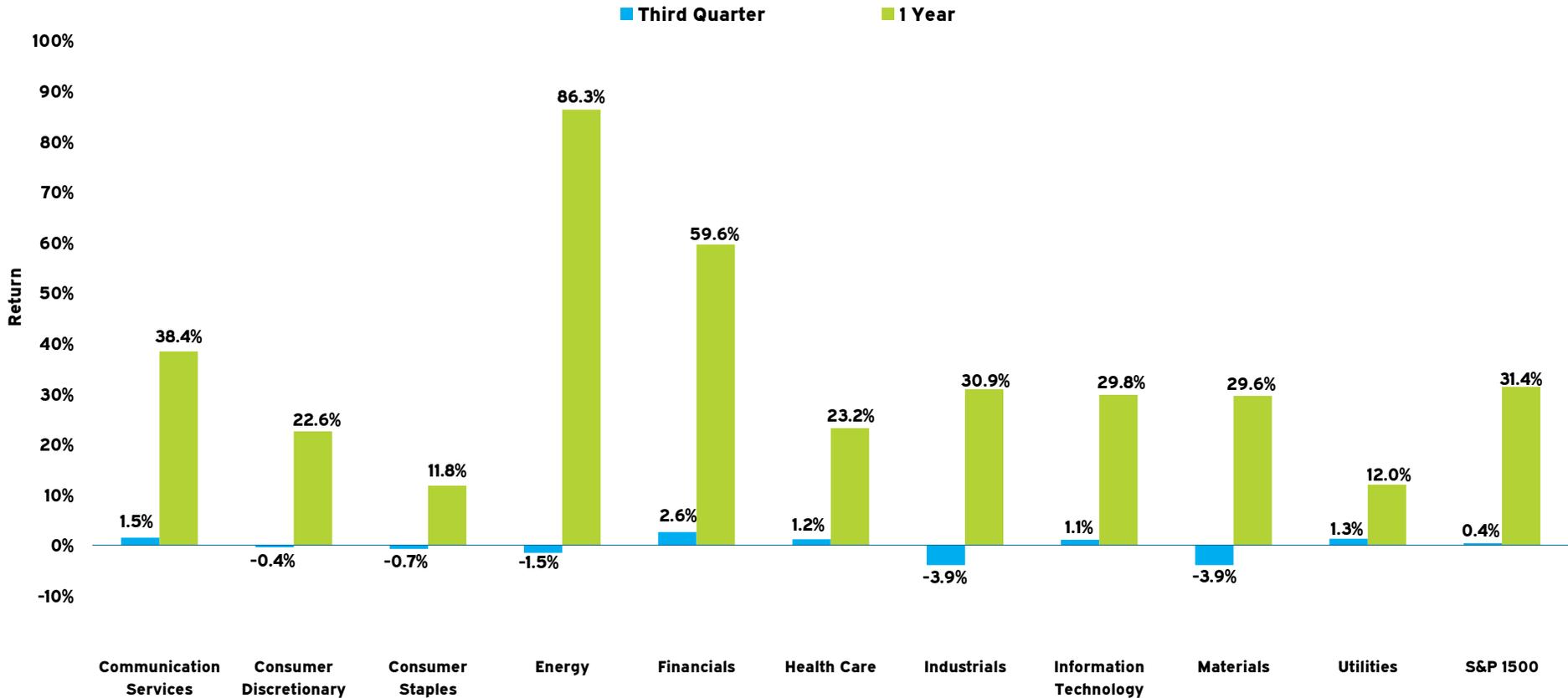
¹ Source: InvestorForce.

Index Returns¹

	3Q21 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Domestic Equity						
S&P 500	0.6	15.9	30.0	16.0	16.9	16.6
Russell 3000	-0.1	15.0	31.9	16.0	16.9	16.6
Russell 1000	0.2	15.2	31.0	16.4	17.1	16.8
Russell 1000 Growth	1.2	14.3	27.3	22.0	22.8	19.7
Russell 1000 Value	-0.8	16.1	35.0	10.1	10.9	13.5
Russell MidCap	-0.9	15.2	38.1	14.2	14.4	15.5
Russell MidCap Growth	-0.8	9.6	30.4	19.1	19.3	17.5
Russell MidCap Value	-1.0	18.2	42.4	10.3	10.6	13.9
Russell 2000	-4.4	12.4	47.7	10.5	13.4	14.6
Russell 2000 Growth	-5.7	2.8	33.3	11.7	15.3	15.7
Russell 2000 Value	-3.0	22.9	63.9	8.6	11.0	13.2
Foreign Equity						
MSCI ACWI (ex. US)	-3.0	5.9	23.9	8.0	8.9	7.5
MSCI EAFE	-0.4	8.3	25.7	7.6	8.8	8.1
MSCI EAFE (Local Currency)	1.3	14.2	27.2	7.2	9.0	10.1
MSCI EAFE Small Cap	0.9	10.0	29.0	9.0	10.4	10.7
MSCI Emerging Markets	-8.1	-1.2	18.2	8.6	9.2	6.1
MSCI Emerging Markets (Local Currency)	-6.7	0.7	16.9	9.5	10.4	8.7
Fixed Income						
Bloomberg Barclays Universal	0.1	-1.1	0.2	5.6	3.3	3.5
Bloomberg Barclays Aggregate	0.1	-1.6	-0.9	5.4	2.9	3.0
Bloomberg Barclays US TIPS	1.8	3.5	5.2	7.4	4.3	3.1
Bloomberg Barclays High Yield	0.9	4.5	11.3	6.9	6.5	7.4
JPM GBI-EM Global Diversified	-3.1	-6.4	2.6	3.7	2.1	1.1
Other						
FTSE NAREIT Equity	1.0	23.1	37.4	10.0	6.8	11.3
Bloomberg Commodity Index	6.6	29.1	42.3	6.9	4.5	-2.7
HFRI Fund of Funds	1.4	6.4	15.0	6.7	5.9	4.5

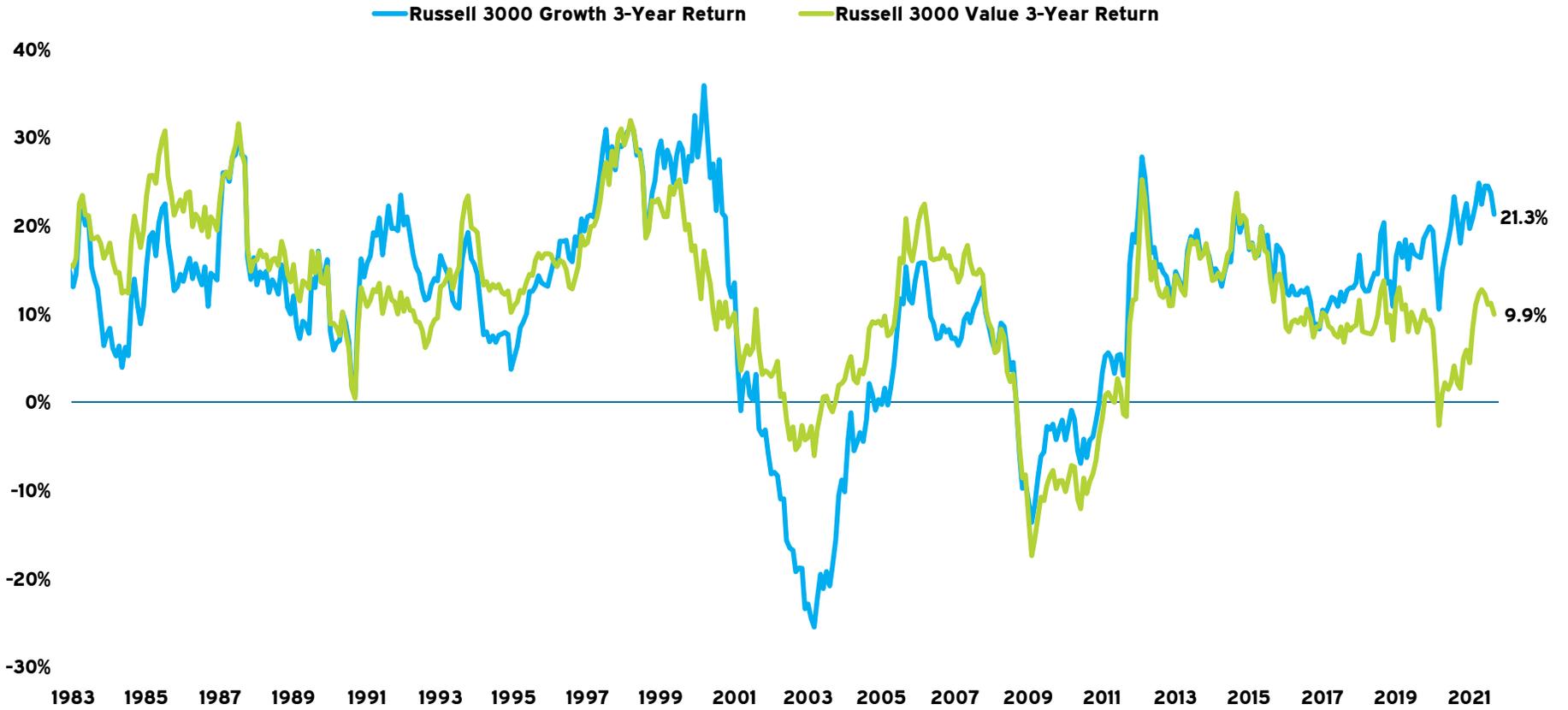
¹ Source: InvestorForce.

S&P Sector Returns¹



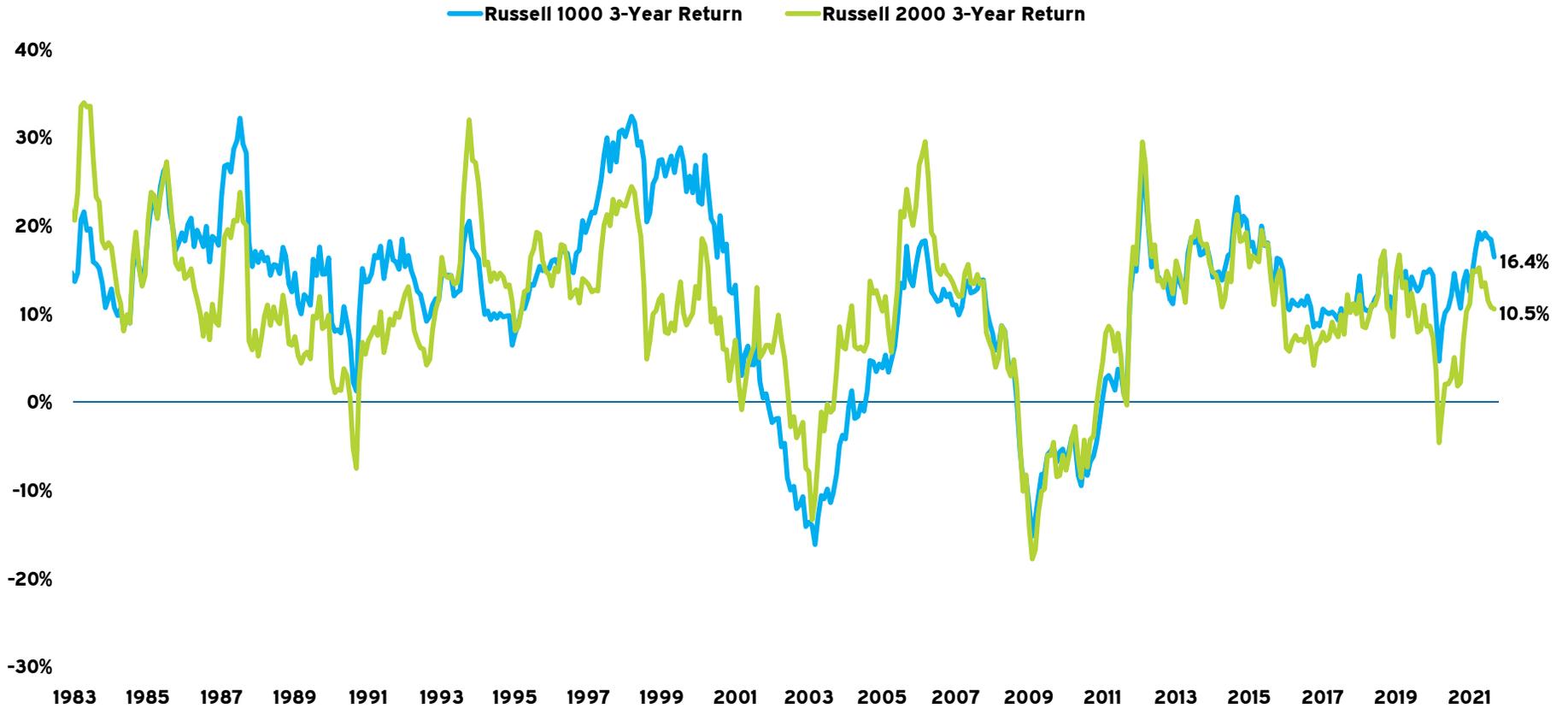
¹ Source: InvestorForce. Represents S&P 1500 (All Cap) data.

Growth and Value Rolling Three Year Returns¹



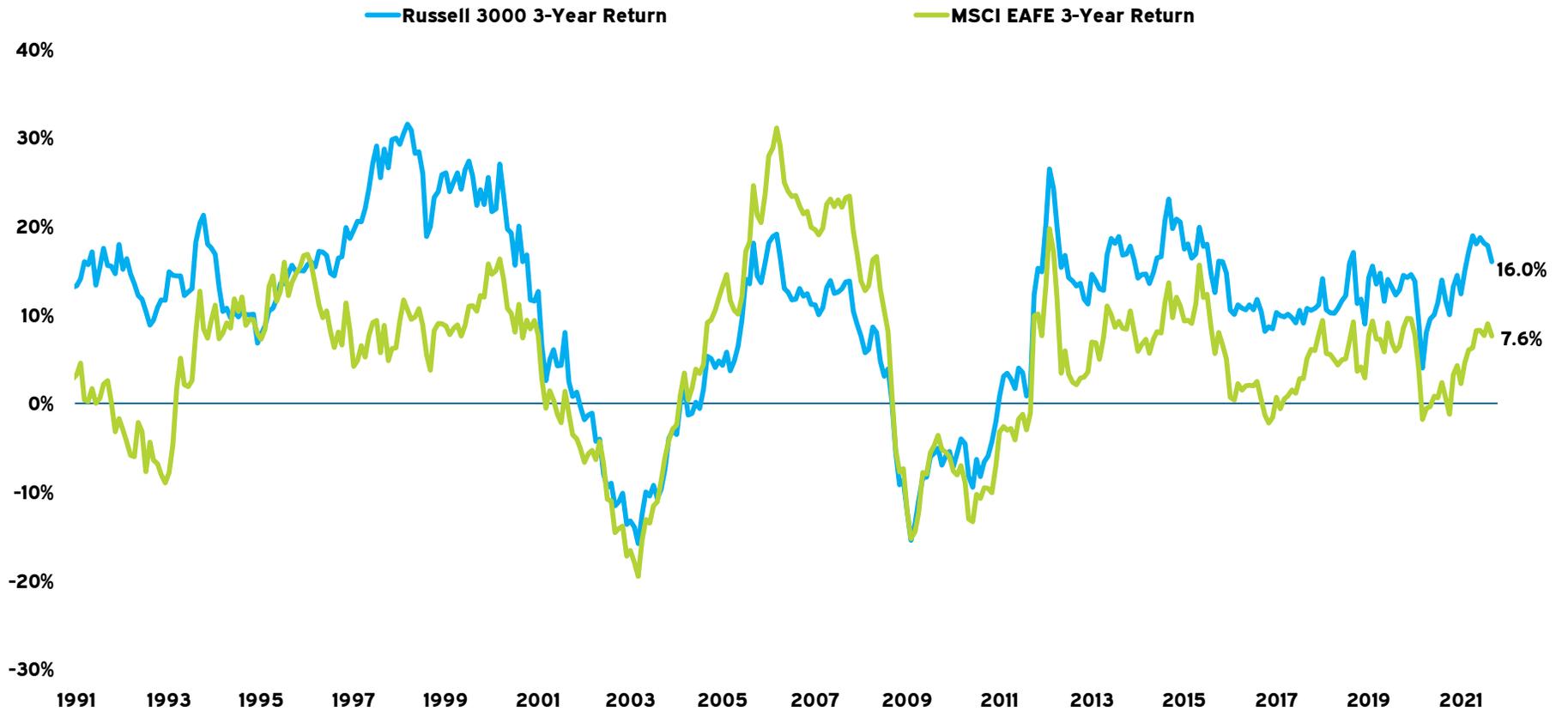
¹ Source: InvestorForce.

Large Cap (Russell 1000) and Small Cap (Russell 2000) Rolling Three Year Returns¹



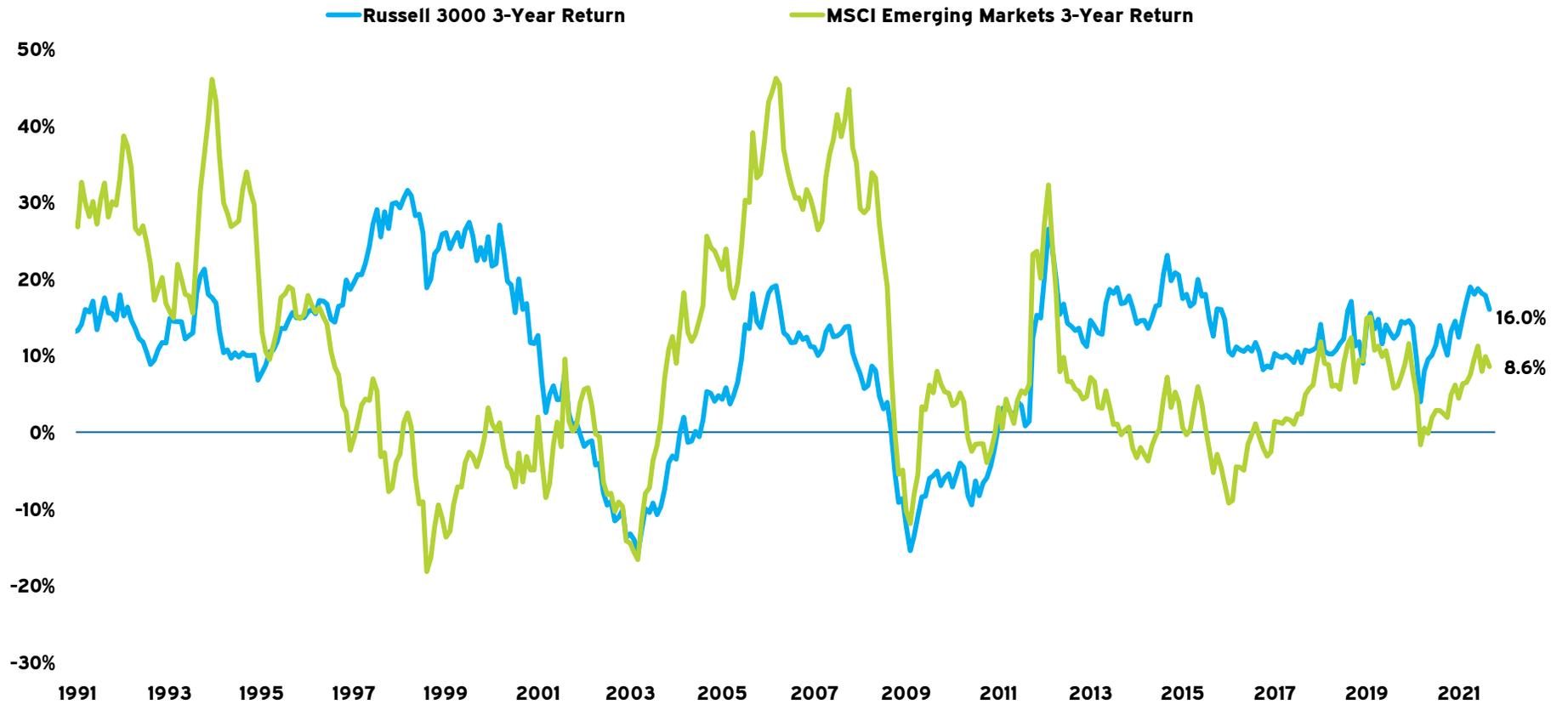
¹ Source: InvestorForce.

US and Developed Market Foreign Equity Rolling Three-Year Returns¹



¹ Source: InvestorForce.

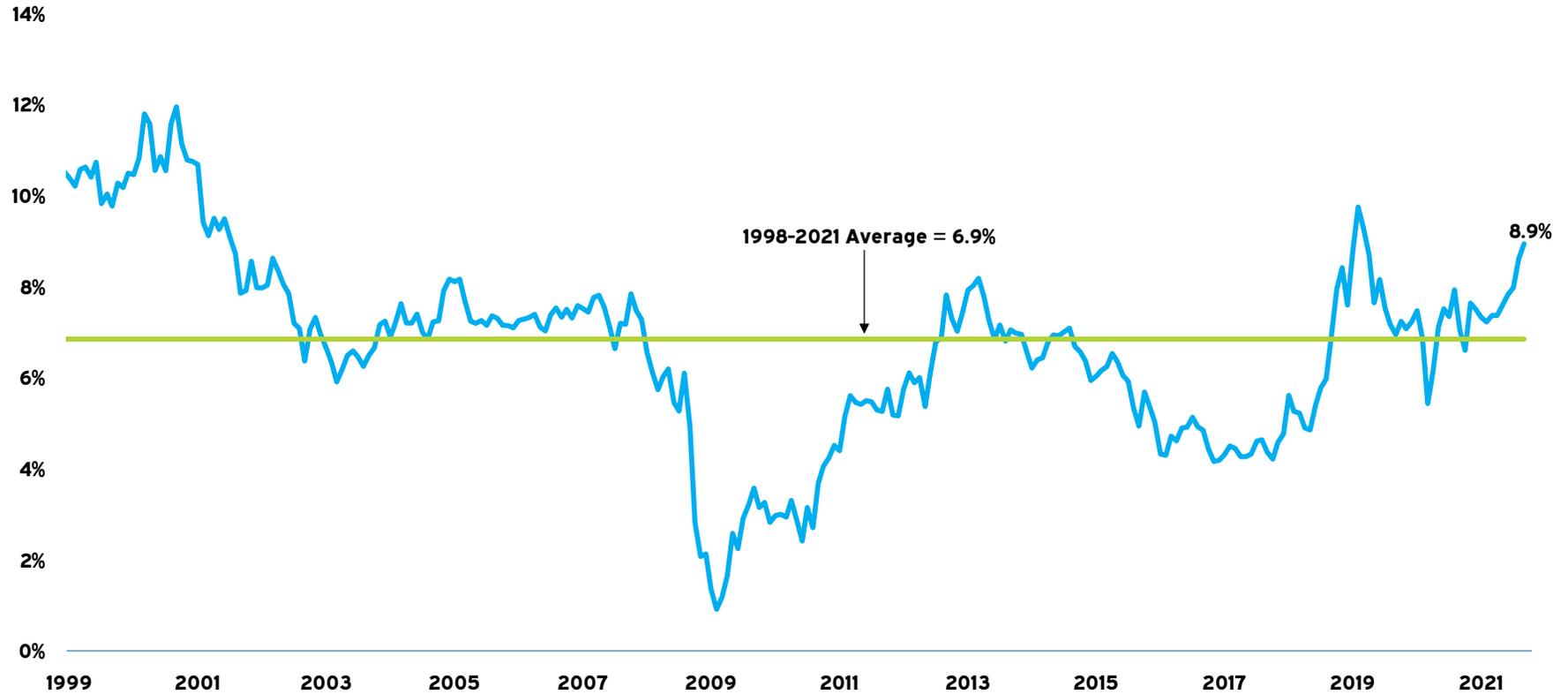
US and Emerging Market Equity Rolling Three-Year Returns¹



¹ Source: InvestorForce.

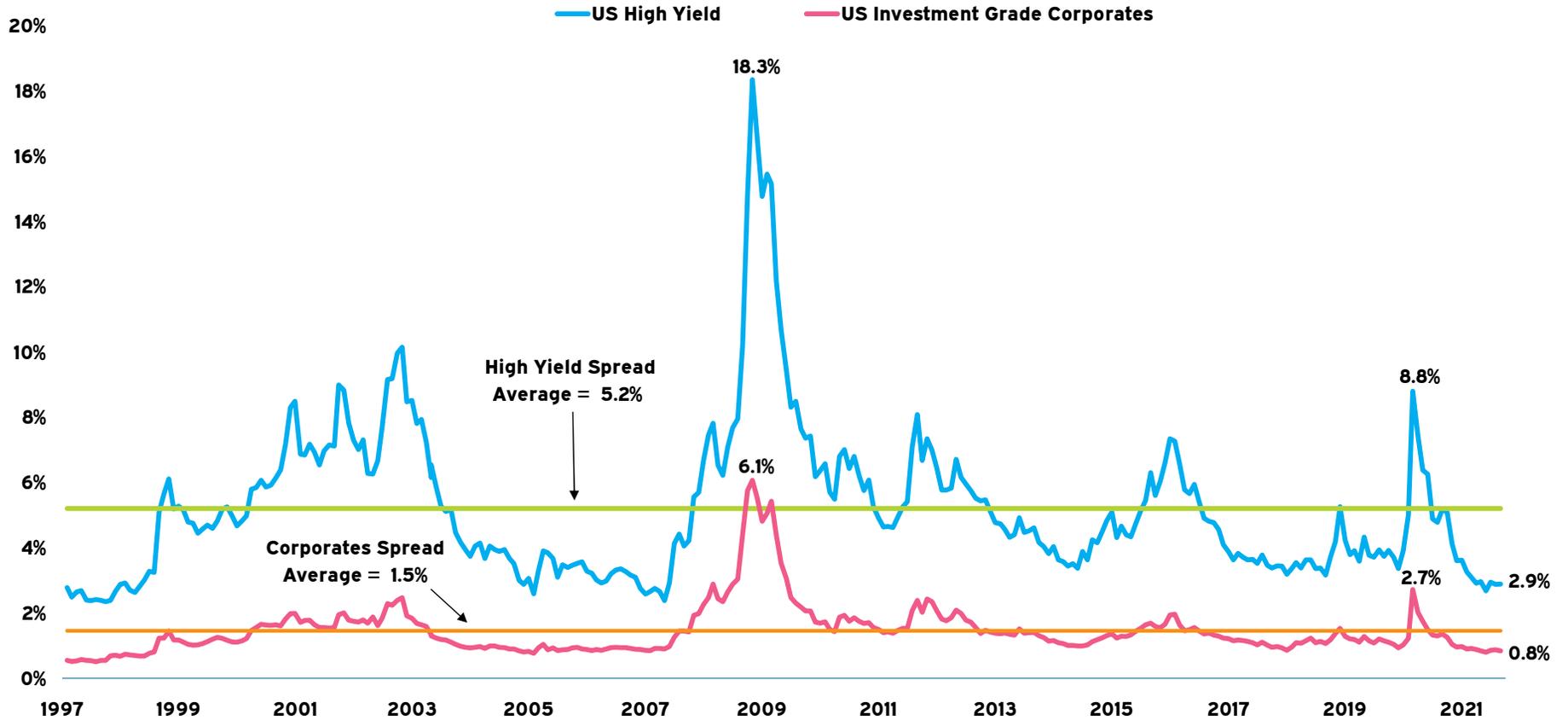
Rolling Ten-Year Returns: 65% Stocks and 35% Bonds¹

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



¹ Source: InvestorForce.

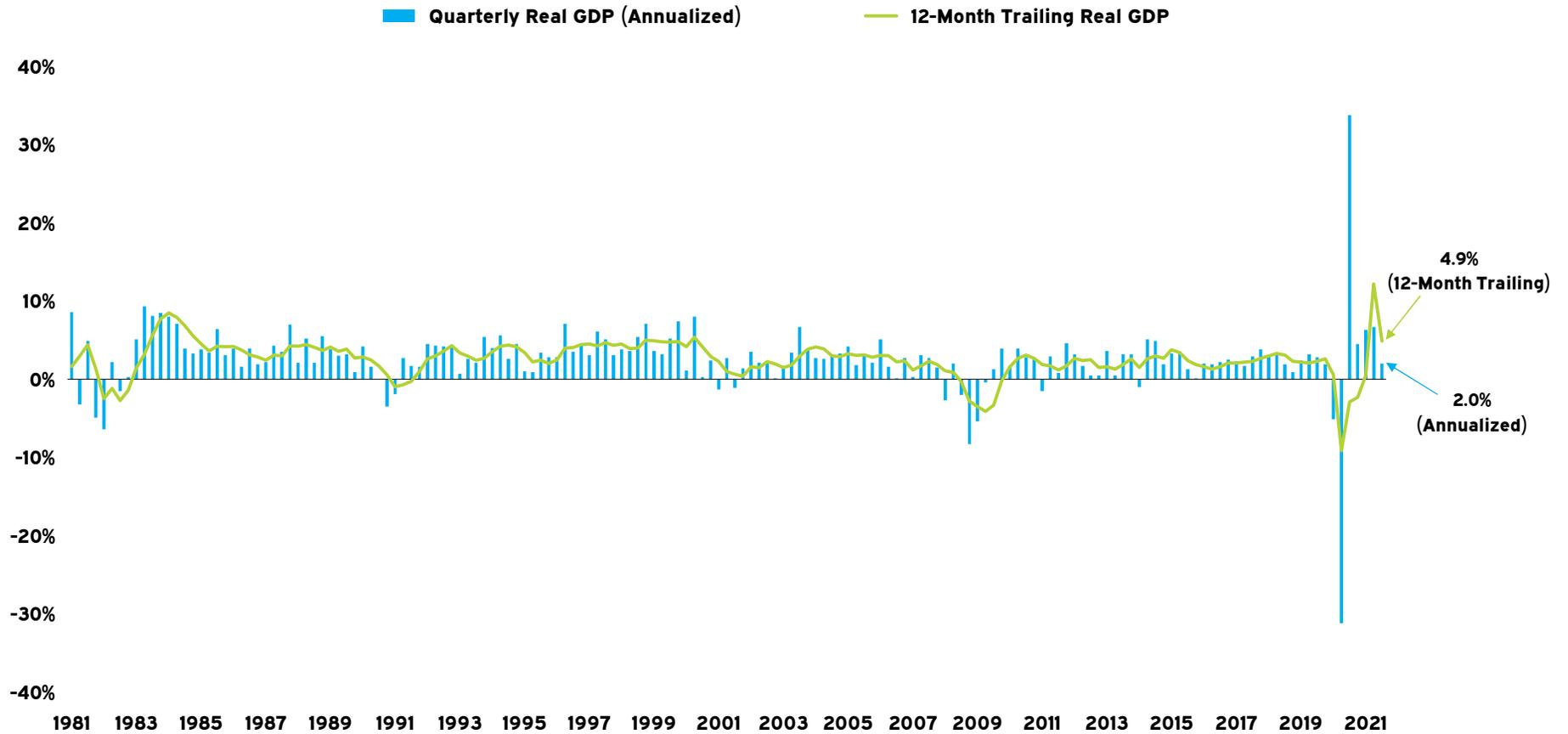
Credit Spreads vs. US Treasury Bonds^{1,2}



¹ Source: Barclays Live. Data represents the OAS.

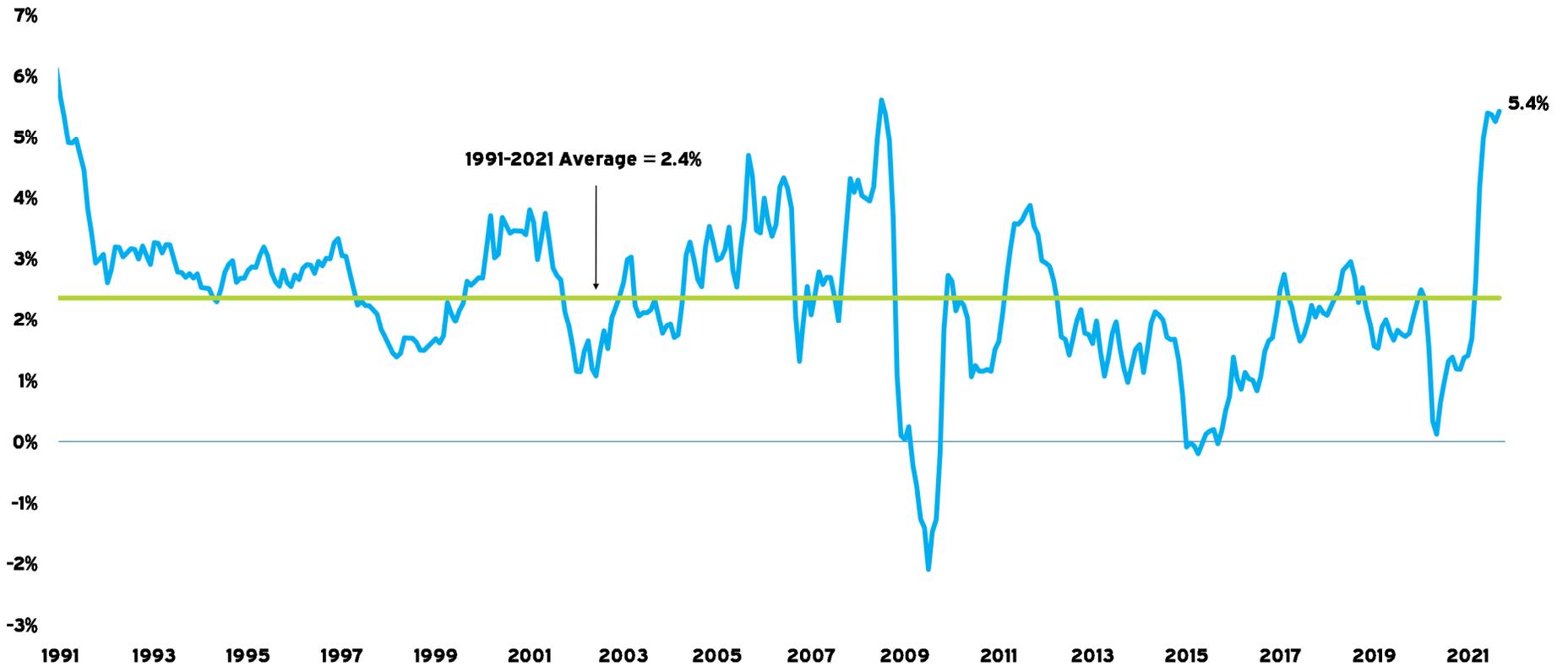
² The median high yield spread was 4.7% from 1997-2021.

US Real Gross Domestic Product (GDP) Growth¹



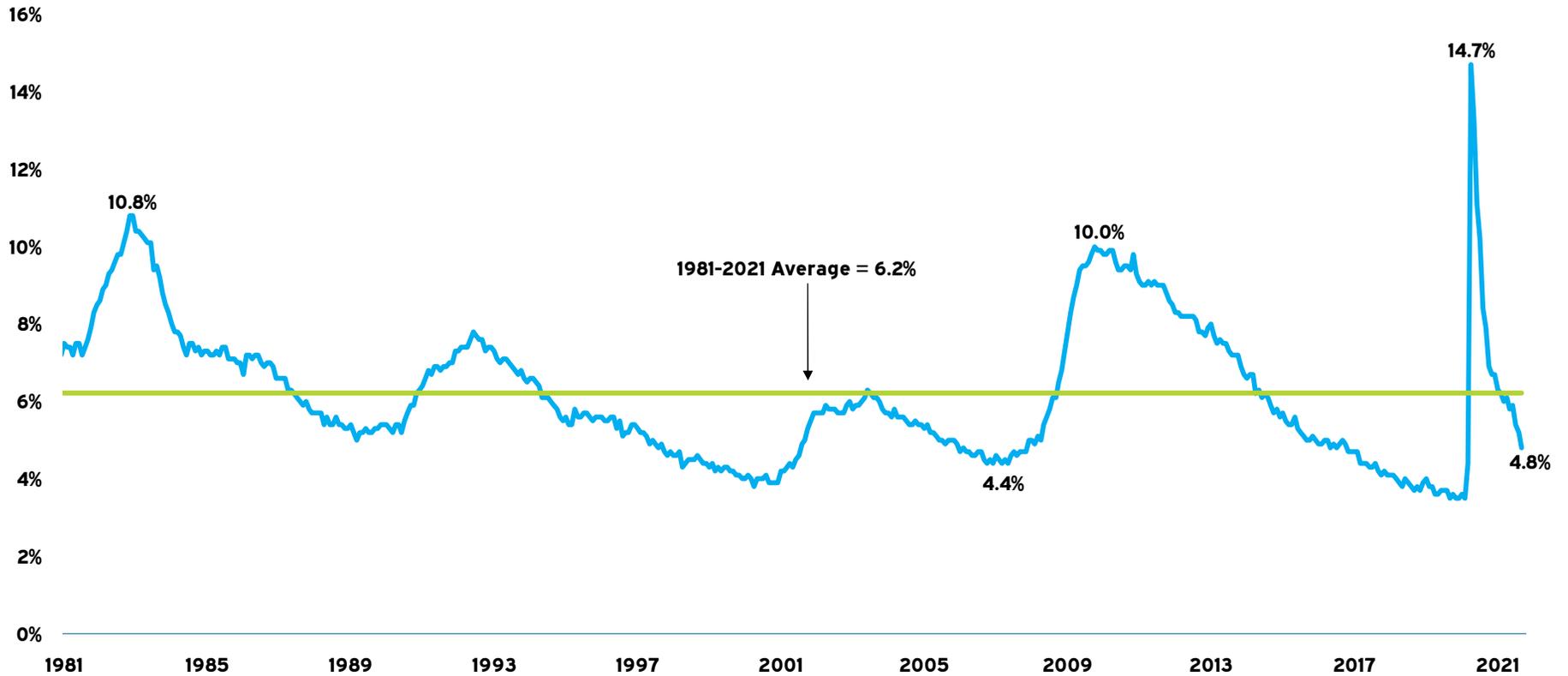
¹ Source: Bureau of Economic Analysis. Data is as of Q3 2021 and represents the first estimate.

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 September 30, 2021.

US Unemployment¹



¹ Source: Bureau of Labor Statistics. Data is as of September 30, 2021.

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PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

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

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

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

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

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

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

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

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

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

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

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

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

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.