

San Joaquin County Employees' Retirement Association (SJCERA)

Q2 2021

Quarterly Report

MEKETA.COM



**Table of Contents** 

- 1. Introduction
- 2. Portfolio Review
  - 5-Year net of Fees Comparison
- 3. Real Estate Program
- 4. Capital Markets Outlook & Risk Metrics
- 5. The World Markets Second Quarter of 2021
- 6. Disclaimer, Glossary, and Notes

## Introduction



\$3,809,830,770

Introduction | As of June 30, 2021

#### **Return Summary** 30.0 25.0 Rate of Return % 21.0 19.7 20.0 15.0 9.8 9.3 91 8.4 10.0 7.2 64 5.5 41 5.0 0.0 Q2-21 1 Year 3 Years 5 Years 10 Years SJCERA Total Plan SJCERA Policy Benchmark

Sumr	mary of Cash Flows	
	Second Quarter	One Year
Beginning Market Value	\$3,598,016,006	\$3,158,471,912
Net Cash Flow	\$11,237,000	\$22,637,806
Net Investment Change	\$200,577,764	\$628,721,053

\$3,809,830,770

#### Introduction

The SJCERA Total Portfolio had an aggregate value of \$3.8 billion as of June 30, 2021, During the latest guarter, the Total Portfolio increased in value by \$211.8 million, and over the one-year period, the Total Portfolio increased by \$651.4 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 7.0% vs. a guarter-over-guarter (annualized) increase of 6.4% in the first guarter of 2021. Full year The IMF also forecasts global GDP to increase by 6.0% 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 COVID-19 vaccine. In June 2021, declining inflation concerns drove the recovery in longer-dated Treasuries. Shorter-dated rates have been largely unmoved given Fed policy, while longer-dated rates recently declined from their peak as investors consider whether inflationary pressures have topped. Equity markets had mixed results in June with the US leading the way. A strong US dollar and continued vaccine rollout struggles weighed on international equity markets.

**Ending Market Value** 

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 second guarter of 2021 were 8.5% and 6.4% respectively. Commodities were up 13.3% for the guarter, as measured by the Bloomberg Commodity Index and global equity returns, as measured by the MSCI ACWI IMI, were up 7.2% for the guarter ended June 30, 2021.

#### Recent Investment Performance

The Total Portfolio outperformed the policy benchmark and Median Public Fund for the guarter by 1.4% and 0.2%, respectively. Over the 1-, 3-, 5-, 10-, 15-, 20-, and 25-year periods, the portfolio has trailed its benchmark by (1.3%), (0.7%), (0.9%), (0.8%), (1.1%), (0.4%), and (0.2%), respectively, and trailed the Median Public Fund by (7.3%), (1.5%), (2.1%), (1.8%), (2.0%), (1.0%), and (0.6%), respectively. However, the portfolio earned higher risk adjusted returns, as measured by the Sharpe Ratio, than the Median Public Fund over the 3- and 5-year time periods.

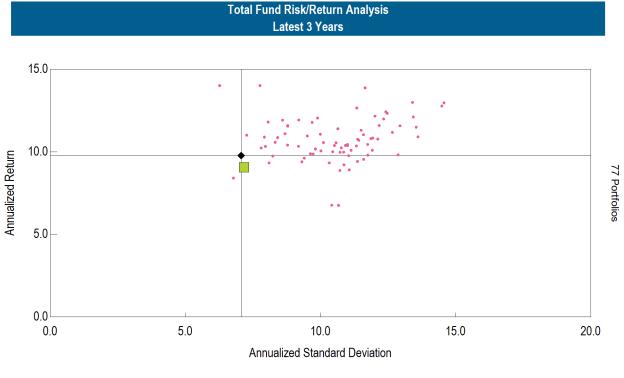
	QTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	20 Yrs	25 Yrs
SJCERA Total Plan - Net	5.5	19.7	9.1	8.4	6.4	4.9	5.8	6.8
SJCERA Total Plan - Gross	5.7	20.3	9.7	9.2	7.2	5.7	6.4	7.3
SJCERA Policy Benchmark	<u>4.1</u>	<u>21.0</u>	<u>9.8</u>	<u>9.3</u>	<u>7.2</u>	<u>6.0</u>	<u>6.2</u>	<u>7.0</u>
Over/Under (vs. Net)	1.4	-1.3	-0.7	-0.9	-0.8	-1.1	-0.4	-0.2
InvMetrics Public DB > \$1B Net Median	5.3	27.0	10.6	10.5	8.2	6.9	6.8	7.4

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

Policy Benchmark composition is listed in the Appendix.



#### Introduction | As of June 30, 2021



SJCERA Total Plan 
• SJCERA Policy Benchmark • InvMetrics Public DB > \$1B Net

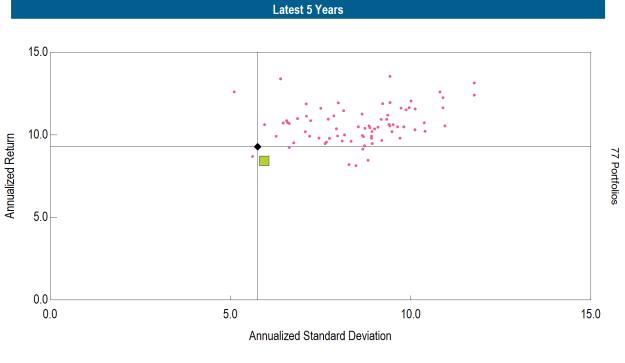
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
SJCERA Total Plan	9.07%	7.18%	1.10
SJCERA Policy Benchmark	9.78%	7.07%	1.21
InvMetrics Public DB > \$1B Net Median	10.58%	10.72%	0.88

Returns are net of fees.

Computed as annualized return less the risk free rate, divided by the annualized standard deviation. Investment Metrics Total Fund Public Universe >\$1 Billion, net of fees.



#### Introduction | As of June 30, 2021



Total Fund Risk/Return Analysis

SJCERA Total Plan
 SJCERA Policy Benchmark
 InvMetrics Public DB > \$1B Net

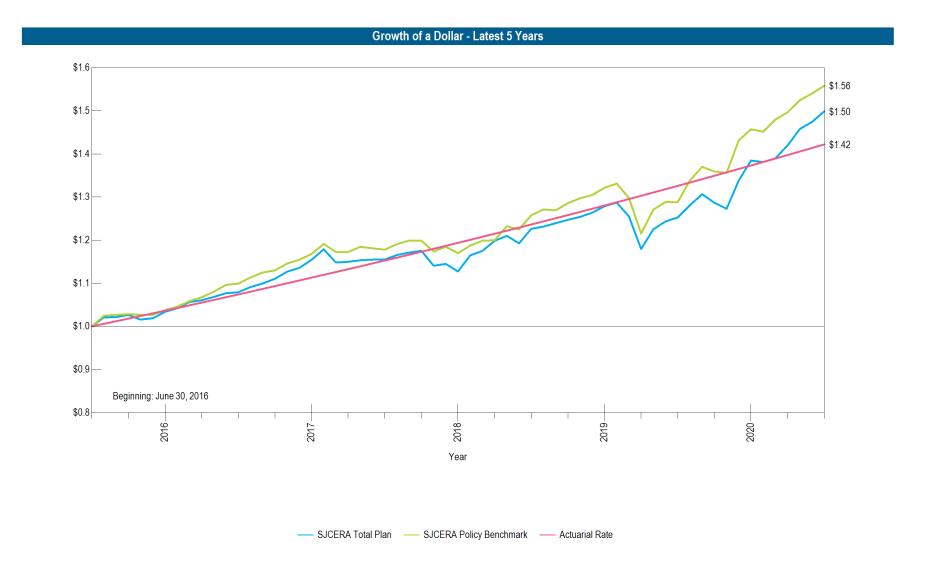
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
SJCERA Total Plan	8.43%	5.93%	1.23
SJCERA Policy Benchmark	9.28%	5.76%	1.42
InvMetrics Public DB > \$1B Net Median	10.54%	8.72%	1.07

Returns are net of fees.

Computed as annualized return less the risk free rate, divided by the annualized standard deviation. Investment Metrics Total Fund Public Universe >\$1 Billion, net of fees.



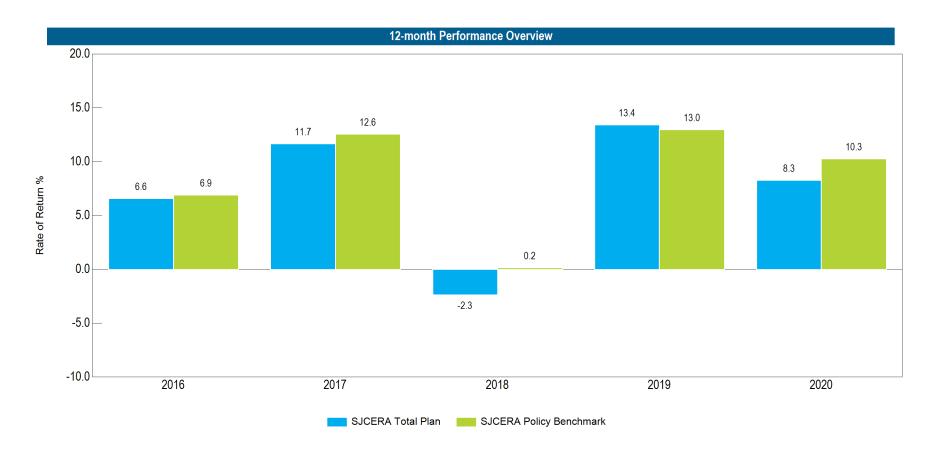
#### Introduction | As of June 30, 2021



7.0% Actuarial Rate from 1/1/2010 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%



#### Introduction | As of June 30, 2021



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.

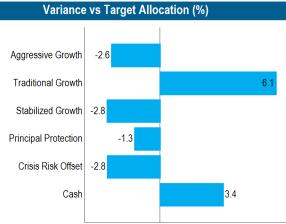
# **Portfolio Review**

# **MEKETA**

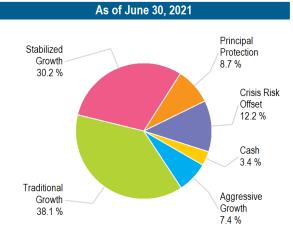
#### SJCERA Total Plan

#### Asset Allocation | As of June 30, 2021

Asset Allocation vs. Target						
	Current	Current	Policy	Difference*		
Broad Growth	\$2,886,798,696	75.8%	75.0%	0.8%		
Aggressive Growth	\$283,294,418	7.4%	10.0%	-2.6%		
Traditional Growth	\$1,453,244,088	38.1%	32.0%	6.1%		
Stabilized Growth	\$1,150,260,190	30.2%	33.0%	-2.8%		
Diversified Growth	\$795,188,442	20.9%	25.0%	-4.1%		
Principal Protection	\$329,953,201	8.7%	10.0%	-1.3%		
Crisis Risk Offset	\$465,235,241	12.2%	15.0%	-2.8%		
Cash	\$127,843,633	3.4%	0.0%	3.4%		
Cash	\$127,843,633	3.4%	0.0%	3.4%		
Total	\$3,809,830,770	100.0%	100.0%			



\*Difference between Policy and Current Allocation



As of June 30, 2020 Principal Stabilized Protection Growth 10.1 % 30.6 % Crisis Risk Offset 14.8 % Cash 6.0 % Traditional Aggressive Growth Growth 30.9 % 7.6 %

Market values may not add up due to rounding. Cash asset allocation includes Parametric Overlay. -4.0 -3.0 -2.0 -1.0 0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0



#### Market Value QTD 1Yr 3 Yrs 5 Yrs 10 Yrs % of Portfolio (%) (%) (%) (%) (%) (\$) SJCERA Total Plan 3,809,830,770 100.0 5.5 19.7 9.1 8.4 6.4 4.1 SJCERA Policy Benchmark 21.0 9.8 9.3 7.2 **Broad Growth** 2,886,798,696 75.8 6.4 25.3 10.4 10.5 7.3 **Aggressive Growth Lag** 283,294,418 7.4 7.0 23.0 12.6 11.7 11.4 3.7 46.5 11.3 9.7 Aggressive Growth Blend 10.4 **Traditional Growth** 38.1 7.6 38.1 13.3 8.9 1.453.244.088 11.9 MSCI ACWI IMI Net 7.2 40.9 15.6 15.5 10.6 **Stabilized Growth** 1,150,260,190 30.2 4.8 12.3 7.9 7.1 4.3 0.6 2.8 1.9 2.0 2.0 SJCERA Stabilized Growth Benchmark **Diversifying Strategies** 795.188.442 20.9 2.8 1.5 4.3 2.5 4.4 **Principal Protection** 329,953,201 8.7 1.8 4.0 4.1 3.6 4.5 Bloomberg US Aggregate TR 1.8 -0.3 5.3 3.0 3.4 **Crisis Risk Offset Asset Class** 465,235,241 12.2 3.6 -0.2 4.3 1.7 5.7 CRO Benchmark 3.7 2.7 6.4 3.4 5.2 2.0 Cash and Misc Asset Class 77,976,761 0.0 0.1 0.9 0.9 0.5 ICE BofA 91 Days T-Bills TR 0.0 0.1 1.3 1.2 0.6

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

Market values may not add up due to rounding. Policy Benchmark composition is listed in the Appendix. 50% BC High Yield, 50% S&P Leveraged Loans (1/3) BC Long Duration Treasuries, (1/3) BTOP50 Index, (1/3) 5% Annual.



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

	Market Value (\$)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Aggressive Growth Lag	283,294,418	100.0	7.0	23.0	12.6	11.7	11.4
Aggressive Growth Blend			3.7	46.5	11.3	10.4	9.7
Blackrock Global Energy and Power Lag	18,135,143	6.4	1.5	6.6			
MSCI ACWI +2% Blend			5.2	58.3			
Morgan Creek III Lag	8,158,028	2.9	3.3	15.2	-4.6	2.5	
MSCI ACWI +2% Blend			5.2	58.3	14.2	12.1	
Morgan Creek V Lag	9,470,123	3.3	-0.3	14.7	12.3	11.8	
MSCI ACWI +2% Blend			5.2	58.3	14.2	12.1	
Morgan Creek VI Lag	23,785,303	8.4	1.1	30.7	18.4	15.0	
MSCI ACWI +2% Blend			5.2	58.3	14.2	12.1	
Ocean Avenue II Lag	35,066,163	12.4	20.7	59.4	26.8	26.3	
MSCI ACWI +2% Blend			5.2	58.3	14.2	12.1	
Ocean Avenue III Lag	55,271,738	19.5	12.2	22.8	24.4		
MSCI ACWI +2% Blend			5.2	58.3	14.2		
Ocean Avenue IV Lag	28,272,300	10.0	4.3	37.5			
MSCI ACWI +2% Lag			5.2	58.3			
Non-Core Real Assets Lag	105,135,620	37.1	4.2	12.2	4.7	4.9	8.2
NCREIF ODCE +1% lag (blend)			2.1	2.5	5.0	6.3	9.6

Market values may not add up due to rounding.

Lagged 1 quarter.

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



Manager Commentary

### Aggressive Growth

During the latest three-month period ending June 30, 2021, only the two largest allocations in SJCERA's aggressive growth portfolio 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 MSCI ACWI +2% Blend benchmark returned 58.3% 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 (3.7%) and (51.7%), respectively.

**Morgan Creek III** produced a quarterly return of 3.3%, underperforming its target benchmark by (1.9%). The manager also underperformed its benchmark over the 1-, 3- and 5-year periods by (43.1%), (17.6%) and (9.6%) respectively.

**Morgan Creek V** underperformed its benchmark over the quarter, 1-, 3-, and 5-year periods by (5.5%), (43.6%), (1.9%), and (0.3%), respectively.

**Morgan Creek VI** underperformed its benchmark over the quarter and 1-year periods by (4.1%) and (17.6%), respectively, and outperformed for the 3- and 5-year periods by 4.2% and 2.9%, 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 15.5%, 1.1%, 12.6%, and 14.2%, respectively.

**Ocean Avenue III**, a Private Equity Buyout fund-of-funds manager, trailed its benchmark for the 1-year period by (35.5%) and outperformed its benchmark over the quarter and 3-year periods by 7.0% and 10.2%, respectively.

**Ocean Avenue IV** underperformed its benchmark over the quarter and 1-year time periods by (0.9%) and (20.8%), respectively.

**Non-Core Private Real Assets** underperformed its NCREIF ODCE +1% benchmark over the 3-, 5- and 10-year periods by (0.3%), (1.4%) and (1.4%) respectively. The sub-asset class outperformed its benchmark over the quarter and 1-year periods by 2.1% and 9.7%, respectively.



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

	Market Value (\$)	% of Portfolio	<b>QTD</b> (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Traditional Growth	1,453,244,088	100.0	7.6	38.1	11.9	13.3	8.9
MSCI ACWI IMI Net			7.2	40.9	15.6	15.5	10.6
SJCERA Transition	3,402	0.0					
Northern Trust MSCI World	1,255,022,635	86.4	7.5				
MSCI World IMI Net USD			7.4				
PIMCO RAE Emerging Markets	81,958,758	5.6	8.3	57.2	9.5	12.5	3.8
MSCI Emerging Markets Gross			5.1	41.4	11.7	13.4	4.7
GQG Active Emerging Markets	68,790,339	4.7	5.4				
MSCI Emerging Markets			5.0				
Invesco REIT	47,468,954	3.3	12.2	27.3	9.8	7.0	9.3
FTSE NAREIT Equity REIT			12.0	38.0	10.1	6.3	9.4



Manager Commentary

#### Traditional Growth

During the latest three-month period ending June 30, 2021, the traditional growth asset class outperformed its MSCI ACWI IMI benchmark by 0.4%. All four managers outperformed their benchmarks over the last quarter.

**Northern Trust MSCI World**, the Plan's new Passive Global Equity manager, outperformed its benchmark by 0.1% over the past quarter.

**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 3.2% and 15.2%, respectively, and underperformed its benchmark over the 3-, 5- and 10-year periods by (2.2%), (0.9%) and (0.9%) 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 0.4% in the second quarter of 2021.

**Invesco**, the Plan's Core US REIT manager, underperformed the FTSE NAREIT Equity REIT Index for the 1-, 3- and 10-year periods by (10.7%), (0.3%) and (0.1%) respectively, and outperformed its benchmark over the quarter and 5-year time period by 0.2% and 0.7%, respectively.



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

	Market Value (\$)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Stabilized Growth	1,150,260,190	100.0	4.8	12.3	7.9	7.1	4.3
SJCERA Stabilized Growth Benchmark			0.6	2.8	1.9	2.0	2.0
Risk Parity Asset Class	432,362,434	37.6	8.4	20.3	10.0	8.1	3.3
ICE BofAML 3mo US TBill+4%			1.0	4.1	5.4	5.2	4.7
Bridgewater All Weather	210,874,915	18.3	9.0	19.3	8.8	7.8	
Bridgewater All Weather (blend)			1.0	4.1	5.4	5.2	
PanAgora Diversified Risk Multi Asset	221,487,519	19.3	7.8	21.2	11.2	8.3	
ICE BofAML 3mo US TBill+4%			1.0	4.1	5.4	5.2	
Liquid Credit	236,460,537	20.6	1.9	10.4	4.6	4.6	3.5
50% BBgBC US HY/50% S&P LSTA Lev Loan			2.1	13.5	5.9	6.2	5.5
Neuberger Berman	106,127,352	9.2	2.4	11.9			
33% ICEBofAMLUSHY /33%JPMEMBI Global Div /33% S&P LSTALevLoan			2.7	11.5			
Stone Harbor Absolute Return	130,333,185	11.3	1.4	9.4	4.1	4.1	3.2
ICE BofA-ML LIBOR			0.1	0.3	1.6	1.5	0.9
Private Credit Lag	312,481,869	27.2	2.8	5.9	3.2	3.2	4.4
Custom Credit Benchmark			1.3	22.2	5.5	6.7	5.4
Blackrock Direct Lending Lag	28,964,813	2.5	2.6	18.3			
CPI + 6% BLK Blend			3.2	15.0			
Crestline Opportunity II Lag	21,371,840	1.9	7.5	9.2	-0.2	3.6	
Credit Blend CPI +6%			3.2	8.8	8.1	8.5	
Davidson Kempner Long-Term Distressed Opportunities Fund V, L.P. Lag	15,788,095	1.4	8.2				
Credit Blend CPI +6%			3.2				

Market values may not add up due to rounding. NCREIF ODCE Net + 1% 10/1/2012-present. NCREIF Property Index previously. 50% BBgBC High Yield, 50% S&P Leveraged Loans.



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

	Market Value (\$)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
HPS European Asset Value II, LP Lag	5,676,507	0.5	1.9				
Credit Blend CPI +6%			3.2				
Medley Opportunity II Lag	10,216,331	0.9	7.3	-2.1	-10.9	-6.3	
Credit Blend CPI +6%			3.2	8.8	8.1	8.5	
Mesa West III Lag	1,647,839	0.1	-0.1	-13.1	-1.0	3.1	
Credit Blend CPI +6%			3.2	8.8	8.1	8.5	
Mesa West IV Lag	44,370,217	3.9	2.1	6.2	7.8		
Credit Blend CPI +6%			3.2	8.8	8.1		
Oaktree Middle-Market Direct Lending Lag	28,553,995	2.5	4.8	22.1	11.4		
CPI + 6% Oaktree Blend			3.2	36.7	9.4		
Raven Opportunity II Lag	11,908,063	1.0	1.4	-12.2	-3.3	-3.1	
Credit Blend CPI +6%			3.2	8.8	8.1	8.5	
Raven Opportunity III Lag	48,837,036	4.2	1.7	1.9	7.0	3.6	
Credit Blend CPI +6%			3.2	8.8	8.1	8.5	
White Oak Summit Peer Lag	46,281,870	4.0	1.7	7.4	6.2	7.0	
Credit Blend CPI +6%			3.2	8.8	8.1	8.5	
White Oak Yield Spectrum Master V Lag	48,865,263	4.2	0.8	6.6			
Credit Blend CPI +6%			3.2	8.8			
Private Core Real Assets Lag	168,955,350	14.7	3.7	7.5	9.4	10.2	13.9
NCREIF ODCE +1% lag (blend)			2.1	2.5	5.0	6.3	9.6

Market values may not add up due to rounding. NCREIF ODCE Net + 1% 10/1/2012-present. NCREIF Property Index previously. 50% BBgBC High Yield, 50% S&P Leveraged Loans.



Manager Commentary

#### **Stabilized Growth**

During the latest three-month period ending June 30, 2021, seven of SJCERA's sixteen Stabilized Growth managers outperformed their benchmarks while the other nine 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, the private core real assets sub-asset class 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 8.0%, 15.2%, 3.4%, and 2.6%, respectively.

**PanAgora DRMA,** one of the Plan's Risk Parity managers, outperformed its T-Bill +4% benchmark over the quarter, 1-, 3-, and 5-year periods by 6.8%, 17.1%, 5.8%, and 3.1%, respectively.

**Neuberger Berman**, one of the Plan's Liquid Credit managers, underperformed its benchmark for the quarter by (0.3%) and outperformed for the 1-year period by 0.4%.

**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 1.3%, 9.1%, 2.5%, 2.6%, and 2.3%, respectively.

**BlackRock Direct Lending**, one of the Plan's newer Private Credit manager, underperformed its CPI+6% benchmark by (0.6%) for the quarter but outperformed over the trailing 1-year period by 3.3%.

**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 (8.3%) and (4.9%), respectively, and outperformed for the quarter and 1-year periods by 4.3% and 0.4%, 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 5.0% over the past quarter.

**HPS EU**, one of the Plan's newer Direct Lending manager, was opened during the third quarter of 2020 and underperformed its CPI +6% benchmark for the second quarter of 2021 by (1.3%).



Manager Commentary

## Stabilized Growth (Continued)

**Medley Opportunity II**, one of the Plan's Direct Lending managers, produced a positive quarterly return of 7.3%, outperforming its CPI +6% annual return target by 4.1%. The fund has trailed its benchmark over the 1-, 3- and 5-year time periods by (10.9%), (18.9%) and (14.8%) respectively.

**Mesa West RE Income III,** one of the Plan's Commercial Mortgage managers, produced a negative quarterly return of (0.1%), underperforming its CPI +6% annual benchmark by (3.3%). It also underperformed its benchmark over the 1-, 3- and 5-year periods by (21.9%), (9.1%), and (5.4%) respectively.

**Mesa West RE Income IV,** one of the Plan's Commercial Mortgage managers, produced a quarterly return of 2.1%, underperforming its CPI +6% annual benchmark by (1.1%). Over the 1- and 3-year periods, the fund underperformed its benchmark by (2.6%) and (0.3%) respectively.

**Oaktree**, a Middle-Market Direct Lending manager, outperformed its MSCI ACWI +2% Blended benchmark over the quarter and 3-year time periods by 1.6% and 2.0%, respectively and underperformed for the 1-year period by (14.6%).

**Raven Capital II,** one of the Plan's Direct Lending managers, produced a quarterly return of 1.4% and trailed its target over the quarter, 1-, 3-, and 5-year periods by (1.8%), (21.0%), (11.4%), and (11.6%), respectively.

**Raven Capital III** underperformed its CPI +6% annual target over the quarter, 1-, 3-, and 5-year periods by (1.5%), (6.9%), (1.1%), and (4.9%), 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 (1.5%), (1.4%), (1.9%), and (1.5%), respectively.

White Oak Yield Spectrum Master V trailed its CPI +6% benchmark over both the quarter and 1-year period by (2.4%).

**Private Core Private Real Estate,** investing in Core Real Assets, outperformed its NCREIF ODCE +1% benchmark for the quarter, 1-, 3-, 5-, and 10-year periods by 1.6%, 5.0% 4.4%, 3.9%, and 4.3%, respectively.



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

	Market Value (\$)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Principal Protection	329,953,201	100.0	1.8	4.0	4.1	3.6	4.5
Bloomberg US Aggregate TR			1.8	-0.3	5.3	3.0	3.4
Dodge & Cox Fixed Income	167,519,774	50.8	2.1	3.5	6.6	4.7	4.7
Bloomberg US Aggregate TR			1.8	-0.3	5.3	3.0	3.4
DoubleLine	113,072,959	34.3	1.3	4.4	4.5	3.8	
Bloomberg US Aggregate TR			1.8	-0.3	5.3	3.0	
SJ Principal Protection	49,360,468	15.0	1.9				
Bloomberg US Aggregate TR			1.8				

Market values may not add up due to rounding.



Manager Commentary

#### **Principal Protection**

During the latest three-month period ending June 30, 2021, two of SJCERA's three Principal Protection managers outperformed the Blmbg. Barc. US Aggregate Index. PRIMA Mortgage was closed at the beginning of the first quarter and SJ Principal Protection, a passive fixed income manager, was opened.

**Dodge & Cox,** the Plan's Core Fixed Income manager, earned a quarterly return of 2.1%, outperforming its benchmark by 0.3%. The portfolio also outperformed its benchmark over the 1-, 3-, 5-, and 10-year periods by 3.8%, 1.3%, 1.7%, and 1.3%, respectively.

**DoubleLine**, the Plan's Mortgage Backed Securities manager, provided a quarterly return of 1.3%, underperforming its benchmark by (0.5%). The manager outperformed its benchmark over the 1-, and 5-year time periods by 4.7% and 0.8%, respectively, while underperforming its benchmark over the 3-year time period by (0.8%).

**SJ Principal Protection,** the Plan's passive Fixed Income manager opened in January 2021, returned 1.9% for the quarter and outperformed the benchmark by 0.1%.



	Market Value (\$)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Crisis Risk Offset Asset Class	465,235,241	100.0	3.6	-0.2	4.3	1.7	5.7
CRO Benchmark			3.7	2.7	6.4	3.4	5.2
Long Duration	151,372,783	32.5	6.3	-9.5	7.7	3.0	
Bloomberg US Treasury Long TR			6.5	-10.6	8.0	3.1	
Dodge & Cox Long Duration	151,372,783	32.5	6.3	-9.5	7.7	3.0	
Bloomberg US Treasury Long TR			6.5	-10.6	8.0	3.1	
Systematic Trend Following	191,370,469	41.1	4.8	25.8	6.1	-0.3	6.5
BTOP 50 (blend)			3.3	14.6	5.6	1.4	3.4
Graham Tactical Trend	92,227,006	19.8	1.7	19.2	6.1	0.5	
SG Trend			3.3	15.1	6.9	1.8	
Mount Lucas	99,143,463	21.3	7.9	32.7	5.9	-1.7	5.7
BTOP 50 (blend)			3.3	14.6	5.6	1.4	3.4
Alternative Risk Premium	122,491,989	26.3	-1.3	-16.6	-2.9	0.4	2.5
5% Annual (blend)			1.2	5.0	5.0	5.0	7.5
AQR Style Premia	28,694,807	6.2	-3.2	12.7	-10.3	-5.7	
5% Annual			1.2	5.0	5.0	5.0	
Lombard Odier	59,958,843	12.9	4.0	-12.9			
5% Annual			1.2	5.0			
P/E Diversified Global Macro	33,838,339	7.3	-8.0	-35.5	-6.0	-3.9	
5% Annual			1.2	5.0	5.0	5.0	

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

Market values may not add up due to rounding. 50% BC High Yield, 50% S&P Leveraged Loans (1/3) BC Long Duration Treasuries, (1/3) BTOP50 Index, (1/3) 5% Annual.



Manager Commentary

#### Crisis Risk Offset

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

**Dodge & Cox Long Duration** produced a quarterly return of 6.3%, underperforming the Blmbg. Barc. US Long Duration Treasuries by (0.2%). The manager outperformed the benchmark over the 1-year time period by 1.1% and underperformed its benchmark over the 3- and 5-year periods by (0.3%) and (0.1%), respectively.

**Graham**, one of the Plan's Systematic Trend Following managers, had a quarterly return of 1.7%, underperforming the SG Trend Index by (1.6%). The fund outperformed its benchmark over the 1-year period by 4.1% and underperformed over the 3- and 5-year periods by (0.8%) and (1.3%), respectively.

**Mount Lucas**, one of the Plan's Systematic Trend Following managers, produced a quarterly return of 7.9%, outperforming the Barclays BTOP 50 Index by 4.6%. The fund also outperformed its benchmark over the 1-, 3- and 10-year periods by 18.1%, 0.3%, and 2.3% respectively. It underperformed for 5-year period by (3.1%).

AQR, one of the Plan's Alternative Risk Premium managers, posted negative returns and underperformed its 5% Annual target for the quarter, 3- and 5-year periods by (4.4%), (15.3%) and (10.7%) respectively. It posted a 12.7% return for the trailing 1-year period.

**Lombard Odier,** an Alternative Risk Premium manager, earned a quarterly return of 4.0%, outperforming its 5% Annual target 2.8%. The manager underperformed its benchmark for the 1-year period by (17.9%).

**P/E Diversified**, one of the Plan's Alternative Risk Premium managers, underperformed its 5% Annual target for the quarter, 1-, 3-, and 5-year time periods by (9.2%), (40.5%), (11.0%), and (8.9%), respectively.



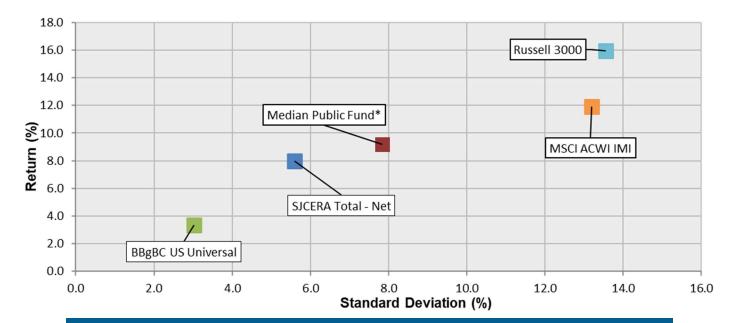
As of June 30, 2021

## **5-Year Net of Fees Comparison**



As of June 30, 2021

SJCERA Total Fund 5-Year Annualized Risk/Return (Net of Fees)



	Anlzd Return	Anlzd Std. Dev.	Sharpe Ratio
SJCERA Total - Net	8.00	5.60	1.31
Median Public Fund*	9.18	7.84	1.11
Bloomberg US Universal	3.35	3.03	0.89
Russell 3000	15.97	13.56	1.13
MSCI ACWI IMI	11.94	13.20	0.86

\* InvMetrics Public DB > \$1B Net



#### San Joaquin County Employees' Retirement Association: Manager Value-Added (Dollar-Impact) As of June 30, 2021

#### SJCERA Total Plan

	Manager	Benchmark		Benetrated Added Metra Manager BNAM		
Manager/Mandate 6/30/202	Return	Return	Dollar Impact 2,133,344,809	Benchmark Added Value Manager BNAV 2,133,344,809		Ac of June 20, 2021
SJCERA Total	2.5%	2.7%	2,133,344,009	2,133,344,609		As of June 30, 2021
Policy Benchmark					(5,000,000)	Dollar Impact 2Q 2021 (\$000) 0
Bridgewater All Weather	9.0%	1.0%	19,010,374	210,874,915	(5,000,000)	0 5,000,000 10,000,000 15,000,000 20,000,000 25,000,000
T-bill + 4%	9.070	1.070	19,010,374	210,014,913		
PanAgora Diversified Risk Multi Asset	7.8%	1.0%	17,256,093	221,487,519		
T-bill + 4% Dodge & Cox Long Duration						
BB US Long Duration Treasuries	6.3%	1.8%	9,475,936	151,372,783		
Mount Lucas	7.00/	0.000	7.07/ 0.0/	00/10/10		
BTOP 50	7.9%	3.3%	7,871,991	99,143,463		
Ocean Avenue II	20.7%	5.2%	7,264,657	35,066,163		
MSCI ACWI +2% Blend						
PIMCO RAE Emerging Markets MSCI Emerging Markets	8.3%	5.1%	6,796,020	81,958,758		
Ocean Avenue III						
MSCI ACWI +2% Blend	12.2%	5.2%	6,729,887	55,271,738		
Private Core Real Estate	3.7%	2.1%	6,259,796	168,955,350		
Private Real Estate Benchmark	3.170	2.1/0	0,239,790	100,933,330		
Invesco REIT FTSE NAREIT Index	12.2%	12.0%	5,806,402	47,468,954		
Dodge & Cox Fixed Income						
BB Aggregate	2.1%	1.8%	3,571,522	167,519,774		
Neuberger Berman	2.4%	2.7%	2,574,650	106,127,352		
Global Credit Hybrid	∠.470	2.170	2,574,050	100,127,332		
Lombard Odier	4.0%	1.2%	2,371,372	59,958,843		
5% Annual						
Stone Harbor Absolute Return 3-Month Libor TR USD	1.4%	O.1%	1,867,675	130,333,185		
Crestline Opportunity II						
CPI + 6% Annual	7.5%	3.2%	1,604,811	21,371,840		
Graham Tactical Trend	1.7%	3.3%	1,545,725	92,227,006		
SG Trend Index DoubleLine						
BB Aggregate	1.3%	1.8%	1,489,171	113,072,959		
Oaktree	4.007	5.00/	10577.00	00550005		
MSCI ACWI +2% Blend	4.8%	5.2%	1,357,742	28,553,995		
Ocean Avenue IV	4.3%	5.2%	1,207,793	28,272,300		
MSCI ACWI +2% Blend				,		
Mesa West IV CPI + 6% Annual	2.1%	5.2%	938,874	44,370,217		
Raven III						
CPI + 6% Annual	1.7%	3.2%	837,555	48,837,036		
White Oak Summit Peer	1.7%	3.2%	764,576	46,281,870		
CPI + 6% Annual	1.770	5.270	104,510	40,20,010		
BlackRock Direct Lending	2.6%	3.2%	753,375	28,964,813		
CPI + 6% Annual Medley Opportunity II						
CPI + 6% Annual	7.3%	3.2%	747,835	10,216,331		
BlackRock Global Energy & Power	1.5%	5.2%	070.004	18,135,143		
MSCI ACWI +2% Blend	1.3%	3.2%	272,934	10,130,143		
Morgan Creek III	3.3%	5.2%	266,849	8,158,028		
MSCI ACWI +2% Blend						
Morgan Creek VI MSCI ACWI +2% Blend	1.1%	5.2%	255,930	23,785,303		
Raven II						
CPI + 6% Annual	1.4%	3.2%	166,356	11,908,063		
Morgan Creek V	0.0%	5.2%	947	9,470,123		
MSCI ACWI +2% Blend	0.070	5.2.10	2-1	2,10,153		
Mesa West III	-0.1%	3.2%	(1,763)	1,647,839		
CPI + 6% Annual AQR						
5% Annual	-3.2%	1.2%	(917,947)	28,694,807		
P/E Diversified Global Macro	-8.0%	1.2%	(2,718,234)	33,838,339		Page 26 of 95
5% Annual	·O.U70	1.∠70		33,030,339		
Total Portlolio MV as of 6/30/2021			3,809,830,770			

## MEKETA

#### San Joaquin County Employees' Reitrement Association: Manager Value-Added (Return)

#### SJCERA Total Plan

As of June 30, 2021				Popohmark Added Value	Manager Phi AV						21		A Total Plan
	Manager	Benchmark		Benchmark Added Value	Manager BNAV 2,133,344,809								
Manager/Mandate 6/30/2021	Return	Return	Dollar Impact 2,133,344,809		2,133,344,007			M	nagerRet	um 20 20	01	As of	June 30, 2021
SJCERA Total	2.5%	2.7%	2,100,044,007			-10.0%	-5.0%	0.0%	5.0%	10.0%	15.0%	20.0%	25.0%
Policy Benchmark Ocean Avenue II													
MSCI ACWI +2% Blend	20.7%	5.2%	7,264,657		35,066,163								
Invesco REIT FTSE NAREIT Index	12.2%	12.0%	5,806,402		47,468,954								
Ocean Avenue III	12.2%	5.2%	6 700 887		55,271,738								
MSCI ACWI +2% Blend	12.2%	5.2%	6,729,887		33,271,730								
Bridgewater All Weather T-bill + 4%	9.0%	1.0%	19,010,374		210,874,915								
PIMCO RAE Emerging Markets MSCI Emerging Markets	8.3%	5.1%	6,796,020		81,958,758								
Mount Lucas BTOP 50	7.9%	3.3%	7,871,991		99,143,463								
PanAgora Diversified Risk Multi Asset	7.8%	1.0%	17,256,093		221,487,519								
T-bill + 4% Crestline Opportunity II CPI + 6% Annual	7.5%	3.2%	1,604,811		21,371,840								
Medley Opportunity II	7.3%	3.2%	747,835		10,216,331								
CPI + 6% Annual Dodge & Cox Long Duration	1.5/0	3.2.0	141,000										
BB US Long Duration Treasuries	6.3%	1.8%	9,475,936		151,372,783								
Oaktree MSCI ACWI +2% Blend	4.8%	5.2%	1,357,742		28,553,995								
Ocean Avenue IV MSCI ACWI +2% Blend	4.3%	5.2%	1,207,793		28,272,300								
Lombard Odier 5% Annual	4.0%	1.2%	2,371,372		59,958,843								
Private Core Real Estate Private Real Estate Benchmark	3.7%	2.1%	6,259,796		168,955,350								
Morgan Creek III MSCI ACWI +2% Blend	3.3%	5.2%	266,849		8,158,028								
BlackRock Direct Lending CPI + 6% Annual	2.6%	3.2%	753,375		28,964,813								
Neuberger Berman Global Credit Hybrid	2.4%	2.7%	2,574,650		106,127,352								
Dodge & Cox Fixed Income BB Aggregate	2.1%	1.8%	3,571,522		167,519,774								
Mesa West IV CPI + 6% Annual	2.1%	5.2%	938,874		44,370,217								
Raven III CPI + 6% Annual	1.7%	3.2%	837,555		48,837,036								
Graham Tactical Trend SG Trend Index	1.7%	3.3%	1,545,725		92,227,006								
White Oak Summit Peer CPI + 6% Annual	1.7%	3.2%	764,576		46,281,870								
BlackRock Global Energy & Power MSCI ACWI +2% Blend	1.5%	5.2%	272,934		18, 135, 143								
Stone Harbor Absolute Return 3-Month Libor TR USD	1.4%	O.1%	1,867,675		130,333,185								
Raven II CPI + 6% Annual	1.4%	3.2%	166,356		11,908,063								
DoubleLine BB Aggregate	1.3%	1.8%	1,489,171		113,072,959								
Morgan Creek VI MSCI ACWI +2% Blend	1.1%	5.2%	255,930		23,785,303								
Morgan Creek V MSCI ACWI +2% Blend	0.0%	5.2%	947		9,470,123								
Mesa West III CPI + 6% Annual	-O.196	3.2%	(1,763)		1,647,839								
AQR 5% Annual	-3.2%	1.2%	(917,947)		28,694,807								Page 27 of 95
P/E Diversified Global Macro 5% Annual	-8.0%	1.2%	(2,718,234)		33,838,339								
Total Portiolio MV as of 6/30/2021			3,809,830,770										

Real Estate Program March 31, 2021

# MEKETA

## San Joaquin County Employees' Retirement Association Real Estate Program

#### Table of Contents | As of March 31, 2021

1	Overview
Ш	Program Activity
	Commitments
	Cash Flows
	Significant Events
Ш	Performance Analysis
	By Strategy And Vintage
	Across Time Periods
	Net Changes In Value
	Time-Weighted Performance
	Fund Performance: Sorted By Vintage And Strategy
IV	Diversification: Fund Level
	Strategy
	Vintage
	Geographic Focus
V	Market Analysis
	End Notes And Disclosures

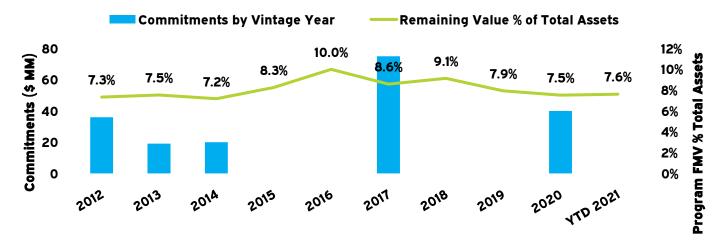


**Performance Since Inception** 

Overview | As of March 31, 2021

#### 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		Program	Peer Universe
Committed (\$ MM)	501.6	DPI	0.73x	0.87x
Contributed (\$ MM)	421.4	ΤΥΡΙ	1.38x	1.28x
Distributed (\$ MM)	307.2	IRR	6.2%	6.0%
Remaining Value (\$ MM)	274.1			

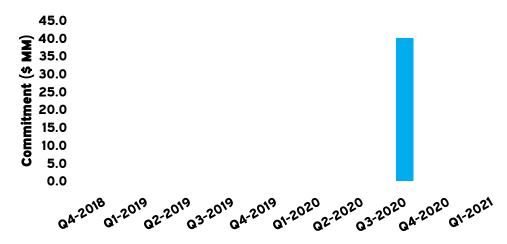


#### San Joaquin County Employees' Retirement Association Real Estate Program

Recent Activity | As of March 31, 2021

#### Commitments

#### **Recent Quarterly Commitments**



#### **Commitments This Quarter**

Fund	Strategy	Region	Amount (MM)

None to report.

# MEKETA

### San Joaquin County Employees' Retirement Association Real Estate Program

Recent Activity | As of March 31, 2021

#### **Recent Quarterly Cash Flows** Contributions Distributions 25.4 30.0 Amount (\$ MM) 20.0 10.4 8.7 6.0 6.6 5.4 5.3 10.0 4.6 1.5 1.9 0.0 -0.5 -0.4 -0.9 -10.0 -3.5 -4.4 -5.0 -6.8 -9.7 -10.9 -20.0 -14.2 Q4-2018 Q4-2019 Q1-2020 02-2020 01-2019 02-2019 03-2019 03-2020 20 04-2020 01-2021

#### **Cash Flows**

Largest Contributions This Quarter

#### Largest Distributions This Quarter

Fund	Vintage	Strategy	Region	Amount (\$MM)	Fund	Vintage	Strategy	Region	Amount (\$MM)
Berkeley V	2020	Value-Added	North America	6.06	Stockbridge RE III	2017	Value-Added	North America	2.24
Prologis Logistics	1970	Core	North America	0.71	AG Core Plus IV	2014	Value-Added	North America	1.75
					Prologis Logistics	1970	Core	North America	0.71



**Recent Activity** | As of March 31, 2021

#### Significant Events

- During the first quarter, Berkeley Partners Value Industrial Fund V invested \$109.2 million across nine acquisitions, including five within the Boston market, two in Colorado, one in Georgia and one in New Jersey/Pennsylvania. Both Colorado investments constitute the Longmont, CO acquisition, which represents the largest investment of the quarter. The acquisition comprises nine industrial and flex industrial buildings and totals approximately \$43.2 million of invested capital.
- In February 2021, Stockbridge Value Fund III closed on the disposition of Josey Lane Distribution Center, an industrial property in Carrollton, Texas, for a gross sales price of \$18.9 million, resulting in a realized IRR of 18.6% and an equity multiple of 1.4x to the Fund.
- During the first quarter, Prologis US Logistics Fund acquired four buildings and two covered land parcels for a combined price of \$164.5 million. The Fund did not dispose of any assets during the first quarter. Additionally, the Fund's NAV per unit increased 5.2% to \$2,028.56 during the quarter due to the unrealized gains on real estate investments.

#### Performance Analysis | As of March 31, 2021

Group	Number	Committed (\$ MM)	Contributed (\$ MM)	Unfunded (\$ MM)	Distributed (\$ MM)	Remaining Value (\$ MM)	Exposure (\$ MM)	DPI (X)	TVPI (X)	IRR (%)
Core	3	120.5	122.8	0.0	25.7	169.0	169.0	0.21	1.59	6.6
Opportunistic	9	204.1	173.8	31.3	190.9	37.8	69.0	1.10	1.32	5.3
Value-Added	6	177.0	124.8	53.8	90.7	67.4	121.2	0.73	1.27	7.9
Total	18	501.6	421.4	85.1	307.2	274.1	359.2	0.73	1.38	6.2

#### By Strategy

#### 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	122.8	0.0	25.7	169.0	169.0	0.21	1.59	6.6
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	5.6	17.6	1.37	1.43	7.3
2011	2	50.0	38.3	11.7	47.1	3.8	15.5	1.23	1.33	9.5
2012	2	36.0	33.8	3.0	48.8	0.3	3.3	1.45	1.45	12.6
2013	1	19.1	18.3	0.8	20.3	9.3	10.1	1.11	1.62	12.8
2014	1	20.0	19.0	1.8	5.1	19.3	21.0	0.27	1.28	7.9
2017	2	75.0	51.8	24.6	7.7	55.5	80.1	0.15	1.22	11.1
2020	1	40.0	9.0	31.2	0.1	9.3	40.5	0.01	1.04	NM
Total	18	501.6	421.4	85.1	307.2	274.1	359.2	0.73	1.38	6.2



### San Joaquin County Employees' Retirement Association Real Estate Program

Performance Analysis | As of March 31, 2021



MEKETA INVESTMENT GROUP

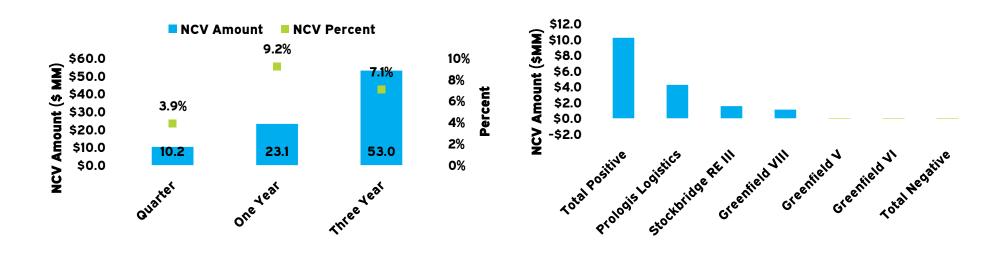


#### San Joaquin County Employees' Retirement Association Real Estate Program

Performance Analysis | As of March 31, 2021

Periodic NCV

**1 Quarter Drivers Of NCV** 



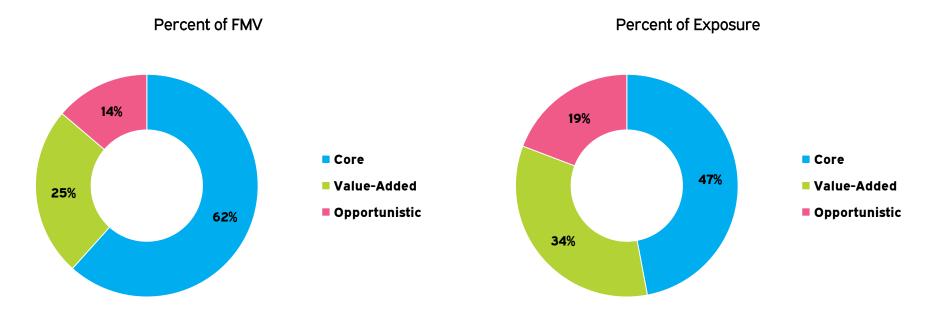
#### Performance Analysis | As of March 31, 2021

			Committed	Contributed	Unfunded	Distributed	Remaining Value	TVPI	Peer TVPI	IRR	Peer IRR
By Investment	Vintage	Strategy	(\$ MM)	(\$ MM)	(\$ MM)	(\$ MM)	(\$ MM)	(X)	(X)	(%)	(%)
Principal US	Open-end	Core	25.0	25.0	0.0	0.0	35.2	1.41	NM	6.6	NM
Prologis Logistics	Open-end	Core	50.5	52.8	0.0	18.3	82.7	1.91	NM	6.7	NM
RREEF America II	Open-end	Core	45.0	45.0	0.0	7.4	51.1	1.30	NM	6.0	NM
Miller GLobal 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	0.5	1.55	1.18	7.6	3.2
Walton Street VI	2007	Opportunistic	15.0	13.3	1.7	15.2	4.9	1.51	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	26.1	0.2	1.37	1.47	9.7	11.9
Almanac Realty VI	2011	Value-Added	30.0	19.1	10.9	21.0	3.6	1.29	1.47	9.3	11.9
Miller Global VII	2012	Opportunistic	15.0	12.0	3.0	15.9	0.3	1.35	1.45	14.8	10.8
Colony Realty IV	2012	Value-Added	21.0	21.7	0.0	32.9	0.0	1.51	1.45	11.9	10.8
Greenfield VII	2013	Opportunistic	19.1	18.3	0.8	20.3	9.3	1.62	1.33	12.8	9.4
AG Core Plus IV	2014	Value-Added	20.0	19.0	1.8	5.1	19.3	1.28	1.34	7.9	9.6
Greenfield VIII	2017	Opportunistic	30.0	15.8	15.6	3.0	20.3	1.47	1.20	18.1	10.1
Stockbridge RE III	2017	Value-Added	45.0	36.0	9.0	4.7	35.2	1.11	1.20	6.3	10.1
Berkeley V	2020	Value-Added	40.0	9.0	31.2	0.1	9.3	1.04	0.97	NM	NM
Total			501.6	421.4	85.1	307.2	274.1	1.38	1.28	6.2	6.0

#### Fund Performance: Sorted By Vintage And Strategy



Fund Diversification | As of March 31, 2021

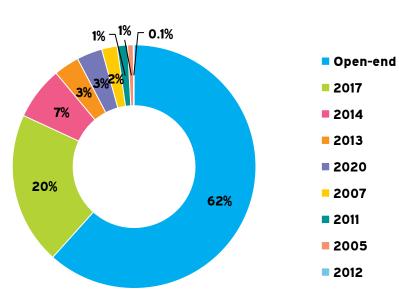


### By Strategy

MEKETA INVESTMENT GROUP



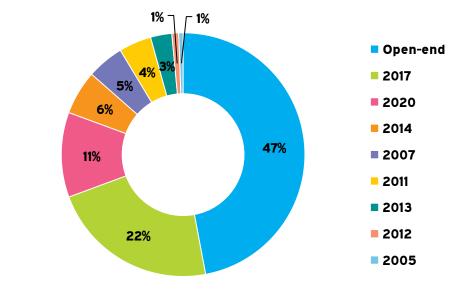
Fund Diversification | As of March 31, 2021



Percent of FMV

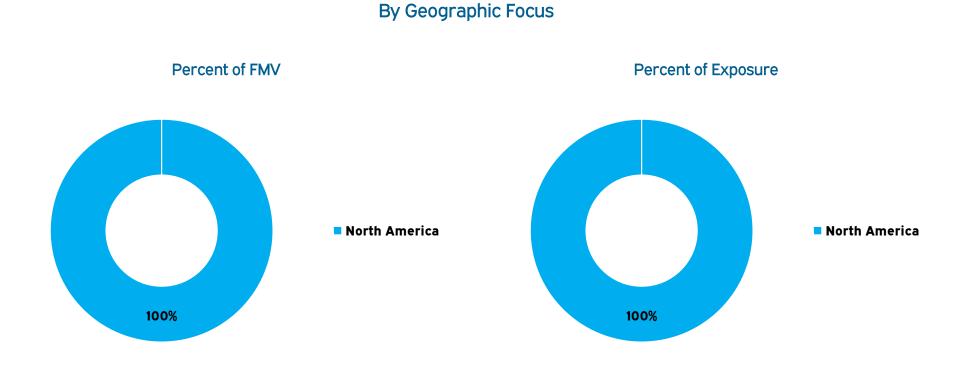


Percent of Exposure





Fund Diversification | As of March 31, 2021





#### Endnotes | As of March 31, 2021

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.

# MEKETA

# San Joaquin County Employees' Retirement Association Real Estate Program

#### Endnotes | As of March 31, 2021

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 Capita 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									



#### Endnotes | As of March 31, 2021

	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 Real Estate: Dow Jones U.S. Select Real Estate Securities Index
Remaining Value	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.
ΤΥΡΙ	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.
Unfunded	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.



Disclaimer | As of March 31, 2021



# Capital Markets Outlook & Risk Metrics As of June 30, 2021



#### **Capital Markets Outlook**

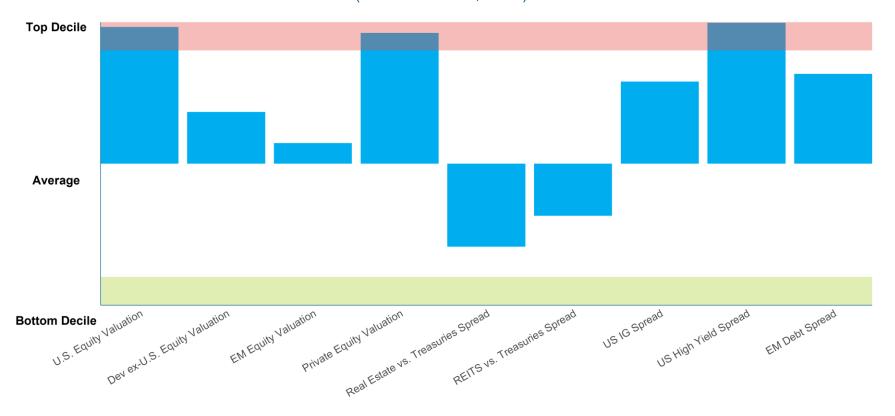
#### Takeaways

- The rotation to value and cyclical stocks took a pause in June, as growth stocks outperformed value stocks.
- Outside the US, emerging market equities outperformed developed market equities, and like the US, growth outperformed value.
- Fixed income markets posted modest positive returns, with the Barclays TIPS index returning 0.6% and the Barclays Aggregate index gaining 0.7%.
- The Bloomberg Commodities index returned 1.9% in June, but commodity-related stocks retraced some of their gains, with the S&P Global Natural Resources index returning -2.2%.
- Global infrastructure stocks posted mixed returns in June, while REITs saw small gains.
- The US vaccination efforts combined with the re-opening of major parts of the US economy have lifted 2021 GDP forecasts for the US to 6.5%.
- COVID-related setbacks have eased in Europe, likewise lifting growth expectations there for 2021.
- According to the World Health Organization, global COVID cases have been falling since January. While the efficacy of many of the vaccines is promising, governments are closely monitoring new COVID variants.
- Questions around the Biden administration's policy agenda and its ability to implements it are paramount on investors' minds, especially on questions related to growth and inflation.
- Investors are likewise keeping an eye on monetary policy, specifically the timing and pace of which the Fed may start to dial back some of its stimulus.



#### **Capital Markets Outlook & Risk Metrics**

Risk Overview/Dashboard (1) (As of June 30, 2021)<sup>1</sup>



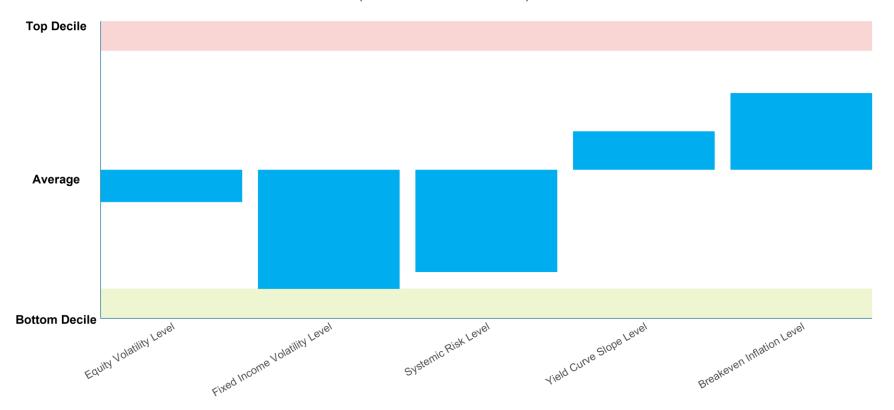
• Dashboard (1) summarizes the current state of the different valuation metrics per asset class relative to their own history.

<sup>&</sup>lt;sup>1</sup> With the exception of Private Equity Valuation, that is YTD as of December 31, 2020.

# MEKETA

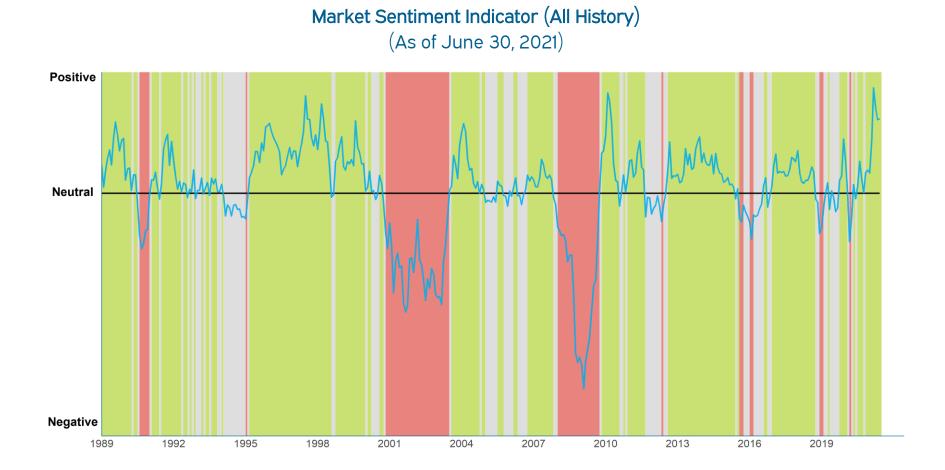
#### **Capital Markets Outlook & Risk Metrics**

Risk Overview/Dashboard (2) (As of June 30, 2021)

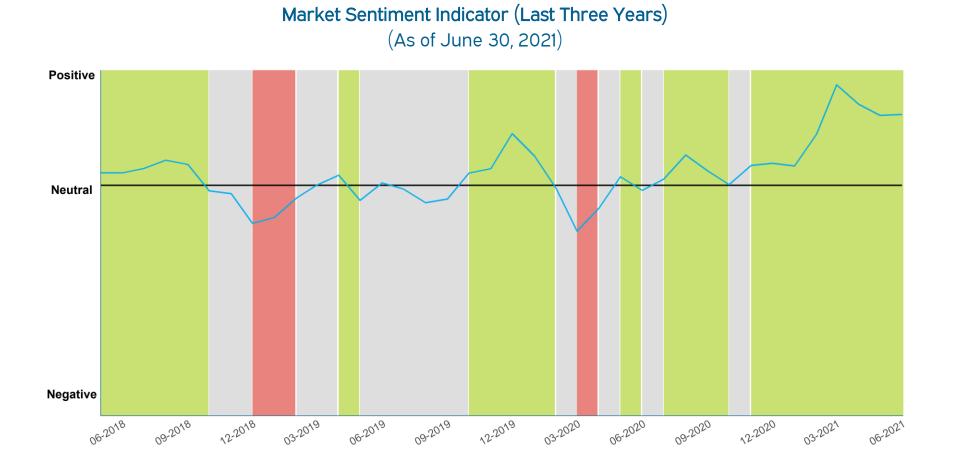


• Dashboard (2) shows how the current level of each indicator compares to its respective history.

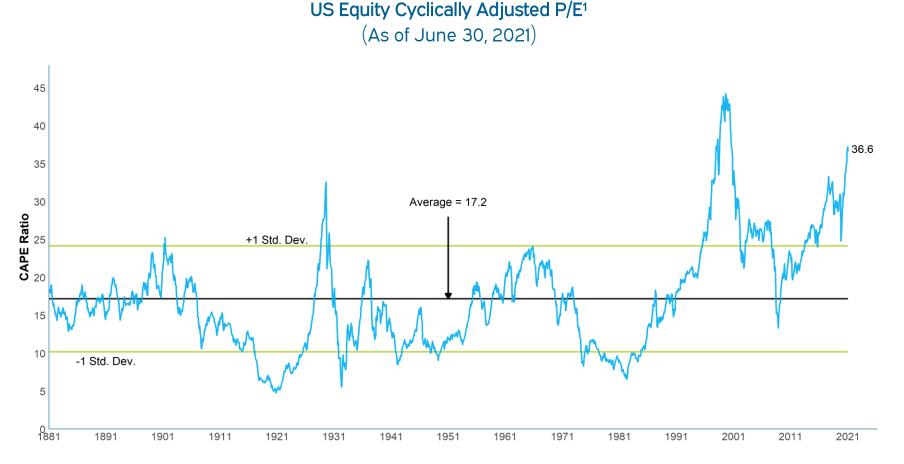








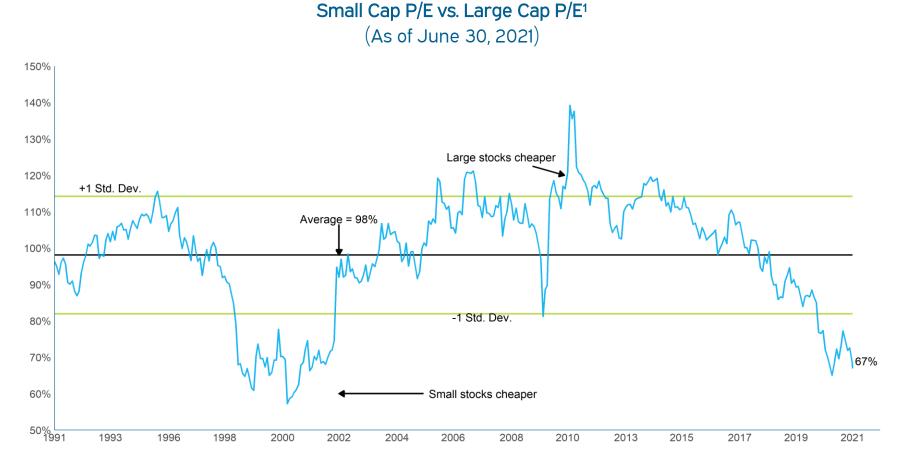




• This chart details one valuation metric for US equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

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

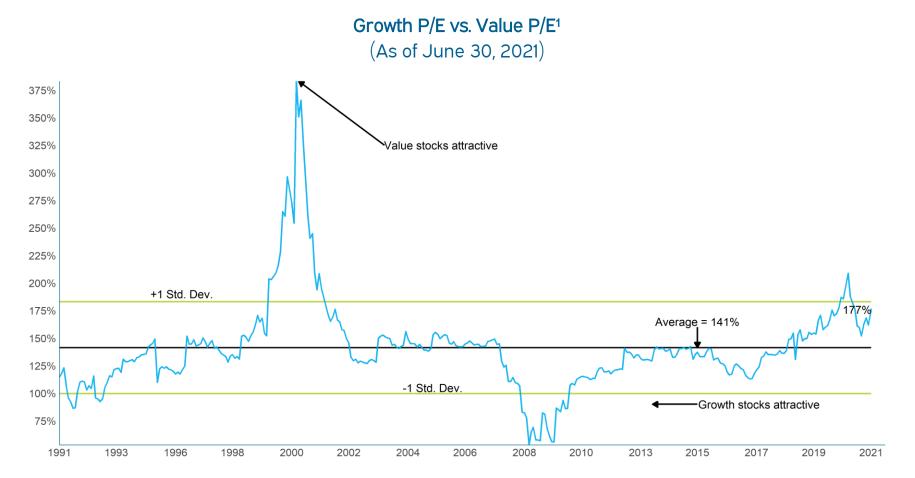




• This chart compares the relative attractiveness of small cap US equities vs. large cap US equities on a valuation basis. A higher (lower) figure indicates that large cap (small cap) is more attractive.

<sup>&</sup>lt;sup>1</sup> 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.





• 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.

<sup>&</sup>lt;sup>1</sup> 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.



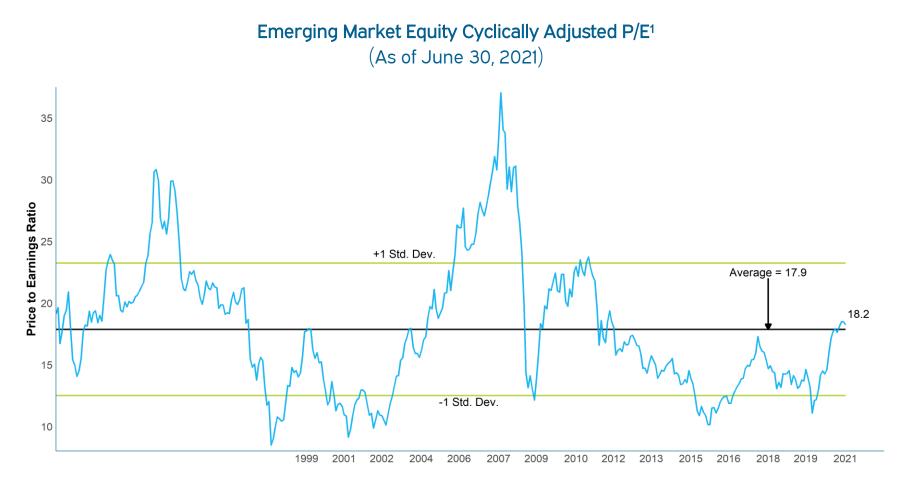


Developed International Equity Cyclically Adjusted P/E<sup>1</sup> (As of June 30, 2021)

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

<sup>&</sup>lt;sup>1</sup> 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.



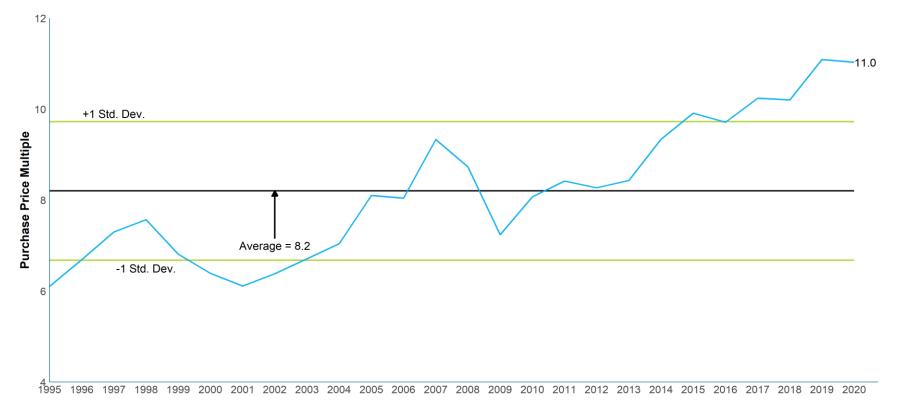


• This chart details one valuation metric for emerging markets equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

<sup>&</sup>lt;sup>1</sup> 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<sup>1</sup> (As of February 28, 2021)<sup>2</sup>

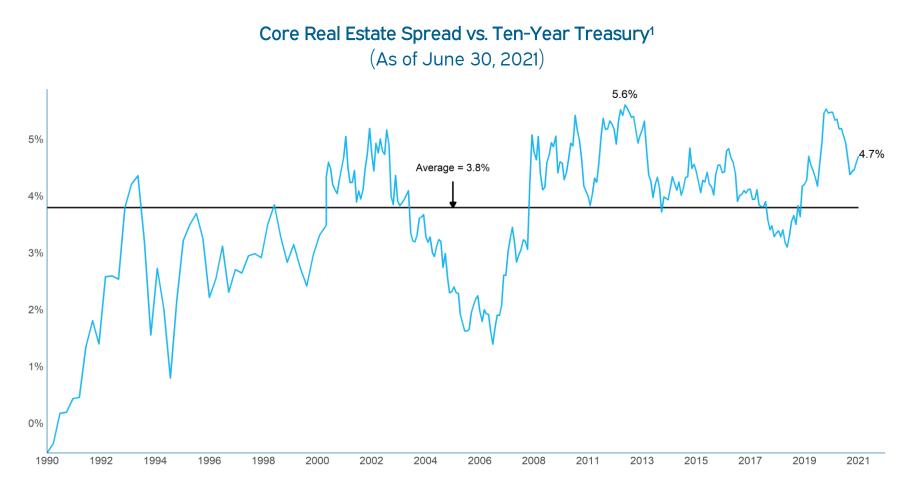


• This chart details one valuation metric for the private equity market. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

<sup>&</sup>lt;sup>1</sup> Private Equity Multiples – Source: S&P LCD Average EBITDA Multiples Paid in All LBOs.

<sup>&</sup>lt;sup>2</sup> Annual Data, as of December 31, 2020

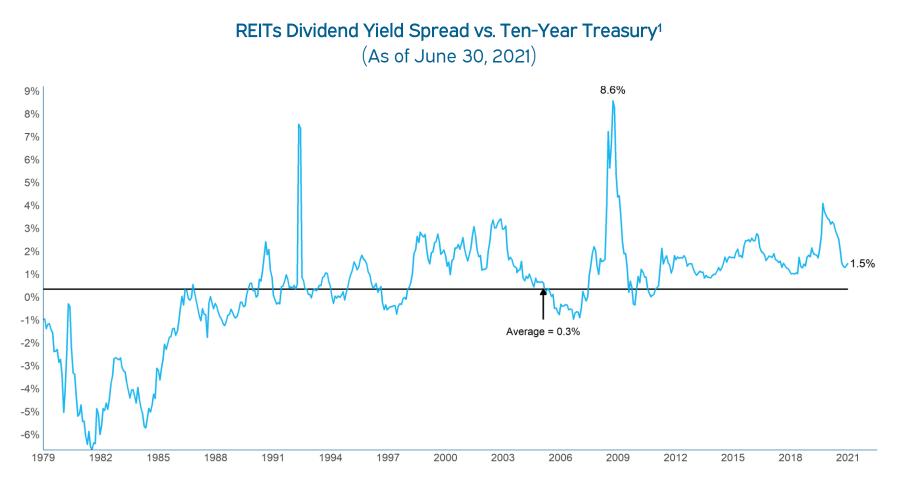




• This chart details one valuation metric for the private core real estate market. A higher (lower) figure indicates cheaper (more expensive) valuation.

<sup>&</sup>lt;sup>1</sup> 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.



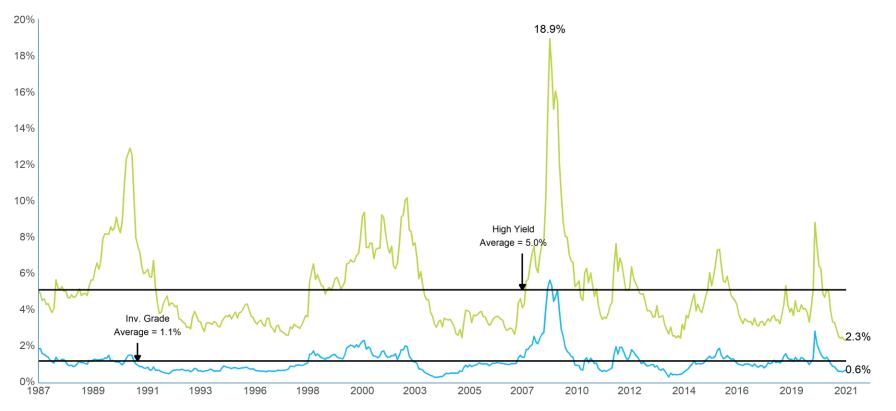


• This chart details one valuation metric for the public REITs market. A higher (lower) figure indicates cheaper (more expensive) valuation.

<sup>&</sup>lt;sup>1</sup> REITs Dividend Yield Spread vs. Ten-Year Treasury – Source: NAREIT, US Treasury. REITs are proxied by the yield for the NAREIT Equity Index.



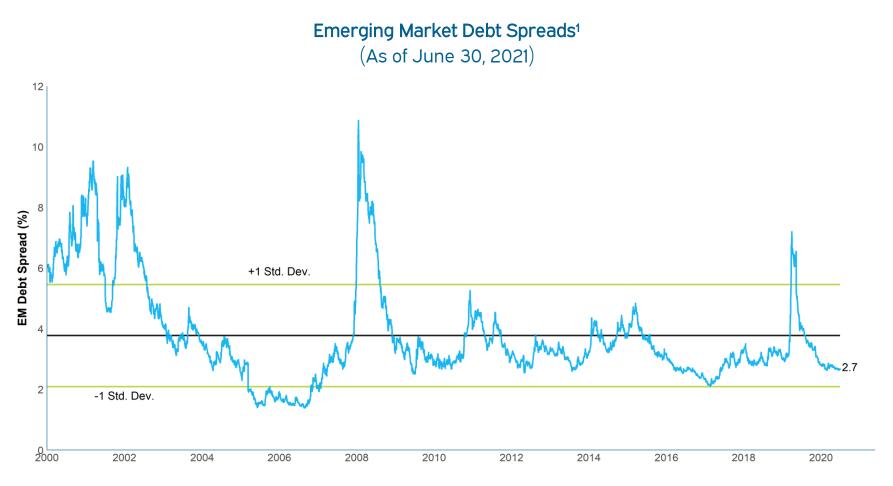




• This chart details one valuation metric for the US credit markets. A higher (lower) figure indicates cheaper (more expensive) valuation relative to history.

<sup>&</sup>lt;sup>1</sup> 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.



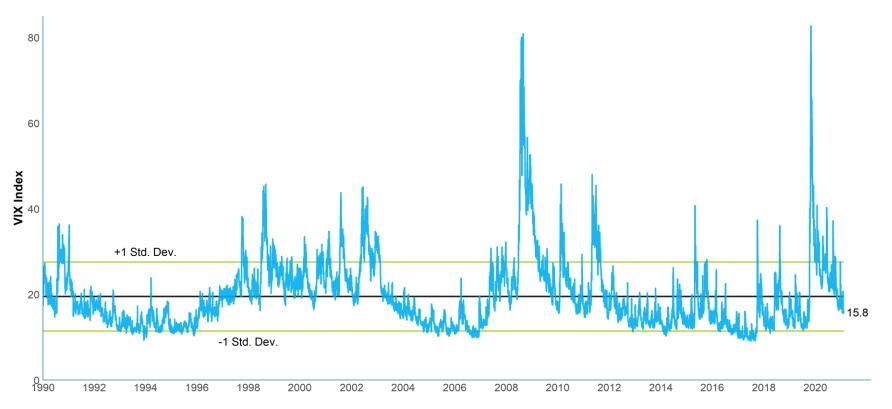


• This chart details one valuation metric for the EM debt markets. A higher (lower) figure indicates cheaper (more expensive) valuation relative to history.

<sup>&</sup>lt;sup>1</sup> EM Spreads – Source: Bloomberg. Option Adjusted Spread (OAS) for the Bloomberg Barclays EM USD Aggregate Index.



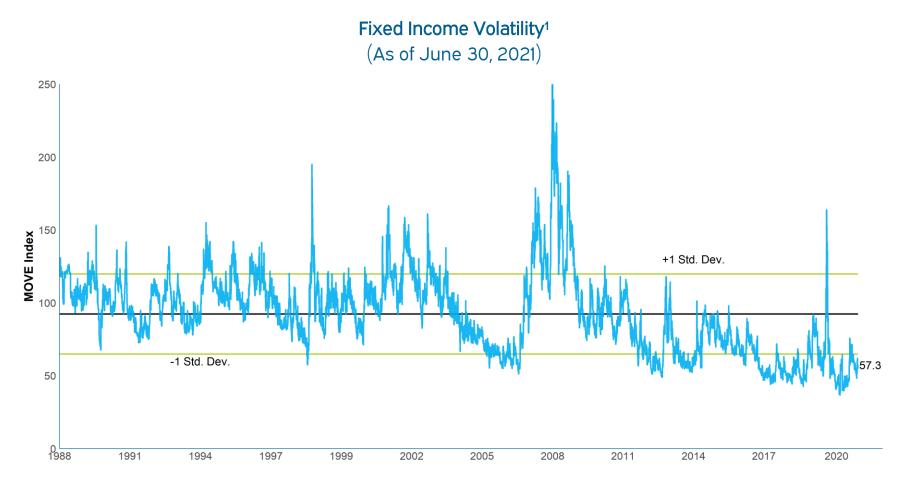
**Equity Volatility**<sup>1</sup> (As of June 30, 2021)



• 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.

<sup>&</sup>lt;sup>1</sup> Equity Volatility – Source: Bloomberg, and Meketa Investment Group. Equity Volatility proxied by VIX Index, a Measure of implied option volatility for US equity markets.

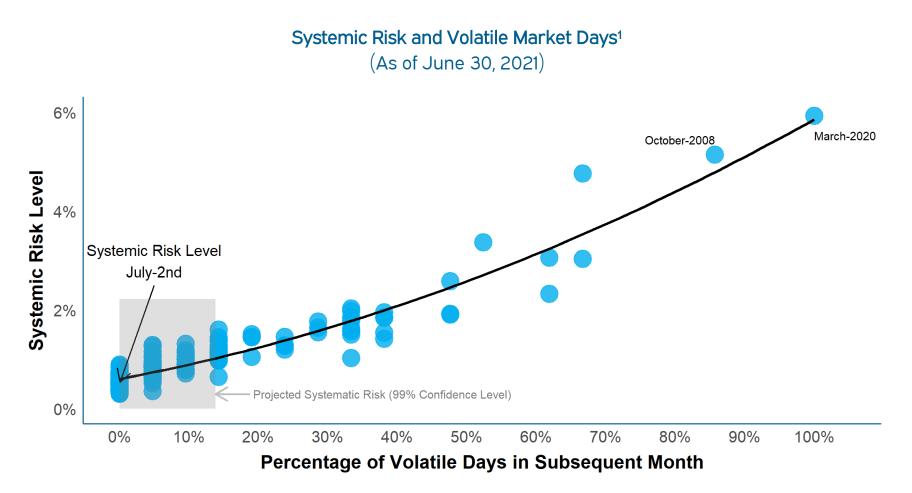




• This chart details historical implied fixed income market volatility. This metric tends to increase during times of stress/fear and while declining during more benign periods.

<sup>&</sup>lt;sup>1</sup> 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.

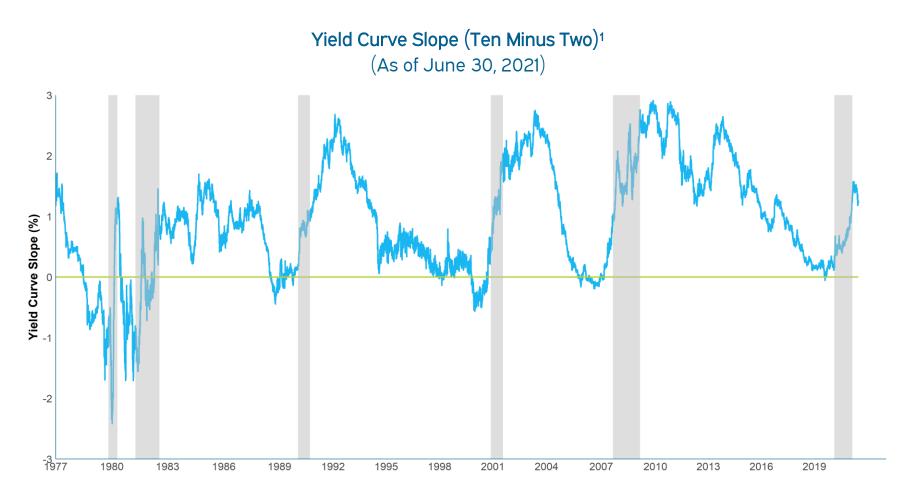




• Systemic Risk is a measure of 'System-wide' risk, which indicates herding type behavior.

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

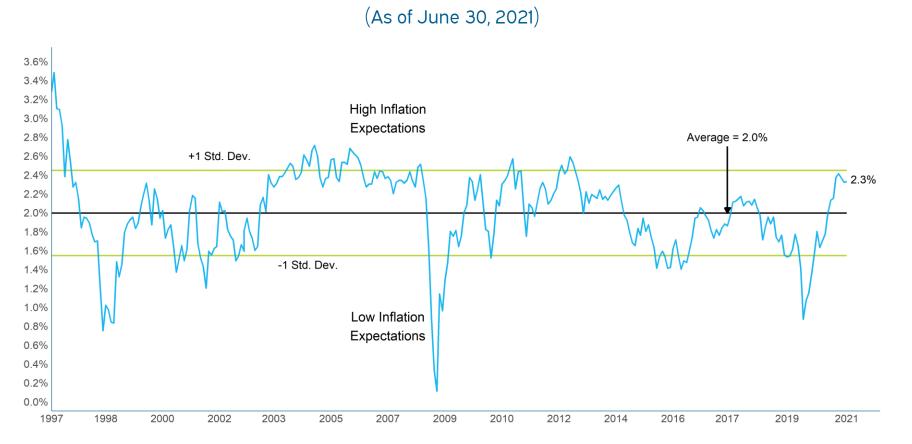




• This chart details the historical difference in yields between ten-year and two-year US Treasury bonds/notes. A higher (lower) figure indicates a steeper (flatter) yield curve slope.

<sup>&</sup>lt;sup>1</sup> 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<sup>1</sup>

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

<sup>&</sup>lt;sup>1</sup> Ten-Year Breakeven Inflation – Source: US Treasury and Federal Reserve. Inflation is measured by the Consumer Price Index (CPI-U NSA).



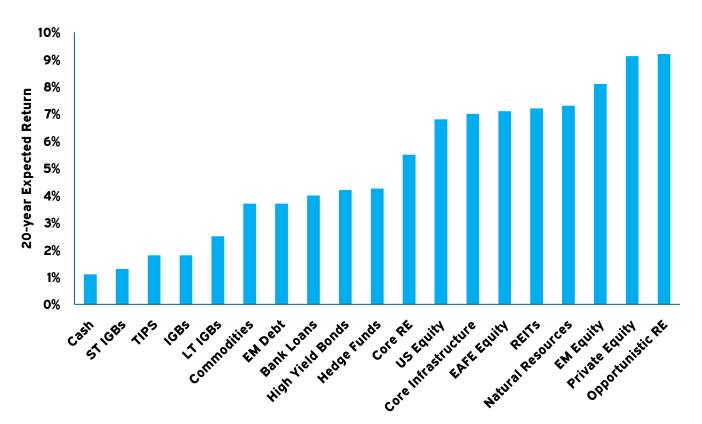
#### Total Return Given Changes in Interest Rates (bps)<sup>1</sup> (As of June 30, 2021) ----Barclays U.S. Short Treasury (Cash) ----Barclays U.S. Treasury 1-3 Yr. ----Barclays U.S. Treasury Intermediate 6% 4% 2% 0% 100 150 -100 -50 0 200 300 250 ·2% ·4% 6% -8% 0%

	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)	0.4%	0.3%	0.1%	-0.1%	-0.3%	-0.5%	-0.7%	-0.9%	-1.1%	0.38	0.06%
Barclays US Treasury 1-3 Yr.	2.3%	1.3%	0.4%	-0.6%	-1.6%	-2.6%	-3.5%	-4.5%	-5.5%	1.94	0.36%
Barclays US Treasury Intermediate	4.8%	2.7%	0.7%	-1.3%	-3.2%	-5.1%	-6.9%	-8.7%	-10.4%	4.03	0.67%
Barclays US Treasury Long	23.0%	12.0%	2.0%	-6.8%	-14.6%	-21.2%	-26.8%	-31.3%	-34.7%	18.76	2.03%

12%

<sup>&</sup>lt;sup>1</sup> 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 Returns<sup>1</sup>

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

<sup>&</sup>lt;sup>1</sup> Source: Meketa Investment Group's 2021 Annual Asset Study.



#### Appendix

#### Data Sources and Explanations<sup>1</sup>

- 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.

<sup>&</sup>lt;sup>1</sup> All Data as of June 30, 2021 unless otherwise noted.



#### Appendix

#### Data Sources and Explanations<sup>1</sup>

- 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.

<sup>&</sup>lt;sup>1</sup> All Data as of June 30, 2021 unless otherwise noted.



#### Appendix

#### Data Sources and Explanations<sup>1</sup>

- 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).

<sup>&</sup>lt;sup>1</sup> All Data as of June 30, 2021 unless otherwise noted.



# **Meketa Market Sentiment Indicator**

Explanation, Construction and Q&A



Meketa has created the MIG Market Sentiment Indicator (MIG-MSI) to <u>complement</u> 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 corrections 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 neutral or inconclusive. A red 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 neutral or inconclusive in 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 measure<sup>1</sup>. 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).

<sup>&</sup>lt;sup>1</sup> Momentum as we are defining it is the use of the past behavior of a series as a predictor of its future behavior.

<sup>&</sup>quot;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.



#### **Disclaimer Information**

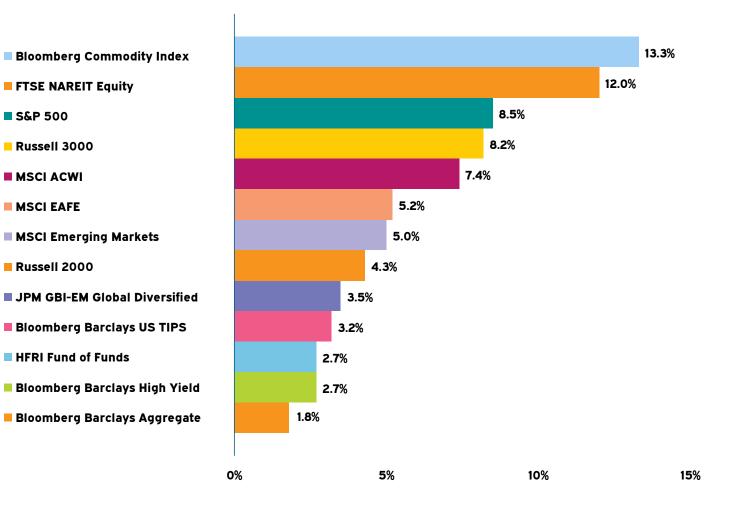
This material is provided by Meketa Investment Group, Inc. ("Meketa") for informational purposes only and may contain information that is not suitable for all clients. No portion of this commentary is to be construed as a solicitation or recommendations to buy or sell a security, or the provision of personalized investment advice, tax or legal advice. Past performance may not be indicative of future results and may have been impacted by market events and economic conditions that will not prevail in the future. There can be no assurance that any particular investment or strategy will prove profitable and the views, opinions, and projects expressed herein may not come to pass. Any direct or indirect reference to a market index is included for illustrative purposes only, as an index is not a security in which an investment can be made. Indices are benchmarks that serve as market or sector indicators and do not account for the deduction of management fees, transaction costs and other expenses associated with investable products. Meketa does not make any representation as to the accuracy, timeliness, suitability, completeness or relevance of any information prepared by any unaffiliated third party and takes no responsibility, therefore. Any data provided regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of futures results. Investing involves risk, including the potential loss of principal and clients should be guided accordingly.

The World Markets Second Quarter of 2021

# MEKETA

#### The World Markets Second Quarter of 2021

# The World Markets<sup>1</sup> Second Quarter of 2021



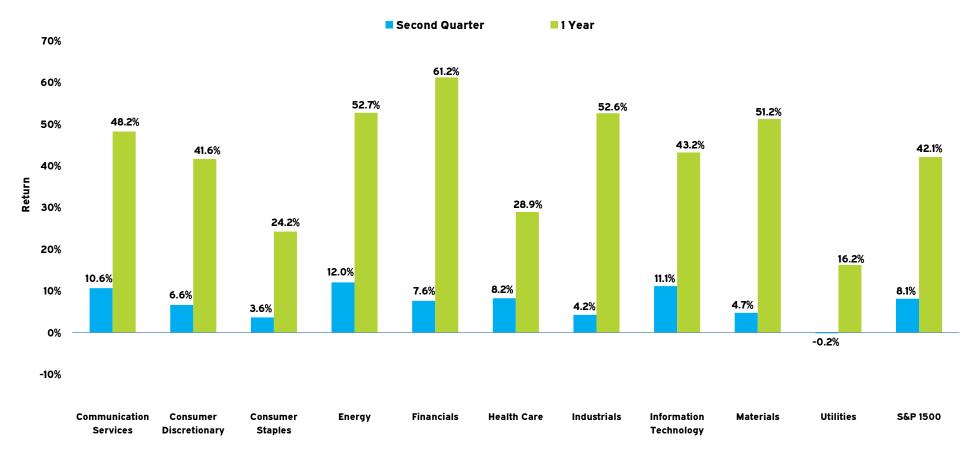


#### The World Markets Second Quarter of 2021

	2Q21 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
omestic Equity		( - /	( )	( - )	( - )	(-7
S&P 500	8.5	15.3	40.8	18.7	17.6	14.8
Russell 3000	8.2	15.1	44.2	18.7	17.9	14.7
Russell 1000	8.5	15.0	43.1	19.2	18.0	14.9
Russell 1000 Growth	11.9	13.0	42.5	25.1	23.7	17.9
Russell 1000 Value	5.2	17.0	43.7	12.4	11.9	11.6
Russell MidCap	7.5	16.2	49.8	16.4	15.6	13.2
Russell MidCap Growth	11.1	10.4	43.8	22.4	20.5	15.1
Russell MidCap Value	5.7	19.5	53.1	11.9	11.8	11.7
Russell 2000	4.3	17.5	62.0	13.5	16.5	12.3
Russell 2000 Growth	3.9	9.0	51.4	15.9	18.8	13.5
Russell 2000 Value	4.6	26.7	73.3	10.3	13.6	10.8
preign Equity						
MSCI ACWI (ex. US)	5.6	9.3	35.9	9.4	11.1	5.5
MSCI EAFE	5.2	8.8	32.3	8.3	10.3	5.9
MSCI EAFE (Local Currency)	4.8	12.7	27.1	7.5	10.0	8.1
MSCI EAFE Small Cap	4.4	9.1	41.1	8.4	12.0	8.4
MSCI Emerging Markets	5.0	7.4	40.9	11.3	13.0	4.3
MSCI Emerging Markets (Local Currency)	3.8	7.9	36.1	12.0	13.6	7.6
xed Income						
Bloomberg Barclays Universal	2.0	-1.1	1.1	5.6	3.5	3.7
Bloomberg Barclays Aggregate	1.8	-1.6	-0.3	5.3	3.0	3.4
Bloomberg Barclays US TIPS	3.2	1.7	6.5	6.5	4.2	3.4
Bloomberg Barclays High Yield	2.7	3.6	15.4	7.4	7.5	6.7
JPM GBI-EM Global Diversified	3.5	-3.4	6.6	4.1	3.2	0.5
ther						
FTSE NAREIT Equity	12.0	21.3	32.8	11.8	8.0	10.2
Bloomberg Commodity Index	13.3	21.2	45.6	3.9	2.4	-4.4
HFRI Fund of Funds	2.7	4.8	18.1	6.3	6.1	3.8

#### Index Returns<sup>1</sup>

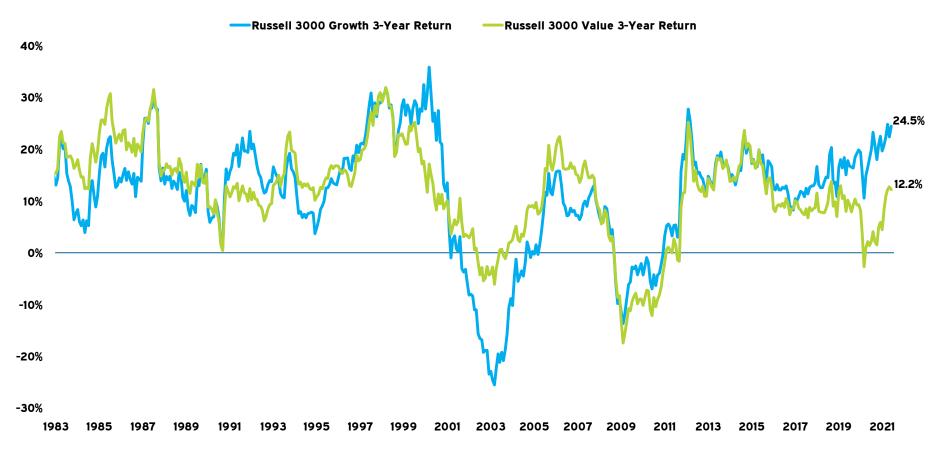




#### S&P Sector Returns<sup>1</sup>

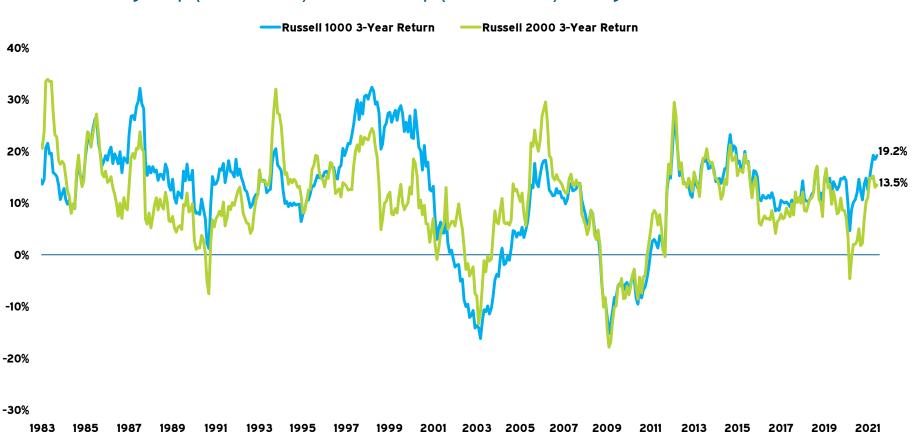
<sup>1</sup> Source: InvestorForce. Represents S&P 1500 (All Cap) data.





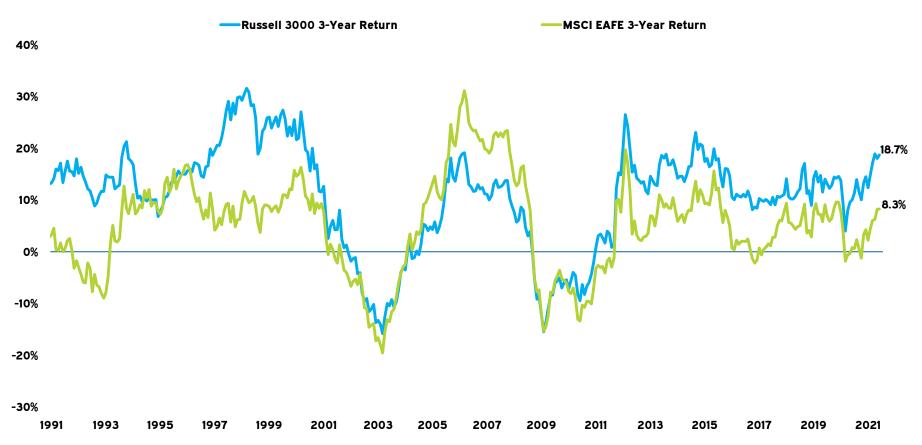
# Growth and Value Rolling Three Year Returns<sup>1</sup>





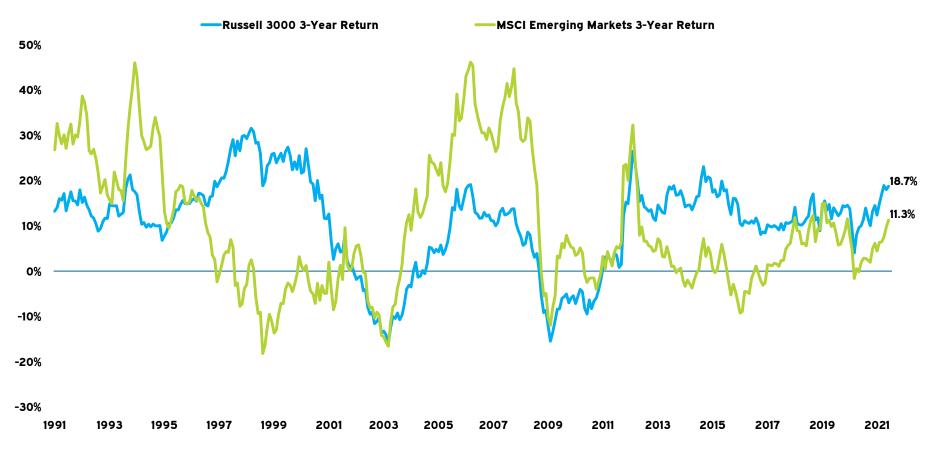
# Large Cap (Russell 1000) and Small Cap (Russell 2000) Rolling Three Year Returns<sup>1</sup>





# US and Developed Market Foreign Equity Rolling Three-Year Returns<sup>1</sup>

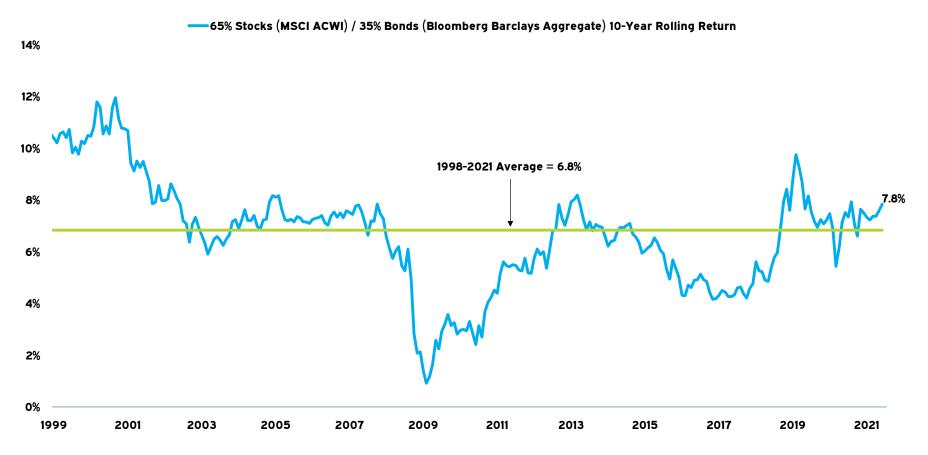




# US and Emerging Market Equity Rolling Three-Year Returns<sup>1</sup>

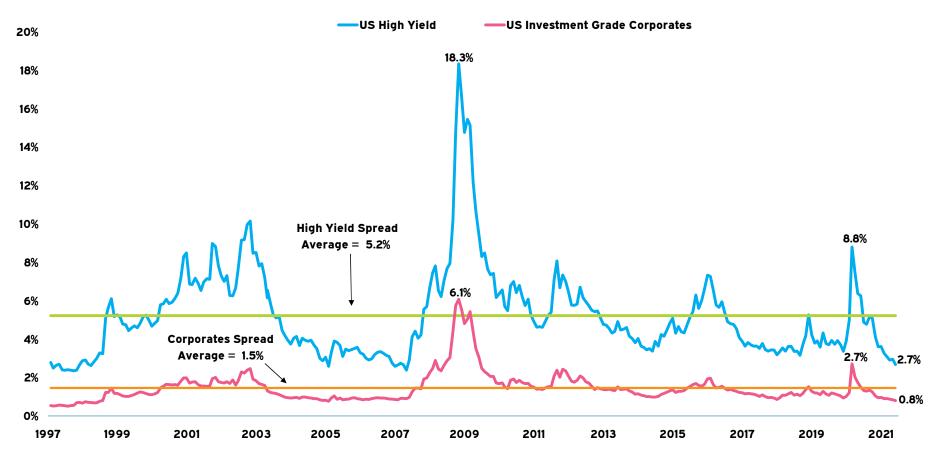


# Rolling Ten-Year Returns: 65% Stocks and 35% Bonds<sup>1</sup>



<sup>&</sup>lt;sup>1</sup> Source: InvestorForce.





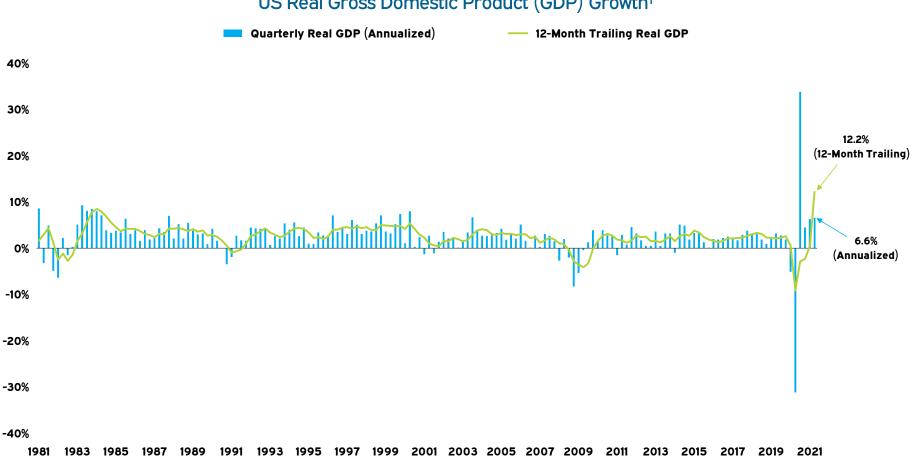
# Credit Spreads vs. US Treasury Bonds<sup>1,2</sup>

MEKETA INVESTMENT GROUP

<sup>&</sup>lt;sup>1</sup> Source: Barclays Live. Data represents the OAS.

 $<sup>^2</sup>$  The median high yield spread was 4.7% from 1997-2021.





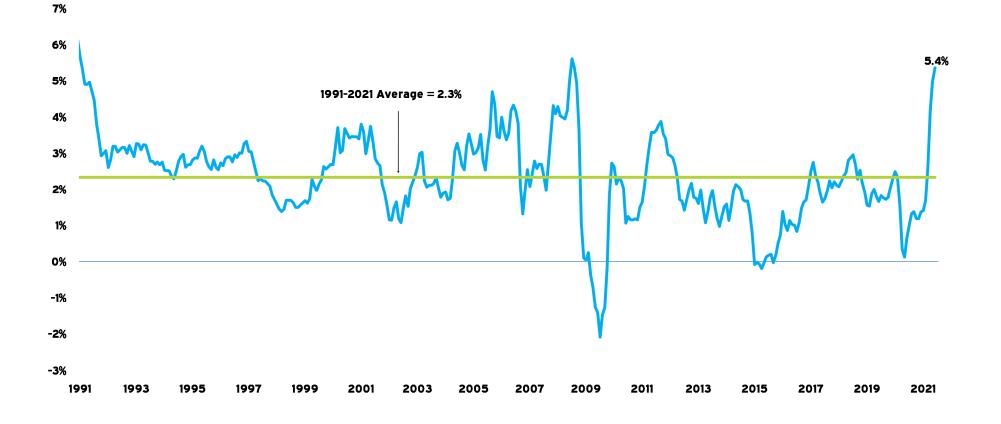
# US Real Gross Domestic Product (GDP) Growth<sup>1</sup>

Source: Bureau of Economic Analysis. Data is as of Q2 2021 and represents the second estimate. 1

MEKETA INVESTMENT GROUP



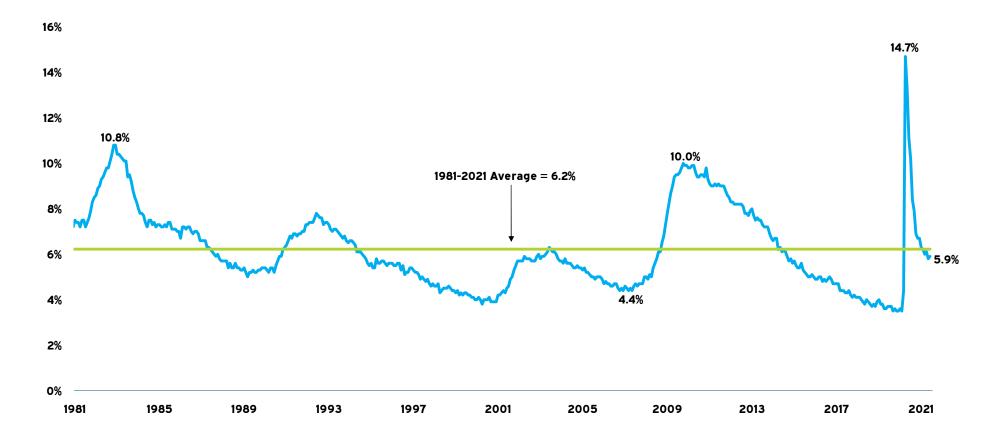
US Inflation (CPI) Trailing Twelve Months<sup>1</sup>



<sup>&</sup>lt;sup>1</sup> Source: Bureau of Labor Statistics. Data is non-seasonally adjusted CPI, which may be volatile in the short-term. Data is as of June 30, 2021.







<sup>&</sup>lt;sup>1</sup> Source: Bureau of Labor Statistics. Data is as of June 30, 2021.

# Disclaimer, Glossary, and Notes



WE HAVE PREPARED THIS REPORT (THIS "REPORT") FOR THE SOLE BENEFIT OF THE INTENDED RECIPIENT (THE "RECIPIENT").

SIGNIFICANT EVENTS MAY OCCUR (OR HAVE OCCURRED) AFTER THE DATE OF THIS REPORT AND THAT IT IS NOT OUR FUNCTION OR RESPONSIBILITY TO UPDATE THIS REPORT. ANY OPINIONS OR RECOMMENDATIONS PRESENTED HEREIN REPRESENT OUR GOOD FAITH VIEWS AS OF THE DATE OF THIS REPORT AND ARE SUBJECT TO CHANGE AT ANY TIME. ALL INVESTMENTS INVOLVE RISK. THERE CAN BE NO GUARANTEE THAT THE STRATEGIES, TACTICS, AND METHODS DISCUSSED HERE WILL BE SUCCESSFUL.

INFORMATION USED TO PREPARE THIS REPORT WAS OBTAINED FROM INVESTMENT MANAGERS, CUSTODIANS, AND OTHER EXTERNAL SOURCES. WHILE WE HAVE EXERCISED REASONABLE CARE IN PREPARING THIS REPORT, WE CANNOT GUARANTEE THE ACCURACY OF ALL SOURCE INFORMATION CONTAINED HEREIN.

CERTAIN INFORMATION CONTAINED IN THIS REPORT MAY CONSTITUTE "FORWARD - LOOKING STATEMENTS," WHICH CAN BE IDENTIFIED BY THE USE OF TERMINOLOGY SUCH AS "MAY," "WILL," "SHOULD," "EXPECT," "AIM", "ANTICIPATE," "TARGET," "PROJECT," "ESTIMATE," "INTEND," "CONTINUE" OR "BELIEVE," OR THE NEGATIVES THEREOF OR OTHER VARIATIONS THEREON OR COMPARABLE TERMINOLOGY. ANY FORWARD-LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION ARE BASED UPON CURRENT ASSUMPTIONS. CHANGES TO ANY ASSUMPTIONS MAY HAVE A MATERIAL IMPACT ON FORWARD - LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION ARE BASED UPON CURRENT, PROJECTIONS, VALUATIONS, OR RESULTS. ACTUAL RESULTS MAY THEREFORE BE MATERIALLY DIFFERENT FROM ANY FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION.

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. Portfolio Return- [Risk Free Rate+Beta\*(market return-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 is 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%.

5% (discount)=1% pro rata, plus=6.26% (yield to maturity)5 (yrs. to maturity)5.26% (current yield)=6.26% (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

The Russell Indices®, TM, SM are trademarks/service marks of the Frank Russell Company.

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.