

# California Public Employees' Retirement System

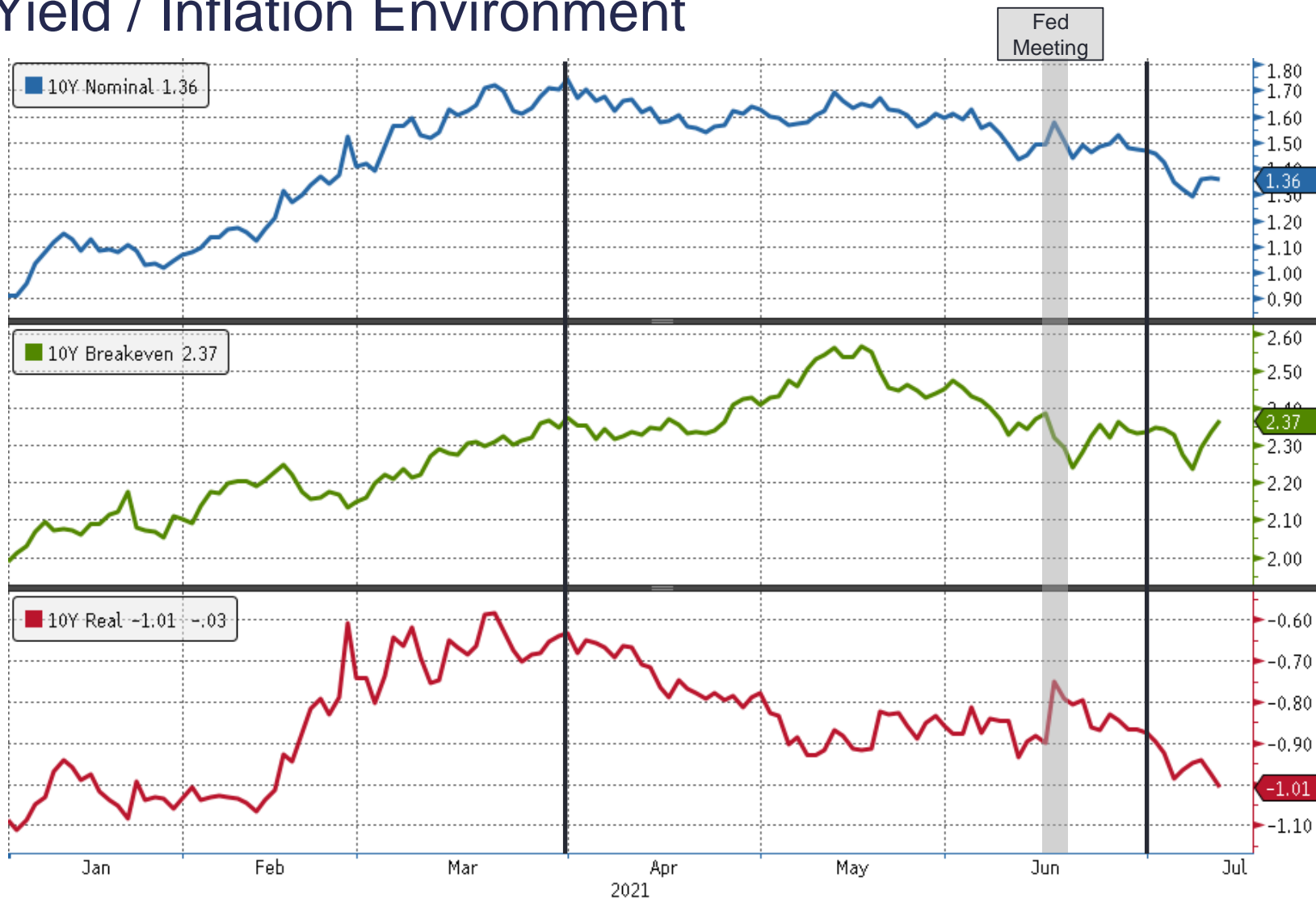
Performance Review

Second Quarter 2021

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# Yield / Inflation Environment



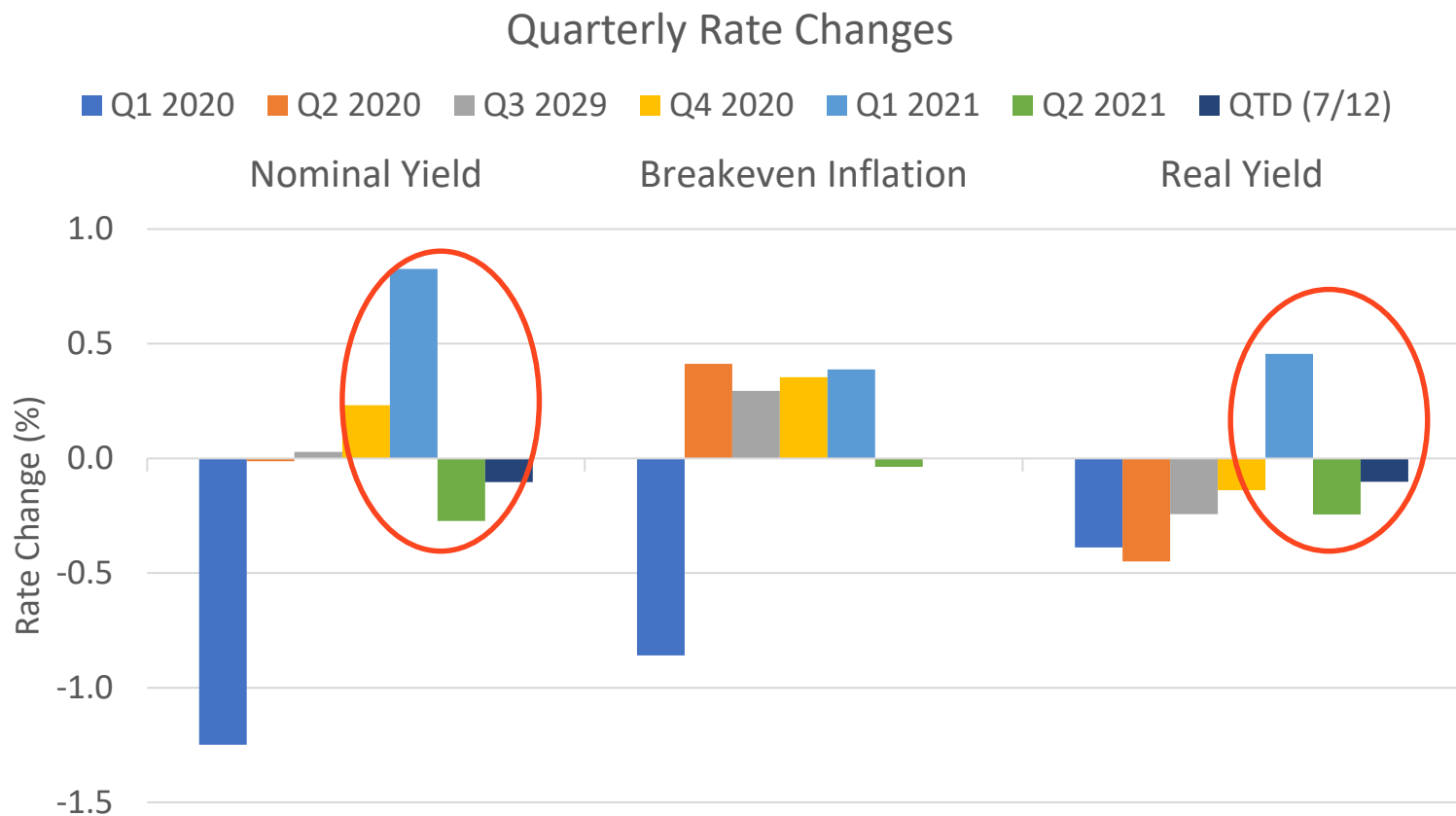
USGG10YR Index (US Generic Govt 10 Yr) 10yr Intraday Daily 31DEC2020-13JUL2021 Copyright© 2021 Bloomberg Finance L.P. 13-Jul-2021 05:40:01

Data Source: Bloomberg

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# Rate Change Attribution

**Reversal in Q1 rise in real yields, while BE inflation rate moderates...**

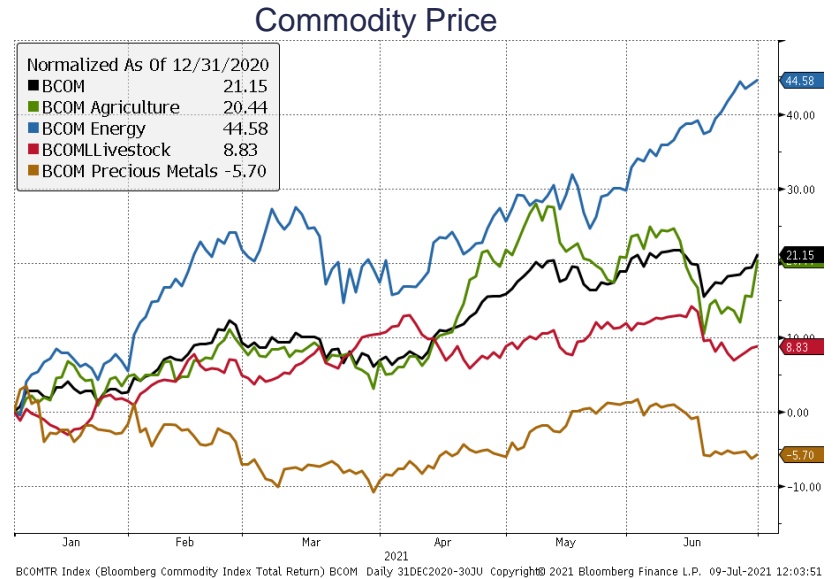
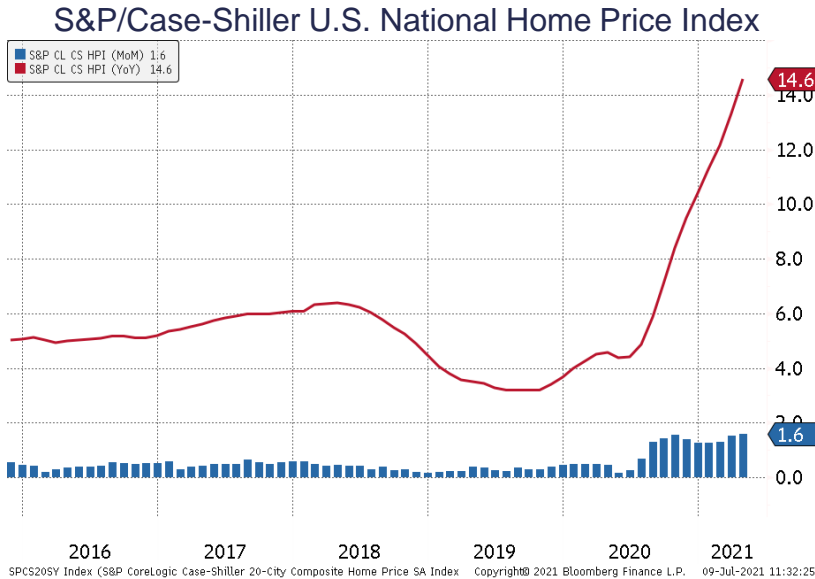
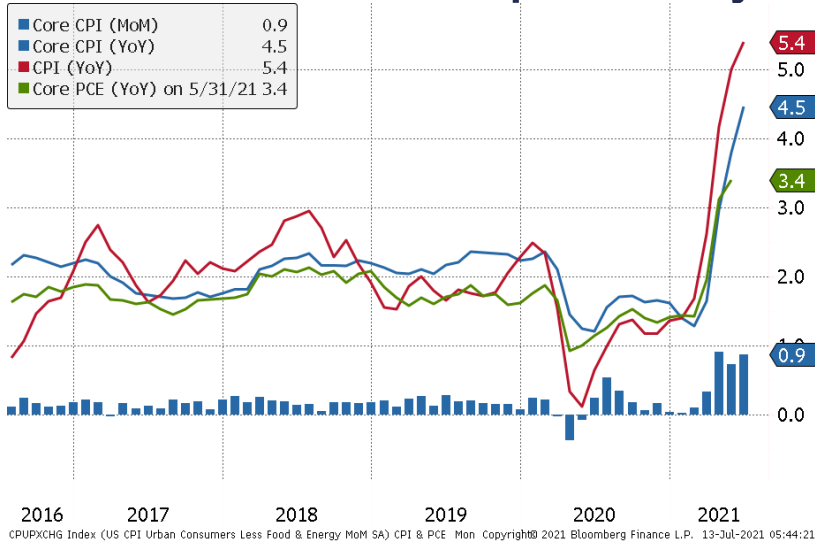


Data Source: Bloomberg

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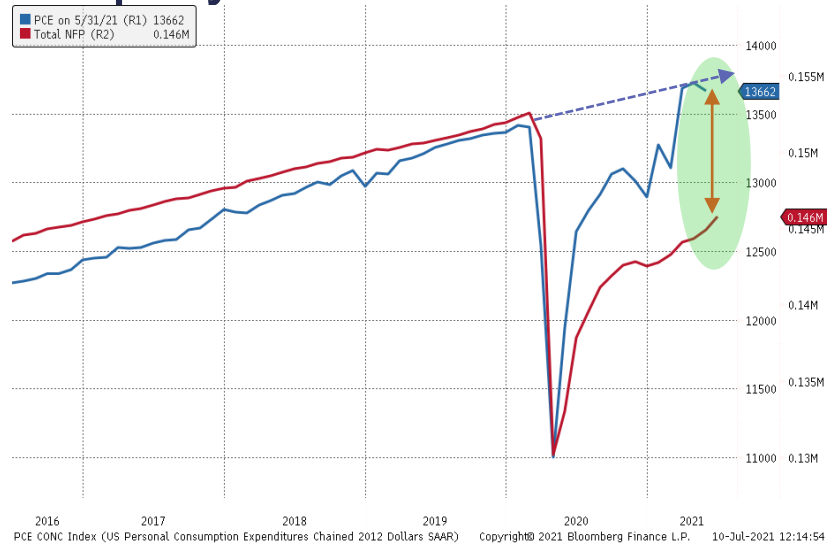
# Inflation in most places you look...



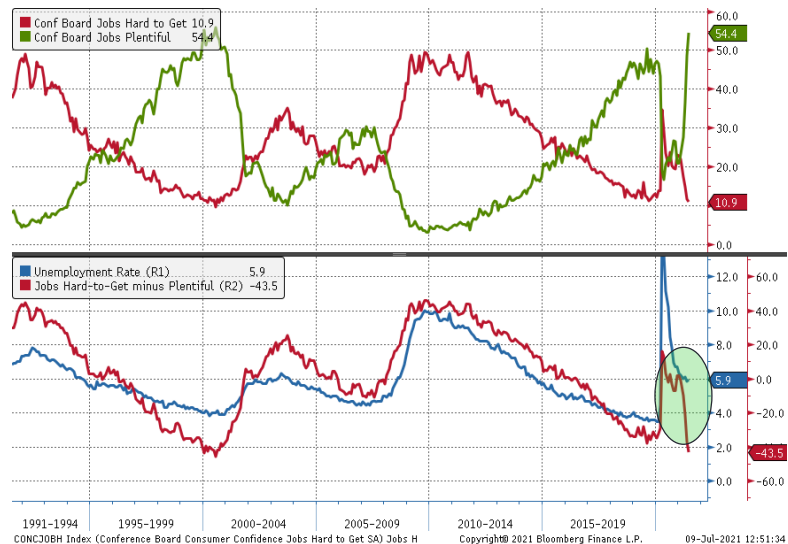
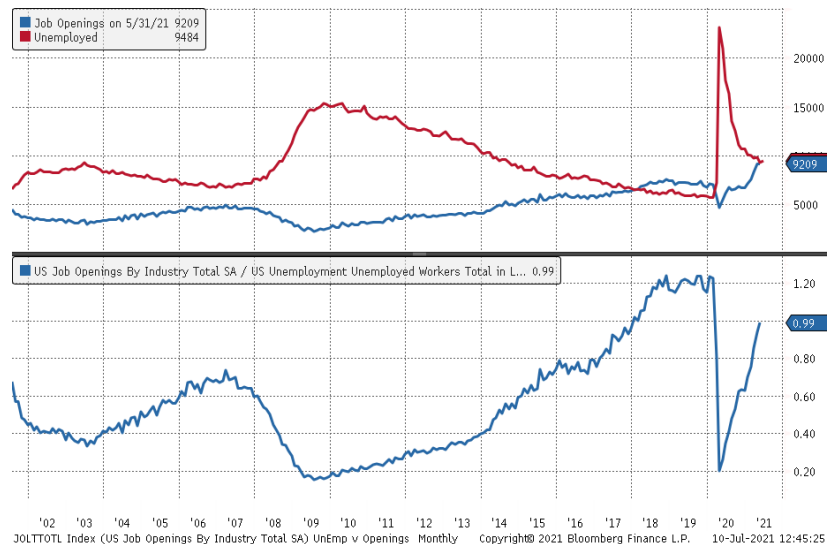
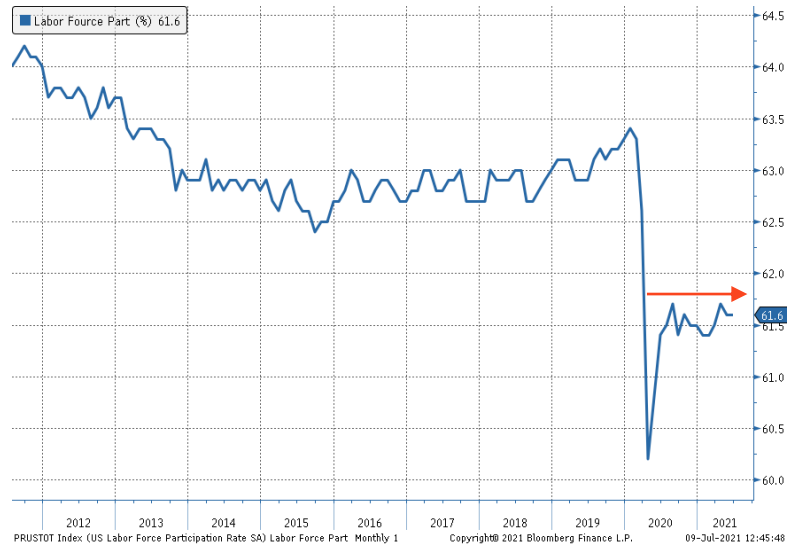
Data Source: Bloomberg

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# Employment Conditions



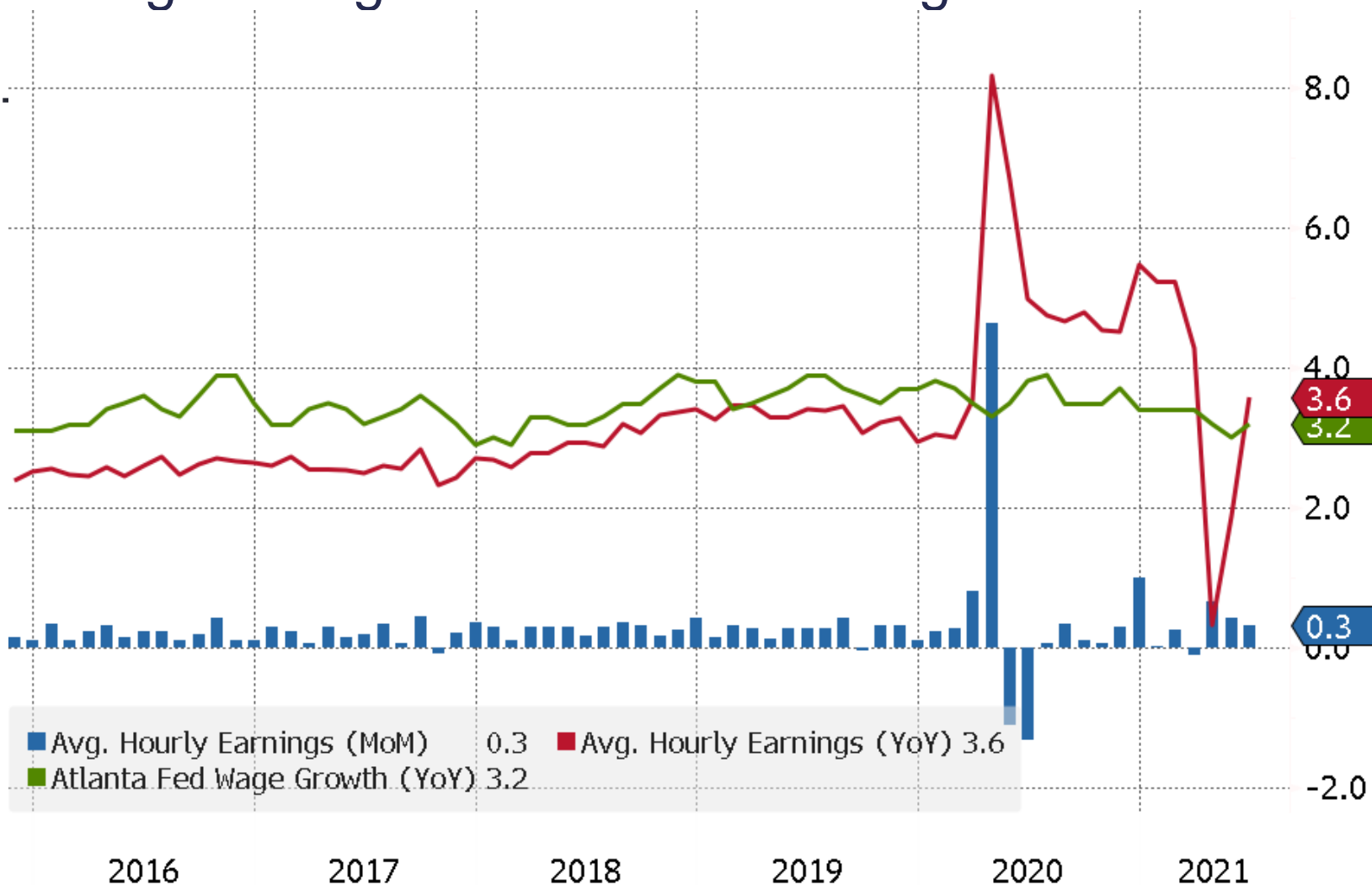
## U.S. Labor Force Participation Rate



Data Source: Bloomberg

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# Will higher wages be needed to bridge the divide?



AHE MOM% Index (US Average Hourly Earnings All Employees Total Private Monthly P Copyright© 2021 Bloomberg Finance L.P. 13-Jul-2021 07:23:20

Data Source: Bloomberg

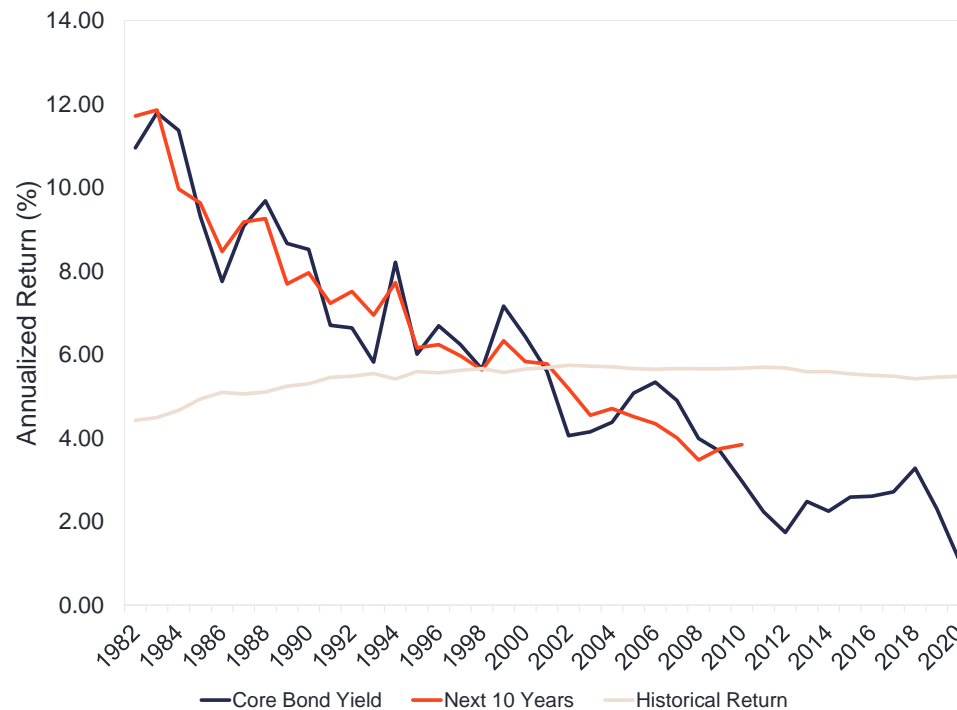
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# Fixed Income Expectations

**Fixed income returns follow closely with the yield at the time of forecasting**

- **Yield on core bonds = 1.50% as-of June 30th**
- **Yield on long-term bonds = 2.66% as-of June 30th**



Data Source: Bloomberg Barclays

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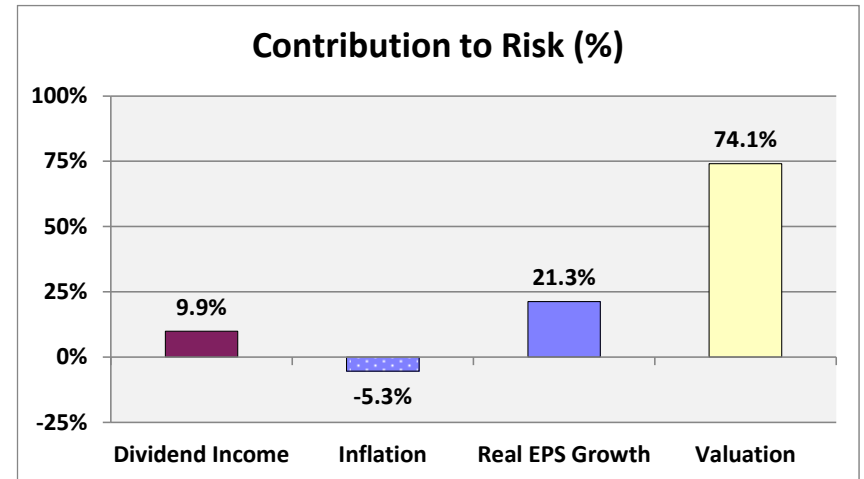
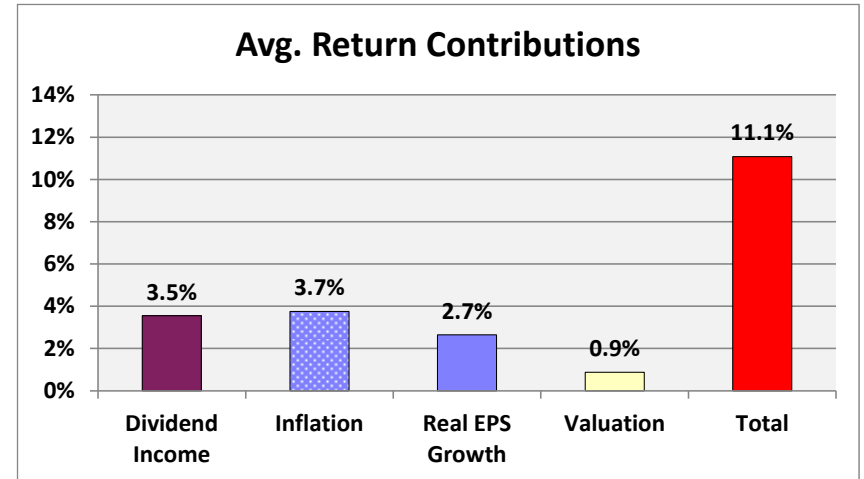
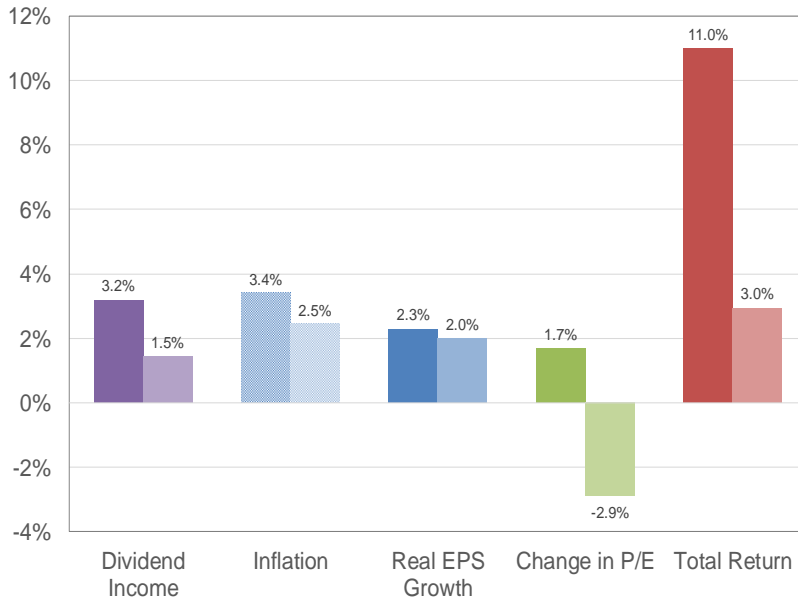
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# Equity Expectations

Current expectations for four sources of equity market return are lower than historical experience

Changes in valuation levels contribute the substantial majority of equity market risk

IGV Components: History (since 1951) vs. Forecast



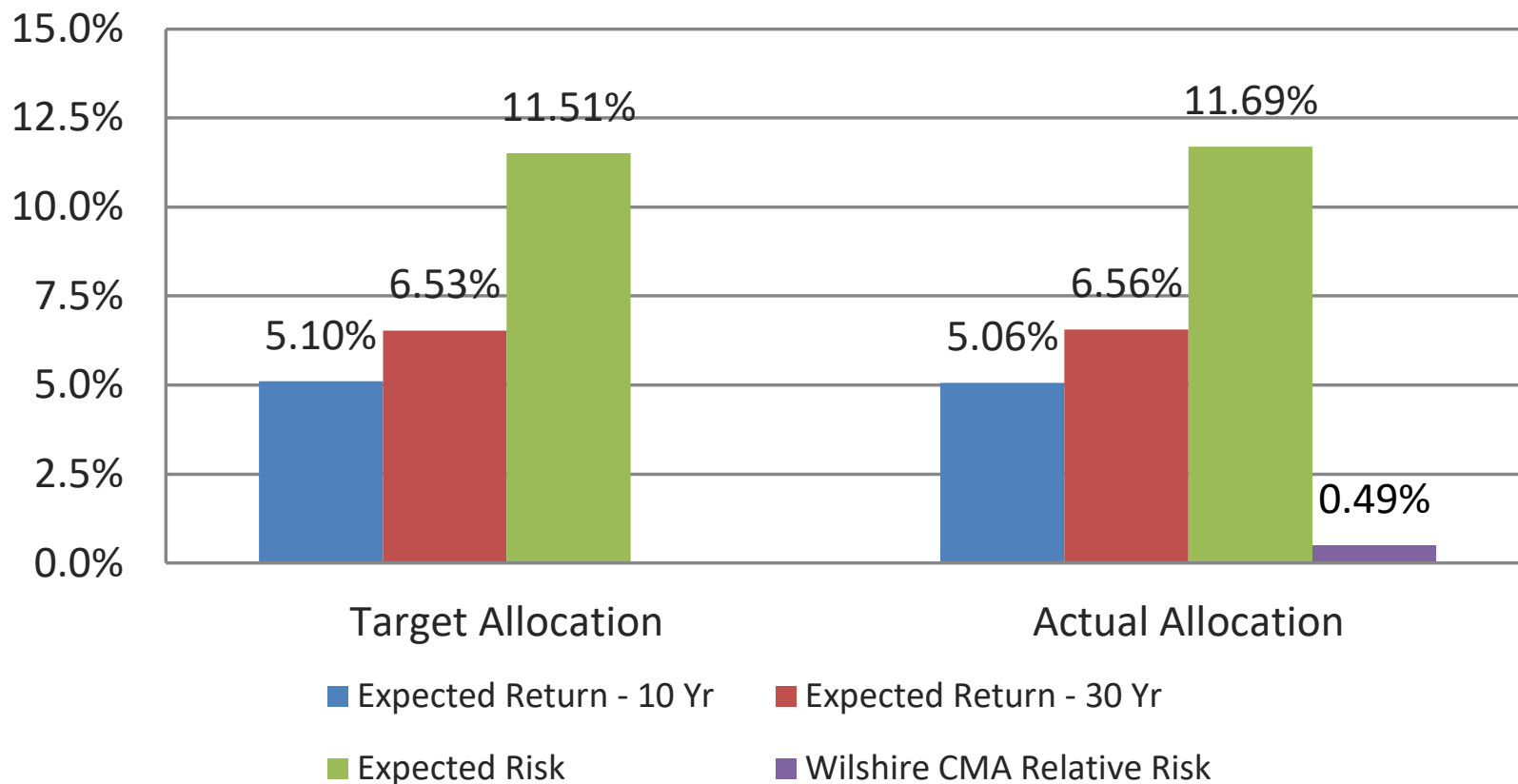
Data Source: S&P Dow Jones



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# CalPERS Expected Return and Risk Estimates

## As of June 30, 2021

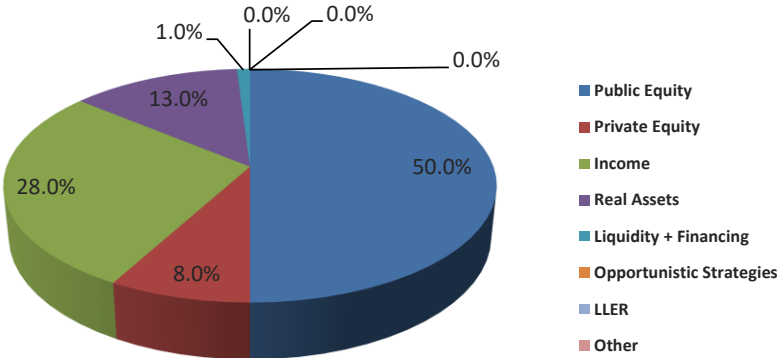


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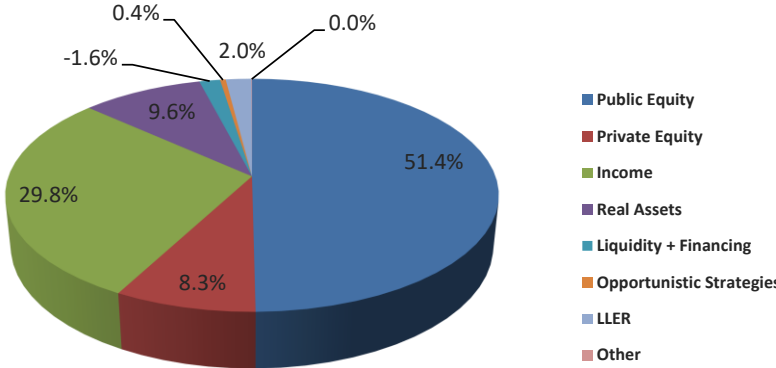
# CalPERS Asset and Risk Allocation

## As of June 30, 2021

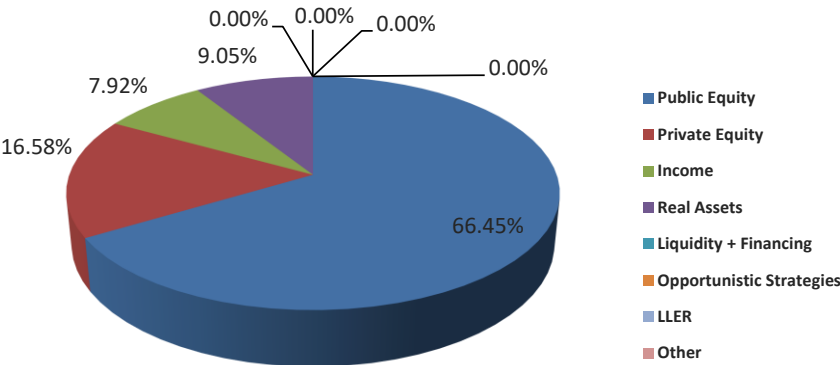
### Target Asset Allocation



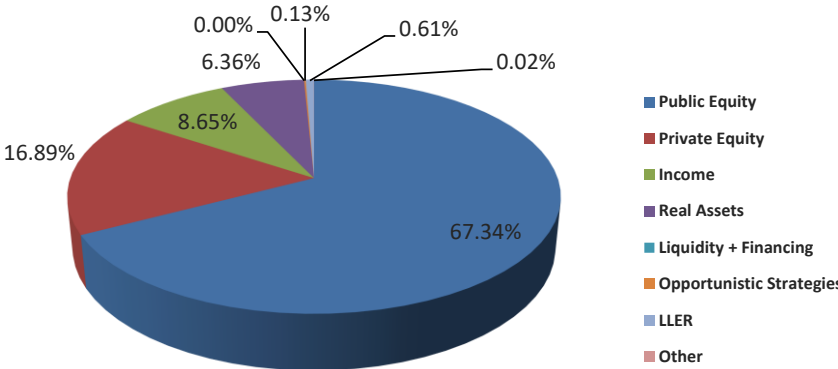
### Actual Asset Allocation



### Contribution to Total Risk - Target Allocation



### Contribution to Total Risk - Actual Allocation

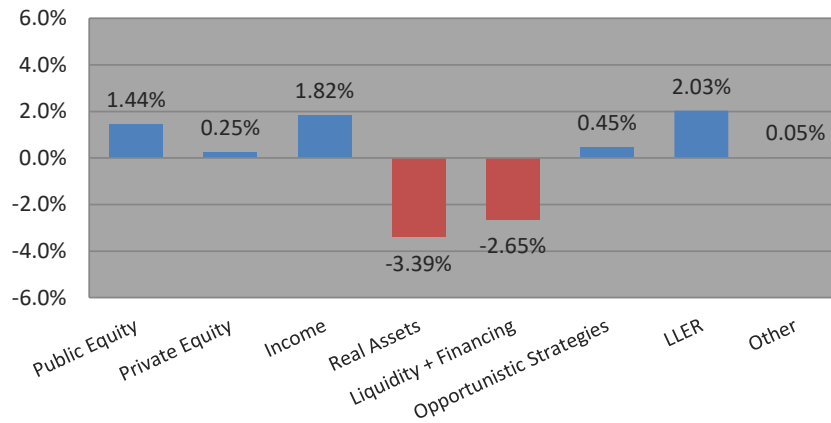


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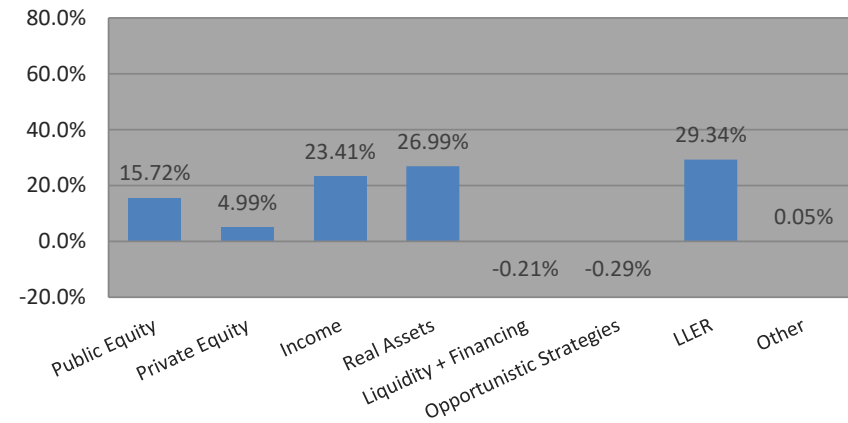
# CalPERS Drivers of Expected Excess Risk

## As of June 30, 2021

### CalPERS Asset Allocation Variance



### Contribution to TF Tracking Error



- This excess risk forecast is based on asset allocation variance only
- Other sources of risk (structural within asset classes, manager/program specific source of tracking error, covariance) are not considered here

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# Total Fund – Performance

## As of June 30, 2021

	Asset Value *						VaR	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year	(\$Billion)	Sharpe	Info
<b>TOTAL FUND</b>	\$ 470.8	5.5%	21.3%	10.7%	10.3%	8.5%	\$ 65.1	1.2	-0.1
<i>Total Fund Policy Benchmark</i>		5.2%	21.7%	10.8%	10.5%	8.5%		1.3	0.0
<i>Actuarial Rate</i>		1.7%	7.0%	7.1%	7.2%	7.4%			
<b>PUBLIC EQUITY **</b>	\$ 242.2	6.8%	36.3%	13.3%	14.2%	10.1%	\$ 50.4	0.9	-0.2
<i>Public Equity Policy Benchmark</i>		6.8%	36.0%	13.2%	14.2%	10.0%		0.9	0.0
<b>PRIVATE EQUITY</b>	\$ 38.9	9.7%	43.8%	13.7%	14.2%	12.0%	\$ 15.9	1.7	-0.1
<i>Private Equity Policy Benchmark</i>		5.6%	61.1%	14.3%	16.3%	13.4%		1.0	0.0
<b>INCOME **</b>	\$ 140.4	3.7%	-0.1%	7.2%	4.4%	5.1%	\$ 12.4	0.6	1.9
<i>Income Policy Benchmark</i>		3.7%	-0.8%	6.8%	3.8%	4.6%		0.5	0.0
<b>REAL ASSETS</b>	\$ 45.3	1.5%	2.6%	3.6%	5.2%	8.1%	\$ 6.5	1.5	0.1
<i>Real Assets Policy Benchmark</i>		1.9%	1.3%	3.9%	5.1%	8.0%		1.5	0.0
<b>LLER</b>	\$ 9.5	0.5%	4.0%	2.8%	3.0%	-.%	\$ 0.3	0.7	0.8
<i>LIBOR 1 Month Rate</i>		0.0%	0.1%	0.9%	0.9%	-.%		-1.6	0.0
<b>OPPORTUNISTIC STRATEGIES</b>	\$ 2.1	7.2%	13.1%	-.%	-.%	-.%	\$ 0.1	N/A	N/A
<i>Custom Opp. Strategies Benchmark</i>		1.7%	7.0%	-.%	-.%	-.%		N/A	N/A
<b>OTHER ***</b>	\$ 0.2	NM	NM	NM	NM	NM		N/A	N/A
<b>LIQUIDITY</b>	\$ 4.8	0.0%	0.1%	1.4%	1.4%	1.2%	\$ (0.0)	0.6	3.9
<i>Liquidity Policy Benchmark</i>		0.0%	0.1%	1.2%	1.1%	1.3%		-0.5	0.0
<b>TRUST LEVEL FINANCING</b>	\$ (12.6)	0.1%	-.%	-.%	-.%	-.%		N/A	N/A
<b>TERMINATED AGENCY POOL</b>	\$ 0.2	5.0%	1.6%	8.1%	4.8%	-.%		N/A	N/A
<b>TOTAL FUND PLUS TAP</b>	\$ 471.0	5.5%	21.3%	10.7%	10.3%	8.5%		N/A	N/A

\* Asset values shown may reflect the first day of the following month when rebalancing and/or large cash flows occur on the last day of the quarter.

\*\* The CalPERS asset values shown include derivative exposure.

\*\*\* More details on investments included in OTHER can be found in the program section, page 55.

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# Total Fund – Attribution (Quarter)

As of June 30, 2021

Asset Class	Actual (%)		Benchmark (%)		Difference (%)		Total Fund Return Contribution (%)		
	Weight *	Return	Weight *	Return	Weight	Return	Actual Allocation	Active Management	Total
<b>Public Equity</b>	52.12	6.77	52.35	6.79	-0.22	-0.02	0.01	-0.01	0.00
<b>Public Equity - Cap Weighted</b>	37.02	7.17	37.22	7.21	-0.20	-0.04	0.01	-0.01	-0.01
<b>Public Equity - Factor Weighted</b>	15.11	5.80	15.13	5.77	-0.02	0.04	0.00	0.01	0.01
<b>Private Equity</b>	7.86	9.70	7.52	5.26	0.34	4.44	0.03	0.28	0.31
<b>Income</b>	29.03	3.76	29.11	3.68	-0.09	0.08	0.00	0.02	0.02
<b>Spread</b>	14.76	2.89	14.83	2.81	-0.07	0.08	0.00	0.01	0.01
<b>Treasury</b>	9.84	5.16	11.32	5.16	-1.48	0.00	0.00	0.00	0.00
<b>Total Fund Income</b>	1.48	5.56	0.00	5.16	1.48	0.39	0.00	0.01	0.01
<b>High Yield</b>	2.95	2.40	2.96	2.42	-0.01	-0.02	0.00	0.00	0.00
<b>Real Assets</b>	10.03	1.47	10.04	1.86	-0.01	-0.39	0.00	-0.04	-0.04
<b>Total Fund</b>	2.60	NM	0.00	0.00	2.60	NM	-0.13	0.02	-0.11
<b>Opportunistic Strategies</b>	0.30	7.24	0.00	1.70	0.30	5.53	-0.01	0.02	0.01
<b>LLER</b>	2.25	0.47	0.00	0.02	2.25	0.46	-0.12	0.01	-0.11
<b>Other</b>	0.05	NM **	0.00	0.00	0.05	NM **	0.00	0.00	-0.01
<b>Liquidity</b>	1.44	0.02	0.98	0.00	0.46	0.01	-0.03	0.00	-0.03
<b>Trust Level Financing</b>	-3.08	0.08	0.00	NM	-3.08	NM	0.18	0.00	0.17
<b>Monthly Linked Return</b>	<b>100.00</b>	<b>5.54</b>	<b>100.00</b>	<b>5.22</b>	<b>0.32</b>		<b>0.05</b>	<b>0.27</b>	<b>0.32</b>
<b>Residual</b>		0.00		0.00		0.00			<b>0.00</b>
<b>Total Perf</b>		<b>5.54</b>		<b>5.22</b>		<b>0.32</b>			<b>0.32</b>

\* Average period weight displayed.

\*\* More details of the OTHER program can be found in the program section, page 55.

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# Total Fund – Attribution (Fiscal Year)

As of June 30, 2021

Asset Class	Actual (%)		Benchmark (%)		Difference (%)		Total Fund Return Contribution (%)		
	Weight *	Return	Weight *	Return	Weight	Return	Actual Allocation	Active Management	Total
<b>Public Equity</b>	52.86	36.28	52.96	35.97	-0.10	0.31	-0.01	0.15	0.14
<b>Public Equity - Cap Weighted</b>	37.87	42.04	37.96	41.58	-0.10	0.46	0.00	0.15	0.15
<b>Public Equity - Factor Weighted</b>	14.99	22.62	15.00	22.64	-0.01	-0.02	0.00	0.00	-0.01
<b>Private Equity</b>	6.98	43.78	6.79	58.78	0.19	-15.00	0.19	-1.19	-1.00
<b>Income</b>	28.70	-0.11	28.87	-0.76	-0.16	0.65	0.05	0.20	0.25
<b>Spread</b>	15.18	3.19	14.85	2.58	0.33	0.62	-0.06	0.11	0.05
<b>Treasury</b>	9.44	-8.52	11.01	-8.65	-1.57	0.13	0.52	0.02	0.53
<b>Total Fund Income</b>	1.10	-5.26	0.00	-8.65	1.10	3.40	-0.41	0.07	-0.34
<b>High Yield</b>	2.99	13.68	3.00	13.40	-0.01	0.28	0.00	0.01	0.01
<b>Real Assets</b>	10.38	2.58	10.39	1.30	-0.01	1.28	0.00	0.15	0.15
<b>Total Fund</b>	1.48	NM	0.00	0.00	1.48	NM	-0.21	0.02	-0.19
<b>Opportunistic Strategies</b>	0.18	13.08	0.00	6.99	0.18	6.09	-0.03	0.02	0.00
<b>LLER</b>	1.19	4.05	0.00	0.09	1.19	3.95	-0.19	0.03	-0.16
<b>Other</b>	0.05	NM **	0.00	0.00	0.05	NM **	-0.01	-0.01	-0.02
<b>Liquidity</b>	1.18	0.12	0.99	0.06	0.20	0.06	0.00	0.00	0.00
<b>Trust Level Financing</b>	-1.60	0.05	0.00	NM	-1.60	NM	0.25	0.00	0.25
<b>Monthly Linked Return</b>	<b>100.00</b>	<b>21.34</b>	<b>100.00</b>	<b>21.74</b>	<b>-0.40</b>		<b>0.30</b>	<b>-0.66</b>	<b>-0.40</b>
<b>Residual</b>		-0.02		0.00		-0.02			<b>-0.02</b>
<b>Total Perf</b>		<b>21.33</b>		<b>21.74</b>		<b>-0.42</b>			<b>-0.42</b>

\* Average period weight displayed.

\*\* More details of the OTHER program can be found in the program section, page 55.

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# Total Fund – Attribution (YTD 2021)

As of June 30, 2021

Asset Class	Actual (%)		Benchmark (%)		Difference (%)		Total Fund Return Contribution (%)		
	Weight *	Return	Weight *	Return	Weight	Return	Actual Allocation	Active Management	Total
<b>Public Equity</b>	52.44	11.53	52.62	11.31	-0.18	0.22	0.00	0.11	0.12
<b>Public Equity - Cap Weighted</b>	37.44	13.13	37.63	12.85	-0.18	0.28	0.00	0.10	0.11
<b>Public Equity - Factor Weighted</b>	14.99	7.59	15.00	7.52	0.00	0.08	0.00	0.01	0.01
<b>Private Equity</b>	7.47	19.44	7.25	22.07	0.22	-2.63	0.07	-0.30	-0.24
<b>Income</b>	28.99	-2.70	29.09	-2.83	-0.10	0.13	0.01	0.04	0.05
<b>Spread</b>	14.81	-1.02	14.86	-1.23	-0.05	0.20	0.00	0.03	0.04
<b>Treasury</b>	9.74	-6.49	11.24	-6.49	-1.50	0.00	0.21	0.00	0.21
<b>Total Fund Income</b>	1.46	-6.32	0.00	-6.49	1.46	0.16	-0.20	0.00	-0.20
<b>High Yield</b>	2.98	2.82	2.99	2.72	-0.01	0.09	0.00	0.00	0.00
<b>Real Assets</b>	10.07	3.88	10.05	2.95	0.02	0.93	0.00	0.10	0.10
<b>Total Fund</b>	2.68	NM	0.00	0.00	2.68	NM	-0.18	0.04	-0.14
<b>Opportunistic Strategies</b>	0.26	9.84	0.00	3.41	0.26	6.43	-0.01	0.02	0.01
<b>LLER</b>	2.37	1.09	0.00	0.04	2.37	1.06	-0.16	0.03	-0.14
<b>Other</b>	0.05	NM **	0.00	0.00	0.05	NM **	0.00	-0.01	-0.01
<b>Liquidity</b>	1.56	0.04	0.99	0.01	0.57	0.03	-0.03	0.00	-0.03
<b>Trust Level Financing</b>	-3.20	0.05	0.00	NM	-3.20	NM	0.22	0.00	0.22
<b>Monthly Linked Return</b>	<b>100.00</b>	<b>7.00</b>	<b>100.00</b>	<b>6.92</b>	<b>0.08</b>		<b>0.10</b>	<b>-0.01</b>	<b>0.08</b>
<b>Residual</b>		0.00		0.00		0.00			<b>0.00</b>
<b>Total Perf</b>		<b>7.00</b>		<b>6.92</b>		<b>0.08</b>			<b>0.08</b>

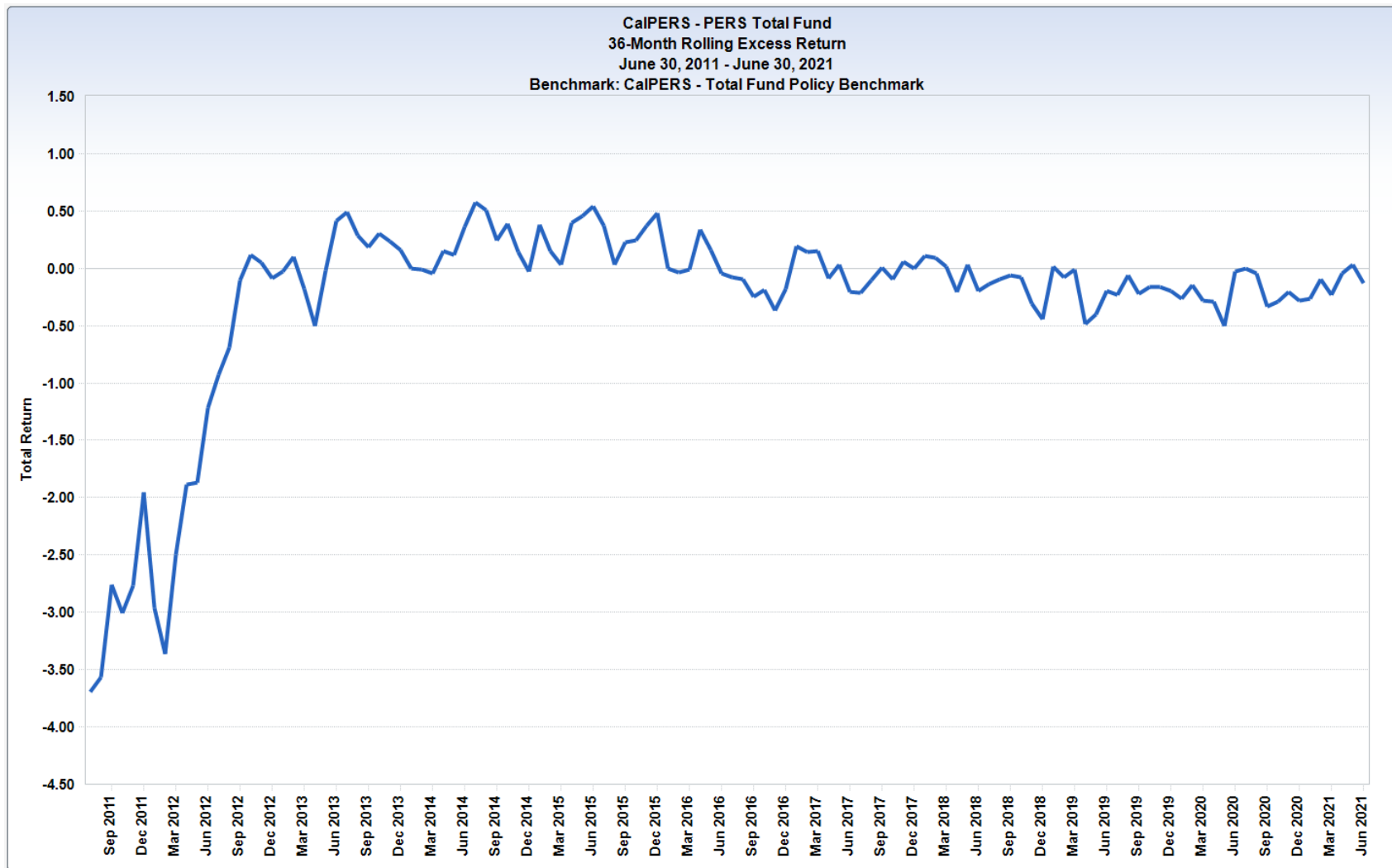
\* Average period weight displayed.

\*\* More details of the OTHER program can be found in the program section, page 55.

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# Total Fund – Rolling Excess Return

## As of June 30, 2021

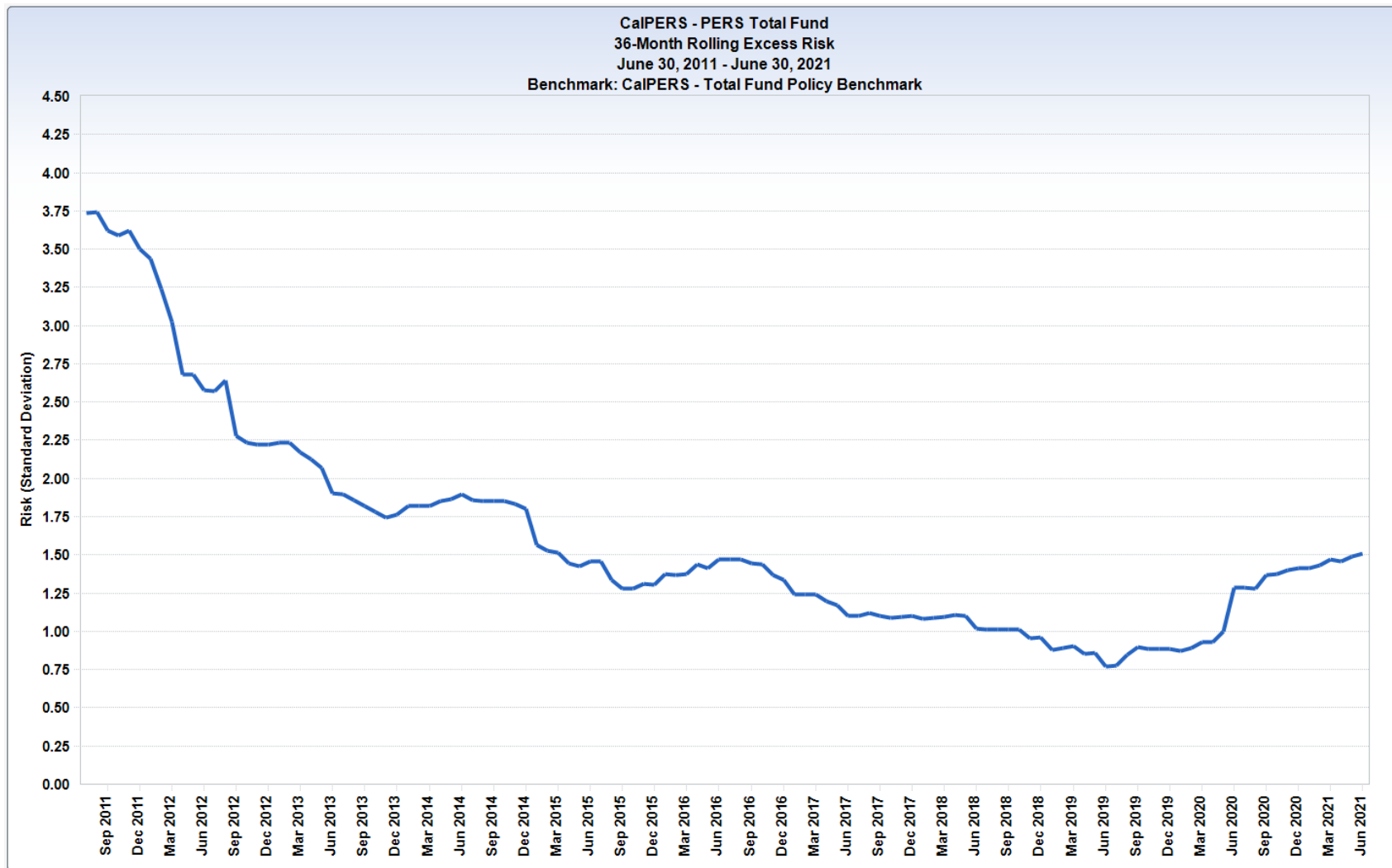




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# Total Fund – Rolling Tracking Error

## As of June 30, 2021



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# Affiliate Investment Programs – Performance

## As of June 30, 2021

	Asset Value					
	(\$Million)	Quarter	1-Year	3-Year	5-Year	10-Year
<b>Judges I</b>	\$ 63.5	0.0%	0.1%	1.4%	1.3%	0.7%
91-Day Treasury Bill		0.0%	0.1%	1.3%	1.2%	0.6%
<b>Judges II</b>	\$ 2,394.7	6.4%	24.4%	11.6%	10.3%	8.5%
Weighted Policy Benchmark		6.3%	24.2%	11.2%	10.0%	8.3%
<b>Legislators' Retirement System</b>	\$ 122.2	5.5%	13.6%	9.0%	7.2%	6.5%
Weighted Policy Benchmark		5.5%	13.4%	8.8%	7.0%	6.3%
<b>Long-Term Care ("LTC")</b>	\$ 5,476.4	6.0%	13.0%	8.2%	6.0%	5.2%
Weighted Policy Benchmark		5.8%	12.3%	8.2%	6.0%	5.1%
<b>CERBT Strategy 1</b>	\$ 13,042.0	6.6%	27.5%	11.9%	10.8%	8.4%
CERBT Strategy 1 Policy Benchmark		6.5%	27.3%	11.7%	10.5%	8.1%
<b>CERBT Strategy 2</b>	\$ 1,815.5	6.0%	19.7%	10.5%	9.0%	-.%
CERBT Strategy 2 Policy Benchmark		6.0%	19.5%	10.3%	8.7%	-.%
<b>CERBT Strategy 3</b>	\$ 818.7	5.5%	13.6%	9.0%	7.1%	-.%
CERBT Strategy 3 Policy Benchmark		5.5%	13.4%	8.8%	6.9%	-.%
<b>CEPPT Strategy 1</b>	\$ 38.6	4.7%	18.2%	-.%	-.%	-.%
CEPPT Strategy 1 Policy Benchmark		4.6%	18.1%	-.%	-.%	-.%
<b>CEPPT Strategy 2</b>	\$ 19.4	3.2%	7.9%	-.%	-.%	-.%
CEPPT Strategy 2 Policy Benchmark		3.2%	7.8%	-.%	-.%	-.%
<b>Health Care Fund</b>	\$ 518.4	1.8%	-0.4%	5.4%	3.1%	3.7%
Barclays U.S. Aggregate		1.8%	-0.3%	5.3%	3.0%	3.4%
<b>Supplemental Contribution Plan</b>	\$ 124.6	NM	NM	NM	NM	NM
CalPERS Custom SCP Plan Index		NM	NM	NM	NM	NM
<b>457 Program</b>	\$ 2,119.1	NM	NM	NM	NM	NM
CalPERS Custom 457 Plan Index		NM	NM	NM	NM	NM

# Appendix 1: CalPERS Performance Detail

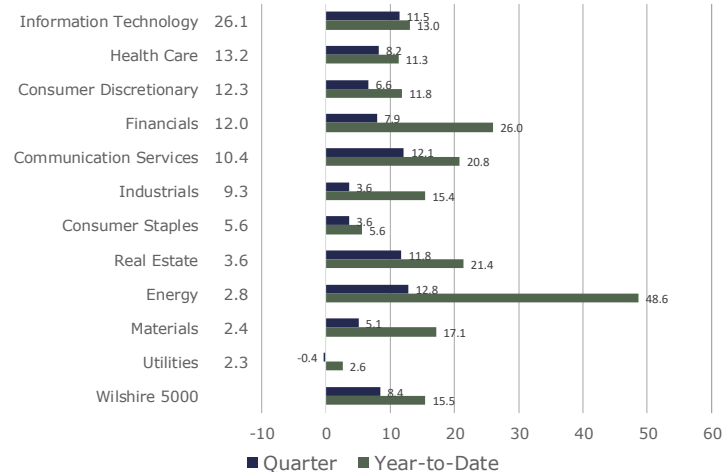
Wilshire

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# U.S. Equity Market

AS OF 6/30/2021	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Wilshire 5000 Index	8.4	15.5	44.2	18.9	18.0	14.8
Wilshire U.S. Large Cap	8.8	15.1	42.7	19.5	18.2	15.0
Wilshire U.S. Small Cap	4.8	18.9	62.0	13.6	15.8	12.7
Wilshire U.S. Large Growth	11.9	14.1	46.3	23.9	23.3	17.3
Wilshire U.S. Large Value	5.1	15.4	37.7	14.5	13.0	12.5
Wilshire U.S. Small Growth	3.2	12.4	56.2	16.5	19.1	13.5
Wilshire U.S. Small Value	6.2	25.6	67.7	10.8	12.4	11.7
Wilshire REIT Index	12.8	22.8	37.5	10.1	6.4	9.4
MSCI USA Min. Vol. Index	6.8	9.3	23.6	13.9	12.1	13.4
FTSE RAFI U.S. 1000 Index	6.4	21.7	51.2	15.4	14.9	13.3

U.S. SECTOR WEIGHT AND RETURN (%)



LARGE CAP VS SMALL CAP



LARGE GROWTH VS LARGE VALUE

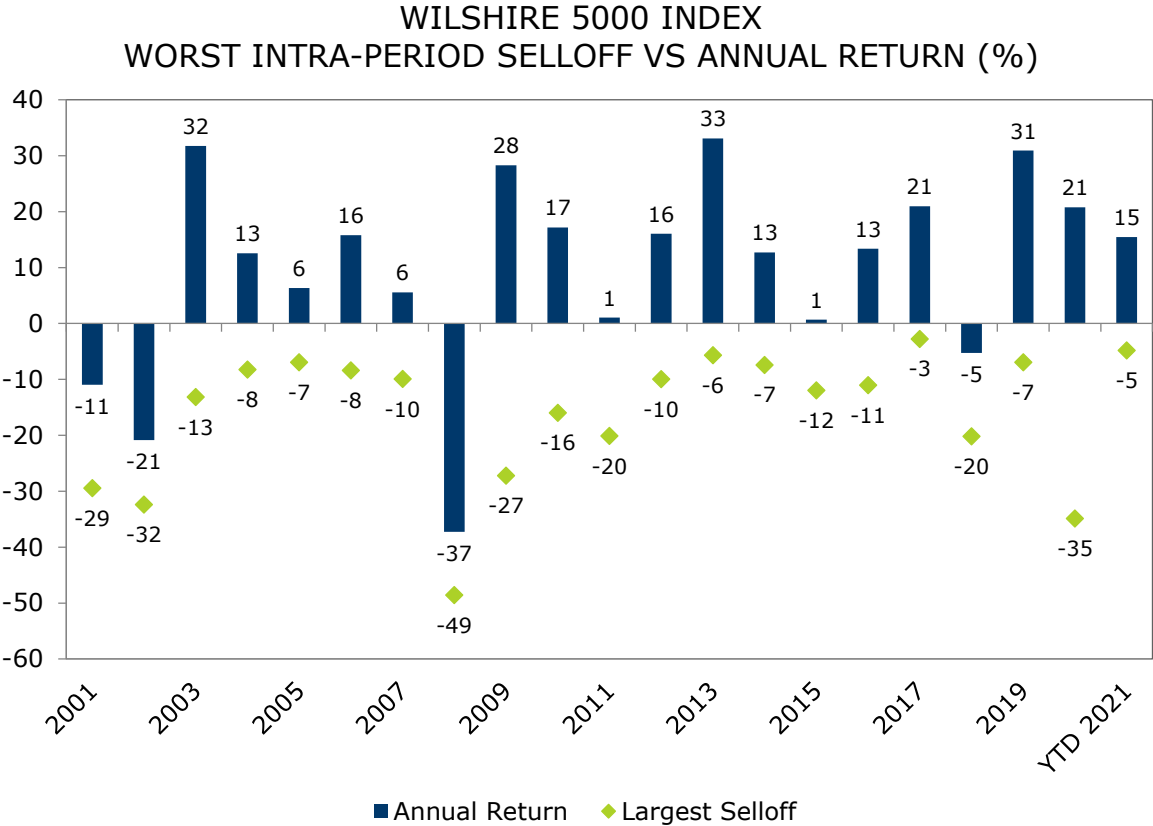


Data Sources: Bloomberg, Wilshire Atlas

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# Annual Returns

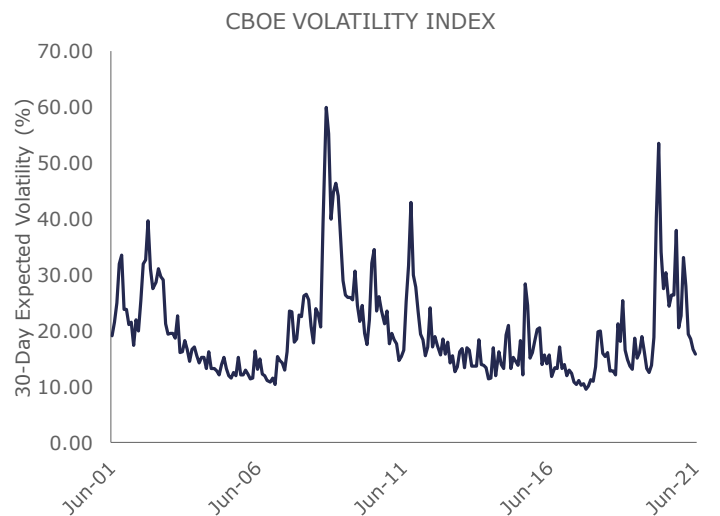
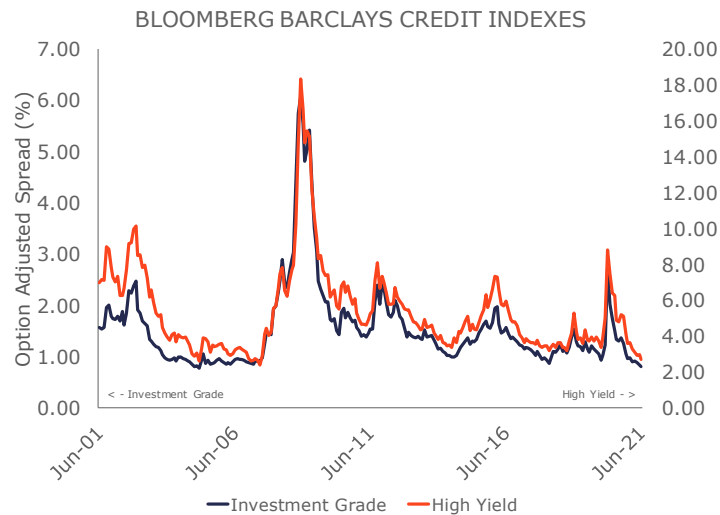
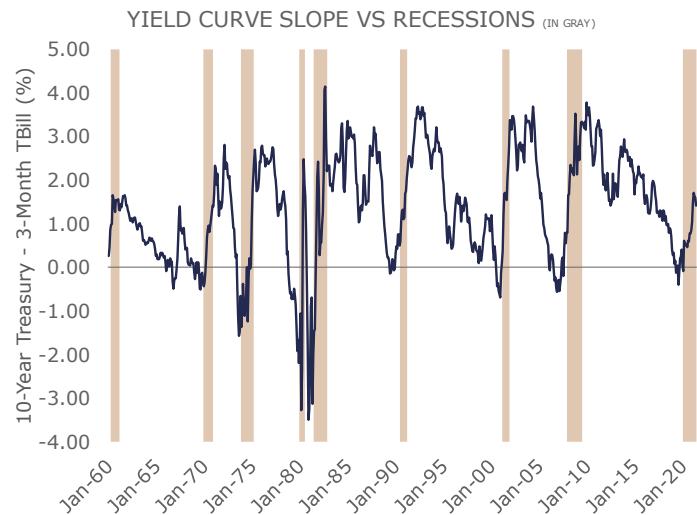
**U.S. Equity enjoyed a banner first half with a relatively minor sell-off**



Data Sources: Wilshire, Bloomberg

WILSHIRE

# Risk Monitor



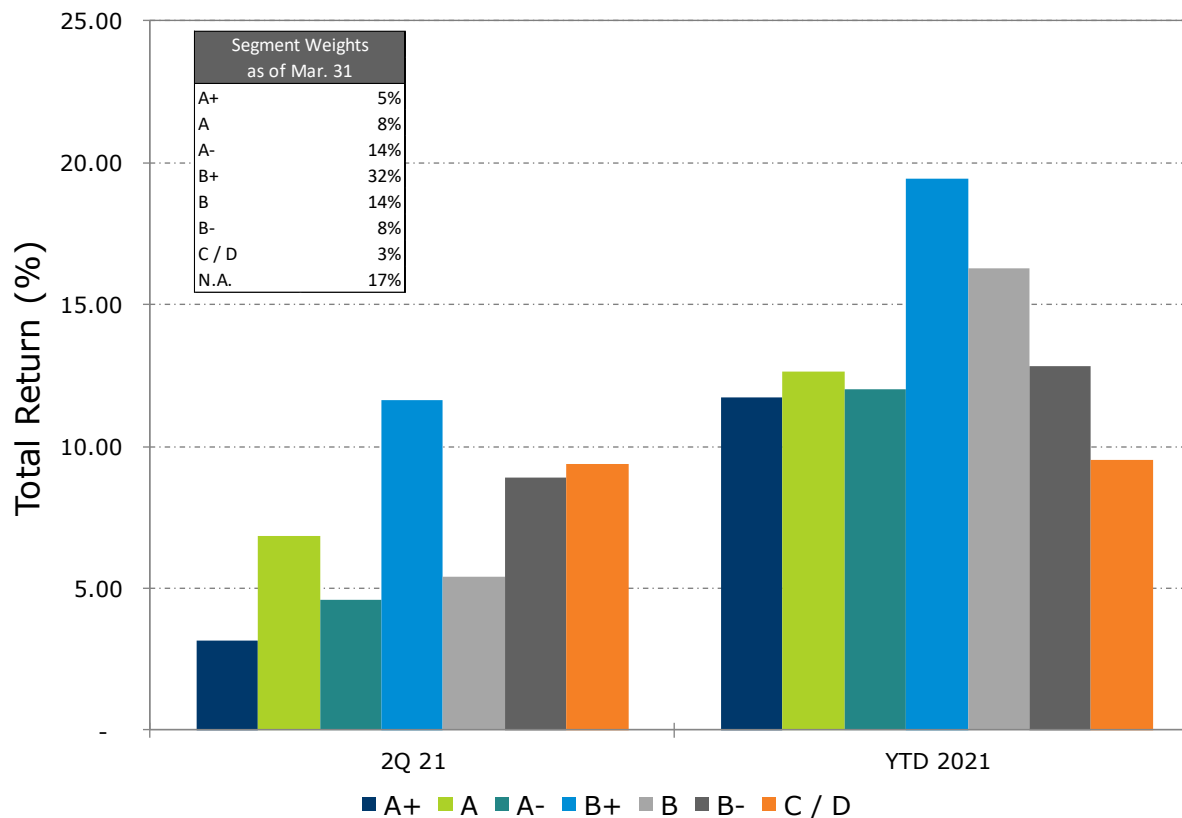
Data Sources: Bloomberg

WILSHIRE

# Returns by Quality Segment

Mid-tier quality names are leading gains so far this year, which also represents the largest portion of the U.S. Equity market

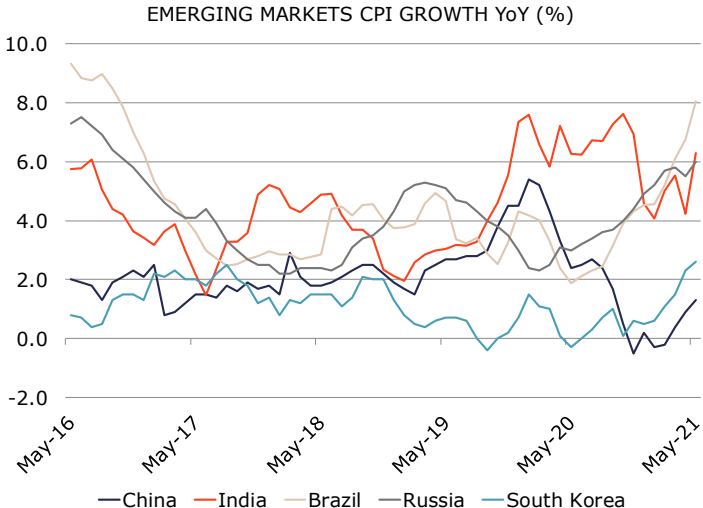
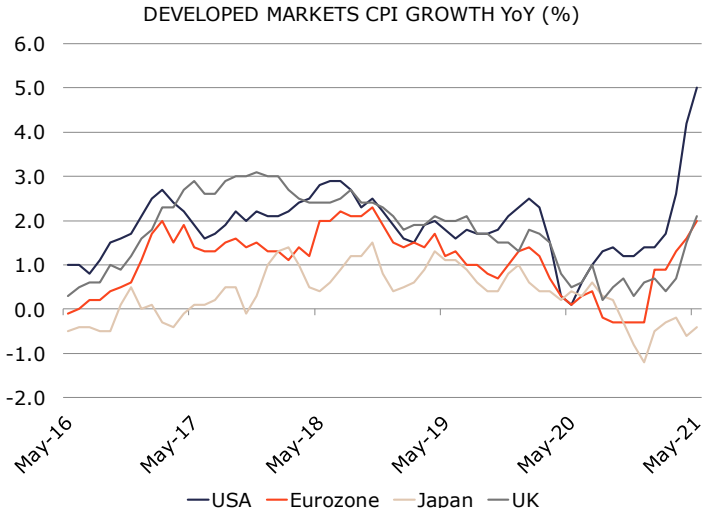
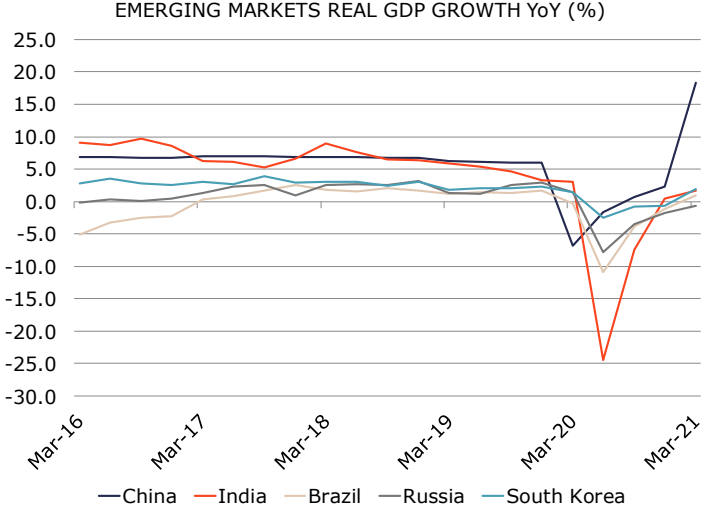
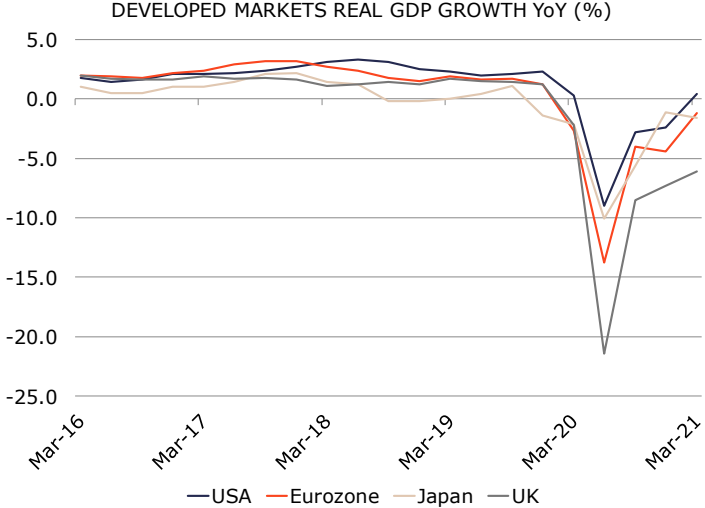
RETURN BY S&P QUALITY RATING



Data Sources: Wilshire Atlas

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# Non-U.S. Growth and Inflation



Data Sources: Bloomberg

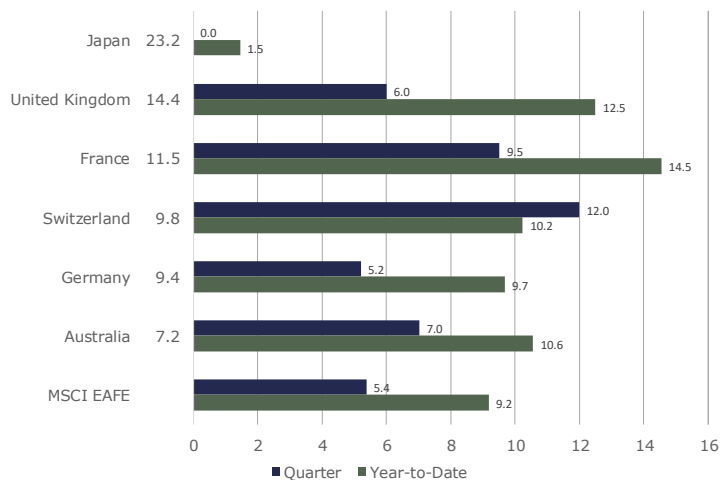


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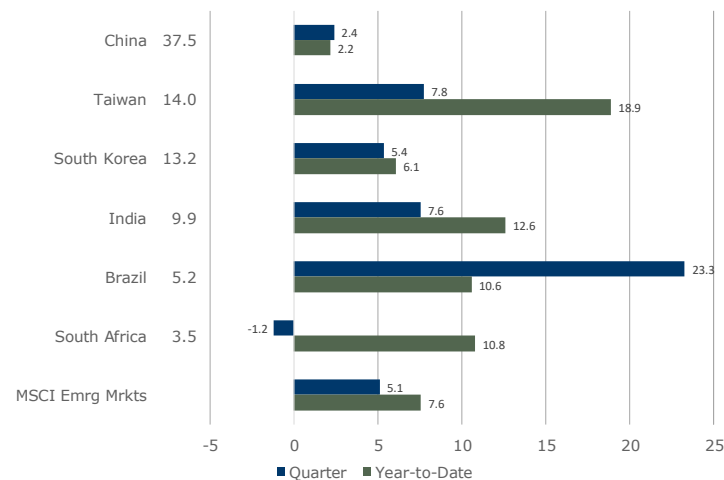
# Non-U.S. Equity Market

AS OF 6/30/2021	QTR	YTD	1 YR	3 YR	5 YR	10 YR
MSCI ACWI ex-US (\$G)	5.6	9.4	36.3	9.9	11.6	5.9
MSCI EAFE (\$G)	5.4	9.2	32.9	8.8	10.8	6.4
MSCI Emerging Markets (\$G)	5.1	7.6	41.4	11.7	13.4	4.7
MSCI Frontier Markets (\$G)	7.3	0.8	23.7	2.1	3.5	2.6
MSCI ACWI ex-US Growth (\$G)	6.7	6.7	34.1	13.6	13.8	7.6
MSCI ACWI ex-US Value (\$G)	4.7	12.4	39.8	6.1	9.4	4.4
MSCI ACWI ex-US Small (\$G)	6.5	12.5	47.6	10.2	12.4	7.4
MSCI ACWI Minimum Volatility	5.4	7.4	20.0	10.2	9.1	9.9
MSCI EAFE Minimum Volatility	5.2	4.7	17.0	5.4	6.5	7.0
FTSE RAFI Developed ex-US	4.8	13.8	42.3	7.0	10.4	5.0
MSCI EAFE LC (G)	5.0	13.1	27.6	8.0	10.5	8.6
MSCI Emerging Markets LC (G)	3.9	8.1	36.5	12.4	14.0	8.0

DEVELOPED MARKETS WEIGHT AND RETURN (%)



EMERGING MARKETS WEIGHT AND RETURN (%)



Data Sources: Bloomberg

WILSHIRE

# CalPERS Public Equity – Performance

## As of June 30, 2021

	Asset Value*						VaR	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year	(\$Billion)	Sharpe	Info
<b>PUBLIC EQUITY</b>	\$ 242.2	6.8%	36.3%	13.3%	14.2%	10.1%	\$ 50.4	0.9	-0.2
<i>Public Equity Policy Benchmark</i>		6.8%	36.0%	13.2%	14.2%	10.0%		0.9	0.0
<b>Public Equity - Cap Weighted**</b>	\$ 171.7	7.2%	42.0%	15.0%	15.2%	10.5%	\$ 39.2	0.9	-0.2
<i>CalPERS Custom FTSE Global Benchmark</i>		7.2%	41.6%	14.9%	15.2%	10.4%		0.9	0.0
<b>Public Equity - Factor Weighted</b>	\$ 70.5	5.8%	22.6%	10.7%	-.-%	-.-%	\$ 11.8	N/A	N/A
<i>MSCI ACWI Select Factor Weighted Index</i>		5.8%	22.6%	10.6%	-.-%	-.-%		N/A	N/A

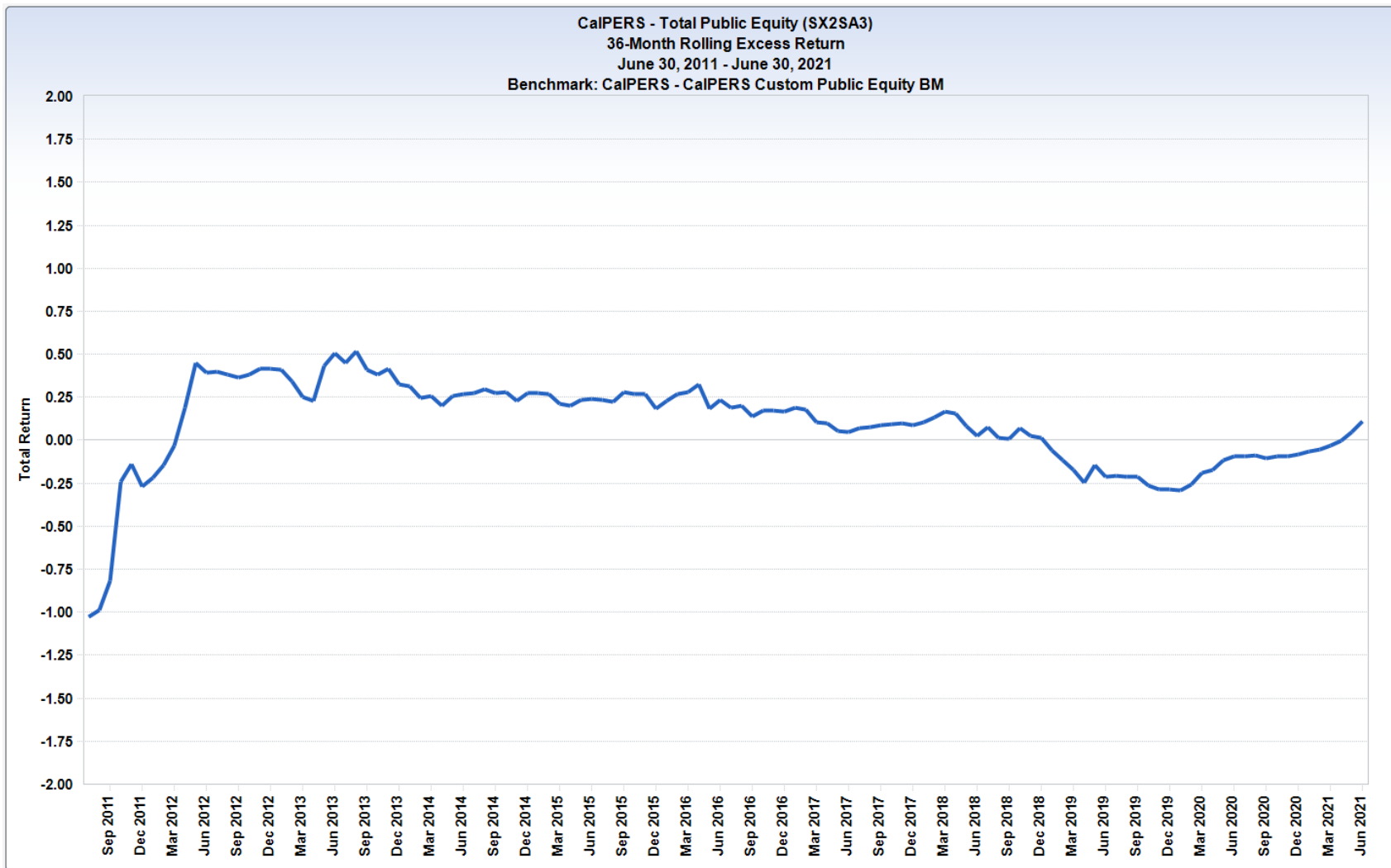
\* Asset values shown may reflect the first day of the following month when rebalancing and/or large cash flows occur on the last day of the quarter.

\*\* The CalPERS asset values shown include derivative exposure.

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# CalPERS Public Equity – Rolling Excess Return

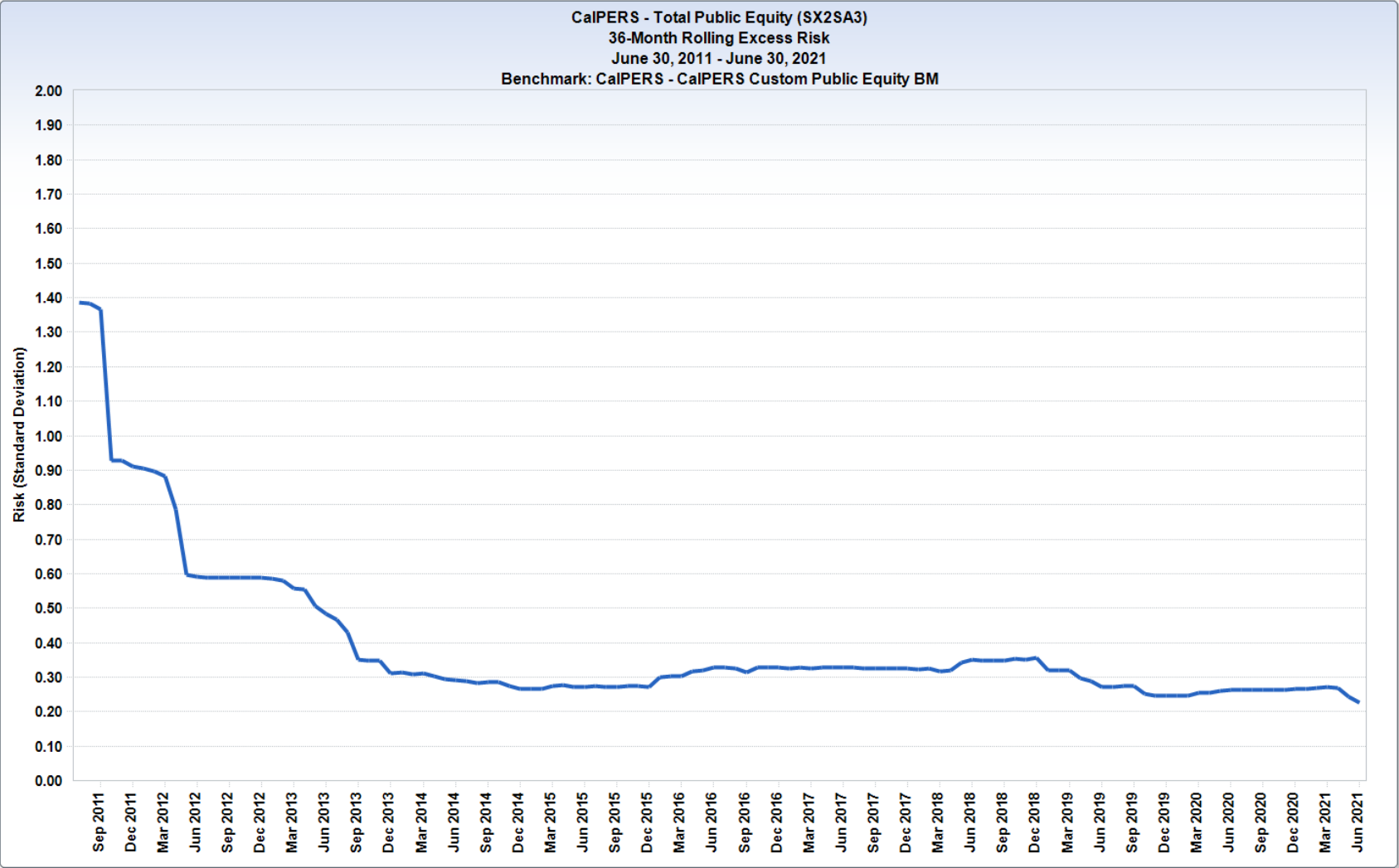
## As of June 30, 2021



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# CalPERS Public Equity – Rolling Tracking Error

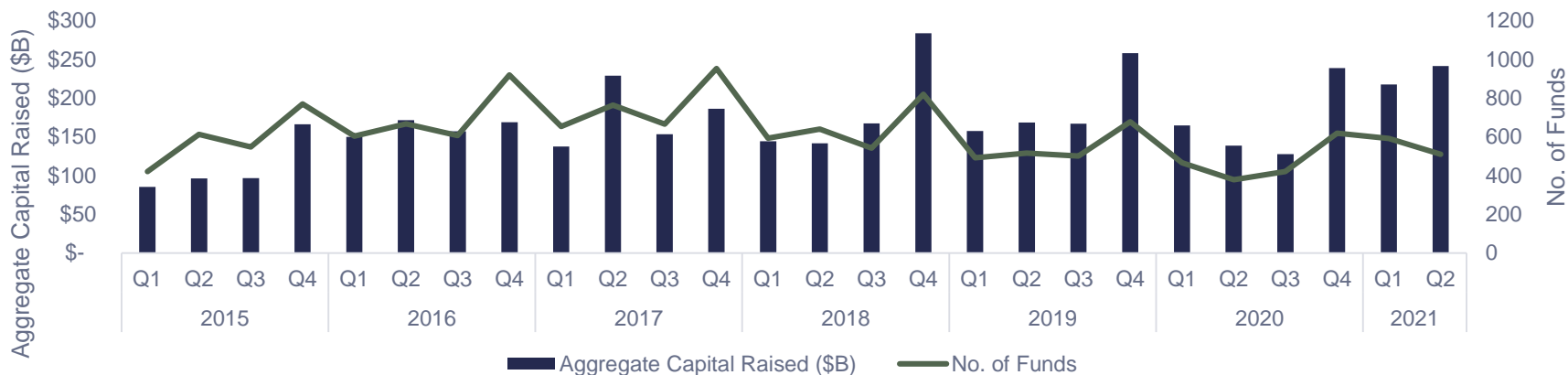
## As of June 30, 2021



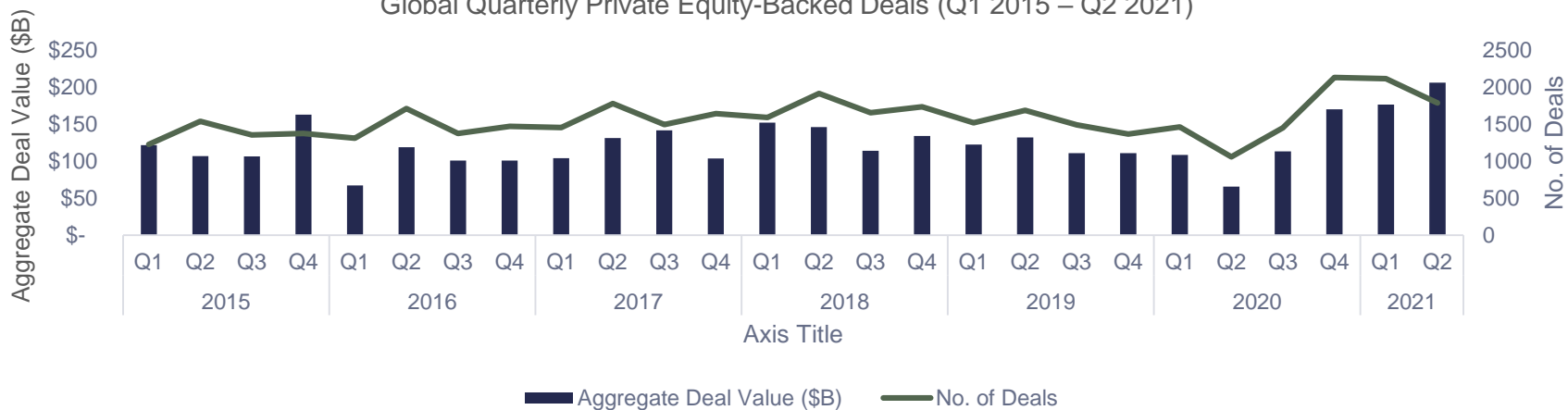
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# Private Equity – Fundraising & Investment Activity

Global Quarterly Private Equity Fundraising (Q1 2015 – Q2 2021)



Global Quarterly Private Equity-Backed Deals (Q1 2015 – Q2 2021)

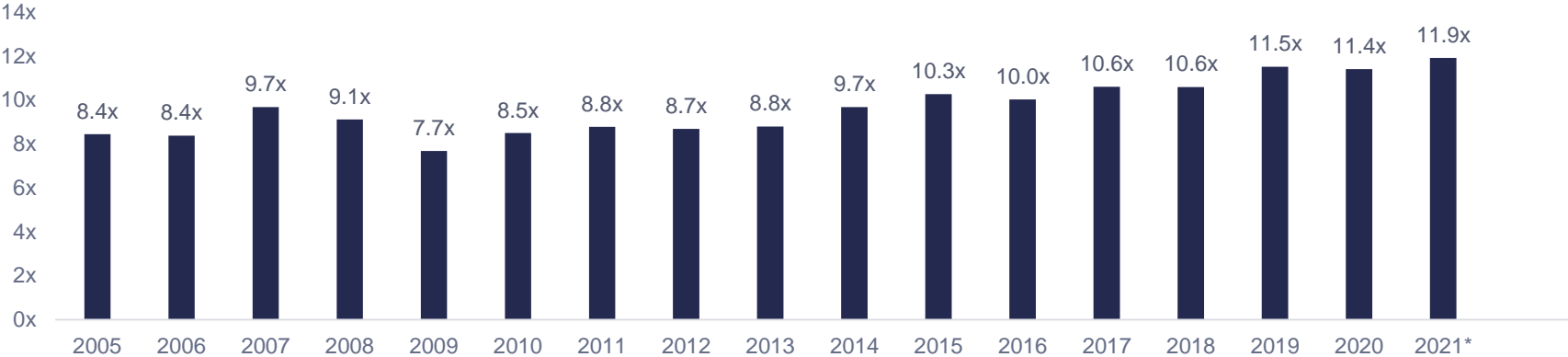


Source: Preqin, as of June 30, 2021.

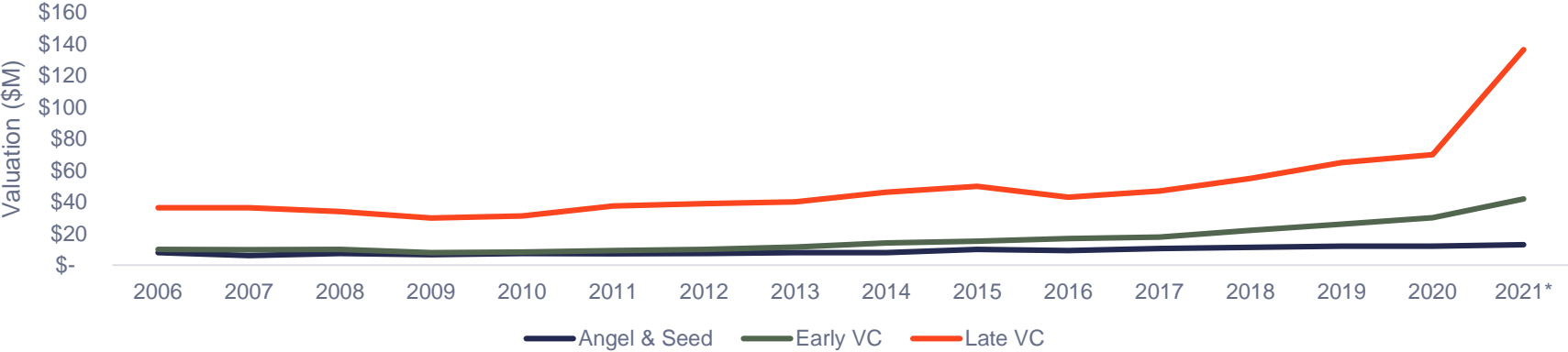
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# Private Equity – Pricing & Valuations

LBO Purchase Price Multiples (2005 – Q1 2021)



U.S. Median Pre-Value by Stage (2006-Q2 2021)

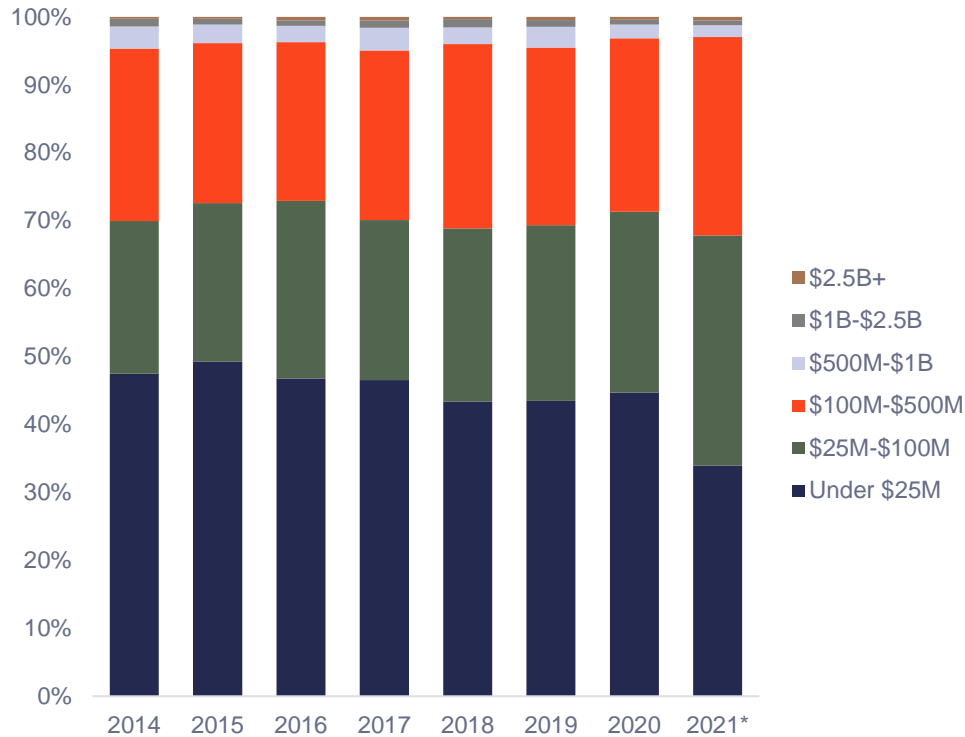


Source: S&P LBO; Pitchbook, \*as of June 30, 2021.

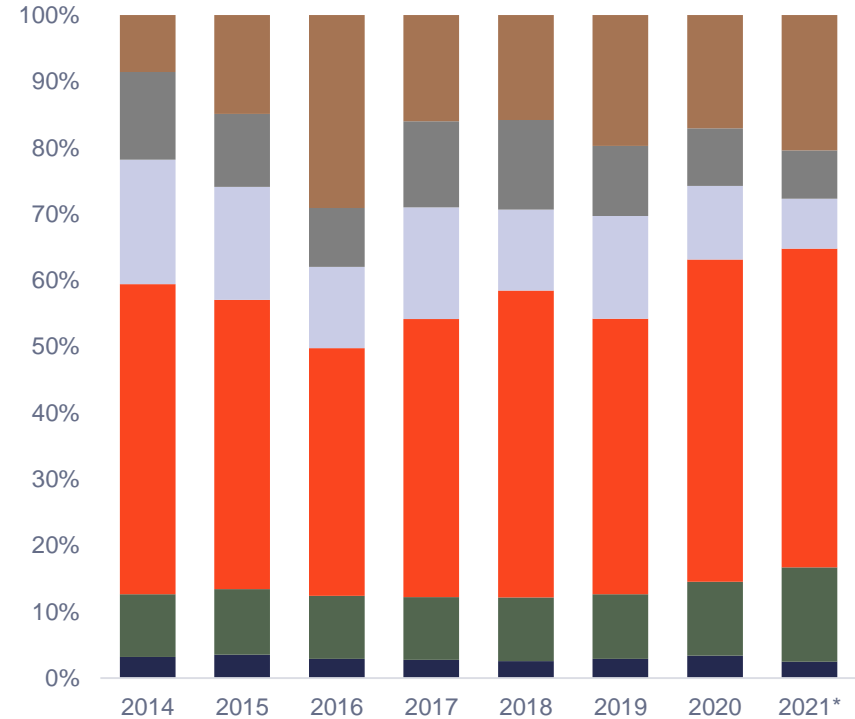
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# U.S. Investment Activity by Deal Size

Percentage of Deal Volume by Deal Size (by Count)



Percentage of Deal Volume by Deal Size (by Dollars)



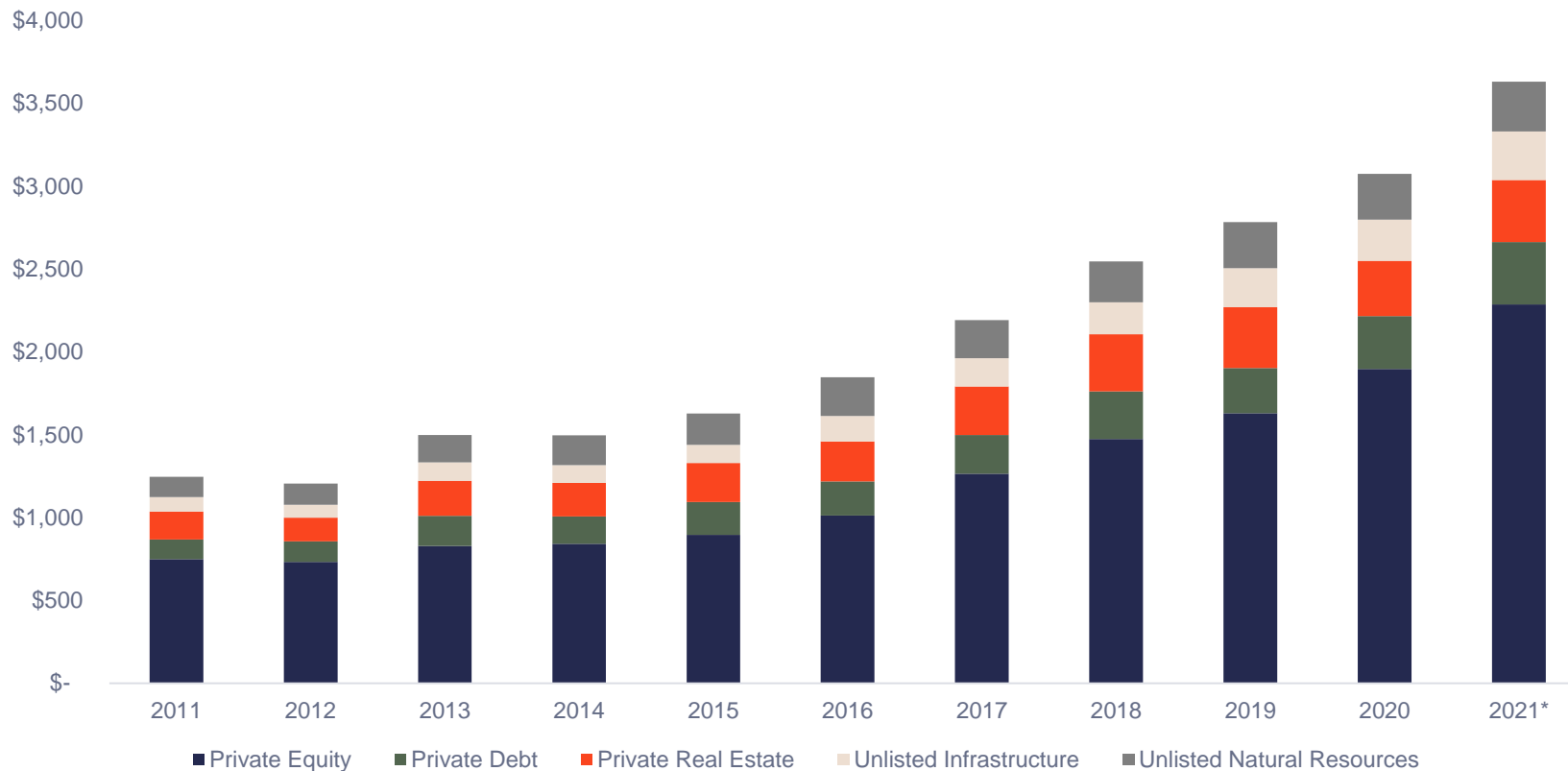
- Deal volume continues to be dominated by lower middle market deals with investment sizes below \$100 million through the second quarter of 2021
- However, deals with below \$100 million check sizes comprised only 16.7% of all deal volume by amount of capital invested in the second quarter of 2021

Source: Pitchbook, \*as of June 30, 2021.

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# Private Capital Dry Powder

Private Capital Dry Powder by Fund Type (2011 – July 2021)



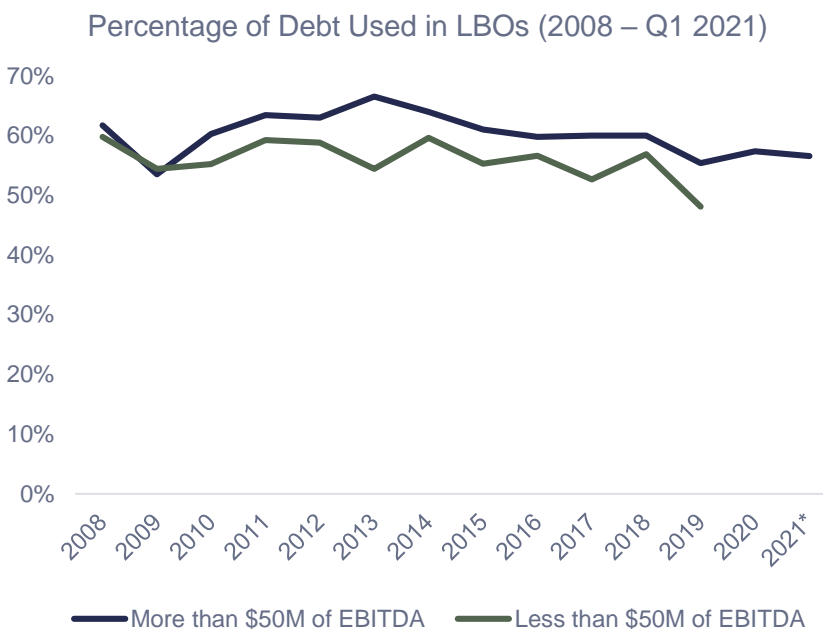
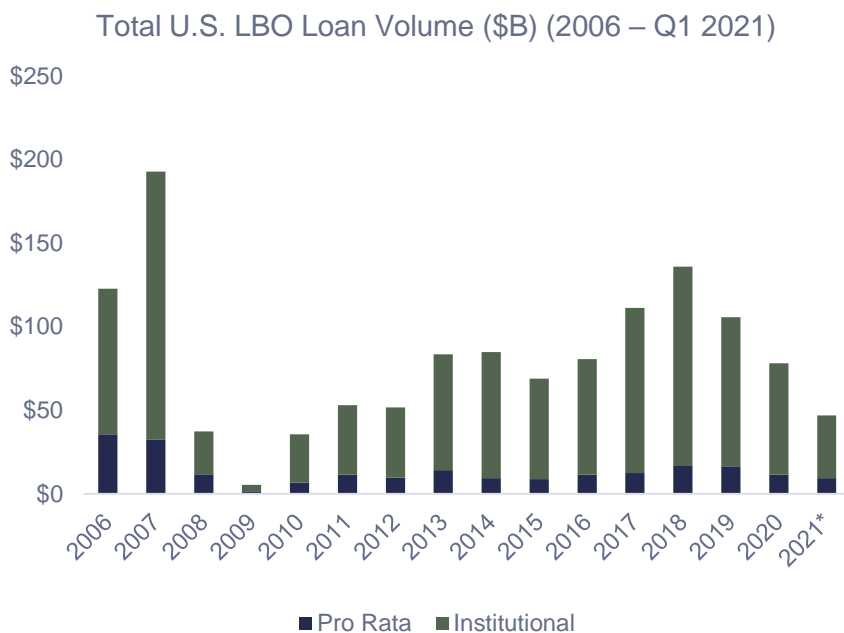
- Global private capital dry power continues to increase, topping \$3.6 trillion across all fund types
- Private equity comprises just over 62% of total dry powder in the market as of July 2021

Source: Preqin, \*as of July 22, 2021.



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# Private Equity – U.S. Debt Markets



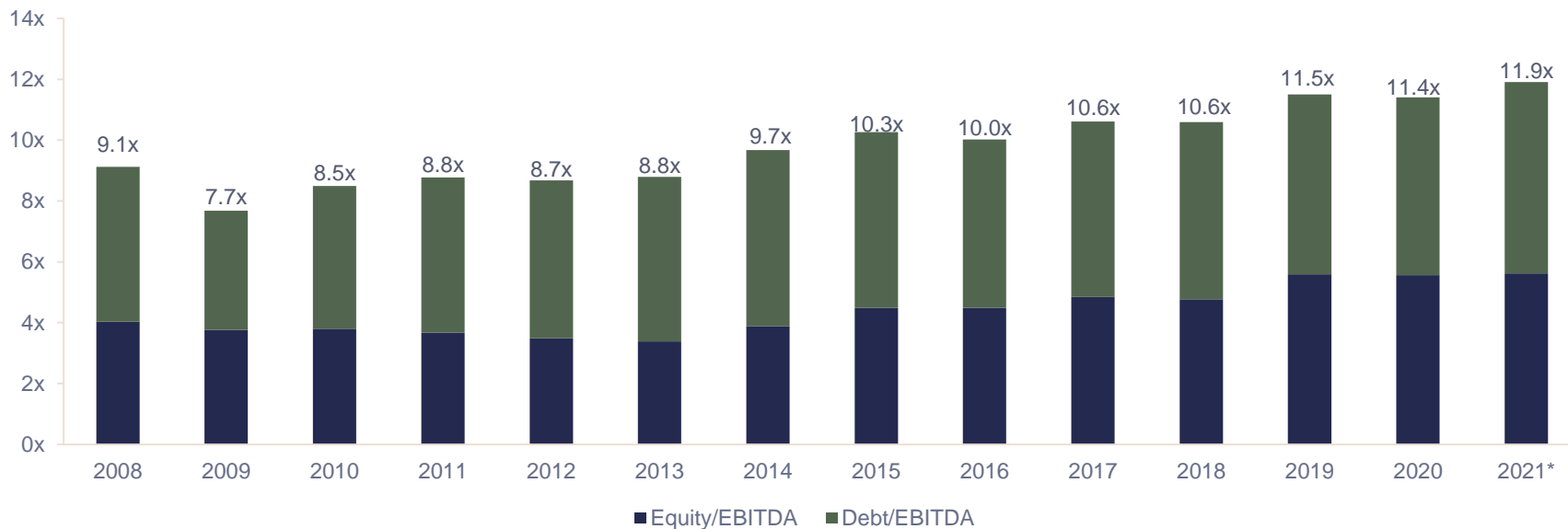
- 2021 has generated approximately \$47 billion in loan volume so far and is on pace to see a slight increase in loan volume from 2020
- As debt multiples have increased, the percentage of debt used to finance leveraged buyouts through Q1 2021 has slightly decreased from 2020 marks.

Source: S&P LBO, \*as of March 31, 2021. "Less than \$50M of EBITDA" data for 2020 and 2021 not yet available.

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# Private Equity – U.S. LBO Purchase Price Multiples

Purchase Price Multiples of U.S. LBO Transactions (2008 – Q1 2021)



- Purchase price multiples for U.S. LBOs have slightly increased through Q1 2021, relative to 2020 levels.

Source: S&amp;P LBO, \*as of March 31, 2021.

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# CalPERS Private Equity – Performance

As of June 30, 2021

	Asset Value*						VaR	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year	(\$Billion)	Sharpe	Info
<b>PRIVATE EQUITY</b>	\$ 38.9	9.7%	43.8%	13.7%	14.2%	12.0%	\$ 15.9	1.7	-0.1
<i>CalPERS Custom Private Equity Benchmark</i>		5.6%	61.1%	14.3%	16.3%	13.4%		1.0	0.0

	Asset Value*						VaR	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year	(\$Billion)	Sharpe	Info
<b>Private Equity</b>									
<b>Private Equity Partnership Investments</b>	\$ 38.8	9.7%	43.9%	13.8%	14.3%	12.0%		N/A	N/A
<b>Private Equity Distribution Stock</b>	\$ 0.1	-1.0%	-24.7%	-9.1%	4.0%	-15.5%		N/A	N/A

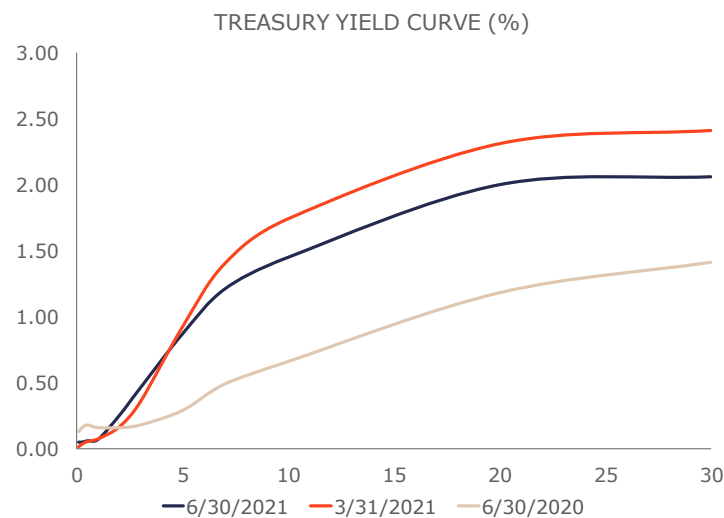
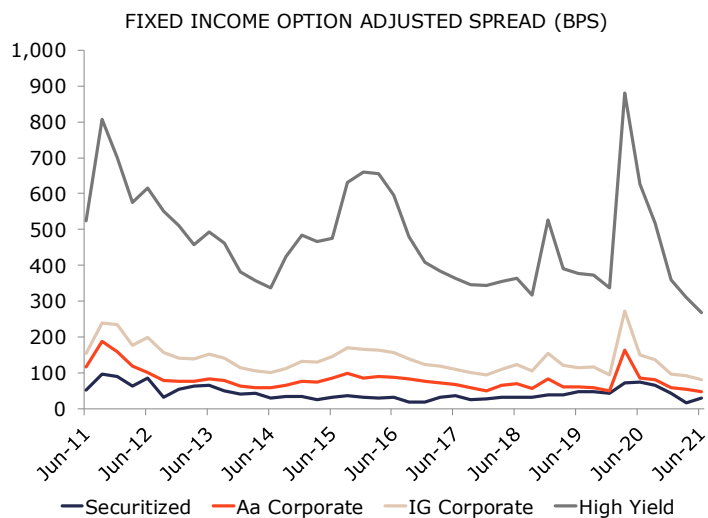
\* Asset values shown may reflect the first day of the following month when rebalancing and/or large cash flows occur on the last day of the quarter.

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# U.S. Fixed Income

AS OF 6/30/2021	YTW	DUR.	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg Barclays Aggregate	1.5	6.6	1.8	-1.6	-0.3	5.3	3.0	3.4
Bloomberg Barclays Treasury	0.9	7.0	1.7	-2.6	-3.2	4.7	2.2	2.8
Bloomberg Barclays Govt-Rel.	1.4	6.2	1.7	-1.2	0.8	5.1	3.0	3.2
Bloomberg Barclays Securitized	1.7	4.2	0.4	-0.7	-0.2	3.9	2.4	2.7
Bloomberg Barclays Corporate	2.0	8.7	3.5	-1.3	3.3	7.8	4.9	5.2
Bloomberg Barclays LT Govt/Credit	2.7	16.6	6.4	-4.6	-1.9	9.9	5.4	7.3
Bloomberg Barclays LT Treasury	2.0	18.8	6.5	-7.9	-10.6	8.0	3.1	6.7
Bloomberg Barclays LT Govt-Rel.	3.1	13.8	5.0	-2.8	2.1	8.3	5.0	6.7
Bloomberg Barclays LT Corporate	3.1	15.4	6.6	-2.4	4.5	11.1	6.9	7.7
Bloomberg Barclays U.S. TIPS *	1.4	8.1	3.2	1.7	6.5	6.5	4.2	3.4
Bloomberg Barclays High Yield	3.7	3.8	2.7	3.6	15.4	7.4	7.5	6.7
Treasury Bills	0.0	0.3	0.0	0.0	0.1	1.4	1.2	0.7

\* Yield and Duration statistics are for a proxy index based on similar maturity, the Bloomberg Barclays U.S. Treasury 7-10 Year Index

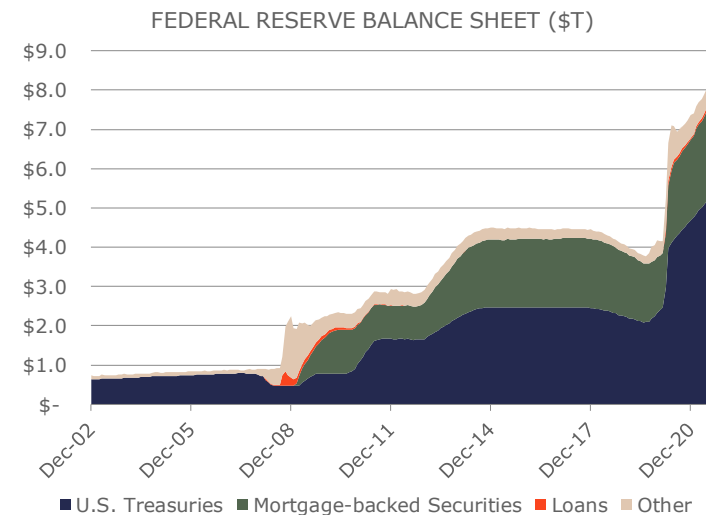
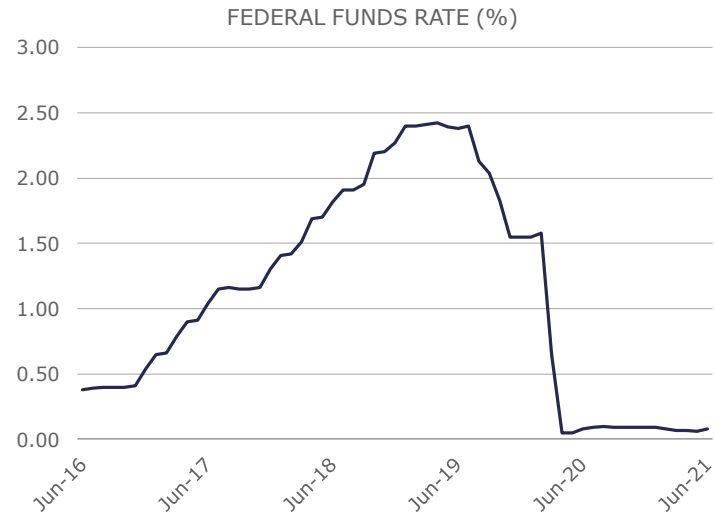


Data Sources: Bloomberg

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# Federal Reserve

- **Current FOMC expectation for the Fed-funds rate is to remain near zero through 2022**
- **Federal Reserve has added nearly \$4 trillion in assets to their balance sheet during the past year**
- **QE4 is now larger than the 3 phases of quantitative easing – combined – following the global financial crisis**



	Announced	Closed	Amount (bil)
QE1	11/25/2008	3/31/2010	\$1,403
QE2	11/3/2010	6/29/2012	\$568
QE3	9/13/2012	10/29/2014	\$1,674
QE4	3/23/2020		\$3,943

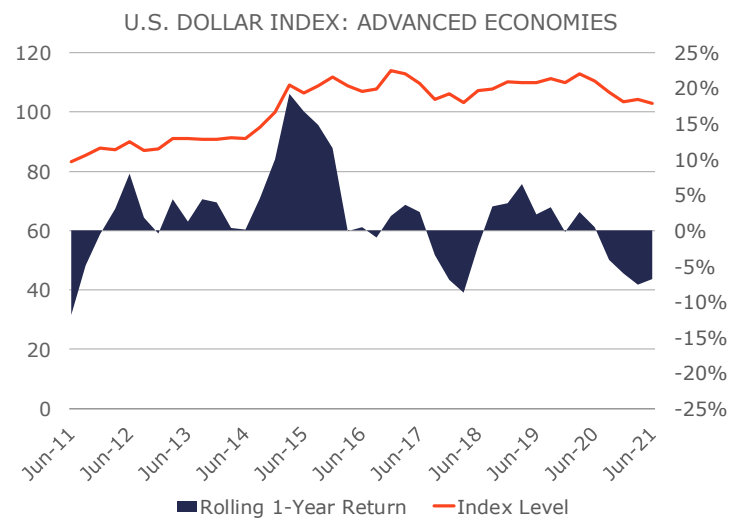
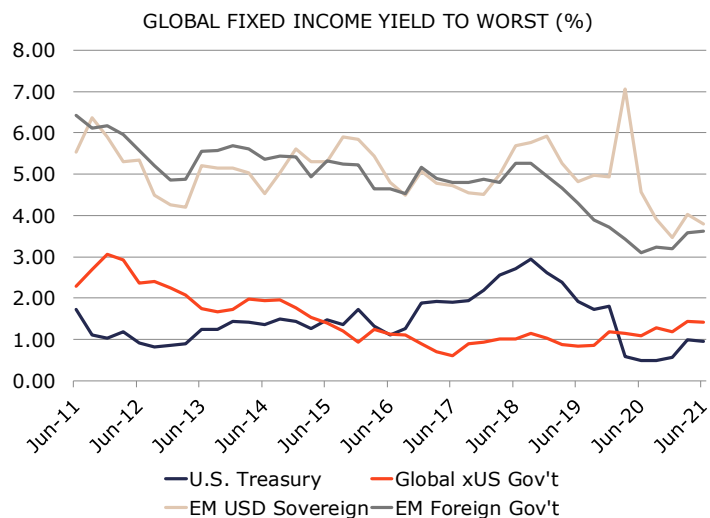
Data Sources: Bloomberg

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# Non-U.S. Fixed Income

AS OF 6/30/2021	QTR	YTD	1 YR	3 YR	5 YR	10 YR
<b>DEVELOPED MARKETS</b>						
Blmbrg Brclys Global Aggregate xUS	0.9	-4.4	4.6	3.1	1.6	1.0
Blmbrg Brclys Global Aggregate xUS *	0.3	-1.6	0.0	3.8	2.8	4.1
Blmbrg Brclys Global Inflation Linked xUS	2.7	-2.1	8.9	5.0	4.3	3.2
Blmbrg Brclys Global Inflation Linked xUS *	2.4	-1.0	0.6	5.3	4.8	5.7
<b>EMERGING MARKETS (HARD CURRENCY)</b>						
Blmbrg Brclys EM USD Aggregate	3.0	-0.6	6.3	6.7	4.9	5.4
<b>EMERGING MARKETS (FOREIGN CURRENCY)</b>						
Blmbrg Brclys EM Local Currency Govt	2.9	-1.0	8.0	5.3	3.8	1.9
Blmbrg Brclys EM Local Currency Govt *	0.7	-1.3	-1.0	4.5	2.9	3.2
Euro vs. Dollar	1.1	-2.9	5.6	0.5	1.3	-2.0
Yen vs. Dollar	-0.4	-7.1	-2.9	-0.1	-1.5	-3.2
Pound vs. Dollar	0.3	1.2	11.5	1.6	0.8	-1.5

\* Returns are reported in terms of local market investors, which removes currency effects.

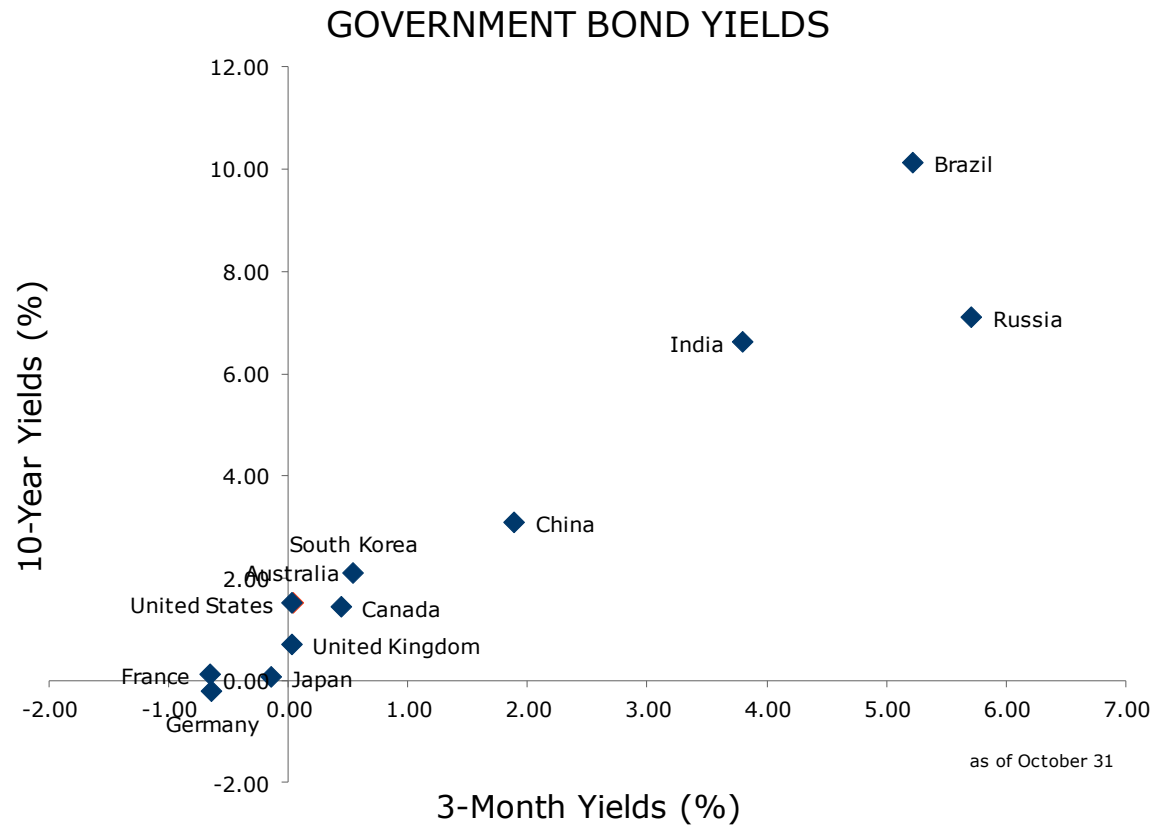


Data Sources: Bloomberg

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# Global Interest Rates

**Negative rates found in Germany and France; low but positive rates, and at similar levels, in the U.S. and Australia while the U.K. approaches zero**



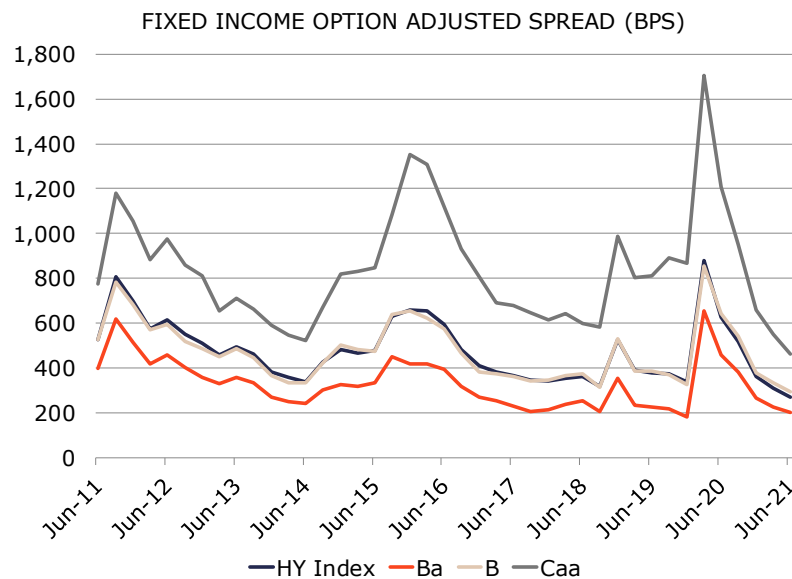
Data Sources: Bloomberg

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# High Yield Bond Market

AS OF 6/30/2021		YTW	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg Barclays High Yield		3.7	2.7	3.6	15.4	7.4	7.5	6.7
S&P LSTA Leveraged Loan		3.7	1.1	2.2	9.4	4.3	4.7	4.1
HIGH YIELD QUALITY DISTRIBUTION		WEIGHT						
Ba U.S. High Yield	54.3%	3.0	2.9	2.7	12.9	9.1	7.5	7.0
B U.S. High Yield	33.0%	4.1	2.2	3.3	14.3	6.7	7.1	6.2
Caa U.S. High Yield	12.4%	5.6	3.5	7.2	26.5	3.8	7.6	6.5
Ca to D U.S. High Yield	0.4%	16.0	12.5	28.9	84.4	2.3	14.2	-2.0
Non-Rated U.S. High Yield	0.0%	0.0	0.0	0.0	0.0	-0.3	1.8	2.8



Data Sources: Bloomberg



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# CalPERS Income – Performance

## As of June 30, 2021

	Asset Value*						VaR	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year	(\$Billion)	Sharpe	Info
<b>INCOME</b>	\$ 140.4	3.7%	-0.1%	7.2%	4.4%	5.1%	\$ 12.4	0.6	1.9
<i>Income Policy Benchmark</i>		3.7%	-0.8%	6.8%	3.8%	4.6%		0.5	0.0
<b>Spread</b>	\$ 70.9	2.9%	3.2%	7.1%	-.-%	-.-%	\$ 5.3	N/A	N/A
<i>BBG Barc Custom Global Long Spread Index</i>		2.8%	2.6%	6.4%	-.-%	-.-%		N/A	N/A
<b>Treasury**</b>	\$ 48.3	5.2%	-8.5%	6.6%	3.0%	5.0%	\$ 6.4	0.2	0.0
<b>Total Fund Income</b>	\$ 7.1	5.6%	-.-%	-.-%	-.-%	-.-%	\$ 0.9	N/A	N/A
<i>CalPERS Custom Treasury Benchmark</i>		5.2%	-8.7%	6.8%	3.0%	5.1%		0.2	0.0
<b>High Yield</b>	\$ 14.2	2.4%	13.7%	6.8%	-.-%	-.-%	\$ 1.8	N/A	N/A
<i>BBG Barclays US High Yield BB/B Liquid Index</i>		2.4%	13.4%	6.7%	-.-%	-.-%		N/A	N/A

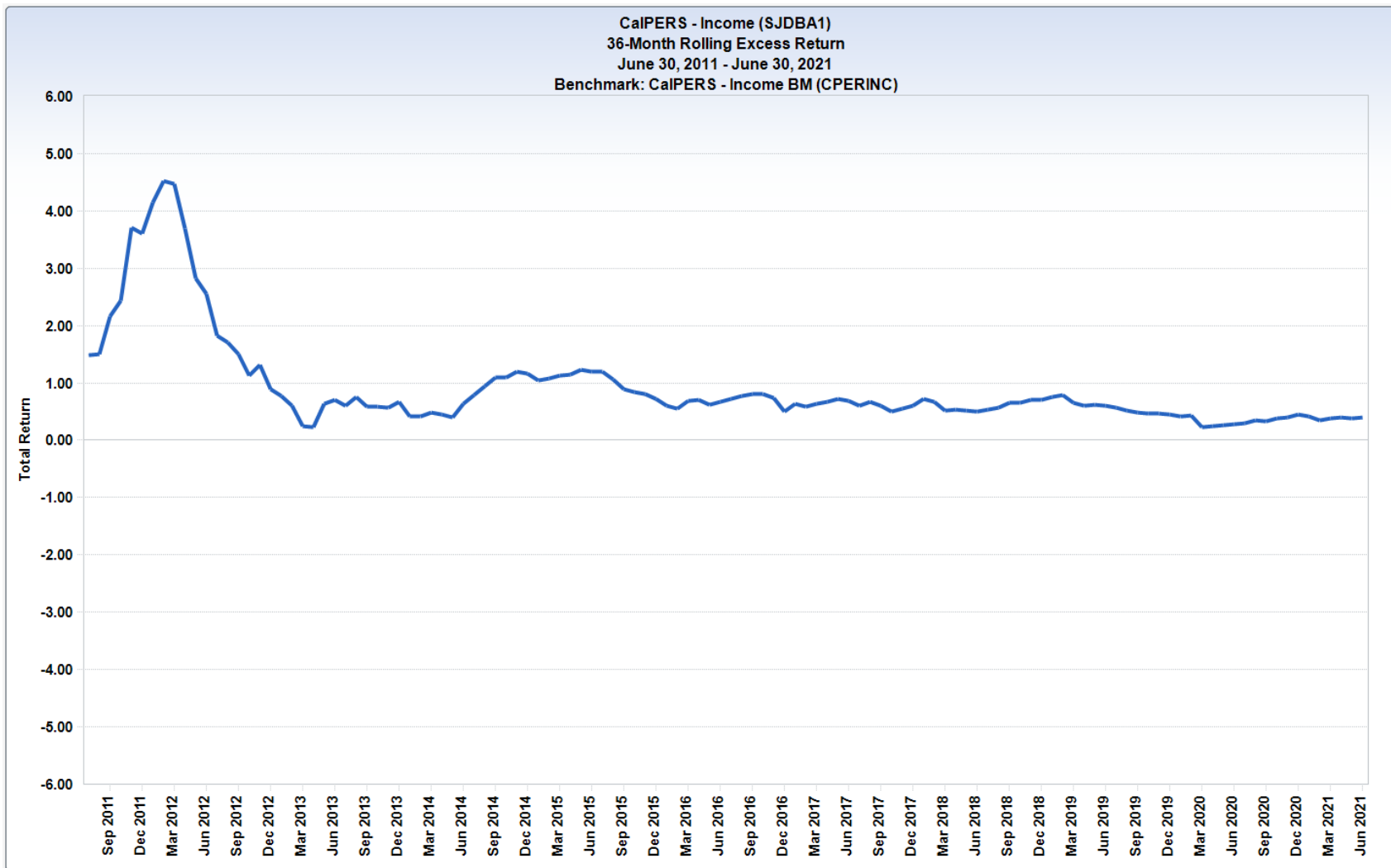
\* Asset values shown may reflect the first day of the following month when rebalancing and/or large cash flows occur on the last day of the quarter.

\*\* The CalPERS asset values shown include derivative exposure.

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# CalPERS Income – Rolling Excess Return

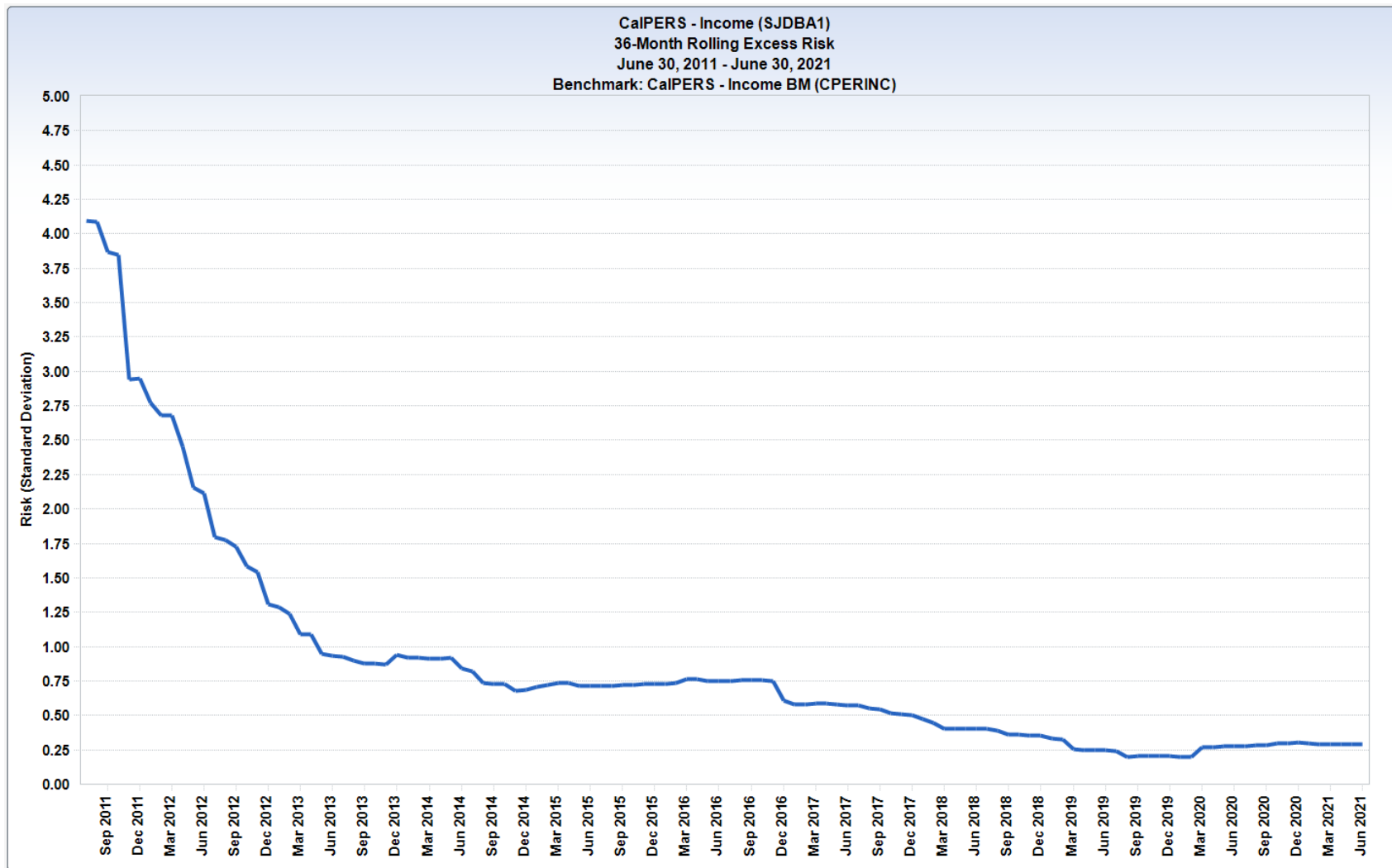
## As of June 30, 2021



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# CalPERS Income – Rolling Tracking Error

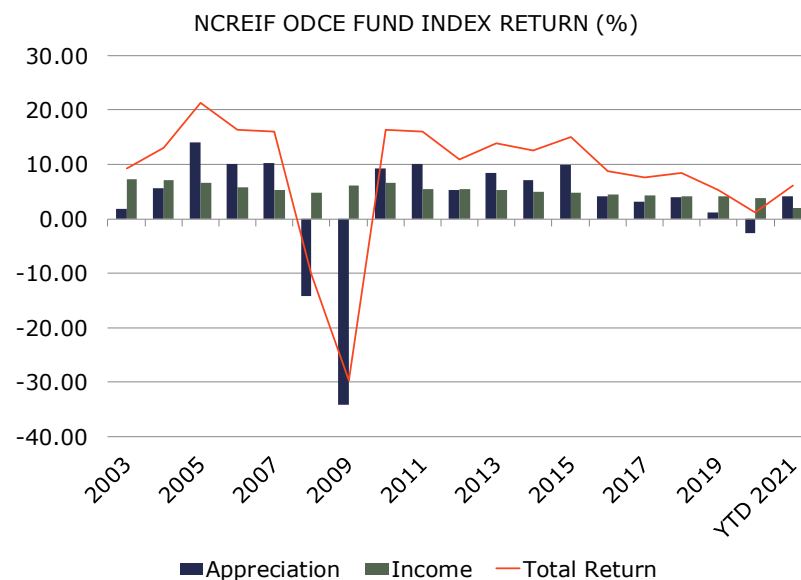
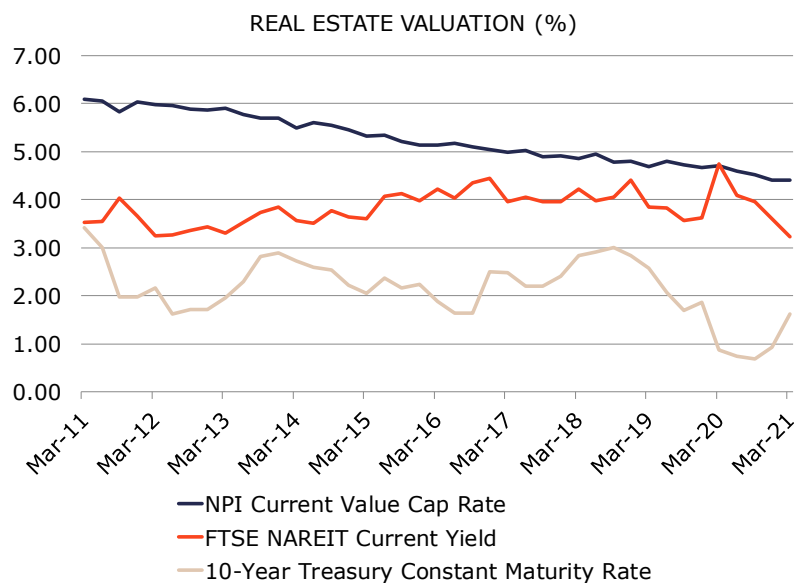
## As of June 30, 2021



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# Real Assets

AS OF 6/30/2021	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg Barclays U.S. TIPS	3.2	1.7	6.5	6.5	4.2	3.4
Bloomberg Commodity Index	13.3	21.1	45.6	3.9	2.4	-4.4
Bloomberg Gold Index	3.2	-7.0	-3.9	10.6	4.8	0.8
Wilshire Global RESI Index	10.7	18.1	35.6	8.1	6.1	8.0
NCREIF ODCE Fund Index	3.9	6.1	8.0	5.5	6.6	9.6
NCREIF Timberland Index	1.7	2.5	3.1	2.1	2.7	4.7
Alerian Midstream Energy	16.4	40.7	53.2	4.9	4.3	n.a.



Data Sources: Bloomberg, National Council of Real Estate Investment Fiduciaries

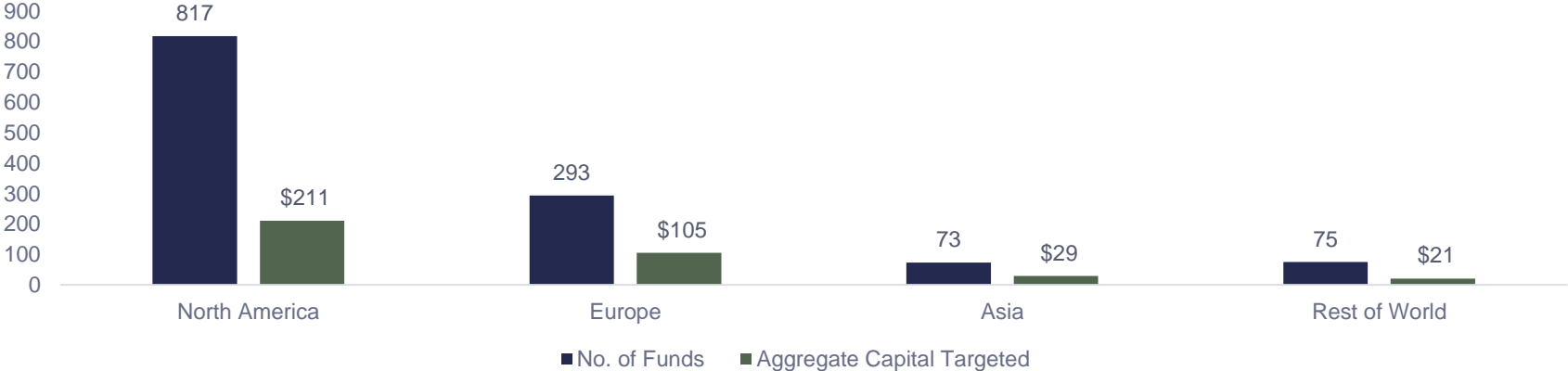
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# Private Real Estate – Fundraising Activity

Global Quarterly Closed-End Private Real Estate Fundraising (Q1 2015 – Q2 2021)



Closed-End Private Real Estate Funds Actively in Market in Q2 2021 by Primary Geographic Focus

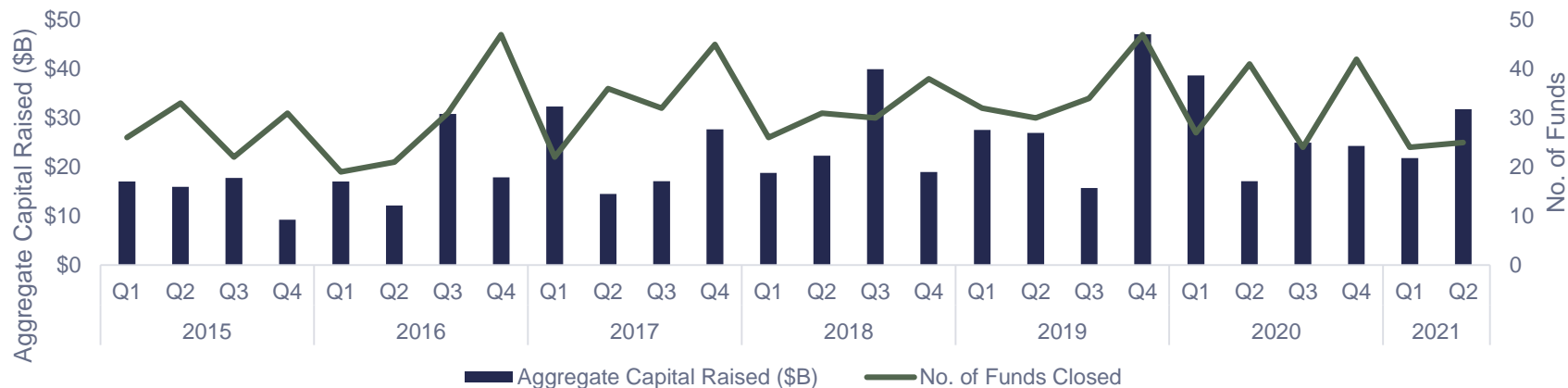


Source: Preqin, as of June 30, 2021.

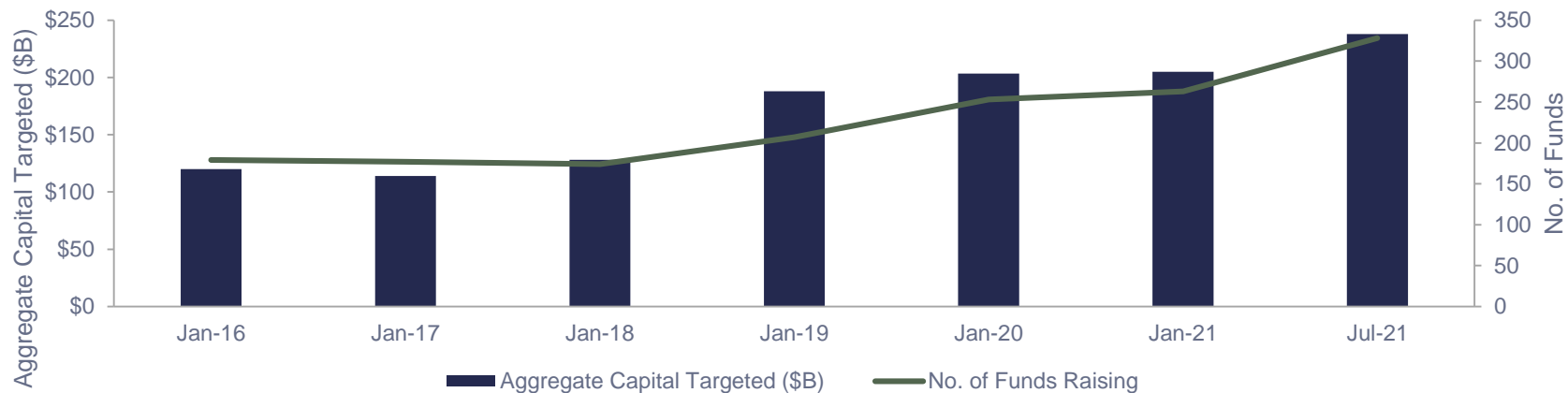
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# Unlisted Infrastructure – Fundraising & Investment Activity

Global Quarterly Unlisted Infrastructure Fundraising (Q1 2015 - Q2 2021)



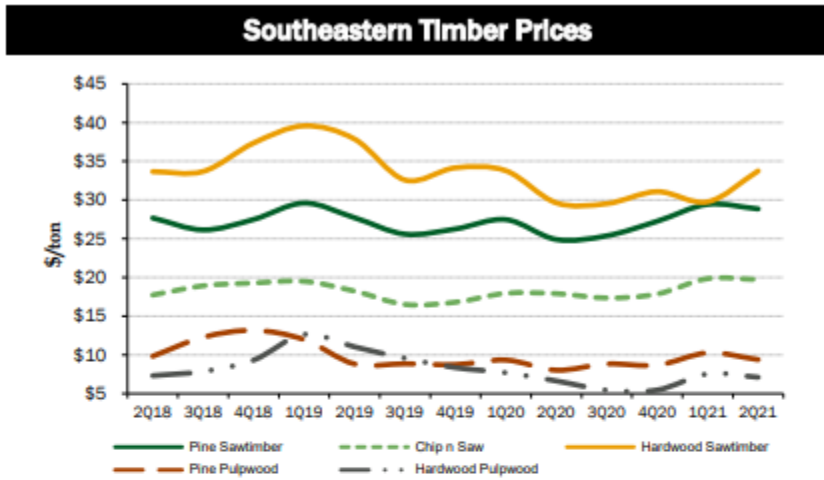
Unlisted Infrastructure Funds in Marker over Time (January 2016 - July 2021)



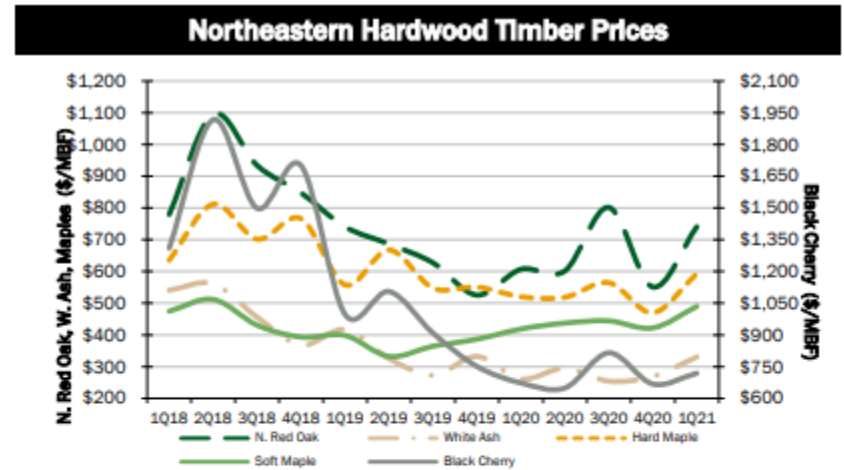
Source: Preqin, as of June 30, 2021.

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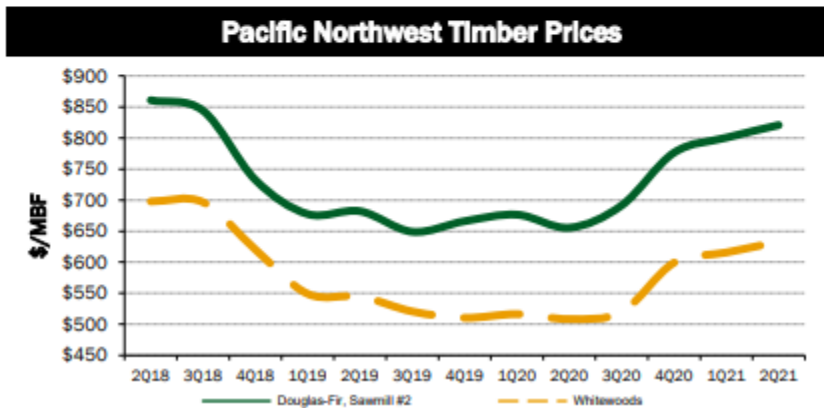
# Timber Investments



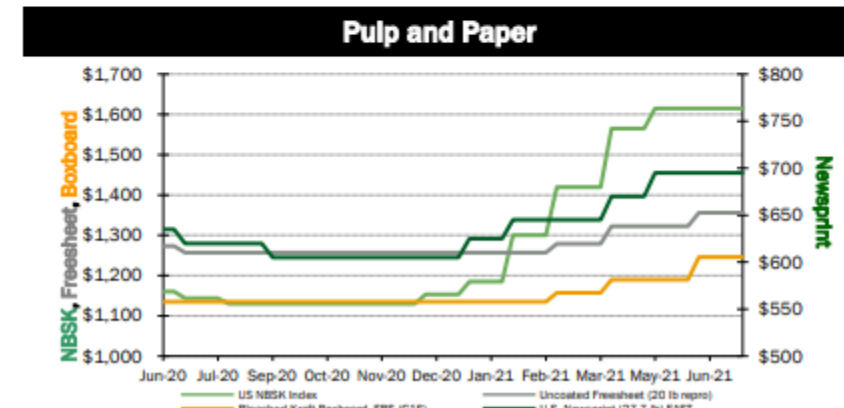
Source: Forest2Market®



Source: Pennsylvania Woodlands Timber Market Report - Northwest Region



Source: Fastmarkets RISI - Log Lines®



Source: Fastmarkets RISI

Data Sources: Forest Investment Associates

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# CalPERS Real Assets – Performance

## As of June 30, 2021

	Asset Value*							VaR	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year	(\$Billion)	Sharpe	Info	
<b>REAL ASSETS</b>	\$ 45.3	1.5%	2.6%	3.6%	5.2%	8.1%	\$ 6.5	1.5	0.1	
<i>Real Assets Policy Benchmark</i>		1.9%	1.3%	3.9%	5.1%	8.0%		1.5	0.0	
<b>Real Estate</b>	\$ 38.3	1.6%	1.9%	3.6%	5.0%	8.7%	\$ 5.5	1.4	-0.1	
<i>CalPERS Custom Real Estate Benchmark</i>		1.9%	1.3%	3.9%	5.2%	8.6%		1.5	0.0	
<b>Infrastructure</b>	\$ 6.1	1.4%	7.2%	6.0%	9.6%	10.6%	\$ 0.9	1.3	0.7	
<i>CalPERS Custom Infrastructure Benchmark</i>		1.9%	1.3%	3.9%	4.9%	5.1%		1.8	0.0	
<b>Forestland</b>	\$ 0.8	-1.6%	1.4%	-3.3%	-1.4%	-2.0%	\$ 0.1	-0.4	-0.8	
<i>CalPERS Custom Forestland Benchmark</i>		1.9%	1.3%	3.9%	3.8%	5.2%		1.2	0.0	

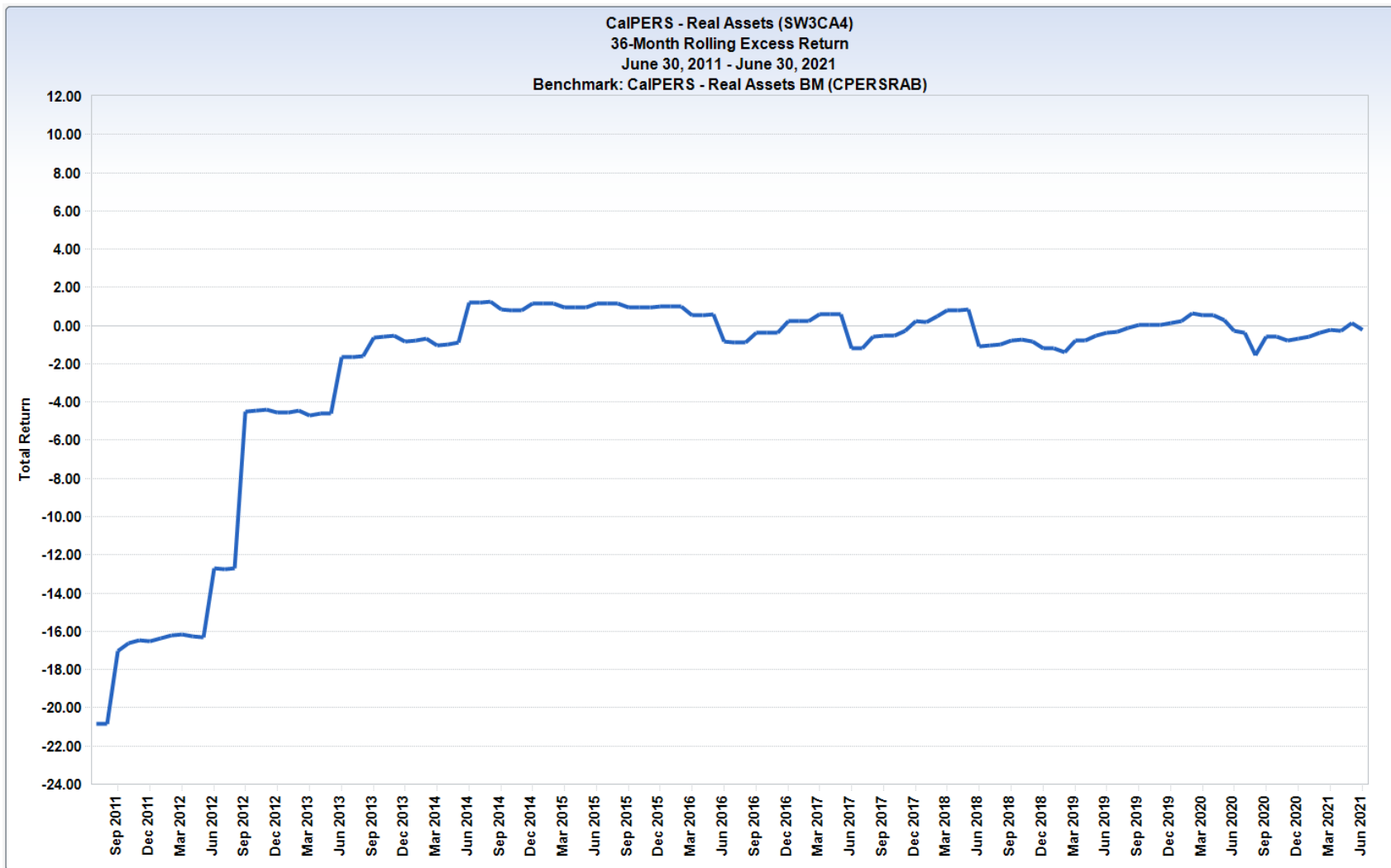
\* Asset values shown may reflect the first day of the following month when rebalancing and/or large cash flows occur on the last day of the quarter.



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# CalPERS Real Assets – Rolling Excess Return

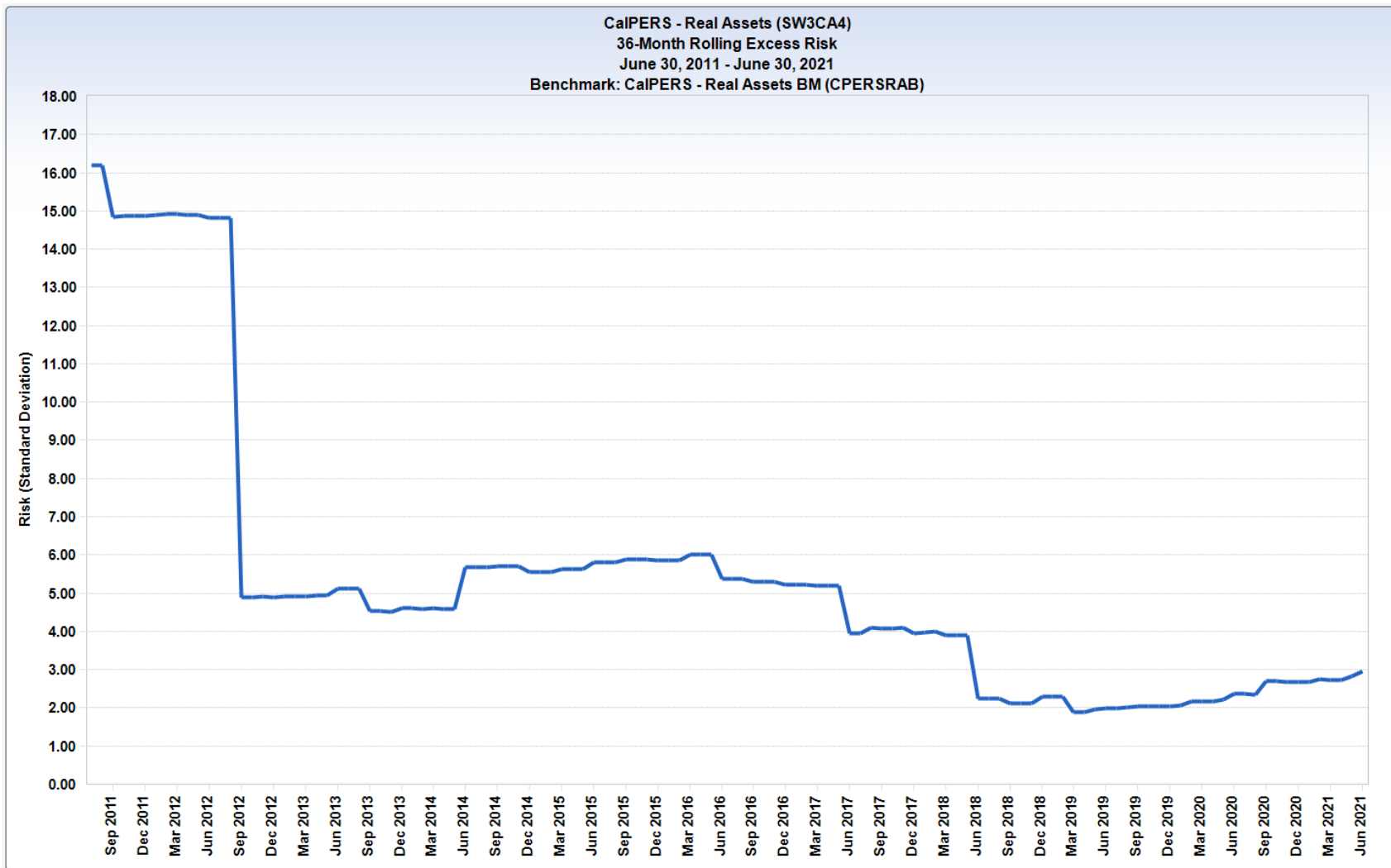
## As of June 30, 2021



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# CalPERS Real Assets – Rolling Tracking Error

## As of June 30, 2021



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# CalPERS Liquidity – Performance

## As of June 30, 2021

	Asset Value*						VaR	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year	(\$Billion)	Sharpe	Info
<b>LIQUIDITY</b>	\$ 4.8	0.0%	0.1%	1.4%	1.4%	1.2%	\$ (0.0)	0.6	3.9
<i>Liquidity Policy Benchmark</i>		0.0%	0.1%	1.2%	1.1%	1.3%		-0.5	0.0
<b>Internal Short Term Cash Portfolio</b>	\$ 4.8	0.0%	0.1%	1.5%	1.4%	0.8%	\$ (0.0)	0.6	3.9
<i>CalPERS Short Term Benchmark</i>		0.0%	0.1%	1.2%	1.1%	0.6%		-0.5	0.0
<b>Trust Level Financing</b>	\$ (12.6)	0.1%	-.%	-.%	-.%	-.%		N/A	N/A

\* Asset values shown may reflect the first day of the following month when rebalancing and/or large cash flows occur on the last day of the quarter.

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# Opportunistic Strategies – Performance

## As of June 30, 2021

	Asset Value*							VaR	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year	(\$Billion)	Sharpe	Info	
<b>OPPORTUNISTIC STRATEGIES</b>	\$	2.1	7.2%	13.1%	--%	--%	--%	\$ 0.1	N/A	N/A
<i>Custom Opportunistic Strategies Benchmark</i>			1.7%	7.0%	--%	--%	--%		N/A	N/A
<b>CaIPERS PIMCO DISCO III</b>	\$	0.2	4.7%	21.7%	--%	--%	--%		N/A	N/A
<b>Sixth St Partners-Fundamental Strategy</b>	\$	0.0	12.1%	--%	--%	--%	--%		N/A	N/A
<b>Sixth St Partners-TAO</b>	\$	0.3	5.3%	--%	--%	--%	--%		N/A	N/A
<b>Sixth St Partners Co-Invest</b>	\$	0.1	0.0%	--%	--%	--%	--%		N/A	N/A
<b>Oaktree Strategic Lending</b>	\$	0.2	1.8%	5.4%	--%	--%	--%		N/A	N/A
<b>Antares Credit Opportunities LLC</b>	\$	0.2	0.4%	--%	--%	--%	--%		N/A	N/A
<b>West Street Strategic Solution Fund</b>	\$	0.4	20.8%	--%	--%	--%	--%		N/A	N/A
<b>West Street Co-Invest II</b>	\$	0.1	26.6%	--%	--%	--%	--%		N/A	N/A
<b>Blackstone RE Debt Stat IV-Parallel</b>	\$	0.2	1.9%	--%	--%	--%	--%		N/A	N/A
<b>West Street Co-Invest, L.P.</b>	\$	0.1	23.7%	--%	--%	--%	--%		N/A	N/A
<b>ARES Capital Europe V</b>	\$	0.1	--%	--%	--%	--%	--%		N/A	N/A
<b>ARES Capital Europe V Co-Invest</b>	\$	0.0	0.0%	--%	--%	--%	--%		N/A	N/A
<b>OHA Credit Opportunities CA (C), L.P.</b>	\$	0.2	--%	--%	--%	--%	--%		N/A	N/A
<i>SSA Custom Absolute 7%</i>			1.7%	7.0%	--%	--%	--%		N/A	N/A

\* Asset values shown may reflect the first day of the following month when rebalancing and/or large cash flows occur on the last day of the quarter.

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# LLER – Performance

## As of June 30, 2021

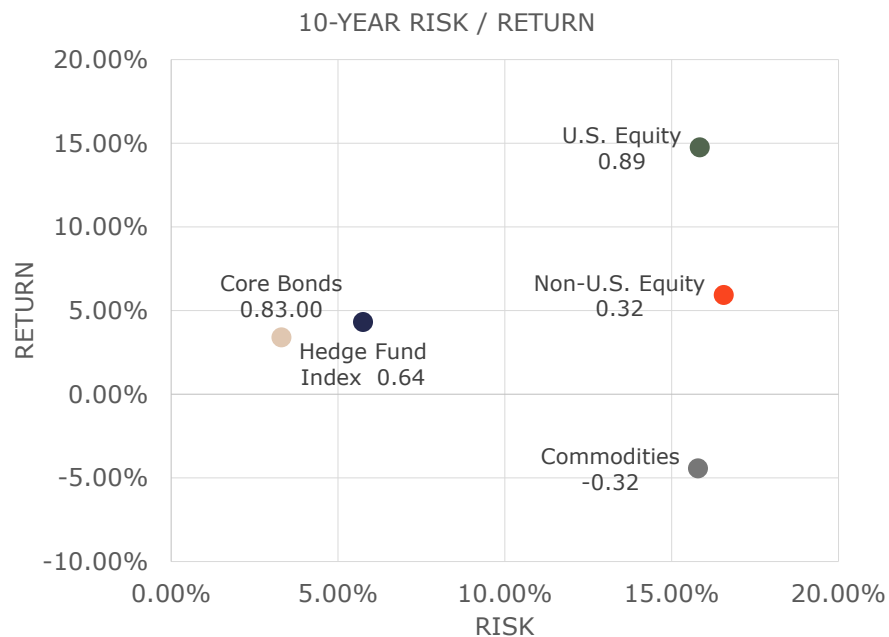
	Asset Value*							VaR	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year	(\$Billion)	Sharpe	Info	
<b>LLER</b>	\$ 9.5	0.5%	4.0%	2.8%	3.0%	--%	\$ 0.3	0.7	0.8	
<i>LIBOR 1 Month Rate</i>		0.0%	0.1%	0.9%	0.9%	--%		-1.6	0.0	
<b>Enhanced Return</b>	\$ 8.0	0.4%	4.0%	2.9%	3.0%	--%		N/A	N/A	
<b>Direct Lending Financing</b>	\$ 1.3	0.8%	4.4%	2.7%	--%	--%		N/A	N/A	
<b>Senior Lending in Private Cre Debt</b>	\$ 0.2	0.7%	2.4%	--%	--%	--%		N/A	N/A	
<i>LIBOR 1 Month + 20 Basis Points</i>		0.1%	0.3%	1.1%	1.1%	--%		N/A	N/A	
<b>Federated Trade Finance</b>	\$ 0.0	NM	NM	--%	--%	--%		N/A	N/A	
<i>LIBOR 3 Month + 150 Basis Points</i>		0.4%	1.7%	--%	--%	--%		N/A	N/A	
<b>Asset Based Lending</b>	\$ 0.0	NM	NM	--%	--%	--%		N/A	N/A	
<i>LIBOR 1 Month Rate</i>		0.0%	0.1%	--%	--%	--%		N/A	N/A	

\* Asset values shown may reflect the first day of the following month when rebalancing and/or large cash flows occur on the last day of the quarter.

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# Hedge Fund Performance

AS OF 6/30/2021	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Credit Suisse Hedge Fund Index	3.7	3.7	17.4	6.1	5.8	4.3
Event Driven	3.0	3.0	26.7	6.3	6.4	3.8
Global Macro	6.3	6.3	21.0	8.0	6.6	4.9
Long/Short Equity	3.5	3.5	17.2	6.7	7.1	5.5
Multi-Strategy	3.2	3.2	14.5	5.1	5.5	5.8
Wilshire 5000 Index	8.4	8.4	44.2	18.9	18.0	14.8
MSCI ACWI ex-US (\$G)	5.6	5.6	36.3	9.9	11.6	5.9
Bloomberg Barclays Aggregate	1.8	1.8	-0.3	5.3	3.0	3.4
Bloomberg Commodity Index	13.3	13.3	45.6	3.9	2.4	-4.4



Data Sources: Bloomberg

Note: Sharpe Ratio is included for each market segment

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# Other – Performance

## As of June 30, 2021

	Asset Value*						VaR	5-Year Ratios	
	(\$Billion)	Quarter	1-Year	3-Year	5-Year	10-Year	(\$Billion)	Sharpe	Info
<b>OTHER</b>	\$ 0.2	NM	NM	NM	NM	NM	\$ -	N/A	N/A
<b>Absolute Return Strategies</b>	\$ 0.2	-2.0%	3.6%	10.6%	4.9%	4.2%		0.2	-0.1
<i>Total ARS Program Blended Benchmark</i>		1.3%	5.2%	7.1%	6.5%	5.9%		9.0	0.0

\* Asset values shown may reflect the first day of the following month when rebalancing and/or large cash flows occur on the last day of the quarter.

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# Asset Class Performance

ASSET CLASS RETURNS - BEST TO WORST						ANNUALIZED 5-YEAR AS OF 6/21
2016	2017	2018	2019	2020	2021 YTD	
MLPs 18.3%	Emrg Mrkts 37.7%	T-Bills 1.9%	U.S. Equity 31.0%	U.S. Equity 20.8%	Midstream 40.7%	U.S. Equity 18.0%
High Yield 17.1%	Developed 25.6%	Core Bond 0.0%	REITs 25.8%	Emrg Mrkts 18.7%	REITs 22.8%	Emrg Mrkts 13.4%
U.S. Equity 13.4%	U.S. Equity 21.0%	U.S. TIPS -1.3%	Developed 22.7%	U.S. TIPS 11.0%	Commodities 21.1%	Developed 10.8%
Commodities 11.8%	High Yield 7.5%	High Yield -2.1%	Emrg Mrkts 18.9%	Developed 8.3%	U.S. Equity 15.5%	High Yield 7.5%
Emrg Mrkts 11.6%	REITs 4.2%	REITs -4.8%	High Yield 14.3%	Core Bond 7.5%	Developed 9.2%	REITs 6.4%
REITs 7.2%	Core Bond 3.6%	U.S. Equity -5.3%	Core Bond 8.7%	High Yield 7.1%	Emrg Mrkts 7.6%	Midstream 4.3%
U.S. TIPS 4.7%	U.S. TIPS 3.0%	Commodities -11.2%	U.S. TIPS 8.4%	T-Bills 0.7%	High Yield 3.6%	U.S. TIPS 4.2%
Core Bond 2.6%	Commodities 1.7%	MLPs -12.4%	Commodities 7.7%	Commodities -3.1%	U.S. TIPS 1.7%	Core Bond 3.0%
Developed 1.5%	T-Bills 0.8%	Developed -13.4%	MLPs 6.6%	REITs -7.9%	T-Bills 0.0%	Commodities 2.4%
T-Bills 0.3%	MLPs -6.5%	Emrg Mrkts -14.2%	T-Bills 2.3%	Midstream -23.4%	Core Bond -1.6%	T-Bills 1.2%

Data Sources: Bloomberg

Note: Developed asset class is developed equity markets ex-U.S., ex-Canada



# Appendix 2: Asset Assumptions Matrix and Economic Statistics

Wilshire

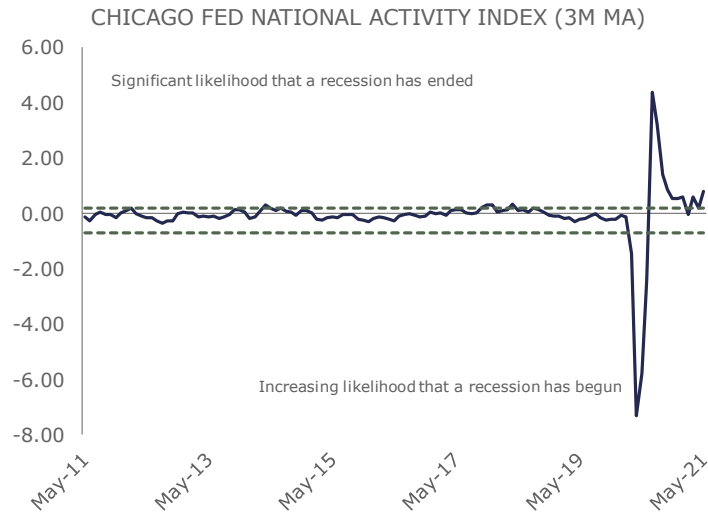
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# June 2021 Asset Class Assumptions

	Equity						Fixed Income						Real Assets						
	U.S. STOCK	DEV EX-U.S. STOCK	EMG. MRKT. STOCK	GLOBAL EX-U.S. STOCK	GLOBAL STOCK	PRIVATE EQUITY	CASH	CORE BOND	LT CORE BOND	U.S. TIPS	HIGH YIELD	NON-U.S. BOND (HDG)	U.S. REAL ESTATE SECS	GLOBAL REAL ESTATE SECS	PRIVATE REAL ESTATE	CMDTY	REAL ASSETS	U.S. CPI	
Compound Return (%)	4.75	5.75	5.75	6.00	5.40	7.80	1.40	1.85	2.25	1.45	3.50	0.70	4.70	4.85	6.20	3.85	5.75	2.45	
Arithmetic Return (%)	6.10	7.25	8.75	7.65	6.75	11.15	1.40	1.95	2.65	1.65	4.00	0.80	6.05	6.00	7.10	4.90	6.25	2.45	
Expected Risk (%)	17.00	18.00	26.00	19.15	17.15	28.00	0.75	4.30	8.85	6.00	10.00	4.30	17.00	15.85	14.00	15.00	10.15	1.75	
Cash Yield (%)	1.50	2.25	1.75	2.10	1.75	0.00	1.40	3.05	3.50	2.35	7.50	1.85	2.85	2.85	2.20	1.40	1.95	0.00	
Growth Expoure	8.00	8.00	8.00	8.00	8.00	13.50	0.00	-0.80	-2.10	-3.00	4.00	-1.00	6.00	6.00	3.50	0.00	1.80	0.00	
Inflation Expoure	-3.00	0.00	5.00	1.55	-1.10	-3.80	0.00	-2.45	-6.55	2.50	-1.00	-3.00	1.00	1.95	1.00	12.00	4.90	1.00	
<b>Correlations</b>																			
US Stock	1.00																		
Dev ex-US Stock (USD)	0.81	1.00																	
Emerging Mkt Stock	0.74	0.74	1.00																
Global ex-US Stock	0.83	0.96	0.87	1.00															
Global Stock	0.95	0.92	0.83	0.94	1.00														
Private Equity	0.74	0.64	0.62	0.67	0.74	1.00													
Cash Equivalents	-0.05	-0.09	-0.05	-0.08	-0.07	0.00	1.00												
Core Bond	0.28	0.13	0.00	0.09	0.20	0.31	0.19	1.00											
LT Core Bond	0.31	0.16	0.01	0.12	0.23	0.32	0.11	0.92	1.00										
TIPS	-0.05	0.00	0.15	0.05	0.00	-0.03	0.20	0.59	0.47	1.00									
High Yield Bond	0.54	0.39	0.49	0.45	0.51	0.34	-0.10	0.25	0.32	0.05	1.00								
Dev ex-US Bond (Hdg)	0.16	0.25	-0.01	0.17	0.18	0.26	0.10	0.66	0.65	0.39	0.26	1.00							
US RE Securities	0.58	0.47	0.44	0.49	0.56	0.50	-0.05	0.17	0.23	0.10	0.56	0.05	1.00						
Global RE Securities	0.64	0.58	0.56	0.61	0.65	0.58	-0.05	0.17	0.22	0.11	0.61	0.03	0.96	1.00					
Private Real Estate	0.54	0.44	0.44	0.47	0.52	0.51	-0.05	0.19	0.25	0.09	0.57	0.05	0.77	0.75	1.00				
Commodities	0.25	0.34	0.39	0.38	0.32	0.27	0.00	-0.02	-0.02	0.25	0.29	-0.10	0.25	0.28	0.25	1.00			
Real Assets	0.48	0.51	0.58	0.57	0.54	0.47	-0.02	0.23	0.25	0.39	0.56	0.05	0.70	0.75	0.70	0.65	1.00		
Inflation (CPI)	-0.10	-0.15	-0.13	-0.15	-0.13	-0.10	0.10	-0.12	-0.12	0.15	-0.08	-0.08	0.05	0.03	0.05	0.44	0.26	1.00	

QUARTERLY MARKET REVIEW

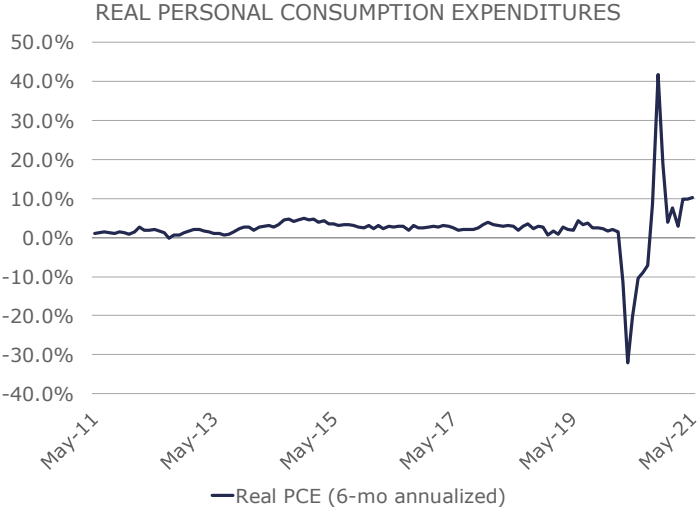
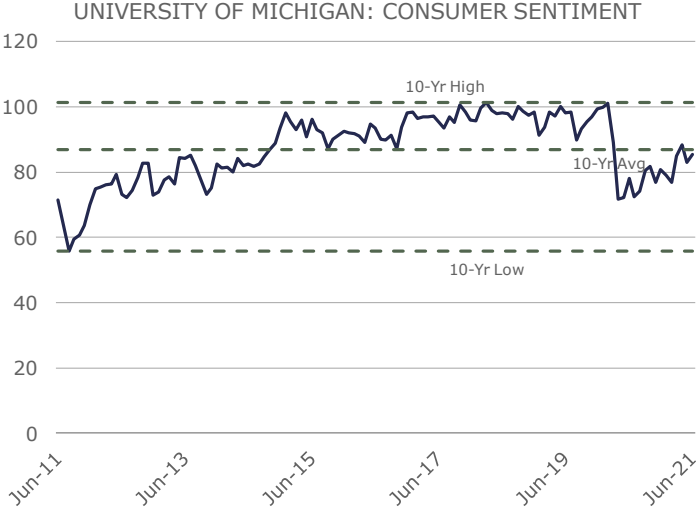
# Economic Growth



Data Sources: Bloomberg

QUARTERLY MARKET REVIEW

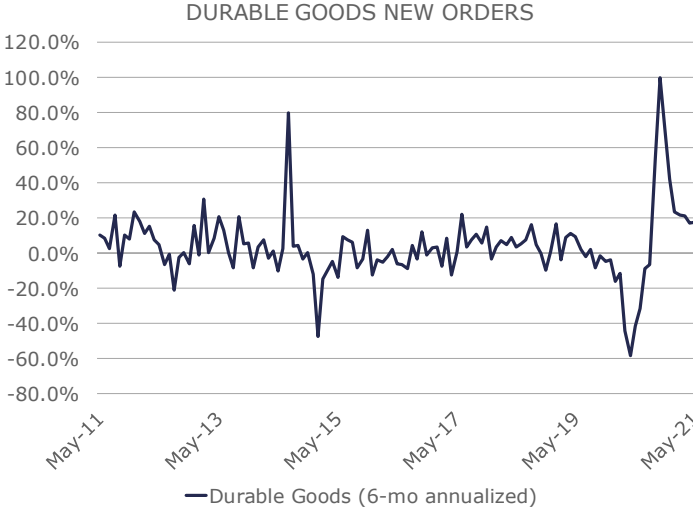
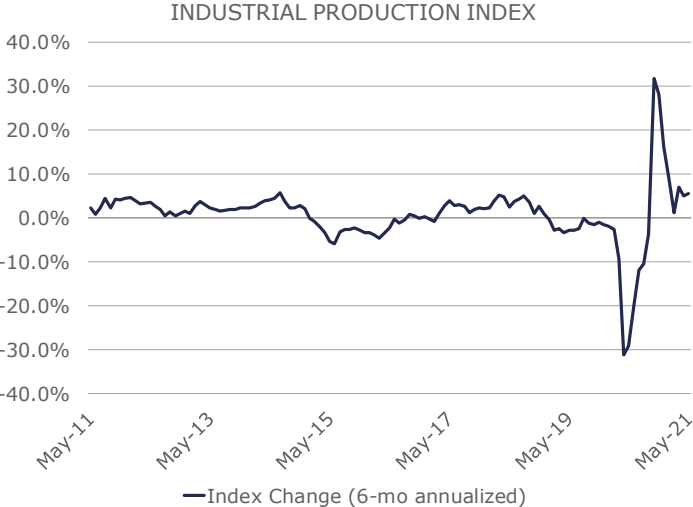
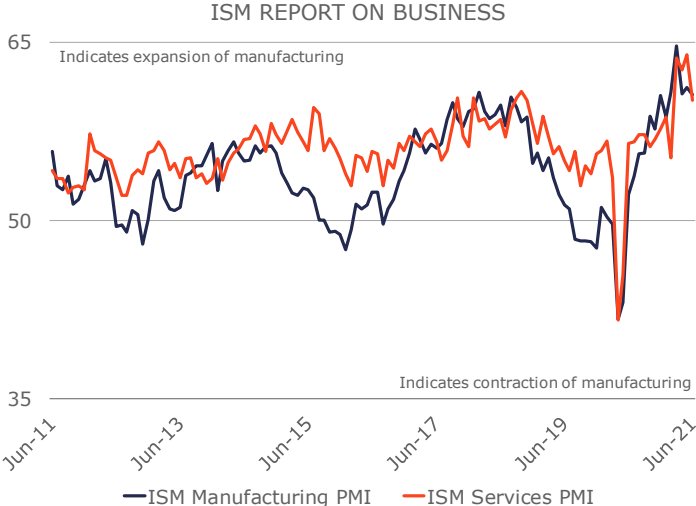
# Consumer Activity



Data Sources: Bloomberg

QUARTERLY MARKET REVIEW

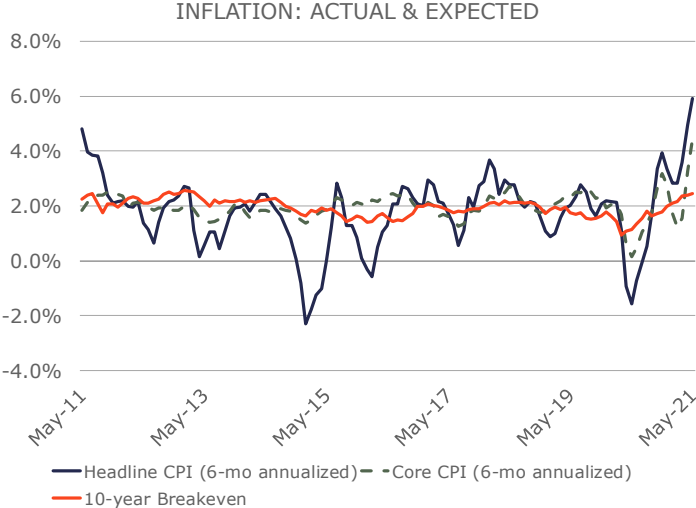
# Business Activity



Data Sources: Bloomberg

QUARTERLY MARKET REVIEW

# Inflation and Employment



Data Sources: Bloomberg

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