

# San Joaquin County Employees' Retirement Association (SJCERA)

Q2 2023

Quarterly Report

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# Introduction

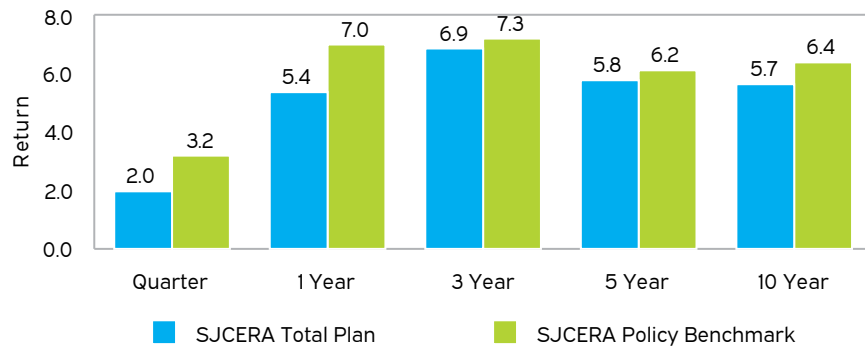
## Introduction

The SJCERA Total Portfolio had an aggregate value of \$4.02 billion as of June 30, 2023. During the latest quarter, the Total Portfolio increased in value by \$85.3 million, and over the one-year period, the Total Portfolio has increased by \$256.6 million. The movements over the quarter and one-year periods were primarily driven by investment returns. The volatility markets experienced during the first quarter of the year largely dissipated during the second quarter of 2023 as pressures that stemmed from the regional banking crisis in the beginning of the year eased. During June, in a move that further calmed the markets, President Biden signed a bill raising the Federal debt ceiling. Several weeks later, the Federal Reserve chose to “pause” their path of rate hikes, potentially signaling to the market that we are nearing the terminal interest rate.

## Recent Investment Performance

The Total Portfolio has underperformed the policy benchmark for the quarter, 1-, 3-, 5-, 10-, 15-, 20- and 25-year periods by (1.3%), (1.6%), (0.4%), (0.4%), (0.7%), (0.9%), (0.7%), and (0.2%), respectively. Net of fees, the Plan has also trailed the Median Public Fund for the quarter, 1-, 3-, 5-, 10-, 15-, 20-, and 25-year periods by (0.7%), (1.8%), (1.4%), (0.4%), (1.2%), (1.9%), (1.4%), and (1.5%), respectively. That said, it's important to view these returns in the context of the risk the portfolio is taking on relative to that of the median public plan. The annualized standard deviation of the Plan is 2.8% lower than the median public plan with over \$1 billion in assets, (7.7% for the plan vs. 10.5% for the median public plan), and the Sharpe ratio of the Plan is 0.6 whereas the Sharpe ratio of the median public plan in the same category is 0.5.

#### Return Summary



#### Summary of Cash Flows

	Quarter	1 Year
<b>SJCERA Total Plan</b>		
Beginning Market Value	3,938,611,968	3,767,288,432
Net Cash Flow	6,061,338	49,302,819
Net Investment Change	79,249,192	207,331,248
Ending Market Value	4,023,922,498	4,023,922,498

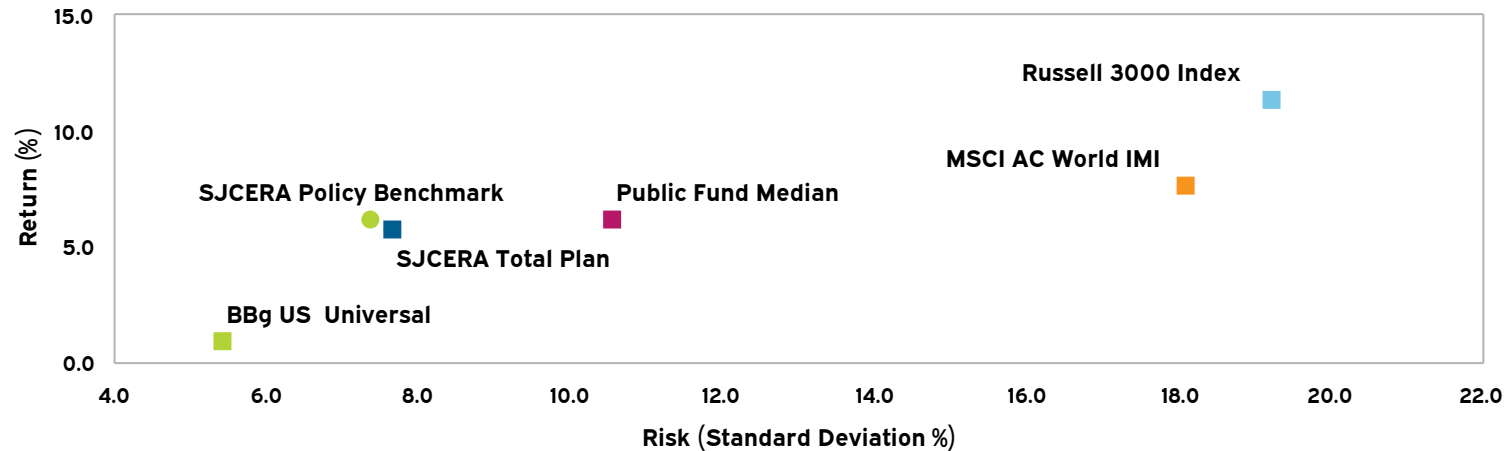
	Quarter	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years
<b>SJCERA Total Plan - Gross</b>	<b>2.1</b>	<b>5.8</b>	<b>7.4</b>	<b>6.4</b>	<b>6.5</b>	<b>5.2</b>	<b>6.3</b>	<b>6.0</b>
<b>SJCERA Total Plan - Net</b>	<b>2.0</b>	<b>5.4</b>	<b>6.9</b>	<b>5.8</b>	<b>5.7</b>	<b>4.5</b>	<b>5.7</b>	<b>5.4</b>
<i>SJCERA Policy Benchmark<sup>2</sup></i>	<u>3.2</u>	<u>7.0</u>	<u>7.3</u>	<u>6.2</u>	<u>6.4</u>	<u>5.4</u>	<u>6.3</u>	<u>5.6</u>
Excess Return (Net)	-1.2	-1.6	-0.4	-0.4	-0.7	-0.9	-0.6	-0.2
<i>All Public Plans &gt; \$1B-Total Fund Median<sup>1</sup></i>	2.6	7.6	8.3	6.2	6.9	6.4	7.0	6.1

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

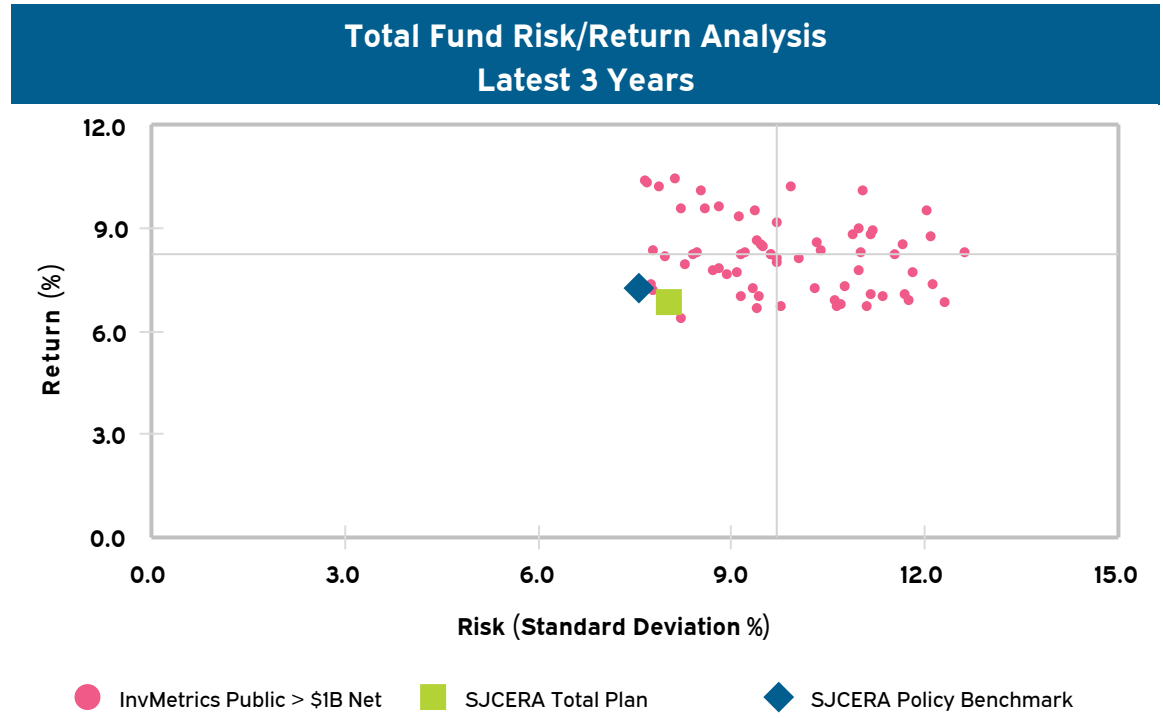
<sup>2</sup> Policy Benchmark composition is listed in the Appendix.

	Risk Adjusted Return vs Peers			
	1 Yr	3 Yrs	5 Yrs	10 Yrs
SJCERA Total Plan - Net	5.81	7.02	5.86	5.74
Risk Adjusted Median	6.52	6.85	4.52	6.33
Excess Return	-0.70	0.17	1.34	-0.59

### 5-Year Annualized Risk/Return (Net of Fees)



	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
SJCERA Total Plan	5.8	7.7	0.6
SJCERA Policy Benchmark	6.2	7.4	0.6
Median Public Fund Median	6.2	10.5	0.5
Blmbg. U.S. Universal Index	1.0	5.4	-0.1
Russell 3000 Index	11.4	19.2	0.6
MSCI AC World IMI	7.6	18.1	0.4



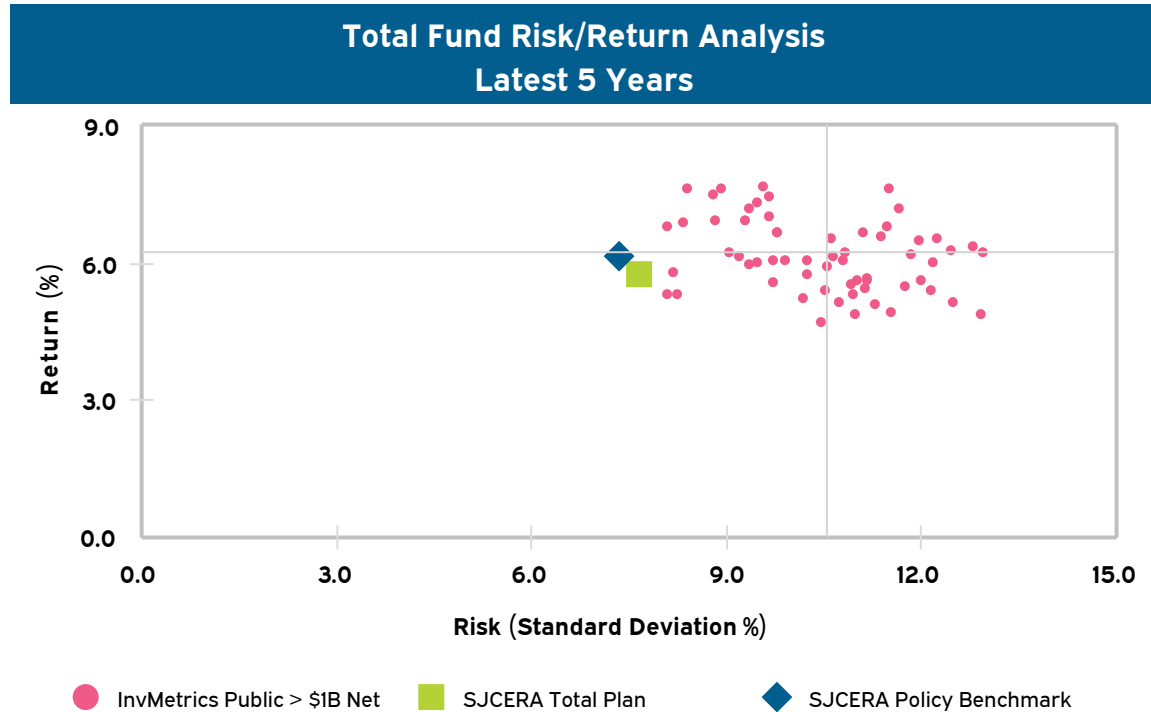
	Return	Standard Deviation	Sharpe Ratio
SJCERA Total Plan	6.9	8.0	0.7
SJCERA Policy Benchmark	7.3	7.6	0.8
All Public Plans > \$1B-Total Fund Median <sup>3</sup>	8.3	9.7	0.7

1 Returns are net of fees.

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

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



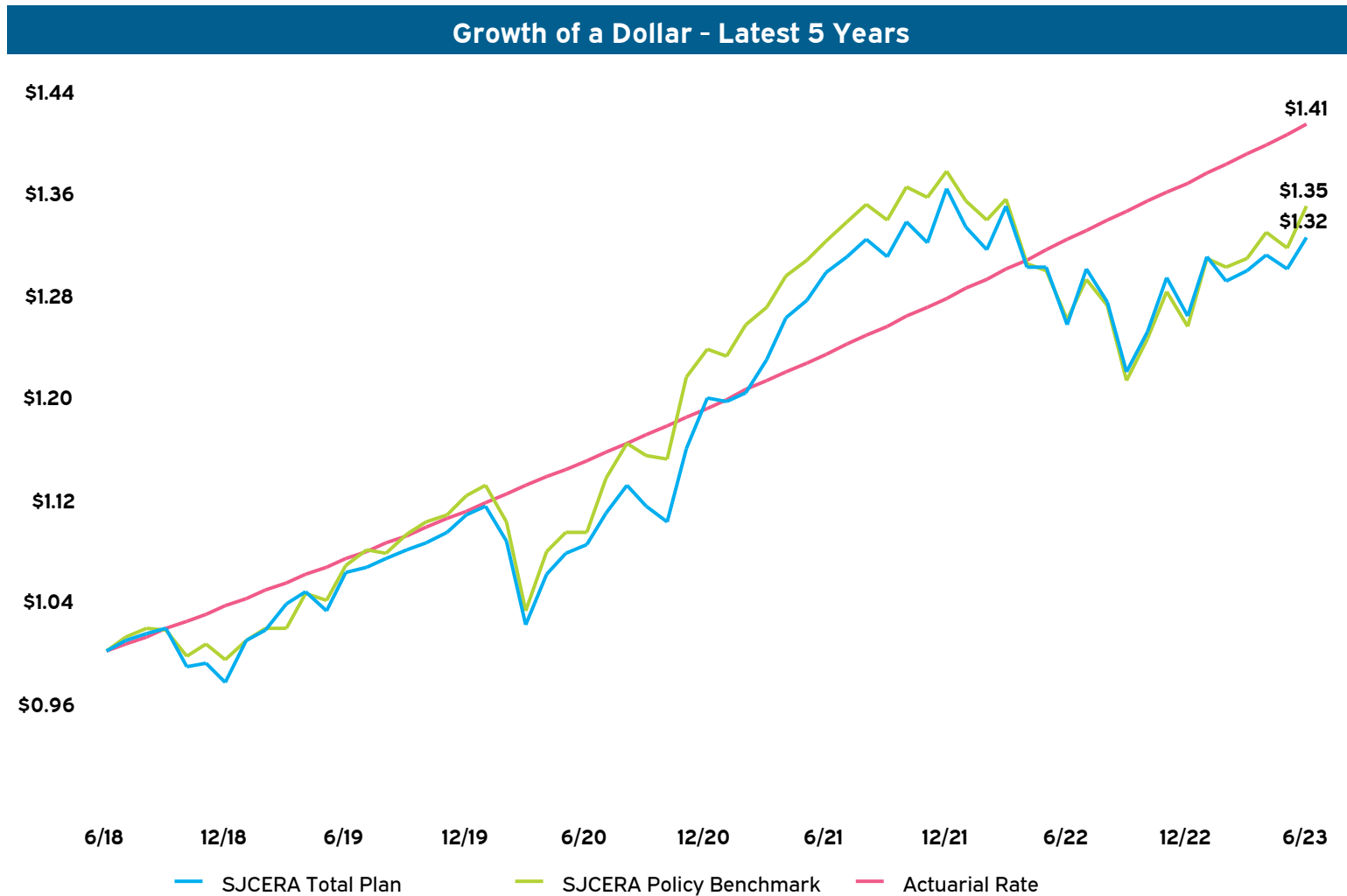


	Return	Standard Deviation	Sharpe Ratio
SJCERA Total Plan	5.8	7.7	0.6
SJCERA Policy Benchmark	6.2	7.4	0.6
All Public Plans > \$1B-Total Fund Median <sup>3</sup>	6.2	10.5	0.5

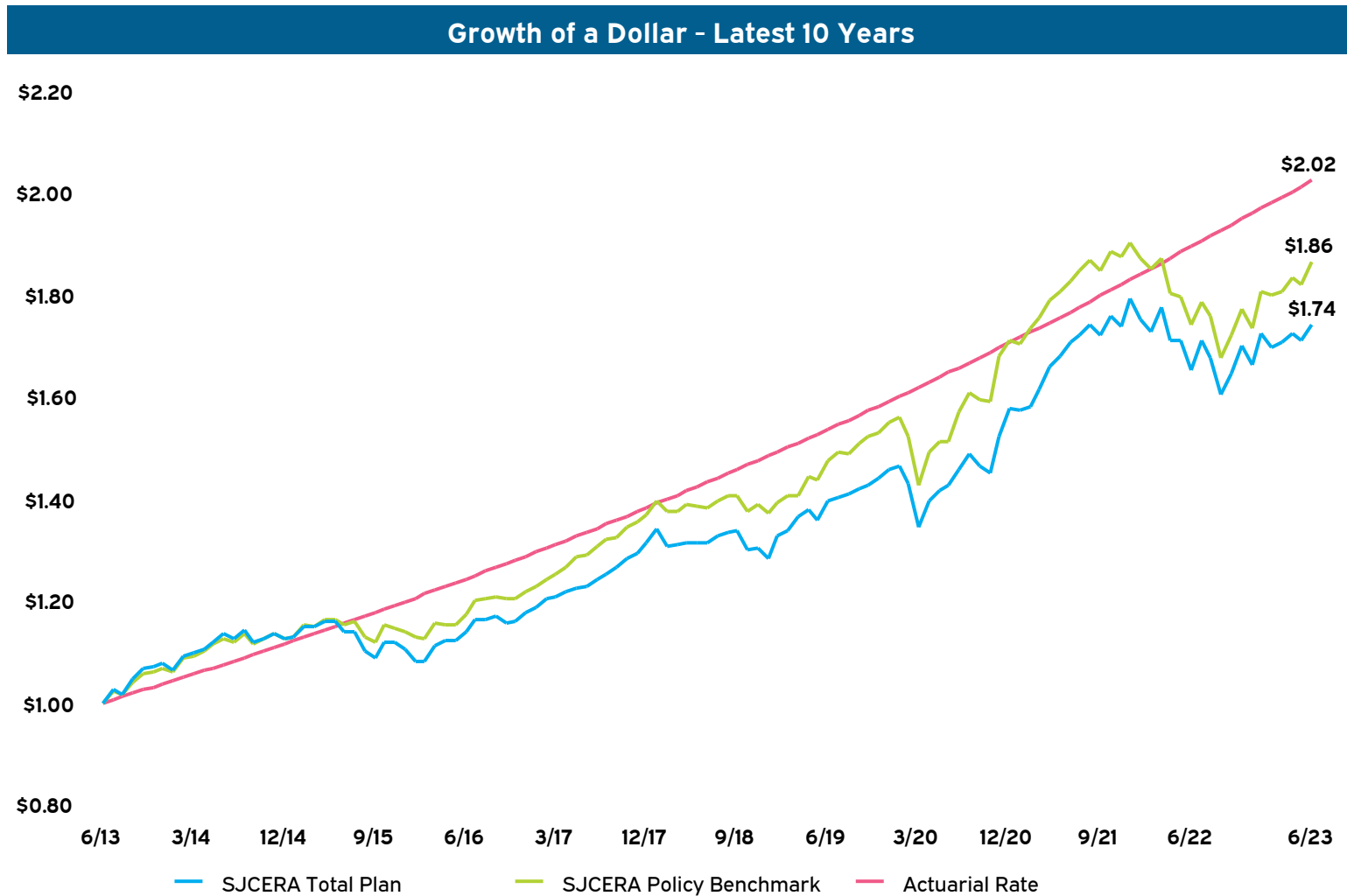
1 Returns are net of fees.

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

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

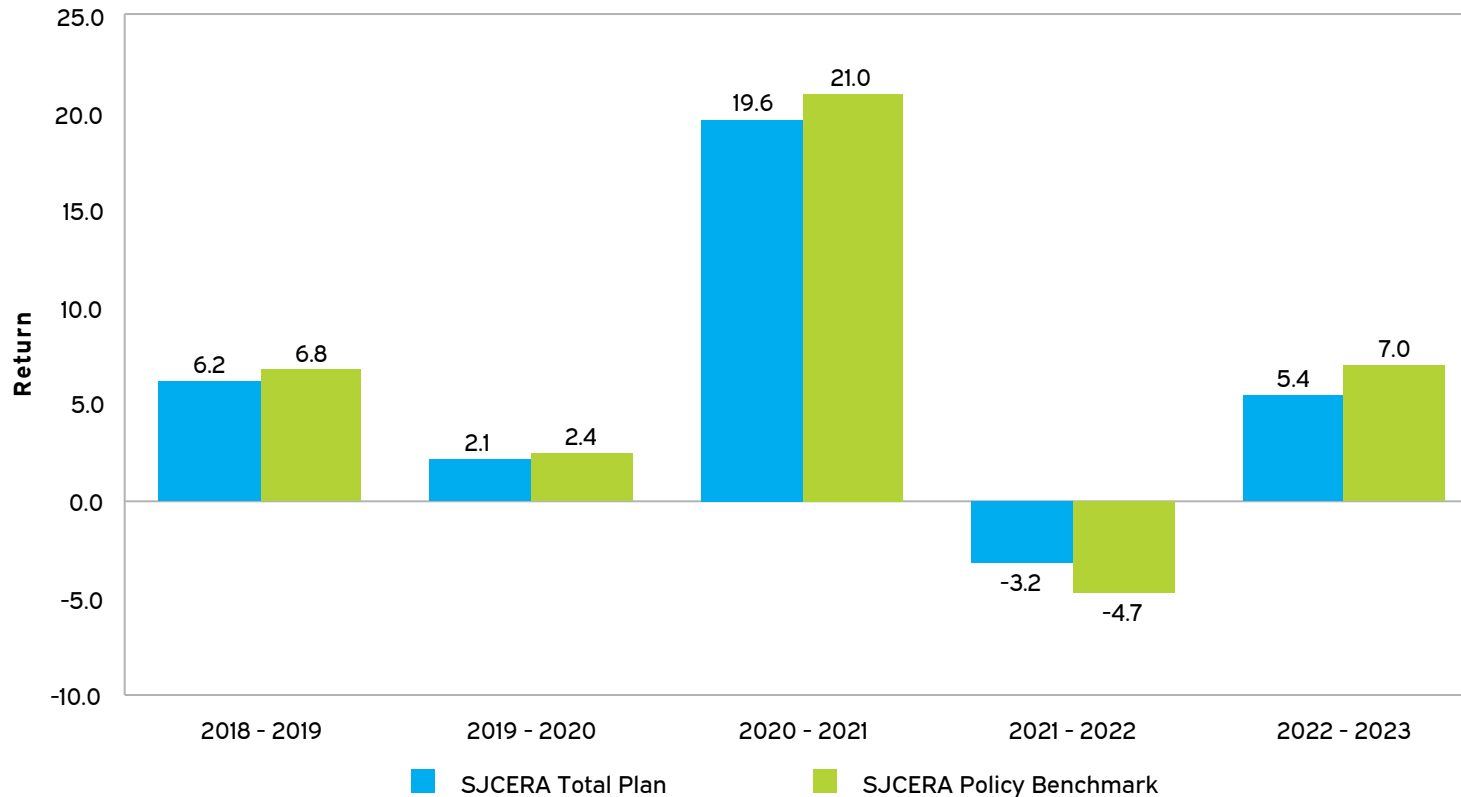


6.75% Actuarial Rate from 9/1/2022 to present. 7.0% Actuarial Rate from 1/1/2020 to 8/31/2022. 7.25% Actuarial Rate from 1/1/2018 to 12/31/2019. 7.4% Actuarial Rate from 8/1/2016 to 12/31/2017. 7.5% Actuarial Rate from 1/1/2012 to 7/31/2016. Previously 8.0%.



6.75% Actuarial Rate from 9/1/2022 to present. 7.0% Actuarial Rate from 1/1/2020 to 8/31/2022. 7.25% Actuarial Rate from 1/1/2018 to 12/31/2019. 7.4% Actuarial Rate from 8/1/2016 to 12/31/2017. 7.5% Actuarial Rate from 1/1/2012 to 7/31/2016. Previously 8.0%.

### 12-month Performance Overview



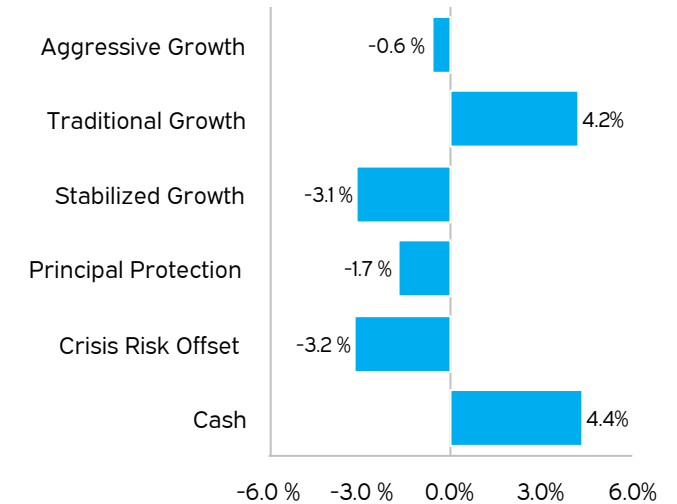
12-month absolute results have been positive over four of the last five 12-month periods, net of fees. The SJCERA Total Portfolio matched or outperformed the policy target benchmark during one of these five periods, net of fees.

## Portfolio Review

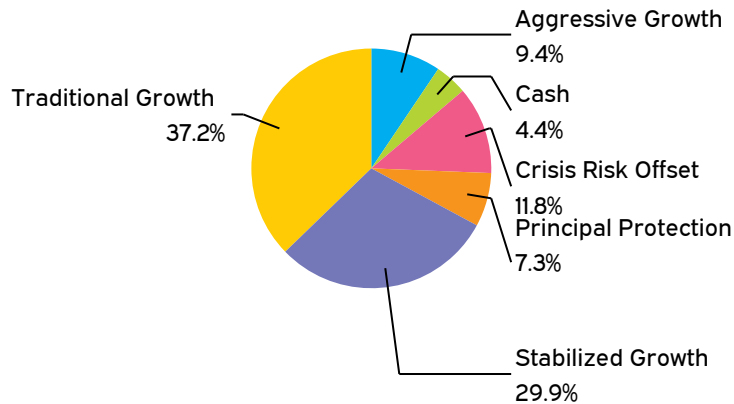
### Asset Allocation | As of June 30, 2023

	Current Balance (\$)	Current Allocation (%)	Policy (%)	Difference (%)
<b>Broad Growth</b>	<b>\$3,079,870,291</b>	<b>76.5</b>	<b>76.0</b>	<b>0.5</b>
Aggressive Growth	\$379,311,152	9.4	10.0	-0.6
Traditional Growth	\$1,498,709,898	37.2	33.0	4.2
Stabilized Growth	\$1,201,849,241	29.9	33.0	-3.1
<b>Diversified Growth</b>	<b>\$768,130,541</b>	<b>19.1</b>	<b>24.0</b>	<b>-4.9</b>
Principal Protection	\$292,667,074	7.3	9.0	-1.7
Crisis Risk Offset	\$475,463,467	11.8	15.0	-3.2
<b>Cash<sup>2</sup></b>	<b>\$175,921,666</b>	<b>4.4</b>	<b>0.0</b>	<b>4.4</b>
Cash	\$175,921,666	4.4	0.0	4.4
<b>Total</b>	<b>\$4,023,922,498</b>	<b>100.0</b>	<b>100.0</b>	<b>0.0</b>

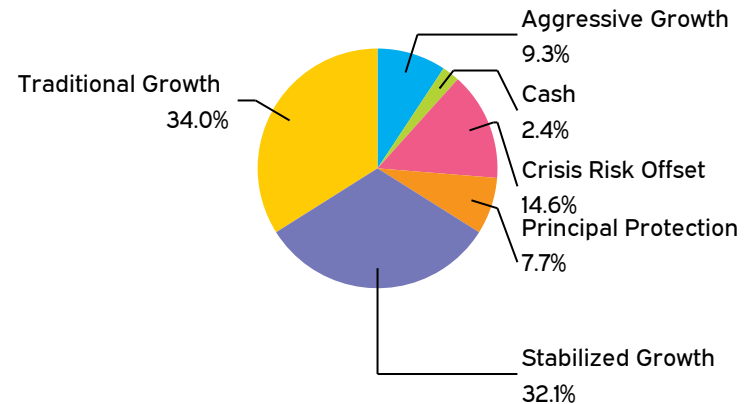
### Variance vs Target Allocation (%)



### As of June 30, 2023



### As of June 30, 2022



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 June 30, 2023

	Market Value \$	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
<b>SJCERA Total Plan</b>	<b>4,023,922,498</b>	<b>100.0</b>	<b>2.0</b>	<b>4.8</b>	<b>5.4</b>	<b>6.9</b>	<b>5.8</b>	<b>5.7</b>
<i>SJCERA Policy Benchmark<sup>2</sup></i>			3.2	7.6	7.0	7.3	6.2	6.4
<b>Broad Growth</b>	<b>3,079,870,291</b>	<b>76.5</b>	<b>2.2</b>	<b>5.7</b>	<b>7.4</b>	<b>8.9</b>	<b>6.8</b>	<b>6.9</b>
Aggressive Growth Lag	379,311,152	9.4	-2.0	-1.5	0.2	18.7	14.2	12.1
<i>Aggressive Growth Blend</i>			2.4	5.0	-3.3	7.1	8.3	8.7
Traditional Growth	1,498,709,898	37.2	6.3	13.6	17.0	11.1	6.8	8.0
<i>MSCI ACWI IMI Net</i>			5.9	13.2	16.1	11.0	8.4	9.2
Stabilized Growth	1,201,849,241	29.9	-1.2	-0.7	-0.4	4.0	4.7	4.1
<i>SJCERA Stabilized Growth Benchmark<sup>4</sup></i>			1.4	2.9	7.0	5.7	5.1	5.5
<b>Diversifying Strategies</b>	<b>768,130,541</b>	<b>19.1</b>	<b>1.4</b>	<b>1.2</b>	<b>-1.8</b>	<b>0.8</b>	<b>2.8</b>	<b>3.1</b>
Principal Protection	292,667,074	7.3	-0.2	2.9	1.2	-1.2	0.9	2.3
<i>Blmbg. U.S. Aggregate Index</i>			-0.8	2.1	-0.9	-4.0	0.8	1.5
Crisis Risk Offset Asset Class	475,463,467	11.8	2.4	0.2	-3.4	2.5	4.1	5.1
<i>CRO Benchmark</i>			0.8	2.1	-0.7	1.1	4.0	3.8
<b>Cash and Misc Asset Class</b>	<b>147,425,440</b>	<b>3.7</b>	<b>0.9</b>	<b>1.7</b>	<b>3.1</b>	<b>1.1</b>	<b>1.2</b>	<b>0.8</b>
<i>90 Day U.S. Treasury Bill</i>			1.2	2.3	3.6	1.3	1.6	1.0

1 Market values may not add up due to rounding.

2 Policy Benchmark composition is listed in the Appendix.

3 30% ICE BofAML US T-Bill + 4%; 52% 50% Bloomberg High Yield/50% S&P Leverage Loans; 18% NCREIF ODCE +1% Lag.

4 (1/3) Bloomberg Long Duration Treasuries; (1/3) BTOP50 Index; (1/3) 5% Annual.

### Asset Class Performance Net-of-Fees | As of June 30, 2023

	Market Value \$	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
<b>Aggressive Growth Lag<sup>2</sup></b>	<b>379,311,152</b>	<b>100.0</b>	<b>-2.0</b>	<b>0.2</b>	<b>18.7</b>	<b>14.2</b>	<b>12.1</b>
<i>Aggressive Growth Blend</i>			2.4	-3.3	7.1	8.3	8.7
Blackrock Global Energy and Power Lag <sup>2</sup>	45,034,647	11.9	7.6	13.0	10.0	--	--
<i>MSCI ACWI +2% Blend</i>			8.0	-5.1	18.2	--	--
BlackRock Global Infrastructure Fund IV, L.P.	2,791,657	0.7	-9.1	--	--	--	--
<i>MSCI ACWI +2% Lag<sup>2</sup></i>			8.0	--	--	--	--
Lightspeed Venture Ptnrs Select V Lag <sup>2</sup>	9,540,042	2.5	-0.7	-14.0	--	--	--
<i>MSCI ACWI +2% Blend</i>			8.0	-5.1	--	--	--
Long Arc Capital Fund I	18,225,854	4.8	-7.7	--	--	--	--
<i>MSCI ACWI +2% Blend</i>			8.0	--	--	--	--
Morgan Creek III Lag <sup>2,3</sup>	3,589,696	0.9	0.0	-18.0	-11.6	-12.3	--
<i>MSCI ACWI +2% Blend</i>			8.0	-5.1	18.2	9.2	--
Morgan Creek V Lag <sup>2</sup>	6,661,874	1.8	-14.0	-5.2	9.2	10.0	--
<i>MSCI ACWI +2% Blend</i>			8.0	-5.1	18.2	9.2	--
Morgan Creek VI Lag <sup>2</sup>	22,598,408	6.0	-0.2	-11.3	17.8	15.7	--
<i>MSCI ACWI +2% Blend</i>			8.0	-5.1	18.2	9.2	--
Ocean Avenue II Lag <sup>2</sup>	35,051,161	9.2	-4.0	3.7	34.8	25.7	--
<i>MSCI ACWI +2% Blend</i>			8.0	-5.1	18.2	9.2	--
Ocean Avenue III Lag <sup>2</sup>	51,500,814	13.6	-1.4	5.6	25.9	25.6	--
<i>MSCI ACWI +2% Blend</i>			8.0	-5.1	18.2	9.2	--

<sup>1</sup> Market Values may not add up due to rounding.

<sup>2</sup> Lagged 1 quarter.

<sup>3</sup> Q123 data not available at the time of this report. Values reported reflect Q422 market value adjusted by Q123 cash flows.



### Asset Class Performance Net-of-Fees | As of June 30, 2023

	Market Value \$	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Ocean Avenue IV Lag <sup>1</sup>	57,346,297	15.1	1.1	36.4	37.8	--	--
<i>MSCI ACWI +2% Blend</i>			8.0	-5.1	18.2	--	--
Ocean Avenue V Lag <sup>1</sup>	3,000,000	0.8	--	--	--	--	--
<i>MSCI ACWI +2% Blend</i>			--	--	--	--	--
Non-Core Real Assets Lag <sup>1</sup>	88,234,036	23.3	-7.5	-19.4	7.2	4.7	6.5
<i>NCREIF ODCE +1% lag (blend)</i>			-3.1	-3.0	8.5	7.6	9.6
Ridgemont Equity Partners IV, L.P.	4,294,149	1.1	10.7	--	--	--	--
<i>MSCI ACWI +2% Blend</i>			8.0	--	--	--	--
Stellex Capital Partners II Lag <sup>1</sup>	31,442,516	8.3	2.3	11.3	--	--	--
<i>MSCI ACWI +2% Blend</i>			8.0	-5.1	--	--	--

<sup>1</sup> Lagged 1 quarter.

<sup>2</sup> Trailing 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 June 30, 2023, thirteen of SJCERA's fourteen aggressive growth portfolios trailed their respective benchmarks. Please note that return data for this asset class is lagged one quarter and the quarterly results for this portion of the portfolio reflect the delayed markdowns we would expect in many of these asset classes. Additionally, several of these managers which are newer are experiencing what is known as the "J-Curve Effect" while they are in the downward sloping portion of the curve.

**BlackRock Global Energy and Power**, a fund with a focus on infrastructure, underperformed the MSCI ACWI +2% benchmark over the quarter and 3-year periods by (0.4%) and (8.2%), respectively. However, the manager outperformed the benchmark over the trailing 1-year period by 18.1%.

**BlackRock Global Infrastructure Fund IV**, a new addition to the Aggressive Growth sleeve which recently called capital, trailed the benchmark during the most recent quarter by (17.1%).

**Lightspeed Venture Partners Select V**, a venture capital fund, underperformed its target benchmark over the quarter and trailing 1-year period by (8.7%) and (8.9%), respectively.

**Long Arc Capital Fund I**, a growth-oriented venture capital manager which is new to the asset class, recently called capital and trailed the benchmark by (15.7%) over quarter.

**Morgan Creek III** did not have a first quarter capital statement available at the time of this report. The returns listed in the performance report for this fund are not updated as a result.

**Morgan Creek V** underperformed its benchmark over the quarter, 1-, and 3-year periods by (22.0%), (0.1%), and (9.0%), respectively. However, it has outperformed the benchmark over the trailing 5-year period by 0.8%.

**Morgan Creek VI** trailed its benchmark over the quarter, 1-, and 3-year periods by (8.2%), (6.2%), and (0.4%). That said, the fund has outperformed its benchmark over the trailing 5-year period by 6.5%.

**Ocean Avenue II**, trailed its benchmark during the quarter by (12.0%); however, it outperformed the benchmark over the 1-, 3- and 5-year periods by 8.8%, 16.6%, and 16.5%, respectively.

**Aggressive Growth (continued)**

**Ocean Avenue III**, trailed its benchmark during the quarter by (9.4%); however, it outperformed the benchmark over the 1-, 3- and 5-year periods by 10.7%, 7.7%, and 16.4%, respectively.

**Ocean Avenue IV**, trailed its benchmark during the quarter by (6.9%); however, it outperformed the benchmark over the 1- and 3-year periods by 41.5% and 19.6%, respectively.

**Ocean Avenue V**, a new Private Equity vintage of the veteran manager in this portfolio, recently called capital and had not yet invested the \$3MM that it called as of this reporting period.

**Non-Core Real Assets** underperformed its NCREIF ODCE +1% benchmark over the quarter, 1-, 3-, 5- and 10-year periods by (4.4%), (16.4%), (1.3%), (2.9%) and (3.1%), respectively.

**Ridgemont Equity Partners**, a new Private Equity manager within the asset class, outperformed the benchmark over the quarter by 2.7%.

**Stellex Capital Partners II**, trailed its benchmark over the quarter by (5.7%); however, it outperformed its benchmark over the trailing 1-year period by 16.4%.

Private Appreciation										
Investment Activity Statement for Since Inception by Fund										
Investment	Vintage Year	Original Inv. Commitment	Gross Contributions	Management Fees	Return of Capital	Distributions	Net Income	Unrealized Appreciation	Realized Gain	Ending Market Value
Blackrock Global Energy & Power III	2019	50,000,000	44,782,229	3,180,787	1,425,739	6,862,293	2,279,834	4,453,239	1,807,377	45,034,647
Blackrock Global Infrastructure IV-D	2022	50,000,000	3,281,029	152,890	-	-	(473,011)	(40,078)	23,717	2,791,657
Lightspeed Venture Partners Select V	2021	40,000,000	10,800,000	1,000,000	-	-	(1,059,101)	(200,857)	-	9,540,042
Long Arc Capital I	2022	25,000,000	17,683,915	1,413,356	-	-	2,873	527,908	11,158	18,225,854
Morgan Creek III <sup>1</sup>	2015	10,000,000	9,900,000	471,824	2,325,492	717,761	(1,307,803)	(1,238,798)	350,073	4,660,219
Morgan Creek V	2013	12,000,000	11,520,000	774,805	5,102,450	9,191,741	(1,718,714)	2,091,461	9,063,318	6,661,874
Morgan Creek VI	2015	20,000,000	18,200,000	3,787,660	6,864,868	7,768,335	(1,264,398)	14,601,744	5,694,265	22,598,408
Ocean Avenue II*	2013	40,000,000	36,000,000	5,914,395	5,875,189	52,815,969	23,019,797	11,999,739	22,722,783	35,051,161
Ocean Avenue III	2016	50,000,000	46,500,000	7,328,927	25,500,000	28,750,000	11,867,178	21,332,237	26,051,400	51,500,814
Ocean Avenue IV	2019	50,000,000	47,000,000	4,312,705	3,250,000	23,581,637	1,359,168	16,411,713	19,407,053	57,346,297
Ocean Avenue V <sup>2</sup>	2022	30,000,000	3,000,000	-	-	-	-	-	-	3,000,000
Ridgemont	2021	50,000,000	3,879,532	250,000	-	-	(179,168)	593,785	-	4,294,149
Stellex II	2020	50,000,000	30,906,249	2,184,550	-	1,877,875	(1,513,469)	2,441,249	1,486,362	31,442,516
<b>Total</b>			<b>259,488,010</b>	<b>29,205,653</b>	<b>50,343,738</b>	<b>131,565,611</b>	<b>31,483,324</b>	<b>72,485,513</b>	<b>86,582,631</b>	<b>268,130,128</b>

\* Ocean II commitment started at \$30 Mil in Q213 and increased to \$40 Mil in Q114.

<sup>1</sup> Morgan Creek data is as of December 31, 2022.

<sup>2</sup> Ocean V Q1 capital statement is not available.

### Asset Class Performance Net-of-Fees | As of June 30, 2023

	Market Value \$	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
<b>Traditional Growth</b>	<b>1,498,709,898</b>	<b>100.0</b>	<b>6.3</b>	<b>17.0</b>	<b>11.1</b>	<b>6.8</b>	<b>8.0</b>
<i>MSCI ACWI IMI Net</i>			<i>5.9</i>	<i>16.1</i>	<i>11.0</i>	<i>8.4</i>	<i>9.2</i>
Northern Trust MSCI World	1,307,215,697	87.2	6.5	18.3	--	--	--
<i>MSCI World IMI Index (Net)</i>			<i>6.4</i>	<i>17.9</i>	<i>--</i>	<i>--</i>	<i>--</i>
PIMCO RAE Emerging Markets	84,232,666	5.6	6.4	19.1	14.8	4.8	5.3
<i>MSCI Emerging Markets (Net)</i>			<i>0.9</i>	<i>1.7</i>	<i>2.3</i>	<i>0.9</i>	<i>3.0</i>
GQG Active Emerging Markets	63,993,158	4.3	10.8	10.5	--	--	--
<i>MSCI Emerging Markets (Net)</i>			<i>0.9</i>	<i>1.7</i>	<i>--</i>	<i>--</i>	<i>--</i>
Invesco REIT	43,265,245	2.9	0.1	-5.5	4.8	3.6	6.1
<i>FTSE NAREIT Equity REIT Index</i>			<i>2.6</i>	<i>-0.1</i>	<i>8.9</i>	<i>4.6</i>	<i>6.4</i>

Market Values may not add up due to rounding.

### Traditional Growth

During the latest three-month period ending June 30, 2023, the traditional growth asset class outperformed its MSCI ACWI IMI benchmark by 0.4% with three of the four managers outperforming their benchmarks.

**Northern Trust MSCI World**, the Plan's Passive Global Equity manager, outperformed its benchmark over the past quarter by 0.1% and outperformed over the 1-year period by 0.4%.

**PIMCO RAE Emerging Markets**, one of SJCERA's Active Emerging Markets Equity managers, outperformed its MSCI Emerging Markets Index benchmark for the quarter, 1-, 3-, 5- and 10-year trailing time periods by 5.5%, 17.4%, 12.5%, 3.9% and 2.3%, respectively.

**GQG Active Emerging Markets**, outperformed its MSCI Emerging Markets benchmark by 9.9% for the quarter and 8.8% for the 1-year period.

**Invesco REIT**, the Plan's Core US REIT manager, underperformed the FTSE NAREIT Equity REIT Index for the quarter, 1-, 3-, 5- and 10-year periods by (2.5%), (5.4%), (4.1%), (1.0%) and (0.3%), respectively.

### Asset Class Performance Net-of-Fees | As of June 30, 2023

	Market Value \$	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
<b>Stabilized Growth</b>	<b>1,201,849,241</b>	<b>100.0</b>	<b>-1.2</b>	<b>-0.4</b>	<b>4.0</b>	<b>4.7</b>	<b>4.1</b>
<i>SJCERA Stabilized Growth Benchmark<sup>2</sup></i>			1.4	7.0	5.7	5.1	5.5
<b>Risk Parity Asset Class</b>	<b>369,648,270</b>	<b>30.8</b>	<b>-2.5</b>	<b>-2.8</b>	<b>-0.7</b>	<b>1.6</b>	<b>2.1</b>
<i>ICE BofAML 3mo US TBill+4%</i>			2.2	7.7	5.3	5.6	5.0
Bridgewater All Weather	190,206,645	15.8	-2.4	0.1	0.8	2.0	3.6
<i>Bridgewater All Weather (blend)</i>			2.2	7.7	5.3	5.6	5.0
PanAgora Diversified Risk Multi Asset	179,441,625	14.9	-2.6	-5.6	-2.2	1.2	--
<i>ICE BofAML 3mo US TBill+4%</i>			2.2	7.7	5.3	5.6	--
<b>Liquid Credit</b>	<b>234,537,952</b>	<b>19.5</b>	<b>2.2</b>	<b>8.8</b>	<b>2.9</b>	<b>2.5</b>	<b>2.7</b>
<i>50% BB US HY/50% S&amp;P LSTA Lev Loan</i>			2.4	9.9	4.8	3.8	4.3
Neuberger Berman	100,035,487	8.3	1.9	7.1	1.6	--	--
<i>33% ICEBofAMLUSHY /33%JPMEMBI Global Div /33% S&amp;P LSTALevLoan</i>			2.3	9.0	2.1	--	--
Stone Harbor Absolute Return	134,502,465	11.2	2.3	9.8	4.0	3.0	2.8
<i>ICE BofA-ML LIBOR</i>			1.2	3.6	1.3	1.7	1.2
<b>Private Credit Lag</b>	<b>365,853,711</b>	<b>30.4</b>	<b>-0.9</b>	<b>-2.2</b>	<b>4.1</b>	<b>3.2</b>	<b>2.6</b>
<i>Credit Blend S&amp;P/LSTA Lev Loan +3%</i>			4.0	5.6	9.7	8.9	9.0
Blackrock Direct Lending Lag	87,678,668	7.3	-1.0	-2.0	6.7	--	--
<i>Credit Blend S&amp;P/LSTA Lev Loan +3%</i>			4.0	5.6	9.7	--	--
Crestline Opportunity II Lag	13,122,547	1.1	0.1	-14.9	-0.2	-2.0	--
<i>Credit Blend S&amp;P/LSTA Lev Loan +3%</i>			4.0	5.6	9.7	8.9	--
Davidson Kempner Long-Term Distressed Opportunities Fund V, L.P. Lag	49,941,746	4.2	2.5	-0.9	--	--	--
<i>Credit Blend S&amp;P/LSTA Lev Loan +3%</i>			4.0	5.6	--	--	--
HPS European Asset Value II, LP Lag	26,851,793	2.2	2.4	9.0	--	--	--
<i>Credit Blend S&amp;P/LSTA Lev Loan +3%</i>			4.0	5.6	--	--	--

<sup>1</sup> Market Values may not add up due to rounding.

<sup>2</sup> 30% ICE BofAML 3 month US T-Bill + 4%, 52% 50% BB High Yield/50% S&P Leverage Loans, 18% NCREIF ODCE +1% Lag.

### Asset Class Performance Net-of-Fees | As of June 30, 2023

	Market Value \$	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Medley Opportunity II Lag	4,378,784	0.4	0.0	0.0	-5.1	-9.2	-2.6
<i>Credit Blend S&amp;P/LSTA Lev Loan +3%</i>			4.0	5.6	9.7	8.9	9.0
Mesa West IV Lag	33,530,938	2.8	-11.1	-13.4	-0.2	3.2	--
<i>Credit Blend S&amp;P/LSTA Lev Loan +3%</i>			4.0	5.6	9.7	8.9	--
Oaktree Middle-Market Direct Lending Lag	31,041,759	2.6	3.5	1.6	13.2	10.4	--
<i>Credit Blend S&amp;P/LSTA Lev Loan +3%</i>			4.0	5.6	9.7	8.9	--
Raven Opportunity III Lag	55,627,212	4.6	-2.3	2.5	6.2	7.6	--
<i>Credit Blend S&amp;P/LSTA Lev Loan +3%</i>			4.0	5.6	9.7	8.9	--
White Oak Summit Peer Lag	24,781,288	2.1	1.0	-9.5	-1.3	1.5	--
<i>Credit Blend S&amp;P/LSTA Lev Loan +3%</i>			4.0	5.6	9.7	8.9	--
White Oak Yield Spectrum Master V Lag	38,898,976	3.2	-0.4	-3.5	2.0	--	--
<i>Credit Blend S&amp;P/LSTA Lev Loan +3%</i>			4.0	5.6	9.7	--	--
Private Core Real Assets Lag	231,809,308	19.3	-2.6	-2.4	14.4	12.8	13.5
<i>NCREIF ODCE +1% lag (blend)<sup>2</sup></i>			-3.1	-3.0	8.5	7.6	9.6

1 Market values may not add up due to rounding.

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

3 Q422 data not available at the time of this report. Values reported reflect Q322 market value adjusted by Q422 cash flows.



### Stabilized Growth

During the latest three-month period ending June 30, 2023, the Stabilized Growth sleeve of the Plan trailed its benchmark by (2.6%). Thirteen of SJCERA's fifteen Stabilized Growth managers underperformed their benchmarks while two outperformed. 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). Included in this group is private core real assets, which produced a negative return for the quarter; although, it did outperform its benchmark.

**Bridgewater All Weather**, one of the Plan's Risk Parity managers, trailed its benchmark over the quarter, 1-, 3-, 5- and 10-year periods by (4.6%), (7.6%), (4.5%), (3.6%), and (1.4%), respectively.

**PanAgora DRMA**, one of the Plan's Risk Parity managers, trailed its benchmark over the quarter, 1-, 3- and 5-year time periods by (4.8%), (13.3%), (7.5%), and (4.4%), respectively.

**Neuberger Berman**, one of the Plan's Liquid Credit managers, underperformed its benchmark for the quarter, 1- and 3-year time periods by (0.4%), (1.9%), and (0.5%), respectively.

**Stone Harbor**, the Plan's Absolute Return Fixed Income manager, outperformed over the quarter, 1-, 3-, 5- and 10-year periods by 1.1%, 6.2%, 2.7%, 1.3%, and 1.6%, respectively.

**BlackRock Direct Lending**, one of the Plan's newer Private Credit managers, trailed its benchmark over the quarter, 1- and 3-year periods by (5.0%), (7.6%), and (3.0%), respectively.

**Crestline Opportunity II**, the Plan's Credit, Niche Alternatives and Hedge Fund Secondaries manager, trailed its benchmark over the quarter, 1-, 3- and 5-year periods by (3.9%), (20.5%), (9.9%) and (10.9%), respectively.

**Davidson Kempner**, the Plan's newest Private Credit manager, trailed its benchmark over the quarter and 1-year periods by (1.5%) and (6.5%), respectively.

**Stabilized Growth (Continued)**

**HPS EU Value II**, one of the Plan's newer Direct Lending managers, trailed its benchmark for the quarter by (1.6%); however, it outperformed over by 3.4% over the 1-year period.

**Medley Opportunity II**, one of the Plan's Direct Lending managers, lagged its benchmark over the quarter, 1-, 3-, 5- and 10-year time periods by (4.0%), (5.6%), (14.8%), (18.1%), and (11.6%) respectively.

**Mesa West RE Income IV**, one of the Plan's Commercial Mortgage managers, trailed the benchmark by (15.1%), (19.0%), (9.9%) and (5.7%) over the quarter, 1-, 3- and 5-year periods, respectively.

**Oaktree**, a Middle-Market Direct Lending manager, trailed its benchmark over the quarter, 1- and 3-year periods by (0.5%), (4.0%) and (5.2%), respectively; however, it has outperformed over the trailing 5-year period by 0.7%.

**Raven Opportunity III** underperformed its target for the quarter, 1-, 3-, and 5-year periods by (6.3%), (3.1%), (3.5%), and (1.3%), respectively.

**White Oak Summit Peer**, one of the Plan's Direct Lending managers, underperformed its index over the trailing quarter, 1-, 3- and 5-year time periods by (3.0%), (15.1%), (11.0%) and (7.4%), respectively.

**White Oak Yield Spectrum Master V** underperformed its benchmark over the quarter, 1- and 3-year periods by (4.4%), (9.1%), and (7.7%).

**Private Core Real Assets**, exceeded its target over the quarter, 1-, 3-, 5- and 10-year time periods by 0.5%, 0.6%, 5.9%, 5.2%, and 3.9 %, respectively.

### Asset Class Performance Net-of-Fees | As of June 30, 2023

	Market Value \$	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
<b>Principal Protection</b>	<b>292,667,074</b>	<b>100.0</b>	<b>-0.2</b>	<b>1.2</b>	<b>-1.2</b>	<b>0.9</b>	<b>2.3</b>
<i>Blmbg. U.S. Aggregate Index</i>			-0.8	-0.9	-4.0	0.8	1.5
Dodge & Cox Fixed Income	200,157,994	68.4	0.1	2.1	-1.6	2.2	2.8
<i>Blmbg. U.S. Aggregate Index</i>			-0.8	-0.9	-4.0	0.8	1.5
Loomis Sayles	92,509,070	31.6	-0.7	-0.7	--	--	--
<i>Blmbg. U.S. Aggregate Index</i>			-0.8	-0.9	--	--	--

<sup>1</sup> Market Values may not add up due to rounding.

### Principal Protection

During the latest three-month period ending June 30, 2023, SJCERA's two Principal Protection managers outperformed the Bloomberg US Aggregate Index benchmark. The asset class as a whole outperformed the benchmark by 60 basis points for the quarter.

**Dodge & Cox**, the Plan's Core Fixed Income manager, earned a positive quarterly return of 0.1%, outperforming the US Agg by 0.9%. It led its benchmark by 3.0%, 2.4%, 1.4% and 1.3% for the trailing 1-, 3-, 5- and 10-year periods, respectively.

**Loomis Sayles**, the Plan's newest Principal Protection manager, was funded in Q1 2022 and outperformed the US Agg over the most recent quarter and the trailing 1-year period by 0.1% and 0.2%, respectively.

### Asset Class Performance Net-of-Fees | As of June 30, 2023

	Market Value \$	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
<b>Crisis Risk Offset Asset Class</b>	<b>475,463,467</b>	<b>100.0</b>	<b>2.4</b>	<b>-3.4</b>	<b>2.5</b>	<b>4.1</b>	<b>5.1</b>
<i>CRO Benchmark</i>			0.8	-0.7	1.1	4.0	3.8
<b>Long Duration</b>	<b>116,635,615</b>	<b>24.5</b>	<b>-2.4</b>	<b>-6.0</b>	<b>-11.4</b>	<b>-0.8</b>	<b>--</b>
<i>Blmbg. U.S. Treasury: Long</i>			-2.3	-6.8	-12.1	-0.9	--
Dodge & Cox Long Duration	116,635,615	24.5	-2.4	-6.0	-11.4	-0.8	--
<i>Blmbg. U.S. Treasury: Long</i>			-2.3	-6.8	-12.1	-0.9	--
<b>Systematic Trend Following</b>	<b>238,198,009</b>	<b>50.1</b>	<b>4.2</b>	<b>-4.4</b>	<b>16.1</b>	<b>8.3</b>	<b>8.0</b>
<i>BTOP 50 (blend)</i>			3.5	-1.7	10.8	6.9	4.0
Graham Tactical Trend	118,770,596	25.0	7.0	-2.8	15.3	9.0	--
<i>SG Trend</i>			8.0	-1.1	14.2	9.6	--
Mount Lucas	119,427,413	25.1	1.6	-5.9	16.9	7.4	6.9
<i>BTOP 50 (blend)</i>			3.5	-1.7	10.8	6.9	4.0
<b>Alternative Risk Premium</b>	<b>120,629,843</b>	<b>25.4</b>	<b>3.8</b>	<b>-1.1</b>	<b>-0.4</b>	<b>1.6</b>	<b>2.7</b>
<i>5% Annual (blend)</i>			1.2	5.0	5.0	5.0	6.7
AQR Style Premia	57,874,282	12.2	6.1	9.4	17.6	0.8	--
<i>5% Annual</i>			1.2	5.0	5.0	5.0	--
P/E Diversified Global Macro	62,755,561	13.2	1.8	-6.0	-3.2	3.1	--
<i>5% Annual</i>			1.2	5.0	5.0	5.0	--

1 Market 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 June 30, 2023, two out of six of SJCERA's Crisis Risk Offset managers outperformed their respective benchmarks. That said, on the whole, the Asset class outperformed its benchmark by 1.6%.

**Dodge & Cox Long Duration** produced a negative quarterly return of (2.4%), which slightly trailed the Bloomberg US Long Duration Treasuries benchmark by (0.1%). The manager outperformed the benchmark over the 1-, 3- and 5- year periods by 0.8%, 0.7%, and 0.1% respectively.

**Graham Tactical Trend**, one of the Plan's Systematic Trend Following managers, outperformed the SG Trend Index for the 3-year period by 1.1%; however, the manager trailed the benchmark over the quarter, 1- and 5-year periods by (1.0%), (1.7%) and (0.6%), respectively.

**Mount Lucas**, one of the Plan's Systematic Trend Following managers, underperformed the Barclays BTOP 50 Index for the quarter and 1-year periods by (1.9%) and (4.2%), respectively; however, it outperformed the target over the 3-, 5- and 10-year periods by 6.1%, 0.5%, and 2.9%, respectively.

**AQR**, one of the Plan's Alternative Risk Premium managers, outperformed its 5% Annual target for the quarter, 1- and 3-year periods by 4.9%, 4.4% and 12.6%, respectively. That said, it trailed the benchmark over the 5-year period by (4.2%).

**P/E Diversified**, one of the Plan's Alternative Risk Premium managers, outperformed its 5% Annual target for the quarter by 0.6%. However, the manager trailed the benchmark over the 1-, 3- and 5-year periods by (11.0%), (8.2%) and (1.9%), respectively.

**Benchmark History**

From Date	To Date	Benchmark
<b>SJCERA Total Plan</b>		
04/01/2023	Present	9.0% Blmbg. U.S. Aggregate Index, 33.0% MSCI AC World IMI (Net), 16.0% 50% BB US HY/50% S&P LSTA Lev Loan, 10.0% MSCI ACW +2% Lag, 7.0% NCREIF ODCE +1% lag (blend), 10.0% ICE BofAML 3mo US TBill+4%, 15.0% CRO Benchmark
08/01/2022	04/01/2023	9.0% Blmbg. U.S. Aggregate Index, 33.0% MSCI AC World IMI (Net), 16.0% 50% BB US HY/50% S&P LSTA Lev Loan, 10.0% MSCI ACW +2% Lag, 7.0% NCREIF ODCE +1% lag (blend), 10.0% ICE BofAML 3mo US TBill+4%, 15.0% CRO Benchmark
04/01/2020	08/01/2022	10.0% Blmbg. U.S. Aggregate Index, 32.0% MSCI AC World IMI (Net), 17.0% 50% BB US HY/50% S&P LSTA Lev Loan, 10.0% MSCI ACWI +2% Lag, 6.0% NCREIF ODCE +1% lag (blend), 10.0% ICE BofAML 3mo US TBill+4%, 15.0% CRO Benchmark
01/01/2016	04/01/2020	16.0% Blmbg. U.S. Aggregate Index, 37.0% MSCI AC World Index, 2.0% ICE BofA 3 Month U.S. T-Bill, 15.0% 50% BB US HY/50% S&P LSTA Lev Loan, 10.0% MSCI ACWI +2% Lag, 14.0% ICE BofAML 3mo US TBill+4%, 6.0% CRO Benchmark
01/01/1988	01/01/2016	100.0% SJCERA Policy Benchmark
<b>Aggressive Growth Lag</b>		
01/01/2021	Present	50.0% MSCI ACWI +2% Lag, 50.0% NCREIF ODCE +1% lag (blend)
01/01/1990	01/01/2021	100.0% MSCI ACWI +2% Blend
<b>Stabilized Growth</b>		
01/01/2010	Present	52.0% 50% BB US HY/50% S&P LSTA Lev Loan, 18.0% NCREIF ODCE +1% lag (blend), 30.0% ICE BofAML 3mo US TBill+4%
<b>Crisis Risk Offset Asset Class</b>		
01/01/1987	Present	33.3% Barclay BTOP 50, 33.3% Blmbg. U.S. Treasury: Long, 33.4% 5% Annual

# **Real Estate Program**

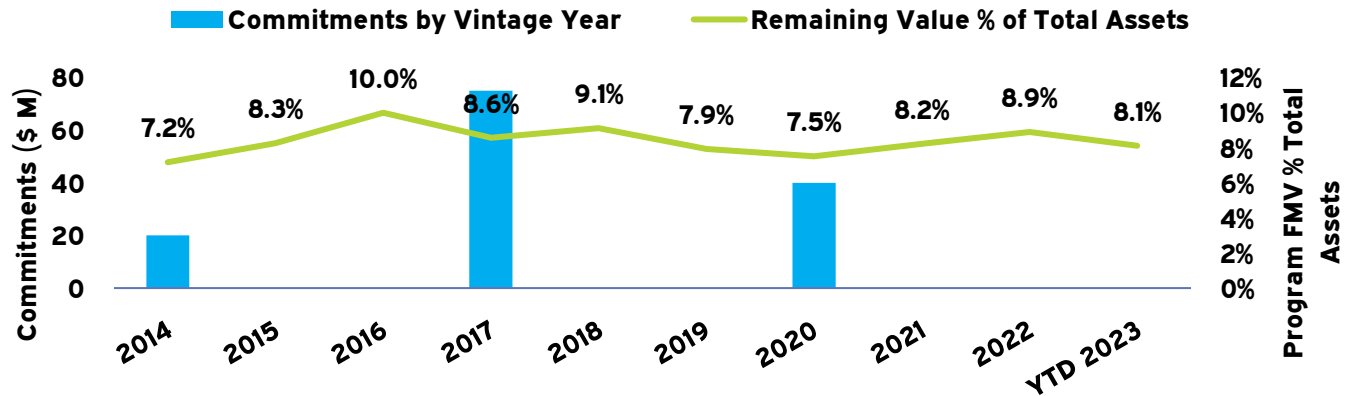
Data as of March 31, 2023



I	OVERVIEW
II	PROGRAM ACTIVITY
	Commitments
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III	PERFORMANCE ANALYSIS
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### Introduction

The Retirement Association's target allocation towards real estate assets is 17%. As of March 31, 2023, the Retirement Association had invested with nineteen real estate managers (four private open-end and fifteen private closed-end). The aggregate reported value of the Retirement Association's real estate investments was \$320 million at quarter-end.



#### Program Status

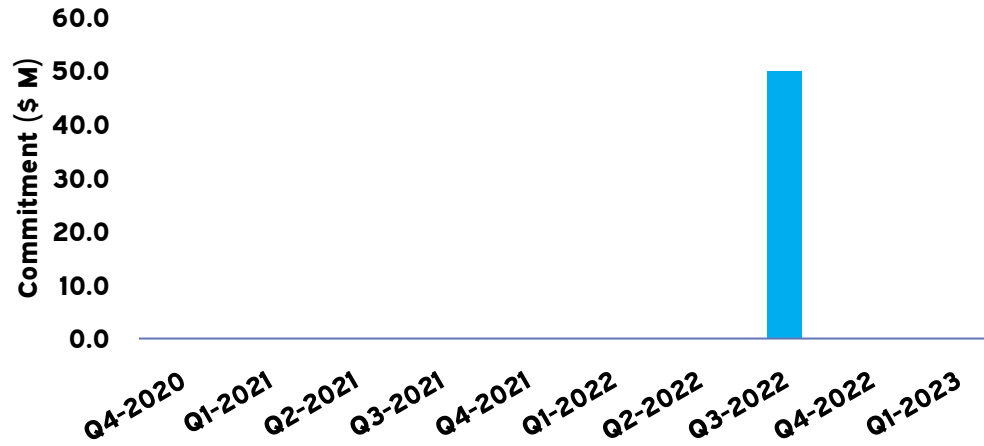
No. of Investments	19
Committed (\$ M)	551.6
Contributed (\$ M)	458.9
Distributed (\$ M)	393.0
Remaining Value (\$ M)	320.0

#### Performance Since Inception

	Program
DPI	0.86x
TVPI	1.55x
IRR	7.5%

### Commitments

#### Recent Quarterly Commitments



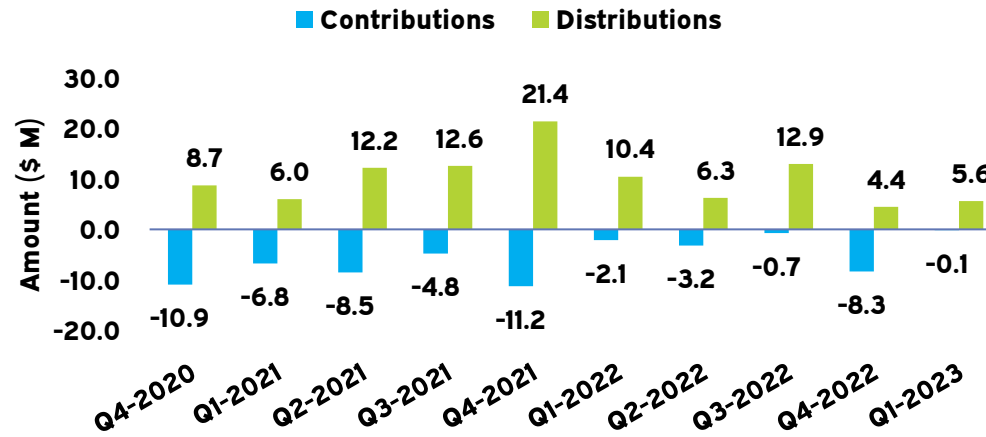
#### Commitments This Quarter

Fund	Strategy	Region	Amount (\$M)
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None to report.

### Cash Flows

#### Recent Quarterly Cash Flows



#### Largest Contributions This Quarter

Fund	Vintage	Strategy	Region	Amount (\$M)
Prologis Logistics	2004	Core	North America	0.13
AG Core Plus IV	2014	Value-Added	North America	0.00
Almanac Realty VI	2011	Value-Added	North America	0.00

#### Largest Distributions This Quarter

Fund	Vintage	Strategy	Region	Amount (\$M)
Berkeley V	2020	Value-Added	North America	3.52
Prologis Logistics	2004	Core	North America	0.67
Greenfield VII	2013	Opportunistic	North America	0.64

### Significant Events

- During the second quarter Principal USPA completed thirteen additional home purchases within the existing scattered site single family rental portfolio. While disposition activity completed in the quarter capitalized on strength in investor demand for industrial and included a non-strategic, older vintage, multi-tenant warehouse building in Tacoma, WA. There are a further eight properties that are in various stages of disposition with closing anticipated to occur in the second half of 2023.
- Subsequent to quarter end, the Principal USPA closed on a recast of a \$600 million line of credit facility that was set to mature in May 2024. Terms of the syndicated facility include an initial three-year term, two one-year extension options and spreads that match the previous line of credit pricing agreed to in 2019.
- Prologis USLF acquired a small parcel of land used for parking adjacent to an existing building during the second quarter of 2023.
- DWS RAR II completed three non-core acquisitions during the quarter: Tampa, FL— Residential Lease-up (\$135 million contract price), Los Angeles, CA—Residential Development (\$124 million estimated project cost), and Orlando, FL—Residential Development (\$94 million estimated project cost).
- Berkley V completed two acquisitions during the quarter: a 133K square foot asset in Aston, PA and a 354K square foot asset in Garland & Dallas, TX.
- Stockbridge III closed on the disposition of 110 E Broward for a gross sales price of \$43.0 million, or \$126 per square foot, resulting in a realized IRR of -23.5% and an equity multiple of 0.6x to the Fund. Execution of the sale eliminated the Fund's office exposure. Subsequent to quarter end, the Fund closed on the disposition of Northview Plaza for a gross sales price of \$22.4 million, or \$187 per square foot, resulting in a realized IRR of 12.2% and an equity multiple of 1.8x to the Fund.

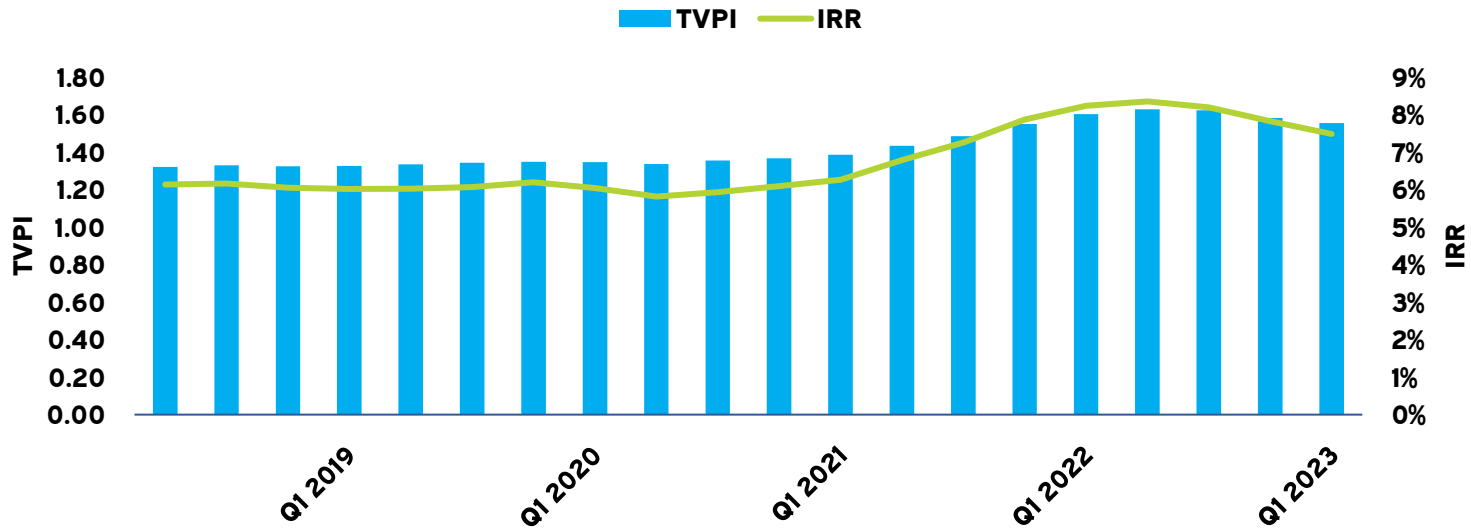
#### By Strategy

Group	Number	Committed (\$ M)	Contributed (\$ M)	Unfunded (\$ M)	Distributed (\$ M)	Remaining Value (\$ M)	Exposure (\$ M)	DPI (X)	TVPI (X)	IRR (%)
Core	4	170.5	127.7	50.0	34.6	231.8	281.8	0.27	2.09	8.5
Opportunistic	9	204.1	182.3	23.2	222.7	26.8	50.0	1.22	1.37	5.9
Value-Added	6	177.0	148.9	33.3	135.7	61.5	94.7	0.91	1.32	8.6
<b>Total</b>	<b>19</b>	<b>551.6</b>	<b>458.9</b>	<b>106.5</b>	<b>393.0</b>	<b>320.0</b>	<b>426.5</b>	<b>0.86</b>	<b>1.55</b>	<b>7.5</b>

#### By Vintage

Group	Number	Committed (\$ M)	Contributed (\$ M)	Unfunded (\$ M)	Distributed (\$ M)	Remaining Value (\$ M)	Exposure (\$ M)	DPI (X)	TVPI (X)	IRR (%)
Open-end Fund	4	170.5	127.7	50.0	34.6	231.8	281.8	0.27	2.09	8.5
2005	1	15.0	14.5	0.5	17.6	0.0	0.5	1.21	1.21	3.4
2006	1	30.0	30.0	0.0	20.4	1.0	1.0	0.68	0.71	-3.6
2007	4	96.0	84.0	12.0	115.9	6.8	18.8	1.38	1.46	7.4
2011	2	50.0	38.3	11.7	47.3	4.1	15.8	1.24	1.34	9.4
2012	2	36.0	33.9	2.9	49.0	0.0	2.9	1.45	1.45	12.5
2013	1	19.1	18.3	0.8	30.2	1.7	2.5	1.65	1.75	13.4
2014	1	20.0	19.0	1.8	14.7	8.7	10.5	0.77	1.23	5.0
2017	2	75.0	65.7	10.8	56.9	40.4	51.2	0.87	1.48	16.7
2020	1	40.0	27.6	16.0	6.4	25.6	41.6	0.23	1.16	11.5
<b>Total</b>	<b>19</b>	<b>551.6</b>	<b>458.9</b>	<b>106.5</b>	<b>393.0</b>	<b>320.0</b>	<b>426.5</b>	<b>0.86</b>	<b>1.55</b>	<b>7.5</b>

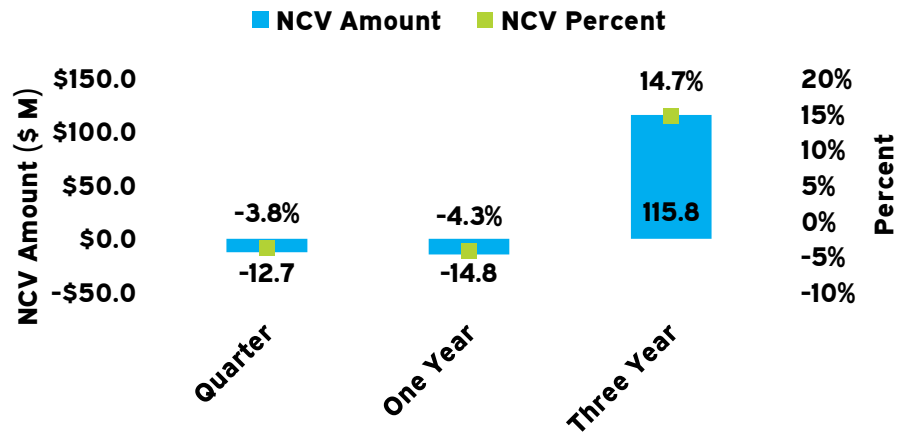
#### Since Inception Performance Over Time



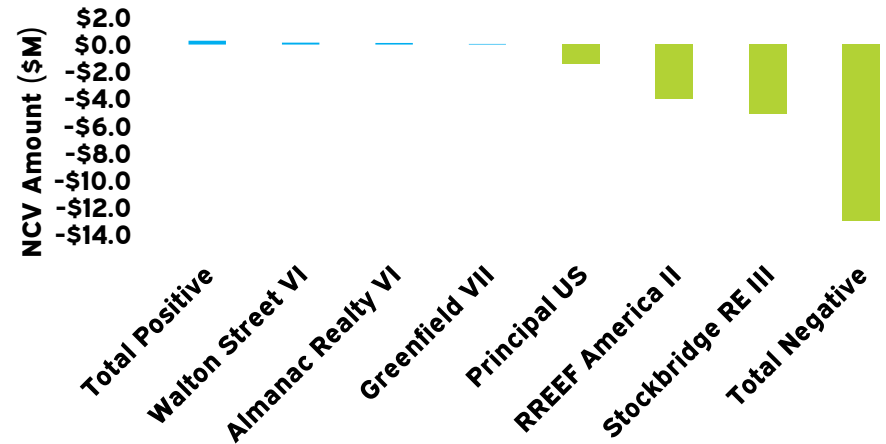
#### Horizon IRRs

	1 Year (%)	3 Year (%)	5 Year (%)	10 Year (%)	Since Inception (%)
Aggregate Portfolio	-4.3	14.2	10.9	11.1	7.5
Public Market Equivalent	-24.7	6.5	0.1	0.7	2.0

Periodic NCV



1 Quarter Drivers Of NCV



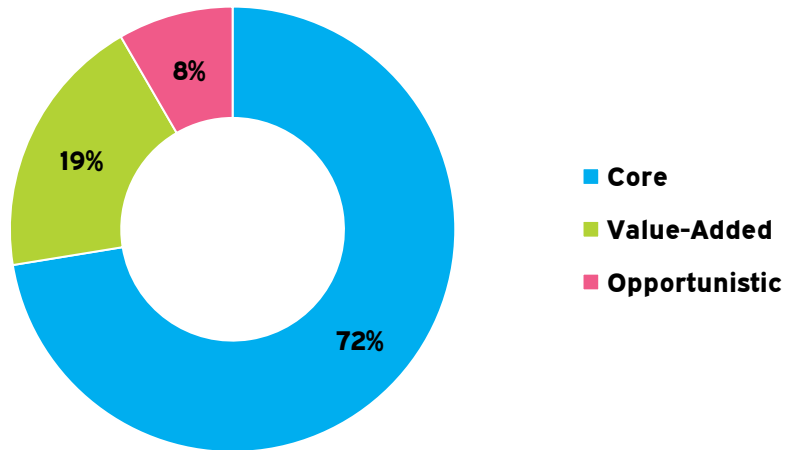


### Fund Performance: Sorted By Vintage And Strategy

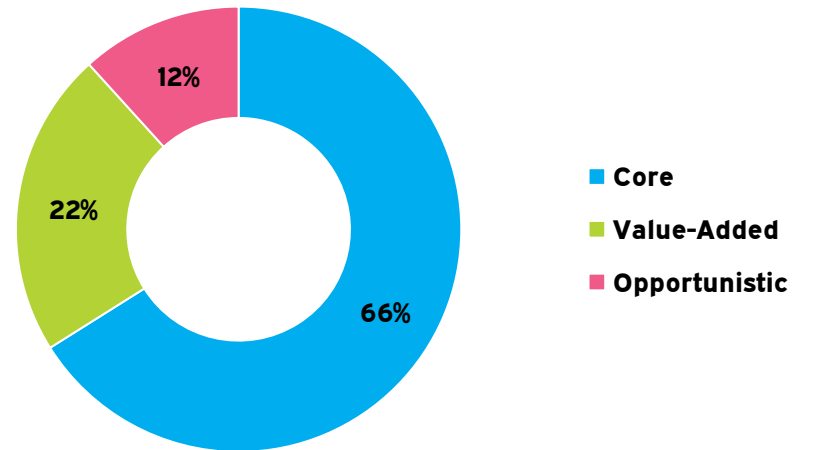
By Investment	Vintage	Strategy	Committed (\$ M)	Contributed (\$ M)	Unfunded (\$ M)	Distributed (\$ M)	Remaining Value (\$ M)	TVPI (X)	Peer TVPI (X)	IRR (%)	Peer IRR (%)
AEW EHF		Core	50.0	0.0	50.0	0.0	0.0	NM	NM	NM	NM
Principal US		Core	25.0	25.0	0.0	0.0	42.4	1.70	NM	7.5	NM
Prologis Logistics		Core	50.5	57.7	0.0	23.8	130.4	2.67	NM	9.0	NM
RREEF America II		Core	45.0	45.0	0.0	10.8	59.0	1.55	NM	7.3	NM
Miller GLocal Fund V	2005	Opportunistic	15.0	14.5	0.5	17.6	0.0	1.21	NM	3.4	NM
Walton Street V	2006	Opportunistic	30.0	30.0	0.0	20.4	1.0	0.71	NM	-3.6	NM
Greenfield V	2007	Opportunistic	30.0	29.6	0.4	40.4	0.2	1.37	NM	8.3	NM
Miller Global VI	2007	Opportunistic	30.0	21.1	8.9	33.4	0.0	1.58	NM	7.7	NM
Walton Street VI	2007	Opportunistic	15.0	13.3	1.7	15.2	6.5	1.64	NM	8.4	NM
Colony Realty III	2007	Value-Added	21.0	20.0	1.0	26.9	0.0	1.35	NM	5.3	NM
Greenfield VI	2011	Opportunistic	20.0	19.2	0.8	26.2	0.0	1.37	NM	9.6	NM
Almanac Realty VI	2011	Value-Added	30.0	19.1	10.9	21.2	4.1	1.32	NM	9.2	NM
Miller Global VII	2012	Opportunistic	15.0	12.1	2.9	16.1	0.0	1.33	NM	14.4	NM
Colony Realty IV	2012	Value-Added	21.0	21.7	0.0	32.9	0.0	1.51	NM	11.9	NM
Greenfield VII	2013	Opportunistic	19.1	18.3	0.8	30.2	1.7	1.75	NM	13.4	NM
AG Core Plus IV	2014	Value-Added	20.0	19.0	1.0	14.7	8.7	1.23	NM	5.0	NM
Greenfield VIII	2017	Opportunistic	30.0	24.3	7.2	23.3	17.3	1.67	NM	22.8	NM
Stockbridge RE III	2017	Value-Added	45.0	41.4	3.6	33.7	23.1	1.37	NM	13.0	NM
Berkeley V	2020	Value-Added	40.0	27.6	16.0	6.4	25.6	1.16	NM	11.5	NM
<b>Total</b>			<b>551.6</b>	<b>458.9</b>	<b>106.5</b>	<b>393.0</b>	<b>320.0</b>	<b>1.55</b>	<b>NM</b>	<b>7.5</b>	<b>NM</b>

#### By Strategy

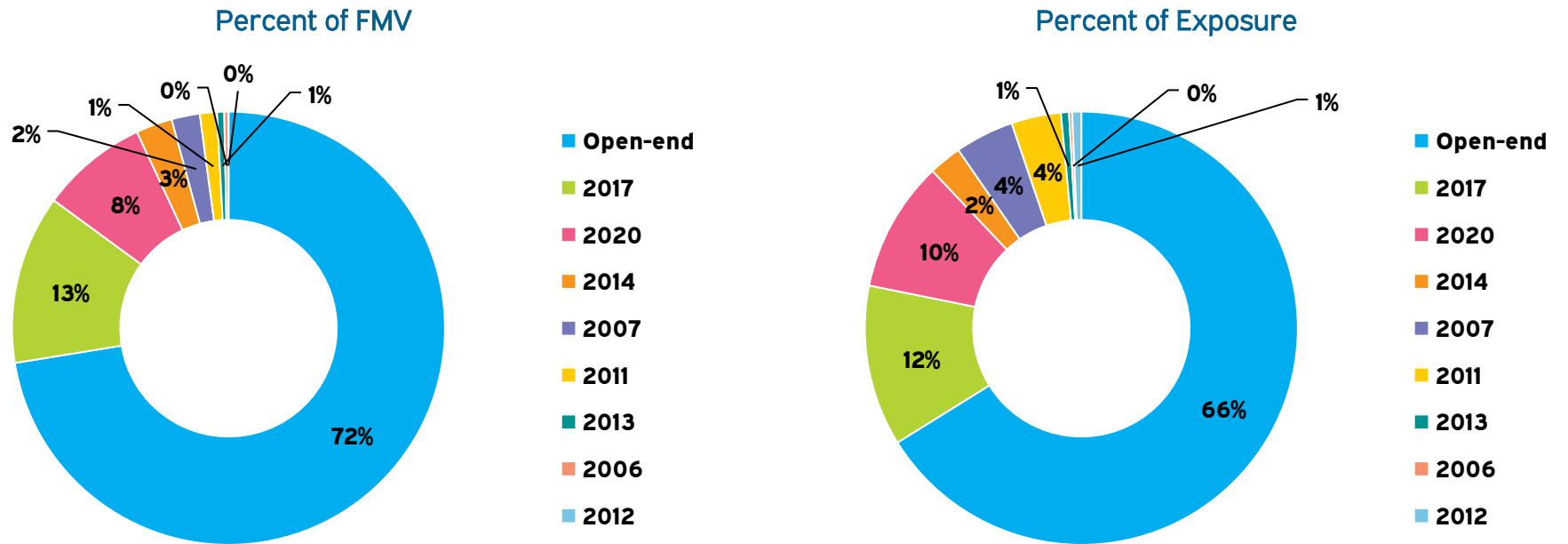
Percent of FMV



Percent of Exposure

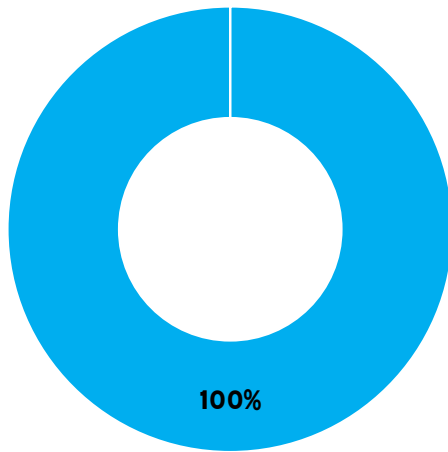


#### By Vintage



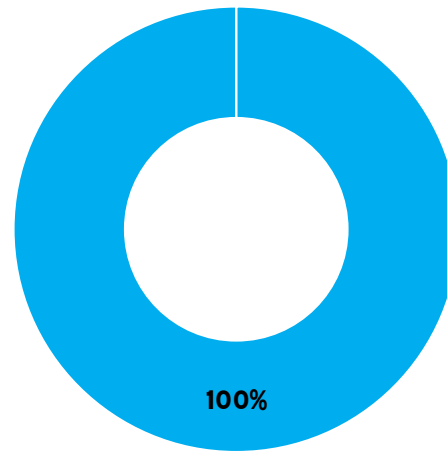
By Geographic Focus

Percent of FMV



■ North America

Percent of Exposure



■ North America

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

<b>Committed</b>	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.
<b>Contributed</b>	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.
<b>Distributed</b>	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.
<b>DPI</b>	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.
<b>Exposure</b>	Represents the sum of the investor's Unfunded and Remaining Value.
<b>IRR</b>	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.
<b>NCV</b>	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.
<b>NM</b>	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: Meryl Lynch High Yield Master II 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

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.

### TVPI

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.

# **Economic and Market Update**

Data as of June 30, 2023



### Commentary

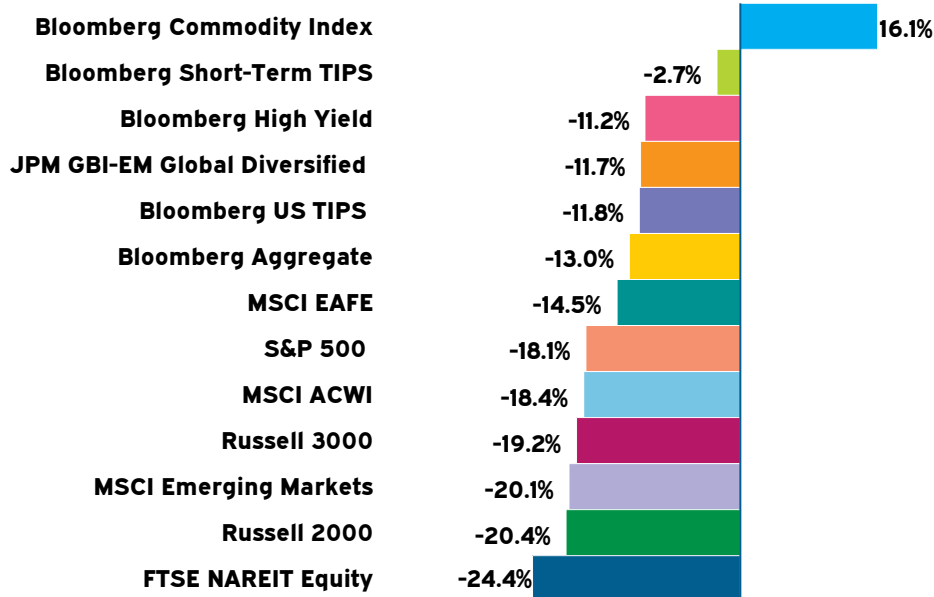
→ Asset returns were positive in June with US and Non-US equities posting gains, while most fixed income sectors sold-off on expectations for further interest rate hikes later this year. Except for commodities, most public market asset classes remain up for the year.

- Although the Fed skipped a rate-hike in June, Fed comments signaled further rate hikes in the 2H 2023; the US economy appears to be resilient supporting domestic demand and low unemployment.
- US equity markets (Russell 3000) rose in June (+6.8%) adding to YTD gains (+16.2%). Some of the largest technology names drove positive results. Growth stocks continued to outpace value stocks, particularly in the large cap space.
- Non-US developed equity markets rose in June (MSCI EAFE 4.6%) falling behind US equities in 2023 (+16.2% versus +11.7%). A strengthening US dollar weighed on returns.
- Emerging market equities rose in June (+3.8%) supported by positive returns in China (+4.0%). They significantly trail developed market equities YTD returning +4.9%, due partly to higher US-China tensions.
- Rates generally rose in June leading to bond markets declining, with the broad US bond market (Bloomberg Aggregate) falling 0.4% for the month. It remains positive (+2.1%) year-to-date, though, on declining inflation and expectations for the Fed to end their rate hikes soon.

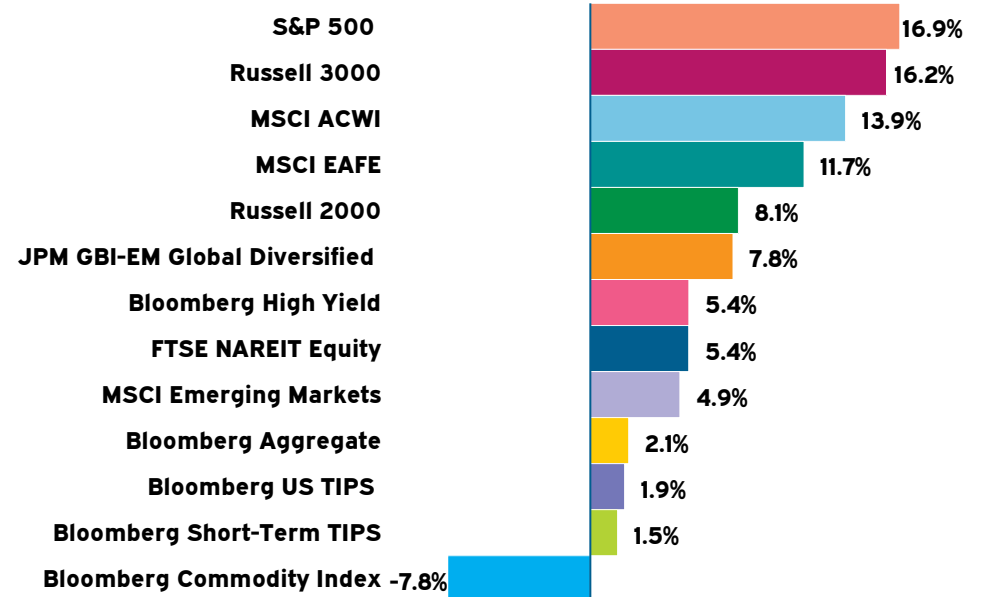
→ This year, the paths of inflation and monetary policy, slowing global growth and the war in Ukraine will all be key.

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

#### 2022



#### YTD



→ After a particularly difficult 2022, most public market assets are up thus far in 2023, building on gains from the fourth quarter of last year.

→ Risk sentiment has been supported by expectations that policy tightening could be ending soon, as inflation continues to fall, and growth has slowed.

<sup>1</sup> Source: Bloomberg and FactSet. Data is as of June 30, 2023.

### Domestic Equity Returns<sup>1</sup>

Domestic Equity	June (%)	Q2 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	6.6	8.7	16.9	19.6	14.6	12.3	12.8
Russell 3000	6.8	8.4	16.2	19.0	13.9	11.4	12.3
Russell 1000	6.8	8.6	16.7	19.4	14.1	11.9	12.6
Russell 1000 Growth	6.8	12.8	29.0	27.1	13.7	15.1	15.7
Russell 1000 Value	6.6	4.1	5.1	11.5	14.3	8.1	9.2
Russell MidCap	8.3	4.8	9.0	14.9	12.5	8.4	10.3
Russell MidCap Growth	7.7	6.2	15.9	23.1	7.6	9.7	11.5
Russell MidCap Value	8.7	3.9	5.2	10.5	15.0	6.8	9.0
Russell 2000	8.1	5.2	8.1	12.3	10.8	4.2	8.2
Russell 2000 Growth	8.3	7.1	13.6	18.5	6.1	4.2	8.8
Russell 2000 Value	7.9	3.2	2.5	6.0	15.4	3.5	7.3

#### US Equities: Russell 3000 Index rose 8.4% in the second quarter and 16.2% YTD.

- US stocks rose sharply in the second quarter of 2023. Most of the gains came in the month of June when the Fed kept its target rate unchanged for the first time since early 2022. Investors are expressing optimism that the Fed can tame inflation without widespread disruptions to the equity markets.
- With the exception of energy and utilities, each sector of the Russell 3000 index appreciated during the second quarter. Technology led all sectors and was driven by enthusiasm for growth stocks, particularly those with exposure to artificial intelligence (e.g., NVIDIA).
- Large cap stocks continue to outperform small cap stocks, driven by technology and the underperformance of small cap biotechnology stocks. Growth stocks continue to broadly outperform value stocks.

<sup>1</sup> Source: Bloomberg. Data is as of June 30, 2023.

### Foreign Equity Returns<sup>1</sup>

Foreign Equity	June (%)	Q2 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	4.5	2.4	9.5	12.7	7.2	3.5	4.7
MSCI EAFE	4.6	3.0	11.7	18.8	8.9	4.4	5.4
MSCI EAFE (Local Currency)	3.6	4.3	12.1	17.5	11.7	6.4	7.7
MSCI EAFE Small Cap	2.9	0.6	5.5	10.2	5.7	1.3	6.2
MSCI Emerging Markets	3.8	0.9	4.9	1.8	2.3	0.9	2.9
MSCI Emerging Markets (Local Currency)	3.4	1.7	5.6	3.3	3.9	3.0	5.7
MSCI China	4.0	-9.7	-5.5	-16.8	-10.3	-5.3	3.0

**Foreign Equity: Developed international equities (MSCI EAFE) rose 3.0% in the second quarter bringing the YTD results to +11.7%. Emerging market equities (MSCI EM) rose 0.9% in the quarter, rising 4.9% YTD.**

- Eurozone and Japan markets continued their strength in June, wrapping up a strong second quarter. In Europe, financials and IT led returns whereas energy and communication services lagged. Enthusiasm for AI helped company fundamentals and prices for semiconductor stocks. Headline inflation was down in June, although core inflation was up slightly month over month. Energy and materials were the main drivers for falling UK equities, along with Bank of England rate hikes. Optimism continues to build for Japanese investors, while the Yen remains weak, and Bank of Japan remains dovish.
- Emerging markets were laggards as China equities struggled from weak export demands and rising negative sentiments. Brazil, India, and Taiwan are bright spots in EM, the former due to good earnings and macro, the latter from AI and IT strength.

<sup>1</sup> Source: Bloomberg. Data is as of June 30, 2023.

Fixed Income Returns<sup>1</sup>

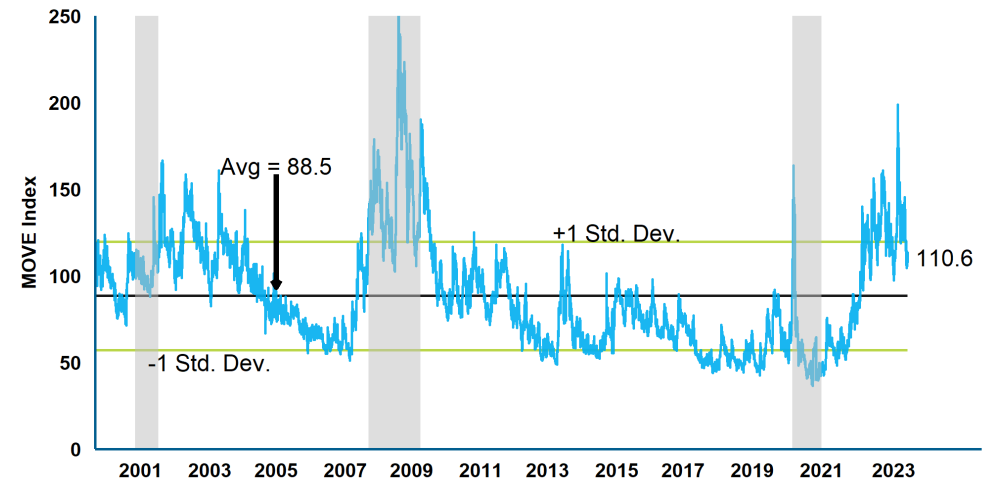
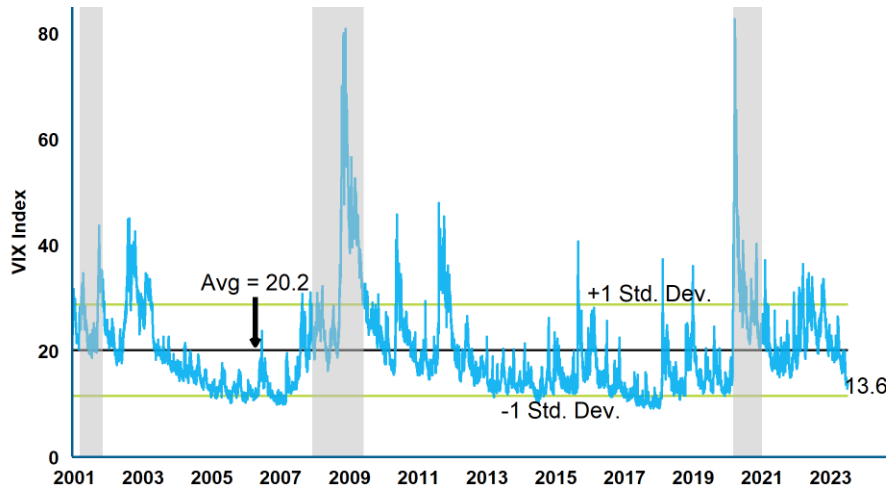
Fixed Income	June (%)	Q2 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	-0.2	-0.6	2.3	0.0	-3.4	1.0	1.8	5.2	6.3
Bloomberg Aggregate	-0.4	-0.8	2.1	-0.9	-4.0	0.8	1.5	4.8	6.5
Bloomberg US TIPS	-0.3	-1.4	1.9	-1.4	-0.1	2.5	2.1	4.6	6.8
Bloomberg Short-term TIPS	-0.2	-0.7	1.5	0.1	2.3	2.7	1.7	5.3	2.5
Bloomberg High Yield	1.7	1.7	5.4	9.1	3.1	3.4	4.4	8.5	4.1
JPM GBI-EM Global Diversified (USD)	3.3	2.5	7.8	11.4	-1.4	0.3	-0.6	6.6	5.0

**Fixed Income:** The Bloomberg Universal declined 0.6% in the second quarter as global sovereign debt yields generally rose. Bonds retained a positive start to the year (+2.3% YTD) though as inflation continues to decline.

- US Treasury yields generally rose over the month, with 1-year to 10-year maturity sector rising the most due to higher policy expectations.
- The TIPS index and the short-term TIPS index posted negative returns for the month as inflation concerns continued to ease.
- Continued risk appetite drove high yield bond performance (1.7%) and outperformance versus the broad US bond market (Bloomberg Aggregate). Emerging market bonds (3.3%) also performed well on investor risk sentiment.

<sup>1</sup> Source: Bloomberg. JPM GBI-EM data is from InvestorForce. Data is as of June 30, 2023. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration respectively.

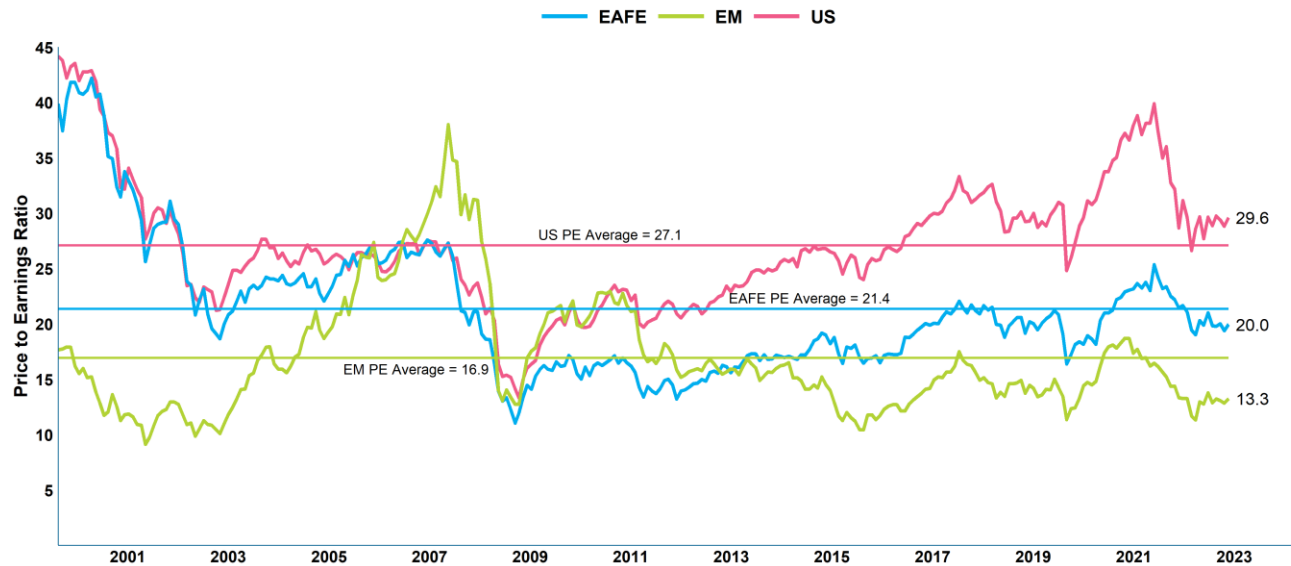
### Equity and Fixed Income Volatility<sup>1</sup>



- Volatility in equities (VIX) declined in June and remains low as investors continue to anticipate the end of the Fed's policy tightening.
- In comparison, the bond market remains on edge after last year's historic losses and continued volatility in interest rates this year due to policy uncertainty and issues in the banking sector. The MOVE (fixed income volatility) remains well above (110.6) its long-run average (88.4), but off its recent peak during the heart of the banking crisis.

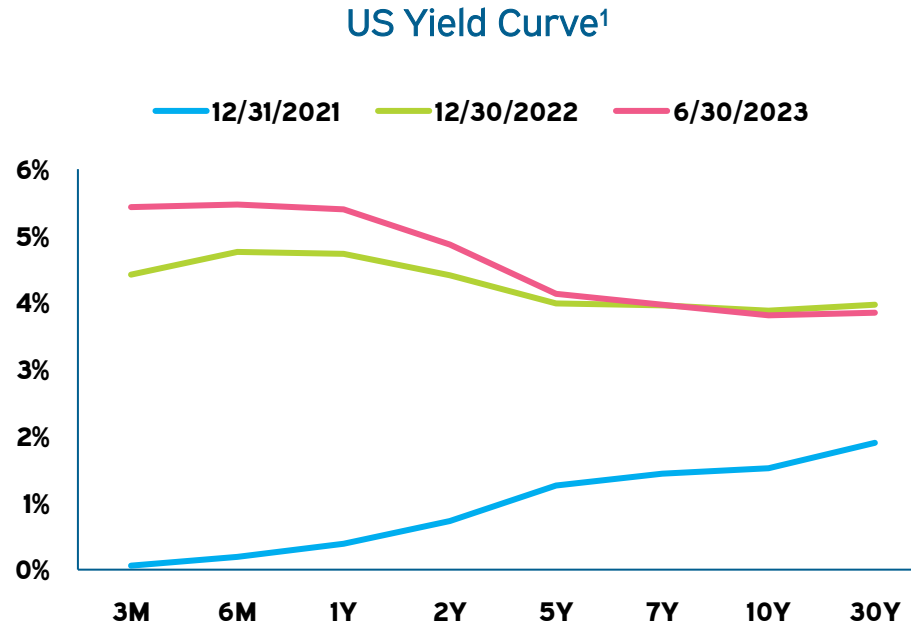
<sup>1</sup> Equity and Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of June 2023. The average line indicated is the average of the VIX and MOVE values between January 2000 and June 2023.

**Equity Cyclically Adjusted P/E Ratios<sup>1</sup>**



- After its dramatic decline last year the US equity price-to-earnings ratio remains above its long-run (21st century) average.
- International developed market valuations are below their own long-term average, with those for emerging markets the lowest and well under the long-term average.

<sup>1</sup> US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group. Developed and Emerging Market Equity (MSCI EAFE and EM Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years. Data is as of June 2023. The average line is the long-term average of the US, EM, and EAFE PE values from December 1999 to the recent month-end respectively.

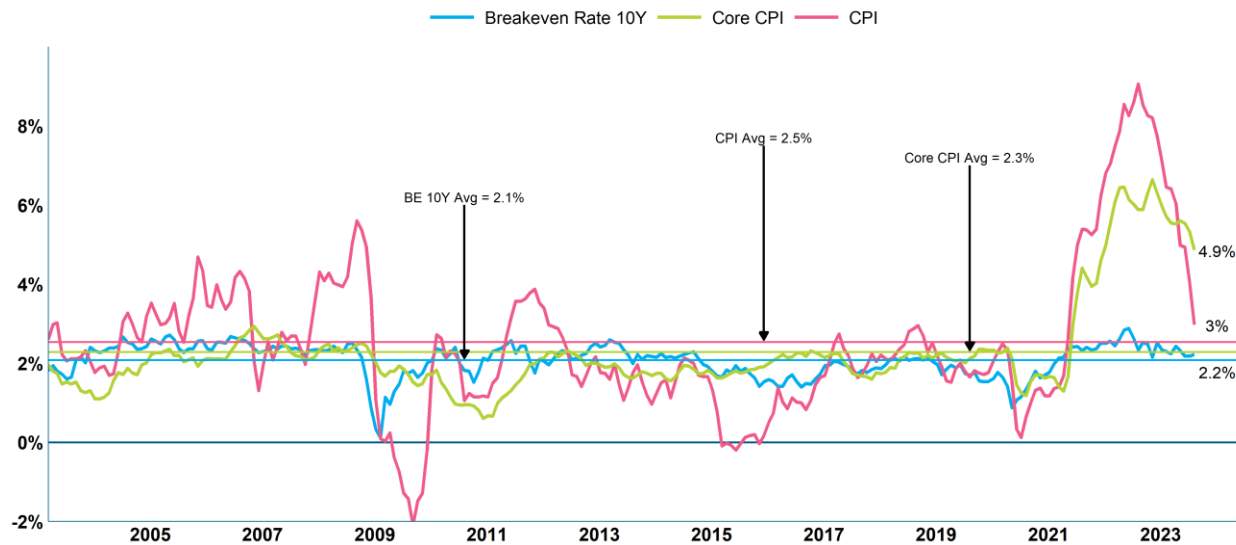


- Interest rates have started rising again across the curve given policy maker guidance that policy rates are likely to rise further and potentially stay longer at the terminal rate than market participants expect. The rise in rates was particularly acute at the very front-end (< 1 year). Maturities from two years out also drifted higher as market participants considered the possibility of additional policy rate increases as economic data (mainly inflation and labor markets) remains strong.
- The yield curve remains inverted with the spread between two-year and ten-year Treasuries finishing the month at -1.06%. The more closely watched measure (by the Fed) of the three-month and ten-year Treasuries spread also remained inverted at -1.62%. Inversions in the yield curve have often preceded recessions.

<sup>1</sup> Source: Bloomberg. Data is as of June 30, 2023.



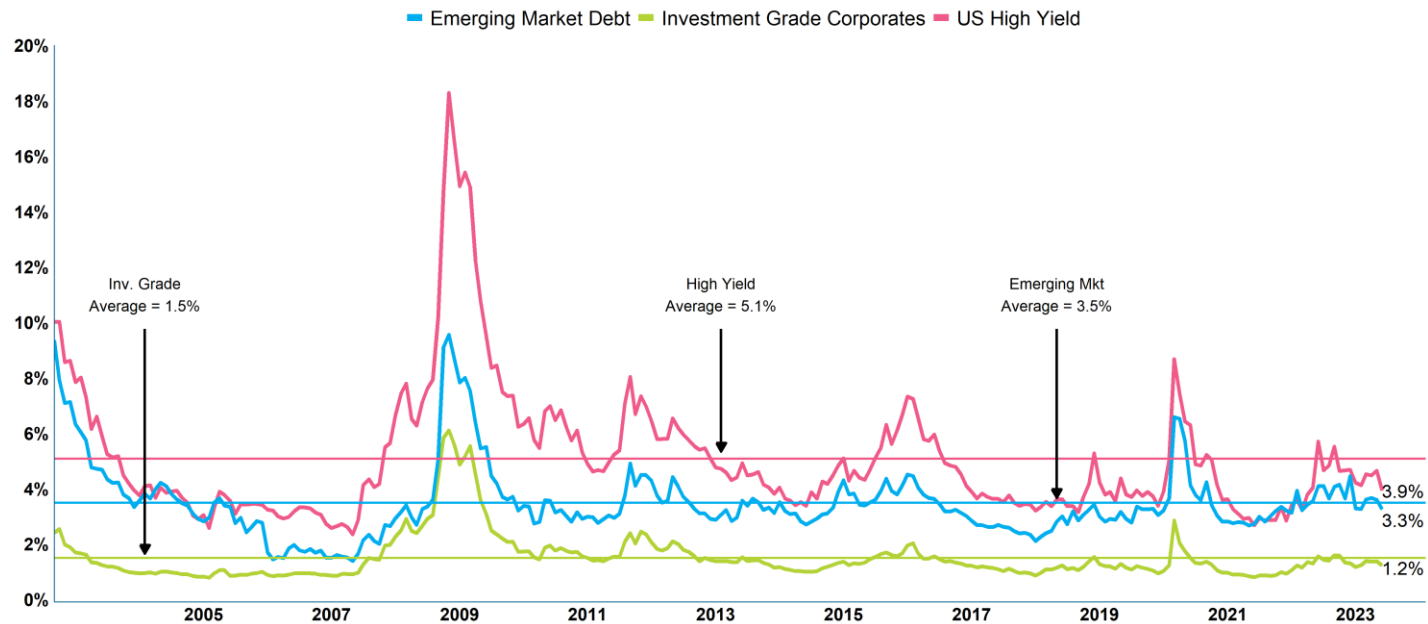
**Ten-Year Breakeven Inflation and CPI<sup>1</sup>**



- Headline inflation continued to decline in June, with the year-over-year reading falling from 4.0% to 3.0% and coming in slightly below estimates. The month-over-month rate of price increases rose slightly (0.2% versus 0.1%), with food prices ticking up slightly (0.1%) and energy prices rose (0.6%).
- Core inflation – excluding food and energy - fell (5.3% to 4.9%), coming in slightly above forecasts. It remains stubbornly high driven by shelter costs.
- Inflation expectations (breakevens) remain well below current inflation as investors continue to expect inflation to track back toward the Fed’s 2% average target.

<sup>1</sup> Source: Bloomberg. Data is as June 30, 2023. The CPI and 10 Year Breakeven average lines denote the average values from August 1998 to the present month-end, respectively. Breakeven values represent month-end values for comparative purposes.

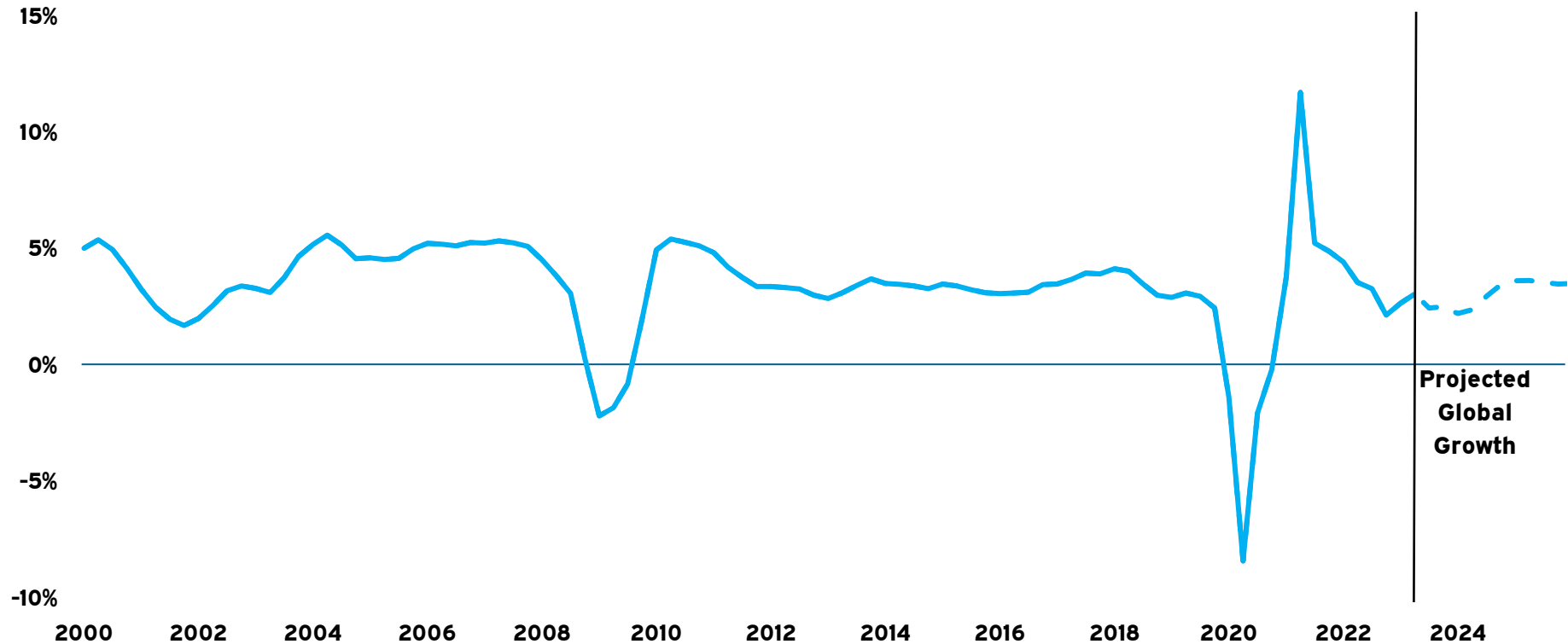
**Credit Spreads vs. US Treasury Bonds<sup>1</sup>**



- Spreads (the added yield above a comparable maturity Treasury) declined in June as risk appetite remained robust for respective credit exposures.
- High yield spreads remain below their long-term average. Investment grade spreads and emerging market spreads are narrower than high yield spreads and close to their respective long-term averages.

<sup>1</sup> Sources: Bloomberg. Data is as of June 30, 2023. Average lines denote the average of the investment grade, high yield, and emerging market spread values from August 2000 to the recent month-end, respectively.

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

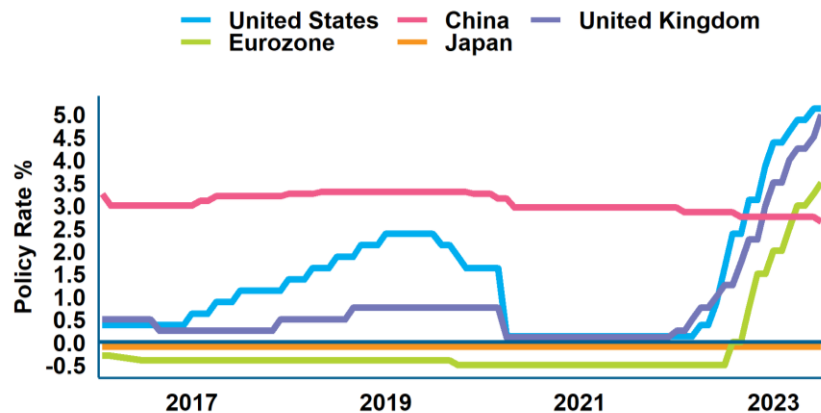


- Global economies are expected to slow this year compared to 2022, with risks of recession as the impacts of policymakers' aggressive tightening to fight inflation flow through economies.
- The delicate balancing act of central banks trying to reduce inflation without dramatically depressing growth will remain key.

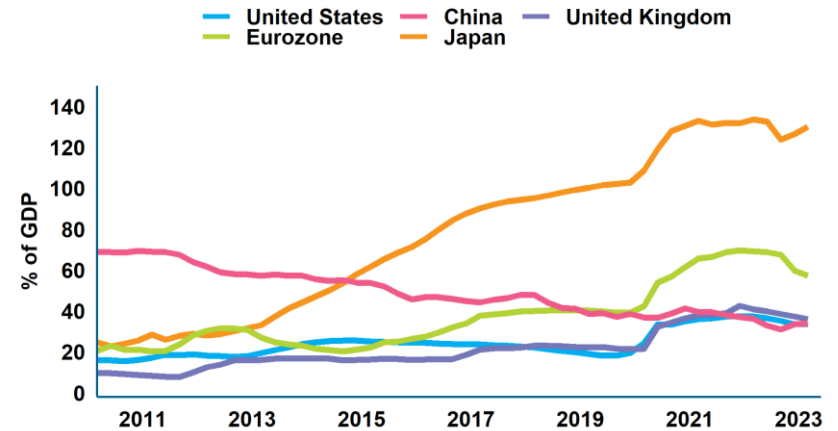
<sup>1</sup> Source: Oxford Economics (World GDP, US\$ prices & PPP exchange rate, real, % change YoY). Updated June 2023.

### Central Bank Response<sup>1</sup>

#### Policy Rates



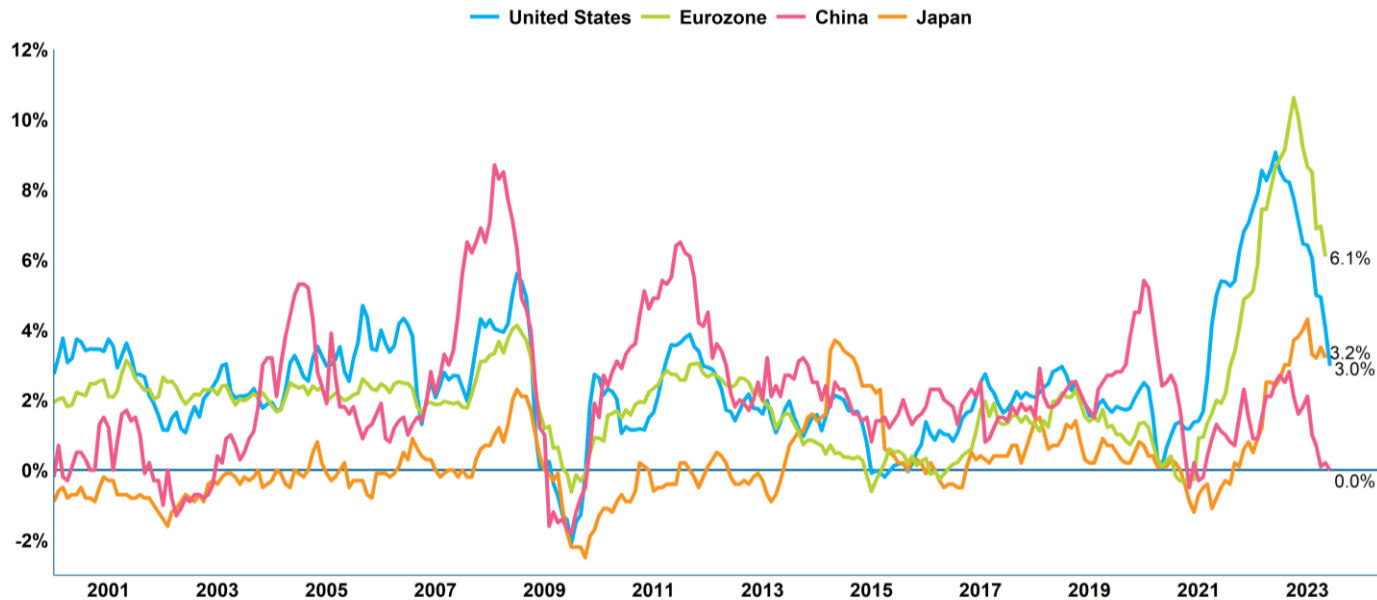
#### Balance Sheet as % of GDP



- In 2022, many central banks aggressively reduced pandemic-era policy support in the face of high inflation, with the US taking the most aggressive approach. Slowing inflation and growth have led to expectations for reductions in policy tightening going forward.
- In May the Fed raised rates another 25 basis points to a range of 5.0% to 5.25%. After month-end, the FOMC paused its tightening campaign but hinted that one or two additional rate hikes could come later this year.
- In China, the central bank has continued to cut interest rates and inject liquidity into the banking system, as weaker than expected economic data appears to indicate a widespread slowdown.
- Looking ahead, risks remain for a policy error as central banks attempt to balance multiple goals, bringing down inflation, maintaining financial stability, and supporting growth.

<sup>1</sup> Source: Bloomberg. Policy rate data is as of June 30, 2023. China policy rate is defined as the medium-term lending facility 1 year interest rate. Balance sheet as % of GDP is based on quarterly data and is as of March 31, 2023.

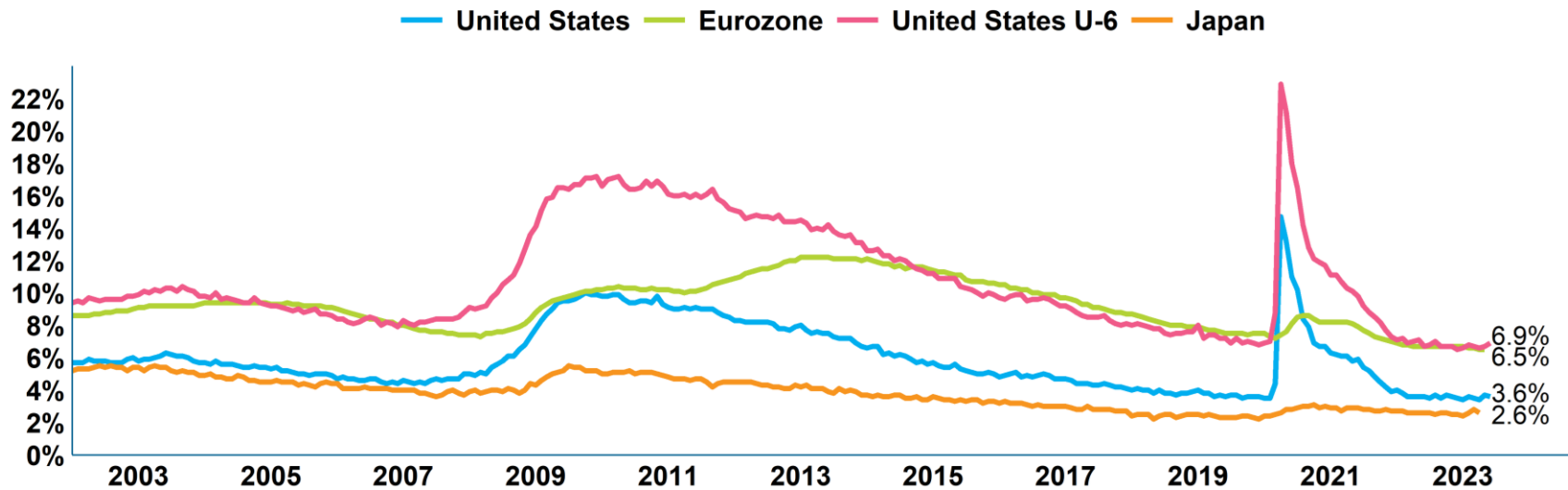
**Inflation (CPI Trailing Twelve Months)<sup>1</sup>**



- Inflation pressures continued to decline globally due to the easing of supply chain issues from the pandemic, declining energy prices, and tighter monetary policy.
- In the US, inflation fell to 3.0% at month-end, while eurozone inflation also fell (6.1% from 7.0%) a level well off its peak. Despite 2023's significant declines in the US and Europe, inflation levels remain elevated compared to central bank targets.
- Inflation remains lower in China and Japan. In China, inflation levels were only slightly above 0% at month-end as the reopening of their economy has led to an uneven economic recovery.

<sup>1</sup> Source: Bloomberg. Data is as June 30, 2023. The most recent Japanese inflation data is as of May 2023.

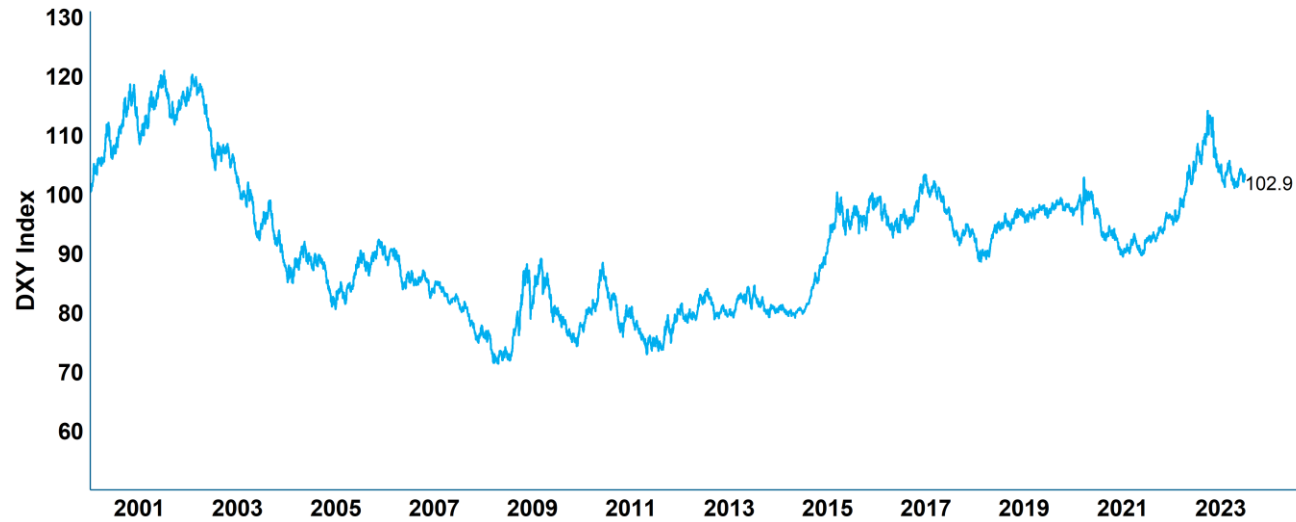
### Unemployment<sup>1</sup>



- Despite slowing growth and high inflation, the US labor market still shows signs of resiliency. Unemployment in the US, which experienced the steepest rise, recently returned to pre-pandemic levels. Broader measures of unemployment (U-6) remain higher at 6.9% but also declined dramatically from their peak.
- The strong labor market and higher wages, although beneficial for workers, motivates the Fed's efforts to fight inflation, leading to higher unemployment.
- Unemployment in Europe has also declined but remains higher than the US, while levels in Japan have been flat through the pandemic given less layoffs.

<sup>1</sup> Source: Bloomberg. Data is as June 30, 2023, for the US. The most recent data for Eurozone and Japanese unemployment is as of May 2023.

US Dollar versus Broad Currencies<sup>1</sup>



- The dollar finished 2022 much higher than it started, due to the increased pace of policy tightening, stronger relative growth, and safe-haven flows.
- Late last year and into this year, the dollar declined, as weaker economic data and lower inflation led to investors anticipating the end of Fed tightening. In June, we did see a slight decline in the dollar though.
- This year, the track of inflation across economies and the corresponding monetary policies will be key drivers of currency moves.

<sup>1</sup> Source: Bloomberg. Data as of June 30, 2023.

## Summary

### Key Trends:

- The impacts of still relatively high inflation will remain key, with bond market volatility likely to stay high.
- Recent issues related to the banking sector seem to have subsided for now but are a reminder that there is a delicate balance for central banks to continue to fight inflation but also to try to maintain financial stability.
- Global monetary policies could diverge in 2023. The risk of policy errors remains elevated as central banks try to reduce persistent inflation while not tipping their economies into recession.
- Growth is expected to slow globally this year, with many economies forecast to tip into recession. Inflation, monetary policy, and the war will all be key.
- In the US, consumers could feel pressure as certain components of inflation remain high (e.g., shelter), borrowing cost are elevated, and the job market may weaken.
- The key for US equities going forward will be whether earnings can remain resilient if growth continues to slow.
- Equity valuations remain lower in both emerging and developed markets, but risks remain, including potential continued strength in the US dollar, higher inflation weighing particularly on Europe, and China's sluggish economic reopening and on-going weakness in the real estate sector.



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**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.