

**New Mexico Public Employees  
Retirement Association  
Smart Save Deferred Compensation Plan  
Third Quarter 2020**

**Quarterly Report**

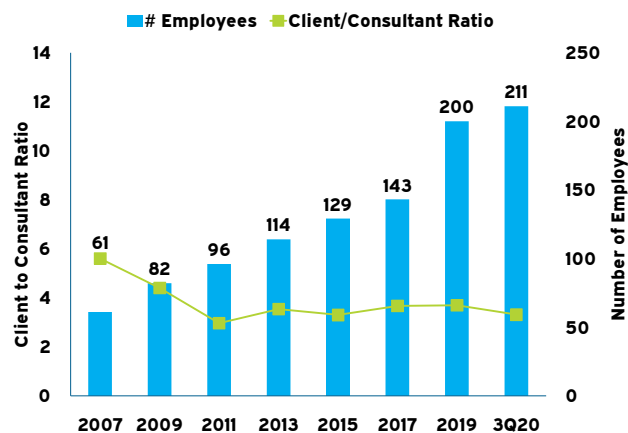
## Agenda

1. Corporate Update
2. Executive Summary
3. Third Quarter of 2020 Performance Report
  - Plan Summary
  - LifeCycle Funds Detail
  - Portfolio Reviews
4. Appendices
  - Economic and Market Update
  - The World Markets in the Third Quarter of 2020
  - Capital Markets Outlook & Risk Metrics
  - Global Macroeconomic Outlook
  - Disclaimer, Glossary and Notes

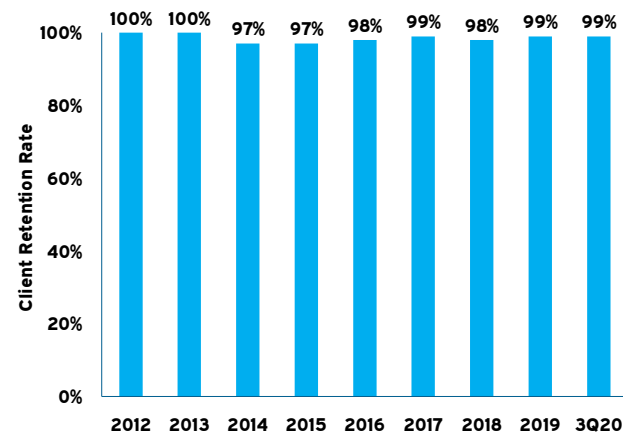
## **Meketa Investment Group Corporate Update**

- Staff of 211, including 141 investment professionals and 41 CFA Charterholders
- 215 clients, with over 300 funds throughout the United States
- Significant investment in staff and resources
- Offices in Boston, Chicago, Miami, New York, Portland (OR), San Diego, and London
- We advise on over \$1.4 trillion in client assets
  - Over \$125 billion in assets committed to alternative investments
    - Private Equity      ▪ Infrastructure      ▪ Natural Resources
    - Real Estate      ▪ Hedge Funds      ▪ Commodities

**Client to Consultant Ratio<sup>1</sup>**



**Client Retention Rate<sup>2</sup>**



**Meketa Investment Group is proud to work for over 5 million American families everyday.**

<sup>1</sup> On March 15, 2019, 31 employees joined the firm as part of the merger of Meketa Investment Group and Pension Consulting Alliance.

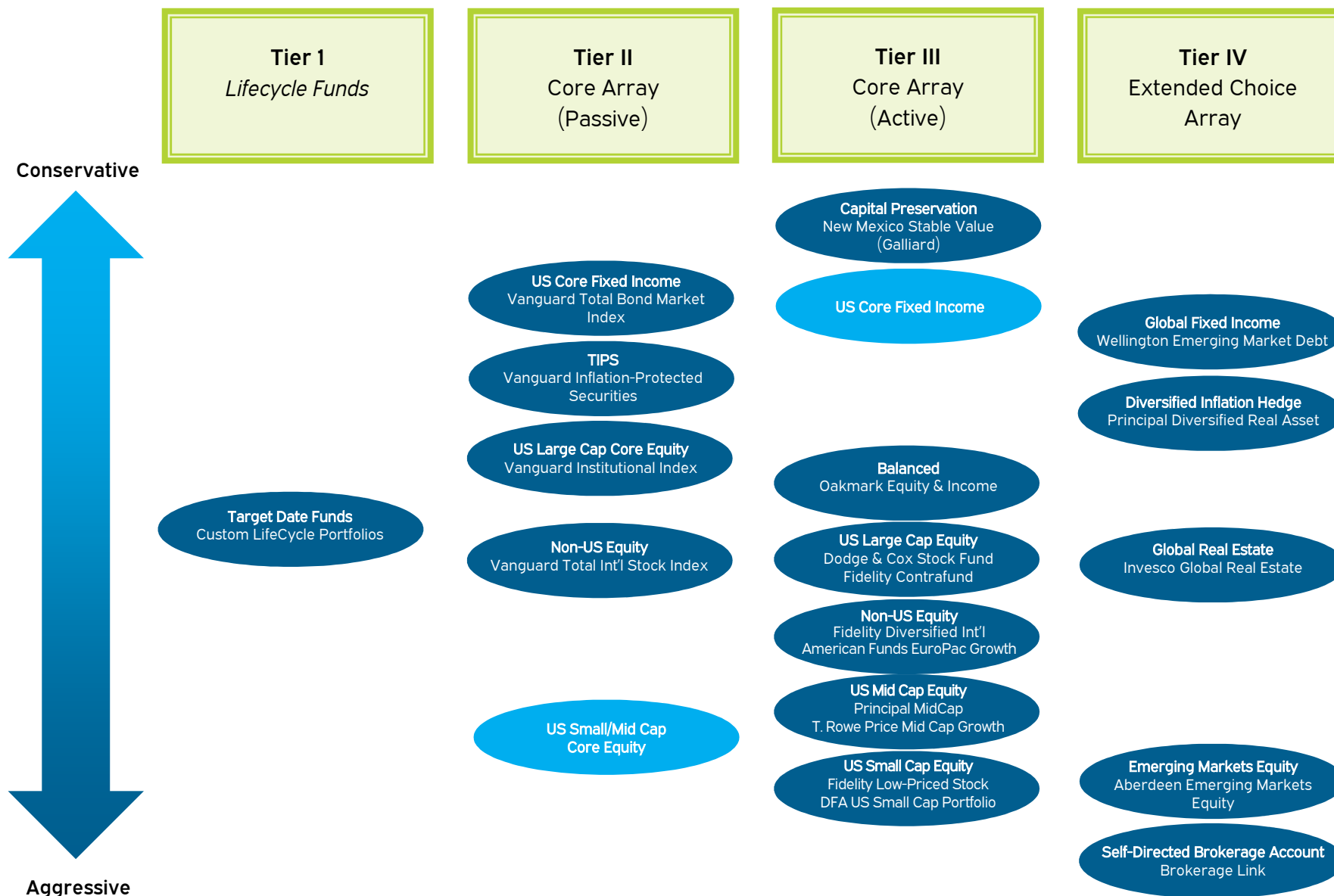
<sup>2</sup> Client Retention Rate is one minus the number of clients lost divided by the number of clients at prior year-end.

## Asset Classes Followed Intensively by Meketa Investment Group

Domestic Equities	International Equities	Private Equity	Real Assets	Fixed Income	Hedge Funds
<ul style="list-style-type: none"> <li>- Passive</li> <li>- Enhanced Index</li> <li>- Large Cap</li> <li>- Midcap</li> <li>- Small Cap</li> <li>- Microcap</li> <li>- 130/30</li> </ul>	<ul style="list-style-type: none"> <li>- Large Cap Developed</li> <li>- Small Cap Developed</li> <li>- Emerging Markets</li> <li>- Frontier Markets</li> </ul>	<ul style="list-style-type: none"> <li>- Buyouts</li> <li>- Venture Capital</li> <li>- Private Debt</li> <li>- Special Situations</li> <li>- Secondaries</li> <li>- Fund of Funds</li> </ul>	<ul style="list-style-type: none"> <li>- Public REITs</li> <li>- Core Real Estate</li> <li>- Value Added Real Estate</li> <li>- Opportunistic Real Estate</li> <li>- Infrastructure</li> <li>- Timber</li> <li>- Natural Resources</li> <li>- Commodities</li> </ul>	<ul style="list-style-type: none"> <li>- Short-Term</li> <li>- Core</li> <li>- Core Plus</li> <li>- TIPS</li> <li>- High Yield</li> <li>- Bank Loans</li> <li>- Distressed</li> <li>- Global</li> <li>- Emerging Markets</li> </ul>	<ul style="list-style-type: none"> <li>- Long/Short Equity</li> <li>- Event Driven</li> <li>- Relative Value</li> <li>- Fixed Income Arbitrage</li> <li>- Multi Strategy</li> <li>- Market Neutral</li> <li>- Global Macro</li> <li>- Fund of Funds</li> <li>- Portable Alpha</li> </ul>

## **Executive Summary**

### Executive Summary



### Plan Assets

- As of September 30, 2020, Plan assets were \$690.4 million, up from \$662.0 million at the end of the prior quarter. The Plan experienced net cash outflows of \$5,929,740, during the third quarter.
- There were 23,123 participants with a balance at quarter-end. The average account balance was \$29,857; contributions totaled \$10.6 million, compared to \$16.4 million in withdrawals.
- The largest Plan investment options by assets were:

	9/30/20 Balance (\$ mm)	Percentage of Plan Assets (%)
New Mexico LifeCycle Portfolios	185.4	26.9
New Mexico Stable Value	136.9	19.8
Vanguard Inst. Index Fund	102.2	14.8
Fidelity Contrafund	59.9	8.7
Vanguard Total Bond Index	32.7	4.7



### Plan Observations

Six of the Plan's sixteen actively managed portfolios (New Mexico Stable Value Fund, Aberdeen Emerging Markets Equity, Fidelity Diversified International, American Funds EuroPacific Growth, Principal US MidCap Equity, and Fidelity Low-Priced Stock) matched or outperformed their respective benchmarks and universe medians during the quarter. Three of the Plan's actively managed portfolios (Fidelity Contrafund, Invesco Global REITs, Wellington Opportunistic Emerging Markets Debt) matched or outperformed one measure, but underperformed the other. Seven of the Plan's actively managed portfolios (Oakmark Equity & Income, Dodge & Cox US Equity, T.Rowe Price MidCap Growth, Dimensional US Small Cap Core, Principal Diversified Real Assets, Columbia Institutional High Yield, and Prudential Retirement Real Estate Fund II) underperformed both measures.

### **Investment Menu Observations**

- Eight of the nine LifeCycle Portfolios (2020 Portfolio, 2025 Portfolio, 2030 Portfolio, 2035 Portfolio, 2040 Portfolio, 2045 Portfolio, 2050 Portfolio, 2055 Portfolio) matched or outperformed their respective benchmark, but underperformed the universe median. One LifeCycle Portfolio (Conservative Portfolio) underperformed both the respective benchmark and universe median.
- Fidelity Contrafund underperformed the Russell 1000 Growth benchmark, but outperformed the peer median. Underperformance was primarily driven by the strategy's underweight allocation to Apple, Inc., as the holding was up 27% in the third quarter.
- Dodge & Cox U.S. Equity underperformed both the Russell 1000 Value benchmark and the peer median. Underperformance stemmed from the fund's higher average weighting (9% versus 2%) and lower returns in the energy sector (down 22% versus down 20%). Cigna, GlaxoSmithKline, and Sanofi depreciated substantially.
- T. Rowe Price MidCap Growth underperformed both the Russell MidCap Growth benchmark and the peer median. The communication services and health care sectors detracted the most from relative returns due to stock selection.
- Dimensional U.S. Small Cap Core underperformed the Russell 2000 benchmark and the peer group. The portfolio's exclusion of small caps with the lowest profitability and highest relative price detracted from relative performance.
- Principal U.S. MidCap Equity outperformed both the Russell MidCap Index and the peer group median. The fund's allocation to Copart (a global leader in providing online auction and vehicle remarketing services for salvage vehicles) and Black Knight (the leading software provider for mortgage servicing) contributed to the fund's performance.

**Investment Menu Observations (continued)**

- Fidelity Low-Priced Stock outperformed the benchmark and the peer median. The fund's outperformance of the small-cap-oriented benchmark was due to favorable stock and industry selection, as active management added value in nine of the 11 sectors.
- Fidelity Diversified International outperformed the MSCI EAFE benchmark and the peer median. The fund's outperformance of the benchmark was primarily driven by stock selection in consumer discretionary, energy, and communication services sectors.
- American Funds EuroPacific Growth outperformed the MSCI ACWI ex USA index and the peer median. Outperformance in the quarter was due to the strategy's holdings in Reliance Industries, Sea, and WuXi Biologics.
- Aberdeen Emerging Markets Equity outperformed the MSCI Emerging Markets Index and the peer median. Positive stock selection in China was the main driver of the Fund's outperformance for the quarter. E-commerce company Meituan Dianping was among the top contributors.
- Wellington Opportunistic Emerging Markets Debt outperformed the JPM EMBI Global benchmark, but underperformed the peer group median. Outperformance in the quarter can be attributed to the strategy's overweight country allocation to Ecuador and positive security selection in Brazil, specifically an allocation to external corporate debt in the consumer and metals & mining industries.
- Columbia Institutional High Yield exposure is only available via the LifeCycle portfolios. The strategy underperformed the ICE BofAML US High Yield Cash Pay Constrained benchmark and the peer median. The relative underperformance was due to underweight allocations to specialty retail, and recreation and travel, along with an overweight allocation to cable and satellite television.

**Investment Menu Observations (continued)**

- Invesco Global REITs outperformed the FTSE EPRA/NAREIT Global REIT index benchmark, but underperformed the peer median. In Asia Pacific, the fund benefited from stock selection in Hong Kong, Singapore and Japan, all of which added to relative performance. An overweight in Japan was also beneficial. In Europe, the fund benefited from stock selection in Germany, the UK and France. An overweight exposure in Germany was also advantageous. Among the emerging markets, stock selection in China and Brazil added to relative performance.
- Principal Diversified Real Asset underperformed the Real Asset Custom Benchmark<sup>1</sup>; the peer group median was unavailable. Style selection effect within real return detracted from results as commercial mortgage-backed securities underperformed Treasury Inflation Protected Securities. Asset allocation detracted due to the underweight to commodities.
- Prudential Retirement Real Estate Fund II exposure is only available via the LifeCycle portfolios. The strategy underperformed the PRREF II Custom Benchmark<sup>2</sup>. The fund's underperformance was primarily driven by value declines for retail and office properties within direct real estate, given the greater uncertainty surrounding COVID-19 implications for these sectors. Negative impacts were most significant at properties with vacancy and near-term lease expirations, particularly in central business district locations.
- Oakmark Equity & Income underperformed both the 60% S&P 500/40% Barclays Aggregate benchmark and the peer group median. The largest detractors from relative performance include Citigroup, CVS Health, Diamondback Energy, American International Group and Thor.

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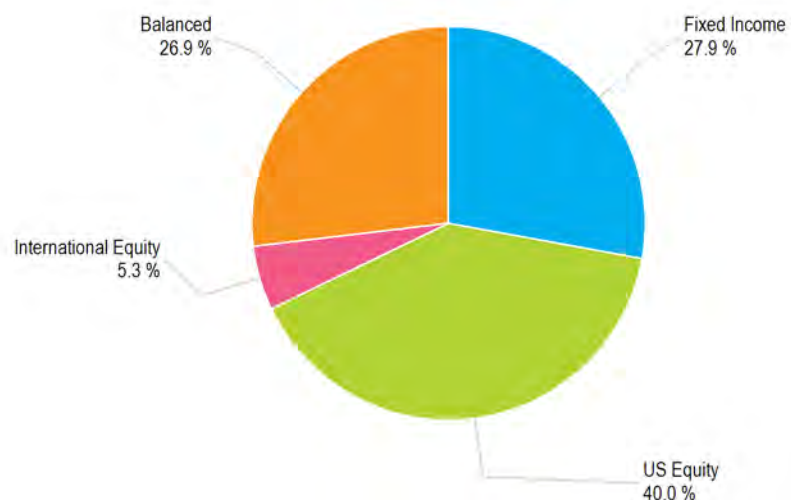
<sup>1</sup> The Real Asset Custom Benchmark is composed of 40% Barclays U.S. TIPS, 40% MSCI ACWI, and 20% Bloomberg Commodity Index.

<sup>2</sup> PRREF II Custom Benchmark is composed of 85% NCREIF Open-End Diversified Core Equity Fund Index and 15% MSCI US REIT Index.

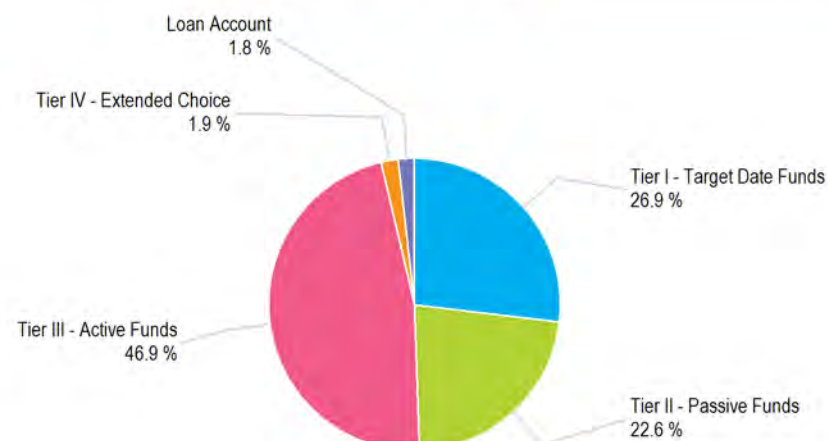
## **Third Quarter of 2020 Performance Report**

## Plan Summary

Total Plan Allocation by Asset Class



Total Plan Allocation by Tier



Asset Allocation				
	Current Balance	Current Allocation	Q3 Cash Flows	Balance as of 6/30/2020
Tier I - Target Date Funds	\$185,375,350	27%	-\$4,292,395	\$181,341,999
Tier II - Passive Funds	\$155,682,378	23%	\$8,775,430	\$137,714,980
Tier III - Active Funds	\$323,904,427	47%	-\$10,065,609	\$318,225,926
Tier IV - Extended Choice	\$13,100,329	2%	-\$189,156	\$12,408,964
Loan Account	\$12,322,960	2%	-\$158,011	\$12,329,387
<b>Total Fund</b>	<b>\$690,385,445</b>	<b>100%</b>	<b>-\$5,929,740</b>	<b>\$662,021,256</b>

Trailing Net Performance											
	Market Value (\$)	% of Portfolio	3 Mo Net Cash Flows (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Total Fund</b>	<b>690,385,445</b>	<b>100.0</b>	<b>-5,929,740</b>								
<b>Tier I - Target Date Funds</b>	<b>185,375,350</b>	<b>26.9</b>	<b>-4,292,395</b>								
New Mexico Conservative Portfolio	42,048,865	6.1	-105,509	3.0	3.3	6.0	4.8	5.4	4.7	4.4	Jul-05
<i>New Mexico Conservative Index</i>				3.1	3.2	6.1	5.0	5.4	4.6	4.1	Jul-05
<i>Allocation - 30% to 50% Equity Mstar MF Median</i>				4.2	2.5	5.9	5.1	6.3	6.2	5.6	Jul-05
<i>Allocation - 30% to 50% Equity Mstar MF Rank</i>				89	42	50	59	82	91	92	Jul-05
New Mexico LifeCycle 2020 Portfolio	4,383,428	0.6	28,404	3.2	3.2	6.5	5.1	--	--	6.0	Jun-16
<i>New Mexico 2020 Benchmark</i>				3.2	3.1	6.4	5.2	--	--	6.0	Jun-16
<i>Target Date 2020 Mstar MF Median</i>				4.3	3.5	8.4	6.0	7.5	7.2	7.4	Jun-16
<i>Target Date 2020 Mstar MF Rank</i>				93	72	78	90	--	--	93	Jun-16
New Mexico LifeCycle 2025 Portfolio	53,301,845	7.7	-3,150,174	4.2	3.1	7.5	5.7	7.5	7.1	5.0	Jul-05
<i>New Mexico 2025 Benchmark</i>				4.1	2.5	7.0	5.6	7.3	6.9	5.0	Jul-05
<i>Target Date 2025 Mstar MF Median</i>				4.9	3.5	8.8	6.4	8.1	7.9	6.3	Jul-05
<i>Target Date 2025 Mstar MF Rank</i>				92	71	80	91	88	91	94	Jul-05
New Mexico LifeCycle 2030 Portfolio	7,087,952	1.0	121,613	5.0	2.6	8.0	6.0	--	--	7.9	Jun-16
<i>New Mexico 2030 Benchmark</i>				4.9	1.9	7.3	5.8	--	--	7.6	Jun-16
<i>Target Date 2030 Mstar MF Median</i>				5.5	2.9	9.0	6.8	8.7	8.1	8.8	Jun-16
<i>Target Date 2030 Mstar MF Rank</i>				85	65	68	82	--	--	89	Jun-16



	Market Value (\$)	% of Portfolio	3 Mo Net Cash Flows (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
New Mexico LifeCycle 2035 Portfolio	35,475,612	5.1	-755,135	5.6	2.0	8.0	6.0	8.5	7.9	6.1	Jul-05
<i>New Mexico 2035 Benchmark</i>				5.4	1.2	7.3	5.8	8.3	7.6	5.6	Jul-05
<i>Target Date 2035 Mstar MF Median</i>				6.3	2.1	9.2	6.9	9.2	8.7	6.7	Jul-05
<i>Target Date 2035 Mstar MF Rank</i>				88	55	73	81	85	93	83	Jul-05
New Mexico LifeCycle 2040 Portfolio	5,810,209	0.8	2,803	6.1	1.4	7.9	6.0	--	--	8.4	Jun-16
<i>New Mexico 2040 Benchmark</i>				5.8	0.6	7.2	5.7	--	--	8.2	Jun-16
<i>Target Date 2040 Mstar MF Median</i>				6.9	1.7	9.4	7.1	9.4	8.9	9.6	Jun-16
<i>Target Date 2040 Mstar MF Rank</i>				85	62	69	77	--	--	95	Jun-16
New Mexico LifeCycle 2045 Portfolio	20,272,861	2.9	-596,224	6.3	1.3	8.0	6.1	8.9	8.2	6.7	Jul-05
<i>New Mexico 2045 Benchmark</i>				6.0	0.3	7.2	5.7	8.6	7.8	5.7	Jul-05
<i>Target Date 2045 Mstar MF Median</i>				7.3	1.6	9.3	7.0	9.6	9.0	6.4	Jul-05
<i>Target Date 2045 Mstar MF Rank</i>				93	58	69	77	83	99	38	Jul-05
New Mexico LifeCycle 2050 Portfolio	4,596,807	0.7	222,496	6.5	1.1	8.0	6.1	--	--	8.8	Jun-16
<i>New Mexico 2050 Benchmark</i>				6.2	0.1	7.2	5.7	--	--	8.5	Jun-16
<i>Target Date 2050 Mstar MF Median</i>				7.4	1.5	9.2	7.0	9.8	9.1	9.8	Jun-16
<i>Target Date 2050 Mstar MF Rank</i>				86	53	68	74	--	--	95	Jun-16
New Mexico LifeCycle 2055 Portfolio	12,397,772	1.8	-60,669	6.7	0.9	8.0	6.1	9.1	8.4	5.6	Apr-07
<i>New Mexico 2055 Benchmark</i>				6.3	-0.1	7.2	5.7	8.8	8.1	4.7	Apr-07
<i>Target Date 2055 Mstar MF Median</i>				7.4	1.4	9.2	7.1	9.8	9.1	--	Apr-07
<i>Target Date 2055 Mstar MF Rank</i>				86	58	74	79	83	99	--	Apr-07

	Market Value (\$)	% of Portfolio	3 Mo Net Cash Flows (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Tier II - Passive Funds</b>	<b>155,682,378</b>	<b>22.6</b>	<b>8,775,430</b>								
Vanguard Total Bond Market Index	32,721,298	4.7	4,457,762	0.6	7.0	7.0	5.3	4.2	3.6	5.2	Oct-95
BBgBarc US Aggregate TR				0.6	6.8	7.0	5.2	4.2	3.6	5.3	Oct-95
eV US Core Fixed Inc Net Median				1.1	7.2	7.2	5.4	4.4	3.9	5.4	Oct-95
eV US Core Fixed Inc Net Rank				88	56	61	54	68	76	68	Oct-95
Vanguard Inflation-Protected Securities	8,395,268	1.2	1,051,342	3.0	9.2	9.8	5.6	4.5	3.5	5.4	Jul-00
BBgBarc US TIPS TR				3.0	9.2	10.1	5.8	4.6	3.6	5.6	Jul-00
eV US TIPS / Inflation Fixed Inc Net Median				3.3	8.9	9.9	5.8	4.6	3.4	5.8	Jul-00
eV US TIPS / Inflation Fixed Inc Net Rank				66	40	54	57	58	35	81	Jul-00
Vanguard Institutional Index (S&P 500)	102,232,457	14.8	118,429	8.9	5.6	15.2	12.3	14.1	13.7	10.0	Aug-90
S&P 500				8.9	5.6	15.1	12.3	14.1	13.7	10.0	Aug-90
eV US Large Cap Core Equity Net Median				7.8	2.6	10.5	9.9	12.0	12.5	10.4	Aug-90
eV US Large Cap Core Equity Net Rank				33	30	25	21	13	13	57	Aug-90
Vanguard Total International Stock Index	12,333,356	1.8	3,147,897	6.5	-4.8	3.8	1.3	6.3	--	4.4	Dec-10
Spliced Total International Stock Index				6.7	-5.1	3.7	1.3	6.4	4.2	4.4	Dec-10
eV ACWI ex-US Core Equity Net Median				8.7	-2.1	8.4	1.8	7.1	5.3	5.3	Dec-10
eV ACWI ex-US Core Equity Net Rank				75	66	66	56	61	--	79	Dec-10

	Market Value (\$)	% of Portfolio	3 Mo Net Cash Flows (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Tier III - Active Funds</b>	<b>323,904,427</b>	<b>46.9</b>	<b>-10,065,609</b>								
New Mexico Stable Value Fund	136,864,508	19.8	-1,333,465	0.6	1.8	2.5	2.3	2.1	--	1.8	Jul-12
<i>Citigroup 3-month Treasury Bill + 1%</i>				0.3	1.3	2.0	2.7	2.2	1.6	1.7	Jul-12
<i>eV US Stable Value Fixed Inc Net Median</i>				0.5	1.8	2.4	2.4	2.2	2.2	2.0	Jul-12
<i>eV US Stable Value Fixed Inc Net Rank</i>				23	37	40	71	75	--	78	Jul-12
Oakmark Equity & Income	17,042,081	2.5	-654,792	4.8	-6.4	-0.9	2.2	5.7	6.9	9.3	Dec-95
<i>60% S&amp;P 500 &amp; 40% Barclays Aggregate</i>				5.6	6.7	12.5	9.8	10.4	9.8	7.9	Dec-95
<i>Balanced MStar MF Median</i>				4.8	2.3	6.9	5.6	7.3	7.5	7.0	Dec-95
<i>Balanced MStar MF Rank</i>				51	91	88	87	75	61	8	Dec-95
Dodge & Cox U.S. Equity	26,350,461	3.8	-1,815,156	4.3	-11.3	-2.4	2.8	9.1	11.0	10.7	Feb-65
<i>Russell 1000 Value</i>				5.6	-11.6	-5.0	2.6	7.7	9.9	--	Feb-65
<i>eV US Large Cap Value Equity Net Median</i>				5.2	-10.5	-3.7	3.1	7.7	9.8	--	Feb-65
<i>eV US Large Cap Value Equity Net Rank</i>				63	58	41	53	31	21	--	Feb-65
Fidelity Contrafund	59,926,416	8.7	-1,227,186	11.8	22.5	35.1	18.6	17.9	15.6	12.9	Jun-67
<i>Russell 1000 Growth</i>				13.2	24.3	37.5	21.7	20.1	17.3	--	Jun-67
<i>eV US Large Cap Growth Equity Net Median</i>				11.1	21.4	32.6	19.6	17.8	15.6	--	Jun-67
<i>eV US Large Cap Growth Equity Net Rank</i>				37	42	37	62	50	50	--	Jun-67
Fidelity Diversified International	11,264,527	1.6	-506,150	8.7	6.6	17.3	6.8	8.5	7.3	8.3	Jan-92
<i>MSCI EAFE</i>				4.8	-7.1	0.5	0.6	5.3	4.6	5.0	Jan-92
<i>eV EAFE Core Equity Net Median</i>				7.0	-5.4	3.9	1.1	5.8	5.9	6.8	Jan-92
<i>eV EAFE Core Equity Net Rank</i>				27	6	6	7	16	23	1	Jan-92

	Market Value (\$)	% of Portfolio	3 Mo Net Cash Flows (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
American Funds EuroPacific Growth	9,507,257	1.4	-365,443	9.7	4.4	15.0	5.7	9.1	6.8	10.6	May-84
<i>MSCI ACWI ex USA</i>				6.3	-5.4	3.0	1.2	6.2	4.0	--	May-84
<i>eV ACWI ex-US All Cap Core Eq Net Median</i>				8.8	-1.4	8.8	3.5	8.0	5.6	--	May-84
<i>eV ACWI ex-US All Cap Core Eq Net Rank</i>				36	19	22	26	22	26	--	May-84
Principal U.S. MidCap Equity	14,891,526	2.2	-774,618	8.2	2.8	9.2	12.9	14.7	15.2	10.9	Jan-01
<i>Russell MidCap</i>				7.5	-2.3	4.6	7.1	10.1	11.8	8.6	Jan-01
<i>eV US Mid Cap Core Equity Net Median</i>				7.4	-3.4	2.8	6.2	9.7	10.8	8.4	Jan-01
<i>eV US Mid Cap Core Equity Net Rank</i>				34	26	21	14	11	3	2	Jan-01
T. Rowe Price MidCap Growth	31,136,528	4.5	-2,679,355	8.4	5.8	13.1	12.9	14.4	14.9	12.4	Aug-96
<i>Russell MidCap Growth</i>				9.4	13.9	23.2	16.2	15.5	14.6	10.1	Aug-96
<i>eV US Mid Cap Growth Equity Net Median</i>				10.0	14.9	23.7	16.5	15.2	14.2	11.4	Aug-96
<i>eV US Mid Cap Growth Equity Net Rank</i>				71	92	93	84	65	29	1	Aug-96
Fidelity Low-Priced Stock	7,570,755	1.1	-381,867	8.0	-7.3	4.2	3.6	7.1	10.2	12.9	Jan-90
<i>Russell 2500 Value</i>				3.5	-18.4	-12.6	-2.7	4.6	8.0	10.0	Jan-90
<i>eV US Small Cap Value Equity Net Median</i>				2.4	-19.8	-13.7	-4.4	3.6	7.4	11.3	Jan-90
<i>eV US Small Cap Value Equity Net Rank</i>				10	8	4	5	16	8	1	Jan-90
Dimensional U.S. Small Cap Core	9,350,369	1.4	-327,576	3.9	-13.6	-6.3	-1.8	5.3	9.3	9.5	Apr-92
<i>Russell 2000</i>				4.9	-8.7	0.4	1.8	8.0	9.9	8.8	Apr-92
<i>eV US Small Cap Core Equity Net Median</i>				4.7	-10.6	-3.0	1.0	7.4	10.1	10.6	Apr-92
<i>eV US Small Cap Core Equity Net Rank</i>				61	74	73	77	77	67	85	Apr-92

	Market Value (\$)	% of Portfolio	3 Mo Net Cash Flows (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Tier IV - Extended Choice</b>	<b>13,100,329</b>	<b>1.9</b>	<b>-189,156</b>								
Wellington Opportunistic Emerging Market Debt	2,024,614	0.3	2,062,202	2.5	1.0	4.0	3.6	7.0	5.6	6.0	May-10
<i>JP Morgan EMBI Global TR</i>				2.3	0.4	2.5	3.3	6.0	5.2	5.8	May-10
<i>eV Emg Mkts Fixed Inc - Hard Currency Net Median</i>				2.9	-0.8	1.9	2.5	6.3	5.0	5.5	May-10
<i>eV Emg Mkts Fixed Inc - Hard Currency Net Rank</i>				73	18	17	29	13	17	21	May-10
Principal Diversified Real Asset	377,168	0.1	-18,430	4.8	-6.2	-1.9	0.6	2.8	2.6	3.2	Apr-10
<i>Real Asset Custom Benchmark</i>				6.3	2.0	6.9	4.6	5.5	3.8	4.0	Apr-10
Invesco Global REITs	1,371,174	0.2	-233,600	2.9	-18.4	-15.8	-0.7	2.4	4.9	4.8	May-05
<i>FTSE EPRA/NAREIT Global Real Estate Index</i>				2.3	-19.1	-17.5	-0.7	2.9	5.6	4.8	May-05
<i>eV Global REIT Net Median</i>				3.5	-14.9	-12.7	1.2	3.8	6.4	5.0	May-05
<i>eV Global REIT Net Rank</i>				66	75	78	77	75	83	60	May-05
Aberdeen Emerging Markets Equity	2,164,747	0.3	72,246	11.8	1.6	11.1	3.1	8.8	3.5	5.6	Jun-07
<i>MSCI Emerging Markets</i>				9.6	-1.2	10.5	2.4	9.0	2.5	2.9	Jun-07
<i>eV Emg Mkts Equity Net Median</i>				9.7	-1.4	10.3	1.9	8.4	2.7	3.3	Jun-07
<i>eV Emg Mkts Equity Net Rank</i>				22	34	44	34	46	32	2	Jun-07
Self Directed Brokerage Options	7,162,627	1.0	121,977								

**Total Fund | As of September 30, 2020**

	Market Value (\$)	% of Portfolio	3 Mo Net Cash Flows (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Loan Account</b>	<b>12,322,960</b>	<b>1.8</b>	<b>-158,011</b>								
Loan Account	12,322,960	1.8	-158,011								
<b>Other</b>											
Prudential Retirement Real Estate Fund II	--	--		0.4	-2.4	-1.3	--	--	--	4.1	Jan-18
<i>PRREF II Custom Benchmark</i>				0.6	-2.5	-1.4	--	--	--	4.2	Jan-18
Columbia Institutional High Yield	--	--		4.4	0.1	2.8	4.0	5.9	--	5.2	Dec-12
<i>ICE BofA US High Yield Cash Pay Constrained TR</i>				4.7	-0.3	2.3	3.8	6.6	6.3	5.3	Dec-12
<i>eV US High Yield Fixed Inc Net Median</i>				4.5	0.3	2.6	3.6	5.9	6.0	5.0	Dec-12
<i>eV US High Yield Fixed Inc Net Rank</i>				55	57	47	31	51	--	36	Dec-12

<sup>1</sup> Columbia Institutional High Yield and Prudential Retirement Real Estate Fund II are only offered as underlying components of the New Mexico LifeCycle Portfolios.

	Calendar Year Performance									
	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
<b>Total Fund</b>										
<b>Tier I - Target Date Funds</b>										
New Mexico Conservative Portfolio	11.4	-1.8	8.6	4.9	-1.3	4.4	4.2	9.3	2.9	6.7
<i>New Mexico Conservative Index</i>	11.6	-1.6	8.8	4.1	-1.1	4.0	4.0	8.5	3.1	6.0
<i>Allocation - 30% to 50% Equity Mstar MF Median</i>	15.5	-4.5	10.4	6.8	-1.2	4.2	7.1	10.2	2.2	10.4
<i>Allocation - 30% to 50% Equity Mstar MF Rank</i>	92	1	77	89	55	46	81	61	36	96
New Mexico LifeCycle 2020 Portfolio	12.9	-2.8	11.2	--	--	--	--	--	--	--
<i>New Mexico 2020 Benchmark</i>	12.7	-2.5	11.3	--	--	--	--	--	--	--
<i>Target Date 2020 Mstar MF Median</i>	16.3	-4.2	13.0	6.5	-1.1	5.1	13.3	12.2	-0.1	12.7
<i>Target Date 2020 Mstar MF Rank</i>	96	3	82	--	--	--	--	--	--	--
New Mexico LifeCycle 2025 Portfolio	15.9	-4.1	14.3	6.7	-1.6	6.0	13.5	16.5	-2.6	10.6
<i>New Mexico 2025 Benchmark</i>	15.5	-4.0	14.4	6.2	-1.7	5.3	14.2	14.6	-1.9	10.8
<i>Target Date 2025 Mstar MF Median</i>	18.8	-5.2	15.2	7.2	-1.2	5.2	16.7	13.3	-1.5	13.5
<i>Target Date 2025 Mstar MF Rank</i>	95	13	80	75	70	28	86	1	79	99
New Mexico LifeCycle 2030 Portfolio	18.2	-5.1	16.4	--	--	--	--	--	--	--
<i>New Mexico 2030 Benchmark</i>	17.7	-5.1	16.4	--	--	--	--	--	--	--
<i>Target Date 2030 Mstar MF Median</i>	20.9	-6.2	17.1	7.4	-1.1	5.4	19.3	13.9	-2.2	13.7
<i>Target Date 2030 Mstar MF Rank</i>	92	18	67	--	--	--	--	--	--	--
New Mexico LifeCycle 2035 Portfolio	19.6	-5.9	18.1	7.4	-1.9	5.7	16.3	18.4	-4.4	11.8
<i>New Mexico 2035 Benchmark</i>	19.0	-5.9	18.2	7.1	-2.2	4.9	17.1	16.2	-3.5	12.5
<i>Target Date 2035 Mstar MF Median</i>	22.5	-6.9	18.8	8.0	-1.4	5.5	20.9	15.3	-3.2	14.7
<i>Target Date 2035 Mstar MF Rank</i>	94	15	74	73	72	40	92	1	85	99

	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
New Mexico LifeCycle 2040 Portfolio	20.7	-6.4	19.1	--	--	--	--	--	--	--
<i>New Mexico 2040 Benchmark</i>	19.9	-6.4	19.2	--	--	--	--	--	--	--
<i>Target Date 2040 Mstar MF Median</i>	23.9	-7.5	19.9	8.1	-1.3	5.6	23.0	15.2	-3.7	14.5
<i>Target Date 2040 Mstar MF Rank</i>	93	14	77	--	--	--	--	--	--	--
New Mexico LifeCycle 2045 Portfolio	21.3	-6.8	20.0	7.5	-2.0	5.6	17.6	19.5	-5.3	17.0
<i>New Mexico 2045 Benchmark</i>	20.5	-6.8	19.9	7.3	-2.4	4.8	18.6	17.0	-4.3	12.9
<i>Target Date 2045 Mstar MF Median</i>	25.1	-8.0	21.0	8.3	-1.5	5.7	23.5	15.7	-3.9	15.2
<i>Target Date 2045 Mstar MF Rank</i>	99	6	75	73	72	60	96	1	90	1
New Mexico LifeCycle 2050 Portfolio	21.8	-7.0	20.4	--	--	--	--	--	--	--
<i>New Mexico 2050 Benchmark</i>	21.0	-7.1	20.4	--	--	--	--	--	--	--
<i>Target Date 2050 Mstar MF Median</i>	25.3	-8.3	21.4	8.3	-1.3	5.8	23.8	15.8	-3.8	15.3
<i>Target Date 2050 Mstar MF Rank</i>	97	5	78	--	--	--	--	--	--	--
New Mexico LifeCycle 2055 Portfolio	22.2	-7.2	20.8	7.6	-2.0	5.6	18.2	19.7	-5.2	15.8
<i>New Mexico 2055 Benchmark</i>	21.3	-7.2	20.8	7.4	-2.5	4.7	19.2	17.4	-4.5	12.9
<i>Target Date 2055 Mstar MF Median</i>	25.2	-8.4	21.5	8.4	-1.4	6.0	23.9	15.8	-4.0	15.1
<i>Target Date 2055 Mstar MF Rank</i>	98	11	78	77	76	58	99	1	78	31



	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
<b>Tier II - Passive Funds</b>										
Vanguard Total Bond Market Index	8.7	0.0	3.6	2.6	0.4	5.9	-2.1	4.2	7.7	6.6
BBgBarc US Aggregate TR	8.7	0.0	3.5	2.6	0.5	6.0	-2.0	4.2	7.8	6.5
eV US Core Fixed Inc Net Median	9.0	-0.2	3.8	3.1	0.5	5.6	-1.8	5.9	7.3	7.2
eV US Core Fixed Inc Net Rank	68	39	65	73	64	40	76	88	28	73
Vanguard Inflation-Protected Securities	8.2	-1.4	3.0	4.6	-1.7	4.1	-8.8	6.9	13.4	6.3
BBgBarc US TIPS TR	8.4	-1.3	3.0	4.7	-1.4	3.6	-8.6	7.0	13.6	6.3
eV US TIPS / Inflation Fixed Inc Net Median	8.5	-1.4	3.1	4.6	-1.6	3.3	-8.8	7.2	13.4	6.5
eV US TIPS / Inflation Fixed Inc Net Rank	64	47	59	50	54	11	53	68	49	69
Vanguard Institutional Index (S&P 500)	31.5	-4.4	21.8	11.9	1.4	13.6	32.4	16.0	2.1	15.0
S&P 500	31.5	-4.4	21.8	12.0	1.4	13.7	32.4	16.0	2.1	15.1
eV US Large Cap Core Equity Net Median	28.9	-5.8	21.4	9.3	0.6	12.5	31.8	14.8	-0.3	13.3
eV US Large Cap Core Equity Net Rank	29	32	46	21	37	33	43	31	26	23
Vanguard Total International Stock Index	21.6	-14.4	27.6	4.7	-4.2	-4.1	15.1	18.3	-14.5	--
Spliced Total International Stock Index	21.8	-14.6	27.4	4.7	-4.3	-3.4	15.8	17.0	-14.3	10.7
eV ACWI ex-US Core Equity Net Median	23.3	-15.7	28.7	1.0	-1.4	-3.2	18.2	18.3	-12.7	13.3
eV ACWI ex-US Core Equity Net Rank	65	37	66	22	77	61	91	47	59	--

**Total Fund | As of September 30, 2020**

	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
<b>Tier III - Active Funds</b>										
New Mexico Stable Value Fund	2.5	2.1	1.8	1.7	1.5	1.2	1.4	--	--	--
<i>Citigroup 3-month Treasury Bill + 1%</i>	3.3	2.9	1.8	1.3	1.0	1.0	1.1	1.1	1.1	1.1
<i>eV US Stable Value Fixed Inc Net Median</i>	2.5	1.5	1.8	1.5	1.4	1.6	0.3	3.1	5.1	--
<i>eV US Stable Value Fixed Inc Net Rank</i>	51	30	51	44	43	77	22	--	--	--
Oakmark Equity & Income	19.3	-8.3	14.5	11.0	-4.6	6.9	24.2	9.1	0.7	9.5
<i>60% S&amp;P 500 &amp; 40% Barclays Aggregate</i>	22.2	-2.3	14.2	8.3	1.3	10.6	17.6	11.3	4.7	12.1
<i>Balanced MStar MF Median</i>	18.6	-5.5	12.5	7.0	-1.2	5.7	16.1	12.2	0.3	12.2
<i>Balanced MStar MF Rank</i>	47	83	36	13	86	29	11	85	47	88
Dodge & Cox U.S. Equity	24.8	-7.1	18.3	21.3	-4.5	10.4	40.5	22.0	-4.1	13.5
<i>Russell 1000 Value</i>	26.5	-8.3	13.7	17.3	-3.8	13.5	32.5	17.5	0.4	15.5
<i>eV US Large Cap Value Equity Net Median</i>	26.3	-9.0	16.7	13.8	-3.1	11.3	33.1	15.3	0.0	13.6
<i>eV US Large Cap Value Equity Net Rank</i>	67	31	34	6	64	69	10	5	79	51
Fidelity Contrafund	30.2	-2.1	32.3	3.5	6.6	9.7	34.3	16.4	0.0	17.1
<i>Russell 1000 Growth</i>	36.4	-1.5	30.2	7.1	5.7	13.0	33.5	15.3	2.6	16.7
<i>eV US Large Cap Growth Equity Net Median</i>	33.4	-1.3	28.5	3.4	4.1	11.1	34.0	15.7	-0.8	16.3
<i>eV US Large Cap Growth Equity Net Rank</i>	80	57	25	48	27	64	48	41	40	44
Fidelity Diversified International	29.8	-15.1	26.8	-3.6	3.2	-3.0	25.3	19.6	-13.6	9.9
<i>MSCI EAFE</i>	22.0	-13.8	25.0	1.0	-0.8	-4.9	22.8	17.3	-12.1	7.8
<i>eV EAFE Core Equity Net Median</i>	22.2	-16.0	27.1	-0.4	1.5	-3.9	24.4	20.1	-12.7	12.0
<i>eV EAFE Core Equity Net Rank</i>	6	41	52	89	30	39	44	54	61	73

**Total Fund | As of September 30, 2020**

	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
American Funds EuroPacific Growth	27.4	-14.9	31.2	1.0	-0.5	-2.3	20.6	19.6	-13.3	9.8
<i>MSCI ACWI ex USA</i>	21.5	-14.2	27.2	4.5	-5.7	-3.9	15.3	16.8	-13.7	11.2
<i>eV ACWI ex-US All Cap Core Eq Net Median</i>	24.6	-15.0	28.7	1.2	-1.5	-2.3	18.2	17.8	-11.0	14.2
<i>eV ACWI ex-US All Cap Core Eq Net Rank</i>	17	50	26	52	39	50	36	24	67	80
Principal U.S. MidCap Equity	42.9	-6.7	25.3	10.2	1.5	12.7	33.6	19.2	8.0	23.8
<i>Russell MidCap</i>	30.5	-9.1	18.5	13.8	-2.4	13.2	34.8	17.3	-1.5	25.5
<i>eV US Mid Cap Core Equity Net Median</i>	28.3	-11.0	18.9	10.6	-0.5	8.2	35.2	14.3	-1.7	23.5
<i>eV US Mid Cap Core Equity Net Rank</i>	1	25	8	55	31	22	66	15	1	35
T. Rowe Price MidCap Growth	33.1	-2.2	26.0	6.9	6.9	13.8	37.9	14.5	-1.3	29.3
<i>Russell MidCap Growth</i>	35.5	-4.8	25.3	7.3	-0.2	11.9	35.7	15.8	-1.7	26.4
<i>eV US Mid Cap Growth Equity Net Median</i>	35.7	-4.4	24.7	5.2	-0.5	7.6	35.1	14.7	-2.7	26.0
<i>eV US Mid Cap Growth Equity Net Rank</i>	66	32	35	30	1	5	27	53	38	24
Fidelity Low-Priced Stock	25.8	-10.7	20.8	8.9	0.9	7.7	34.4	18.7	0.0	20.9
<i>Russell 2500 Value</i>	23.6	-12.4	10.4	25.2	-5.5	7.1	33.3	19.2	-3.4	24.8
<i>eV US Small Cap Value Equity Net Median</i>	23.8	-15.0	10.3	26.2	-4.6	5.0	37.1	15.9	-3.0	25.0
<i>eV US Small Cap Value Equity Net Rank</i>	29	17	3	99	5	19	71	29	27	84
Dimensional U.S. Small Cap Core	21.7	-13.1	11.5	23.5	-3.3	4.4	42.2	18.4	-3.2	30.7
<i>Russell 2000</i>	25.5	-11.0	14.6	21.3	-4.4	4.9	38.8	16.3	-4.2	26.9
<i>eV US Small Cap Core Equity Net Median</i>	24.3	-11.1	14.4	19.5	-2.1	4.4	38.9	15.6	-1.6	25.8
<i>eV US Small Cap Core Equity Net Rank</i>	69	67	77	22	62	50	25	22	62	11

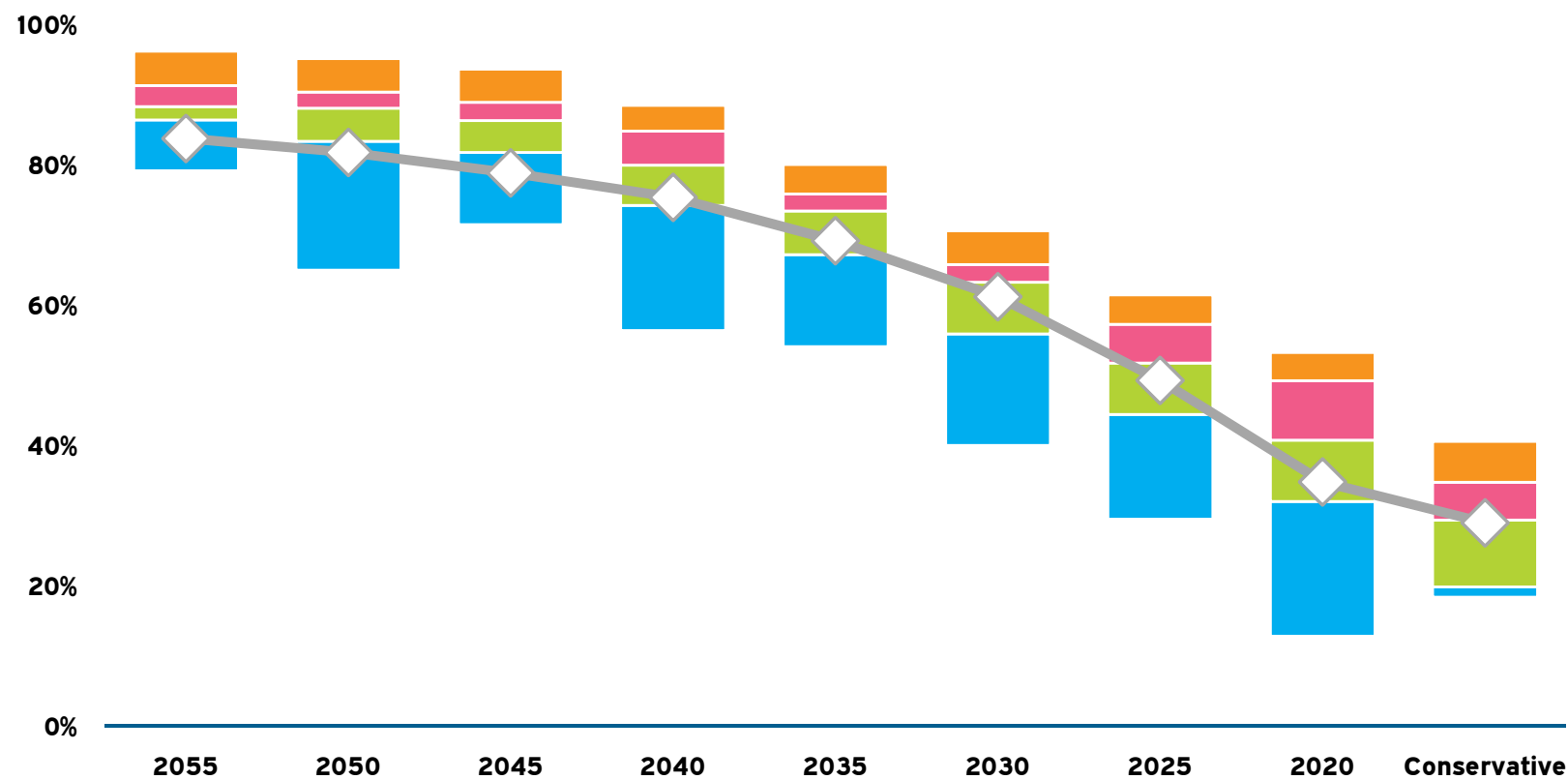
	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
<b>Tier IV - Extended Choice</b>										
Wellington Opportunistic Emerging Market Debt	15.8	-5.8	10.6	12.8	-1.0	6.1	-5.1	19.8	5.3	--
<i>JP Morgan EMBI Global TR</i>	14.4	-4.6	9.3	10.2	1.2	5.5	-6.6	18.5	8.5	12.0
<i>eV Emg Mkts Fixed Inc - Hard Currency Net Median</i>	14.5	-5.9	11.8	11.3	-0.6	5.1	-6.2	18.6	6.4	14.0
<i>eV Emg Mkts Fixed Inc - Hard Currency Net Rank</i>	18	43	73	30	54	24	29	32	78	--
Principal Diversified Real Asset	15.0	-7.9	10.2	5.9	-12.4	2.5	5.4	7.7	0.8	--
<i>Real Asset Custom Benchmark</i>	15.5	-6.4	10.7	7.6	-6.6	-0.5	2.9	9.2	-0.4	11.5
Invesco Global REITs	22.9	-5.9	13.1	2.1	-1.1	14.8	3.0	28.4	-6.5	17.7
<i>FTSE EPRA/NAREIT Global Real Estate Index</i>	22.4	-4.7	11.4	5.0	0.1	15.9	4.4	28.7	-5.8	20.4
<i>eV Global REIT Net Median</i>	25.3	-5.6	11.9	3.8	0.5	16.8	5.2	29.1	-5.2	19.8
<i>eV Global REIT Net Rank</i>	71	53	40	72	73	83	84	66	67	99
Aberdeen Emerging Markets Equity	20.4	-14.6	30.2	12.0	-13.7	-2.5	-7.5	26.2	-11.0	27.6
<i>MSCI Emerging Markets</i>	18.4	-14.6	37.3	11.2	-14.9	-2.2	-2.6	18.2	-18.4	18.9
<i>eV Emg Mkts Equity Net Median</i>	19.3	-16.2	37.1	8.2	-12.9	-0.8	-0.1	19.6	-18.1	21.1
<i>eV Emg Mkts Equity Net Rank</i>	46	32	81	31	59	66	97	2	6	10
Self Directed Brokerage Options										
<b>Loan Account</b>										
Loan Account										
<b>Other</b>										
Prudential Retirement Real Estate Fund II	8.2	5.8	--	--	--	--	--	--	--	--
<i>PRREF II Custom Benchmark</i>	8.1	6.3	--	--	--	--	--	--	--	--
Columbia Institutional High Yield	17.2	-4.1	6.6	11.6	-1.1	4.1	6.3	--	--	--
<i>ICE BofA US High Yield Cash Pay Constrained TR</i>	14.4	-2.2	7.5	17.3	-4.5	2.5	7.4	15.4	4.5	15.1
<i>eV US High Yield Fixed Inc Net Median</i>	13.5	-2.3	7.1	13.5	-3.3	1.9	7.3	14.8	3.7	14.1
<i>eV US High Yield Fixed Inc Net Rank</i>	3	89	61	71	21	15	75	--	--	--

<sup>1</sup> Columbia Institutional High Yield and Prudential Retirement Real Estate Fund II are only offered as underlying components of the New Mexico LifeCycle Portfolios.

Investment Expense Analysis								
As Of September 30, 2020								
Name	Style	Market Value	Expense Ratio (%)	Estimated Fund Expense (\$)	Median Expense Ratio (%)	Net Expense Difference	Revenue Sharing (\$)	Revenue Sharing(%)
<b>Tier I - Target Date Funds</b>		<b>\$185,375,350</b>						
New Mexico Conservative Portfolio	Target Date	\$42,048,865	0.34	144,627	0.42	-0.08	-	0.00
New Mexico LifeCycle 2020 Portfolio	Target Date	\$4,383,428	0.35	15,186	0.63	-0.28	-	0.00
New Mexico LifeCycle 2025 Portfolio	Target Date	\$53,301,845	0.36	190,096	0.64	-0.28	-	0.00
New Mexico LifeCycle 2030 Portfolio	Target Date	\$7,087,952	0.36	25,842	0.66	-0.30	-	0.00
New Mexico LifeCycle 2035 Portfolio	Target Date	\$35,475,612	0.40	141,463	0.67	-0.27	-	0.00
New Mexico LifeCycle 2040 Portfolio	Target Date	\$5,810,209	0.42	24,672	0.69	-0.27	-	0.00
New Mexico LifeCycle 2045 Portfolio	Target Date	\$20,272,861	0.42	85,660	0.71	-0.29	-	0.00
New Mexico LifeCycle 2050 Portfolio	Target Date	\$4,596,807	0.42	19,377	0.71	-0.29	-	0.00
New Mexico LifeCycle 2055 Portfolio	Target Date	\$12,397,772	0.42	52,314	0.72	-0.30	-	0.00
<b>Tier II - Passive Funds</b>		<b>\$155,682,378</b>						
Vanguard Total Bond Market Index	Bonds	\$32,721,298	0.04	13,089	0.49	-0.45	-	0.00
Vanguard Inflation-Protected Securities	Bonds	\$8,395,268	0.07	5,877	0.45	-0.38	-	0.00
Vanguard Institutional Index (S&P 500)	US Large Cap	\$102,232,457	0.02	20,446	0.71	-0.69	-	0.00
Vanguard Total International Stock Index	International Equity	\$12,333,356	0.08	9,867	0.85	-0.77	-	0.00
<b>Tier III - Active Funds</b>		<b>\$323,904,427</b>						
New Mexico Stable Value Fund	Bonds (Stable Value)	\$136,864,508	0.33	451,653	0.50	-0.17	-	0.00
Oakmark Equity & Income	Balanced	\$17,042,081	0.81	138,041	0.83	-0.02	\$51,126	0.30
Dodge & Cox U.S. Equity	US Large Cap	\$26,350,461	0.52	137,022	0.87	-0.35	\$26,350	0.10
Fidelity Contrafund	US Large Cap	\$59,926,416	0.77	461,433	0.62	0.15	-	0.00
Fidelity Diversified International	International Equity	\$11,264,527	0.63	70,967	0.80	-0.17	-	0.00
American Funds EuroPacific Growth	International Equity	\$9,507,257	0.46	43,733	0.80	-0.34	-	0.00
Principal U.S. MidCap Equity	US Mid Cap	\$14,891,526	0.70	104,241	0.87	-0.17	\$14,892	0.10
T. Rowe Price MidCap Growth	US Mid Cap	\$31,136,528	0.61	189,933	0.87	-0.26	-	0.00
Fidelity Low-Priced Stock	US Mid Cap	\$7,570,755	0.43	32,554	0.80	-0.37	-	0.00
Dimensional U.S. Small Cap Core	US Small Cap	\$9,350,369	0.35	32,726	0.96	-0.61	-	0.00
<b>Tier IV - Extended Choice</b>		<b>\$13,100,329</b>						
Wellington Opportunistic Emerging Market Debt	International Bonds	\$2,024,614	0.55	11,135	0.67	-0.12	-	0.00
Principal Diversified Real Asset	Real Assets	\$377,168	0.84	3,168	0.90	-0.06	\$377	0.10
Invesco Global REITs	REITs	\$1,371,174	0.92	12,615	0.89	0.03	\$4,799	0.35
Aberdeen Emerging Markets Equity	International Equity	\$2,164,747	1.10	23,812	1.14	-0.04	-	0.00
Self Directed Brokerage Options	Brokerage Window	\$7,162,627			-	-	-	-
<b>Loan Account</b>		<b>\$12,322,960</b>						
Loan Account	Other	\$12,322,960		-	-	-	-	-
<b>Other</b>		<b>-</b>						
Columbia High Yield	Bonds	-	0.63	-	0.71	-0.08	-	0.00
Prudential Retirement Real Estate Fund II	Private Real Estate	-	0.90	-	N/A	N/A	-	NA
<b>Total</b>		<b>\$690,385,445</b>	<b>0.36%</b>	<b>\$2,461,550</b>			<b>\$97,545</b>	<b>0.01</b>

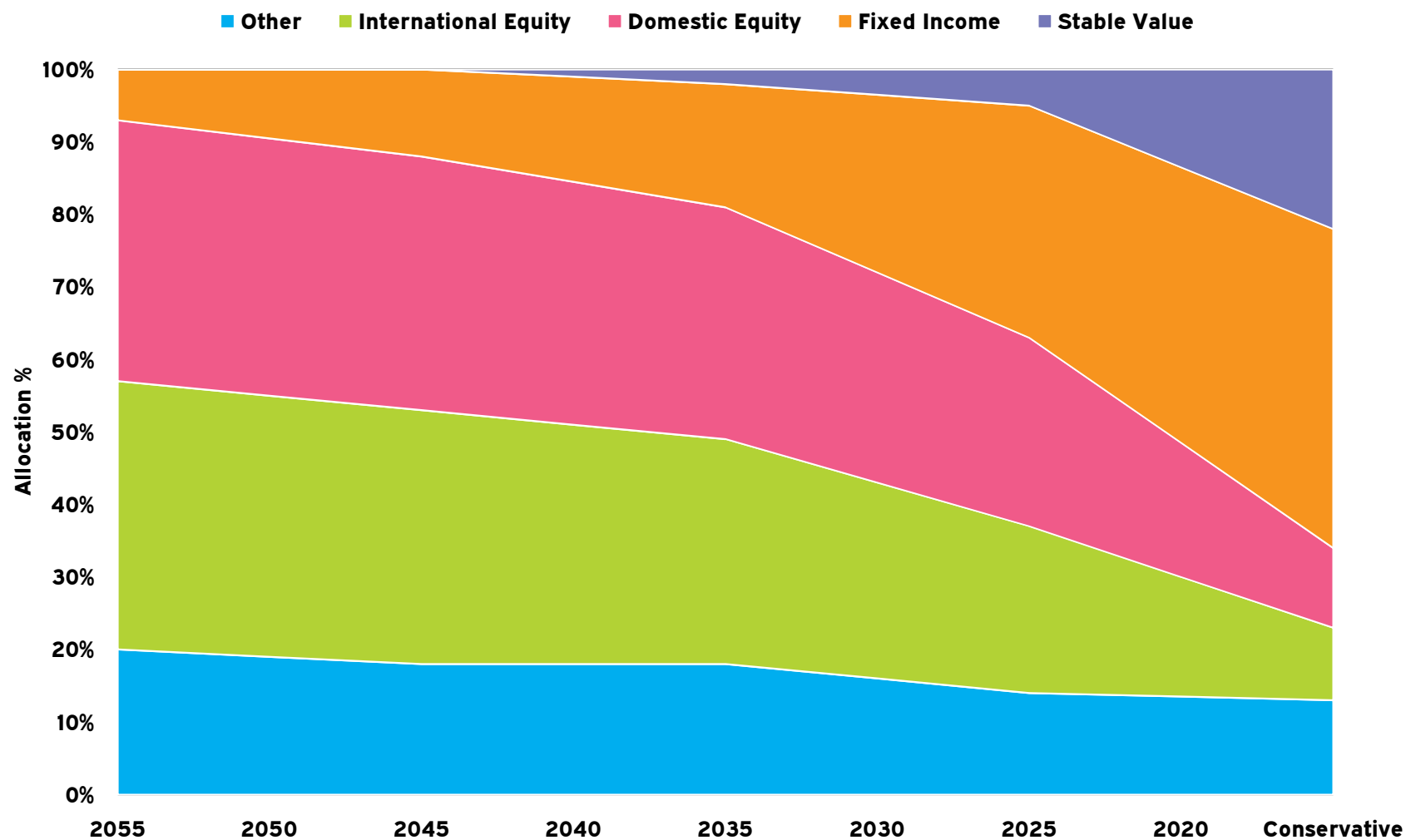
## LifeCycle Funds Detail As of September 30, 2020

Glide Path Universe Comparison<sup>1</sup>  
% Allocation to Equity



<sup>1</sup> Peer universe data is provided by MorningStar Mutual Fund Target Date universe. Each color of the bar represents a quartile with the top and bottom representing the maximum and minimum observation. The Core Private Real Estate allocation is included within equity.

Asset Allocation by Target Date





**LifeCycle Funds Detail**

	2055 Portfolio (%)	2050 Portfolio (%)	2045 Portfolio (%)	2040 Portfolio (%)	2035 Portfolio (%)	2030 Portfolio (%)	2025 Portfolio (%)	2020 Portfolio (%)	Conservative Portfolio (%)
<b>Total Fixed Income</b>	<b>9.0</b>	<b>11.5</b>	<b>14.8</b>	<b>18.3</b>	<b>26.2</b>	<b>35.2</b>	<b>48.6</b>	<b>63.1</b>	<b>66.0</b>
<b>Total Stable Value</b>	<b>0.0</b>	<b>0.0</b>	<b>0.8</b>	<b>1.8</b>	<b>3.2</b>	<b>4.7</b>	<b>11.8</b>	<b>20.3</b>	<b>22.0</b>
New Mexico Stable Value Fund (Galliard)	0.0	0.0	0.8	1.8	3.2	4.7	11.8	20.3	22.0
<b>Total Investment Grade Bonds</b>	<b>3.7</b>	<b>5.2</b>	<b>6.7</b>	<b>7.8</b>	<b>13.2</b>	<b>19.7</b>	<b>25.0</b>	<b>30.0</b>	<b>31.0</b>
Vanguard Inflation-Protected Securities	0.8	1.4	2.3	2.9	3.8	4.8	7.8	11.3	12.0
Vanguard Total Bond Market Index	2.9	3.8	4.4	4.9	9.4	14.9	17.2	18.7	19.0
<b>Total Global Bonds</b>	<b>5.3</b>	<b>6.3</b>	<b>7.3</b>	<b>8.7</b>	<b>9.8</b>	<b>10.8</b>	<b>11.8</b>	<b>12.8</b>	<b>13.0</b>
Wellington Opportunistic Emerging Market Debt	2.4	2.9	3.4	3.9	4.4	4.9	5.0	5.0	5.0
Columbia High Yield Bonds	2.9	3.4	3.9	4.8	5.4	5.9	6.8	7.8	8.0
<b>Total Equity</b>	<b>71.8</b>	<b>70.3</b>	<b>67.2</b>	<b>63.7</b>	<b>57.4</b>	<b>50.4</b>	<b>37.8</b>	<b>23.8</b>	<b>21.0</b>
<b>Total Domestic Equity</b>	<b>35.6</b>	<b>35.1</b>	<b>33.8</b>	<b>32.3</b>	<b>29.6</b>	<b>26.6</b>	<b>20.0</b>	<b>12.5</b>	<b>11.0</b>
Vanguard Institutional Index Fund	25.1	24.2	23.2	22.2	20.8	18.9	14.1	9.0	8.0
Principal Mid Cap Equity	3.5	3.7	3.6	3.5	3.1	2.6	2.1	1.2	1.0
T. Rowe Price Mid Cap Growth	3.5	3.7	3.6	3.5	3.1	2.6	2.1	1.2	1.0
DFA US Small Cap Portfolio	3.5	3.5	3.5	3.1	2.6	2.5	1.7	1.1	1.0
<b>Total International Equity</b>	<b>36.2</b>	<b>35.2</b>	<b>33.4</b>	<b>31.4</b>	<b>27.8</b>	<b>23.8</b>	<b>17.8</b>	<b>11.3</b>	<b>10.0</b>
Vanguard Total International Stock Index	19.2	18.2	17.2	16.2	14.4	12.4	9.2	5.7	5.0
American Fund EuroPacific Growth	7.0	7.0	6.2	5.6	5.1	5.0	3.4	2.2	2.0
Aberdeen Emerging Markets	10.0	10.0	10.0	9.6	8.3	6.4	5.2	3.4	3.0
<b>Total Other</b>	<b>19.2</b>	<b>18.2</b>	<b>18.0</b>	<b>18.0</b>	<b>16.4</b>	<b>14.4</b>	<b>13.6</b>	<b>13.1</b>	<b>13.0</b>
<b>Total Core Private Real Estate</b>	<b>11.6</b>	<b>11.1</b>	<b>11.0</b>	<b>11.0</b>	<b>10.2</b>	<b>9.2</b>	<b>8.6</b>	<b>8.1</b>	<b>8.0</b>
Prudential Retirement Real Estate Fund II	11.6	11.1	11.0	11.0	10.2	9.2	8.6	8.1	8.0
<b>Total Diversified Inflation Hedge</b>	<b>7.6</b>	<b>7.1</b>	<b>7.0</b>	<b>7.0</b>	<b>6.2</b>	<b>5.2</b>	<b>5.0</b>	<b>5.0</b>	<b>5.0</b>
Principal Diversified Real Asset Fund	7.6	7.1	7.0	7.0	6.2	5.2	5.0	5.0	5.0

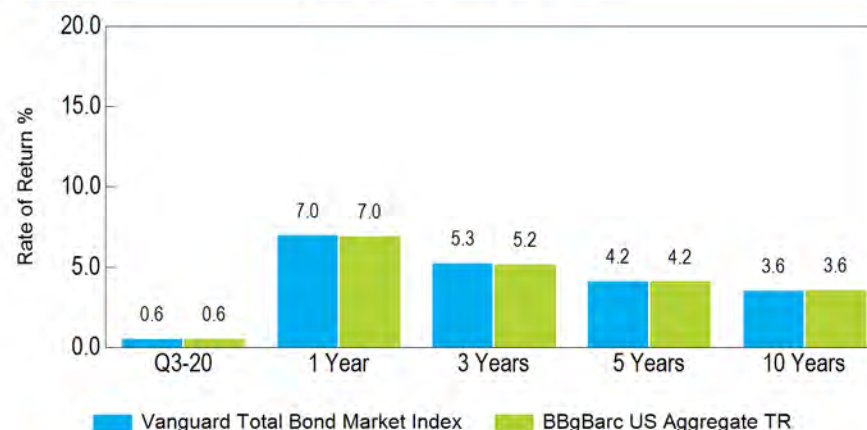
## Portfolio Reviews

### Vanguard Total Bond Market Index | As of September 30, 2020

#### Fund Information as of September 30, 2020

<b>Fund Name</b>	VANGUARD TOTAL BOND MARKET INDEX I
<b>Ticker</b>	VBPIX
<b>Morningstar Category</b>	Intermediate Core Bond
<b>Benchmark</b>	BBgBarc US Aggregate TR
<b>Expense Ratio</b>	0.04%
<b>Fund Assets (\$mm)</b>	52,174.58
<b>Share Class Inception Date</b>	9/18/1995
<b>Manager Tenure</b>	8

#### Return Summary Ending September 30, 2020



#### Fund Characteristics as of September 30, 2020

<b>Sharpe Ratio (3 Year)</b>	1.09
<b>Average Duration</b>	6.56
<b>Average Coupon</b>	2.92
<b>Average Effective Maturity</b>	8.50
<b>R-Squared (3 Year)</b>	0.99
<b>Alpha (3 Year)</b>	0.00%
<b>Beta (3 Year)</b>	1.02

#### Credit Quality as of September 30, 2020

<b>AAA</b>	63.46%
<b>AA</b>	3.67%
<b>A</b>	12.71%
<b>BBB</b>	20.16%
<b>BB</b>	0.00%
<b>B</b>	0.00%
<b>Below B</b>	0.00%
<b>Not Rated</b>	0.00%

#### Fixed Income Sectors as of September 30, 2020

<b>GOVERNMENT</b>	45.84%
<b>MUNICIPAL</b>	0.74%
<b>CORPORATE</b>	29.33%
<b>SECURITIZED</b>	24.02%
<b>CASH &amp; EQUIVALENTS</b>	0.08%
<b>DERIVATIVE</b>	0.00%

<sup>1</sup> The portfolio's equity characteristics are calculated by Morningstar. Index characteristics are calculated by InvestorForce using a different methodology, which accounts for the differences between the portfolio and the index.

### Vanguard Inflation-Protected Securities | As of September 30, 2020

#### Fund Information as of September 30, 2020

<b>Fund Name</b>	VANGUARD INFLATION-PROTECTED SECS I
<b>Ticker</b>	VIPIX
<b>Morningstar Category</b>	Inflation-Protected Bond
<b>Benchmark</b>	BBgBarc US TIPS TR
<b>Expense Ratio</b>	0.07%
<b>Fund Assets (\$mm)</b>	12,137.53
<b>Share Class Inception Date</b>	12/12/2003
<b>Manager Tenure</b>	9

#### Return Summary Ending September 30, 2020



#### Fund Characteristics as of September 30, 2020

<b>Sharpe Ratio (3 Year)</b>	1.14
<b>Average Duration</b>	7.61
<b>Average Coupon</b>	0.77%
<b>Average Effective Maturity</b>	8.40
<b>R-Squared (3 Year)</b>	0.98
<b>Alpha (3 Year)</b>	0.02%
<b>Beta (3 Year)</b>	0.93

#### Credit Quality as of September 30, 2020

<b>AAA</b>	100.00%
<b>AA</b>	0.00%
<b>A</b>	0.00%
<b>BBB</b>	0.00%
<b>BB</b>	0.00%
<b>B</b>	0.00%
<b>Below B</b>	0.00%
<b>Not Rated</b>	0.00%

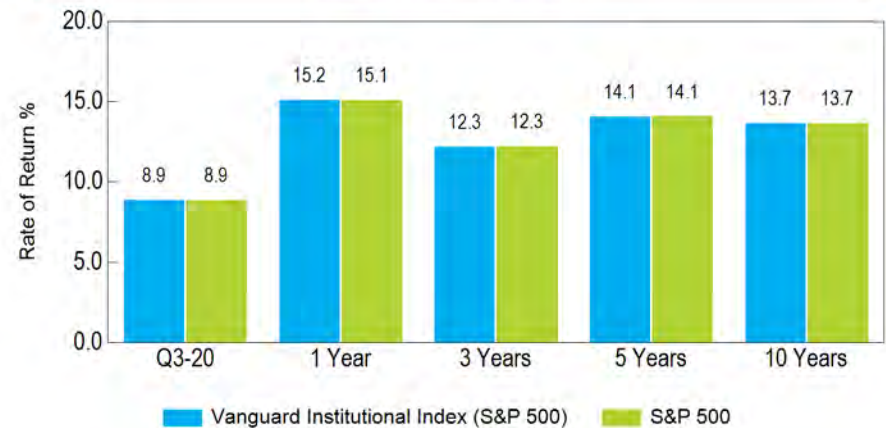
#### Fixed Income Sectors as of September 30, 2020

<b>GOVERNMENT</b>	97.8%
<b>MUNICIPAL</b>	0.0%
<b>CORPORATE</b>	0.0%
<b>SECURITIZED</b>	0.0%
<b>CASH &amp; EQUIVALENTS</b>	2.2%
<b>DERIVATIVE</b>	0.0%

#### Portfolio Fund Information as of September 30, 2020

<b>Ticker</b>	VIIIIX
<b>Morningstar Category</b>	Large Blend
<b>Average Market Cap (\$mm)</b>	156,787.03
<b>Net Assets (\$mm)</b>	128,901.13
<b>% Assets in Top 10 Holdings</b>	28.18
<b>Total Number of Holdings</b>	509
<b>Manager Name</b>	Donald M. Butler
<b>Manager Tenure</b>	20
<b>Expense Ratio</b>	0.02%
<b>Closed to New Investors</b>	No

#### Return Summary Ending September 30, 2020



#### Equity Characteristics Within Mutual Funds as of September 30, 2020

Versus S&P 500

	Portfolio	S&P 500
<b>Average Market Cap (Billions)</b>	156.79	443.23
<b>Price To Earnings</b>	23.30	23.76
<b>Price To Book</b>	3.18	4.44
<b>Return On Equity</b>	27.33	4.13
<b>Dividend Yield</b>	1.91%	1.69%
<b>Beta (3 Year)</b>	1.00	1.00

#### Top Holdings as of September 30, 2020

<b>APPLE INC</b>	6.7%
<b>MICROSOFT CORP</b>	5.8%
<b>AMAZON.COM INC</b>	4.9%
<b>FACEBOOK INC A</b>	2.3%
<b>ALPHABET INC A</b>	1.6%
<b>ALPHABET INC CLASS C</b>	1.6%
<b>BERKSHIRE HATHAWAY INC CLASS B</b>	1.5%
<b>JOHNSON &amp; JOHNSON</b>	1.4%
<b>PROCTER &amp; GAMBLE CO</b>	1.3%
<b>VISA INC CLASS A</b>	1.2%

#### Sector Allocation as of September 30, 2020

<b>BASIC MATERIALS</b>	2.2%
<b>COMMUNICATION SERVICES</b>	10.8%
<b>CONSUMER CYCLICAL</b>	11.3%
<b>CONSUMER DEFENSIVE</b>	7.5%
<b>ENERGY</b>	2.0%
<b>FINANCIAL SERVICES</b>	12.9%
<b>HEALTHCARE</b>	14.3%
<b>INDUSTRIALS</b>	8.6%
<b>REAL ESTATE</b>	2.6%
<b>TECHNOLOGY</b>	24.7%
<b>UTILITIES</b>	3.0%

### Vanguard Total International Stock Index | As of September 30, 2020

Portfolio Fund Information as of September 30, 2020		Top Regions as of September 30, 2020	Return Summary Ending September 30, 2020	
<b>Ticker</b>	VTSNX	<b>EUROZONE</b>	18.96%	
<b>Morningstar Category</b>	Foreign Large Blend	<b>JAPAN</b>	17.25%	
<b>Average Market Cap (\$mm)</b>	25,202.38	<b>ASIA EMERGING</b>	16.23%	
<b>Net Assets (\$mm)</b>	32,394.29	<b>EUROPE EXEIRO</b>	10.64%	
<b>% Assets in Top 10 Holdings</b>	11.08	<b>ASIA DEVELOPED</b>	10.51%	
<b>Total Number of Holdings</b>	7,529			
<b>Manager Name</b>	Michael Perre			
<b>Manager Tenure</b>	12			
<b>Expense Ratio</b>	0.08%			
<b>Closed to New Investors</b>	No			

Equity Characteristics Within Mutual Funds as of September 30, 2020 Versus FTSE All World ex US			Top Holdings as of September 30, 2020		Sector Allocation as of September 30, 2020	
	Portfolio	FTSE All World ex US	<b>ALIBABA GROUP HOLDING LTD ADR</b>	2.1%	<b>BASIC MATERIALS</b>	8.1%
			<b>TENCENT HOLDINGS LTD</b>	1.6%	<b>COMMUNICATION SERVICES</b>	7.8%
			<b>TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD</b>	1.5%	<b>CONSUMER CYCLICAL</b>	12.2%
<b>Average Market Cap (Billions)</b>	25.20	92.45	<b>NESTLE SA</b>	1.3%	<b>CONSUMER DEFENSIVE</b>	9.2%
<b>Price To Earnings</b>	17.20	16.46	<b>ROCHE HOLDING AG DIVIDEND RIGHT CERT.</b>	1.0%	<b>ENERGY</b>	4.1%
<b>Price To Book</b>	1.38	2.84	<b>SAMSUNG ELECTRONICS CO LTD</b>	0.9%	<b>FINANCIAL SERVICES</b>	16.4%
<b>Return On Equity</b>	12.86	10.13	<b>NOVARTIS AG</b>	0.8%	<b>HEALTHCARE</b>	10.4%
<b>Dividend Yield</b>	3.58%	2.63%	<b>SAP SE</b>	0.7%	<b>INDUSTRIALS</b>	12.8%
<b>Beta (3 Year)</b>	1.03	1.00	<b>TOYOTA MOTOR CORP</b>	0.7%	<b>REAL ESTATE</b>	3.6%
<b>R-Squared (3 Year)</b>	0.99	1.00	<b>ASML HOLDING NV</b>	0.6%	<b>TECHNOLOGY</b>	12.1%
					<b>UTILITIES</b>	3.3%

<sup>1</sup> The portfolio's equity characteristics are calculated by Morningstar. Index characteristics are calculated by InvestorForce using a different methodology, which accounts for the differences between the portfolio and the index.

<sup>2</sup> The Spliced Total International Stock Index through August 31, 2006; MSCI EAFE + Emerging Markets Index through December 15, 2010; MSCI ACWI ex USA IMI Index through June 2, 2013; and FTSE Global All Cap ex US Index thereafter.

#### Portfolio Fund Information as of September 30, 2020

<b>Ticker</b>	OAKBX
<b>Morningstar Category</b>	Allocation--50% to 70% Equity
<b>Average Market Cap (\$mm)</b>	52,061.68
<b>Net Assets (\$mm)</b>	5,496.95
<b>% Assets in Top 10 Holdings</b>	37.66
<b>Total Number of Holdings</b>	244
<b>Manager Name</b>	Clyde S. McGregor
<b>Manager Tenure</b>	25
<b>Expense Ratio</b>	0.81%
<b>Closed to New Investors</b>	No

#### Fund Characteristics as of September 30, 2020

Versus 60% S&P 500 & 40% Barclays Aggregate

<b>Sharpe Ratio (3 Year)</b>	0.04
<b>Average Market Cap (\$mm)</b>	52,061.68
<b>Price/Earnings</b>	18.37
<b>Price/Book</b>	1.33
<b>Price/Sales</b>	0.91
<b>Price/Cash Flow</b>	5.59
<b>Dividend Yield</b>	2.61
<b>Number of Equity Holdings</b>	41
<b>R-Squared (3 Year)</b>	0.90
<b>Alpha (3 Year)</b>	-0.83%

#### Return Summary Ending September 30, 2020



#### Top Holdings as of September 30, 2020

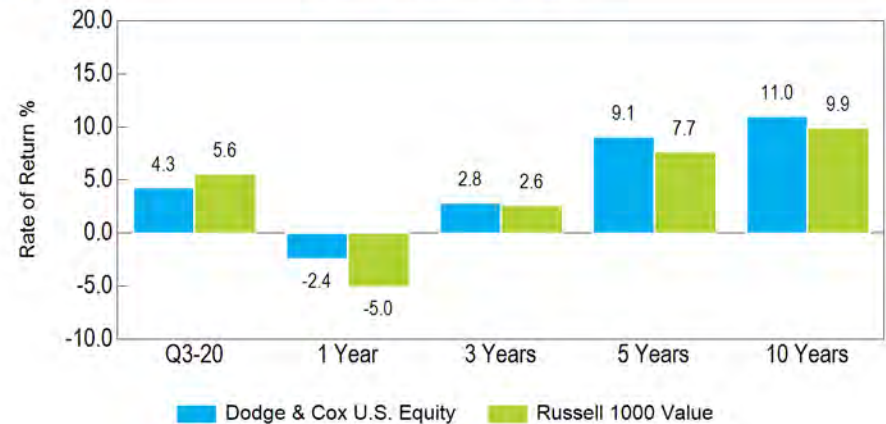
<b>BANK OF AMERICA CORP</b>	5.2%
<b>ALPHABET INC A</b>	5.2%
<b>TE CONNECTIVITY LTD</b>	4.6%
<b>GENERAL MOTORS CO</b>	4.3%
<b>UNITED STATES TREASURY NOTES 2.12%</b>	4.1%
<b>MASTERCARD INC A</b>	3.2%
<b>CHARTER COMMUNICATIONS INC A</b>	2.9%
<b>BORGWARNER INC</b>	2.8%
<b>CVS HEALTH CORP</b>	2.8%
<b>NESTLE SA ADR</b>	2.7%



#### Portfolio Fund Information as of September 30, 2020

Ticker	DODGX
Morningstar Category	Large Value
Average Market Cap (\$mm)	56,478.94
Net Assets (\$mm)	60,597.36
% Assets in Top 10 Holdings	33.70
Total Number of Holdings	75
Manager Name	Bryan Cameron
Manager Tenure	29
Expense Ratio	0.52%
Closed to New Investors	Yes

#### Return Summary Ending September 30, 2020



#### Equity Characteristics Within Mutual Funds as of September 30, 2020 Versus Russell 1000 Value

	Portfolio	Russell 1000 Value
Average Market Cap (Billions)	56.48	115.36
Price To Earnings	14.87	18.71
Price To Book	1.18	2.63
Return On Equity	8.82	1.65
Dividend Yield	3.28%	2.46%
Beta (3 Year)	1.11	1.00
R-Squared (3 Year)	0.97	1.00

#### Top Holdings as of September 30, 2020

FEDEX CORP	4.2%
ALPHABET INC CLASS C	3.6%
CAPITAL ONE FINANCIAL CORP	3.6%
COMCAST CORP CLASS A	3.6%
CHARLES SCHWAB CORP	3.5%
HP INC	3.2%
BANK OF AMERICA CORP	3.1%
WELLS FARGO & CO	3.1%
MICROSOFT CORP	3.0%
CHARTER COMMUNICATIONS INC A	2.9%

#### Sector Allocation as of September 30, 2020

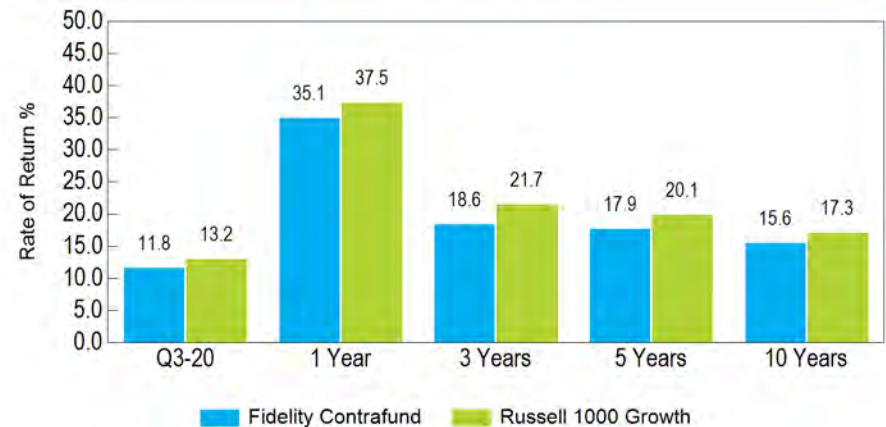
BASIC MATERIALS	1.5%
COMMUNICATION SERVICES	14.0%
CONSUMER CYCLICAL	2.6%
CONSUMER DEFENSIVE	1.0%
ENERGY	7.0%
FINANCIAL SERVICES	26.5%
HEALTHCARE	17.5%
INDUSTRIALS	10.5%
REAL ESTATE	0.0%
TECHNOLOGY	19.3%
UTILITIES	0.0%



#### Portfolio Fund Information as of September 30, 2020

Ticker	FCNKX
Morningstar Category	Large Growth
Average Market Cap (\$mm)	245,014.04
Net Assets (\$mm)	22,606.99
% Assets in Top 10 Holdings	47.97
Total Number of Holdings	330
Manager Name	William Danoff
Manager Tenure	30
Expense Ratio	0.77%
Closed to New Investors	No

#### Return Summary Ending September 30, 2020



#### Equity Characteristics Within Mutual Funds as of September 30, 2020 Versus Russell 1000 Growth

	Portfolio	Russell 1000 Growth
Average Market Cap (Billions)	245.01	652.32
Price To Earnings	33.79	33.38
Price To Book	5.68	9.62
Return On Equity	25.49	6.47
Dividend Yield	0.56%	0.84%
Beta (3 Year)	0.99	1.00
R-Squared (3 Year)	0.98	1.00

#### Top Holdings as of September 30, 2020

AMAZON.COM INC	9.5%
FACEBOOK INC A	8.5%
MICROSOFT CORP	5.7%
BERKSHIRE HATHAWAY INC CLASS A	4.7%
SALESFORCE.COM INC	4.5%
ADOBE INC	3.4%
APPLE INC	3.0%
VISA INC CLASS A	2.9%
UNITEDHEALTH GROUP INC	2.9%
NETFLIX INC	2.9%

#### Sector Allocation as of September 30, 2020

BASIC MATERIALS	2.7%
COMMUNICATION SERVICES	18.9%
CONSUMER CYCLICAL	14.1%
CONSUMER DEFENSIVE	3.3%
ENERGY	0.5%
FINANCIAL SERVICES	13.4%
HEALTHCARE	14.6%
INDUSTRIALS	2.4%
REAL ESTATE	0.8%
TECHNOLOGY	29.1%
UTILITIES	0.2%

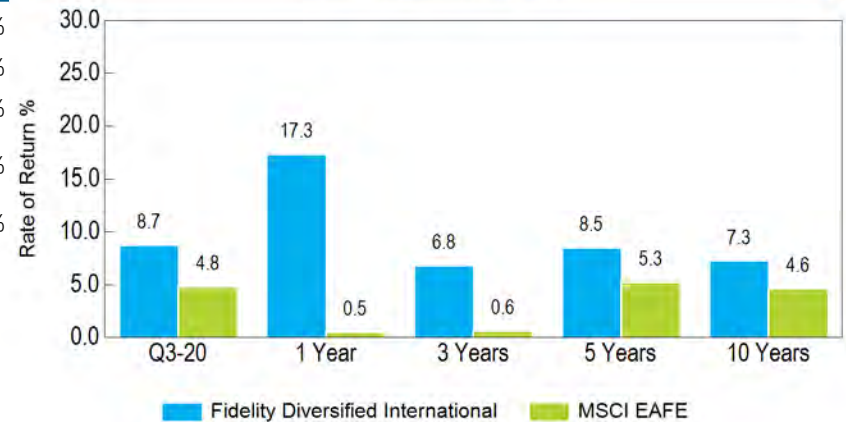
#### Portfolio Fund Information as of September 30, 2020

<b>Ticker</b>	FDIKX
<b>Morningstar Category</b>	Foreign Large Growth
<b>Average Market Cap (\$mm)</b>	51,844.50
<b>Net Assets (\$mm)</b>	3,917.49
<b>% Assets in Top 10 Holdings</b>	23.40
<b>Total Number of Holdings</b>	160
<b>Manager Name</b>	William Bower
<b>Manager Tenure</b>	20
<b>Expense Ratio</b>	0.63%
<b>Closed to New Investors</b>	No

#### Top Regions as of September 30, 2020

<b>EUROZONE</b>	27.51%
<b>JAPAN</b>	19.57%
<b>EUROPE EXEURO</b>	13.86%
<b>UNITED KINGDOM</b>	10.99%
<b>ASIA EMERGING</b>	10.49%

#### Return Summary Ending September 30, 2020



#### Equity Characteristics Within Mutual Funds as of September 30, 2020 Versus MSCI EAFE

	Portfolio	MSCI EAFE
<b>Average Market Cap (Billions)</b>	51.84	64.79
<b>Price To Earnings</b>	26.04	19.25
<b>Price To Book</b>	3.19	2.90
<b>Return On Equity</b>	17.09	10.72
<b>Dividend Yield</b>	1.67%	2.70%
<b>Beta (3 Year)</b>	0.99	1.00
<b>R-Squared (3 Year)</b>	0.94	1.00

#### Top Holdings as of September 30, 2020

<b>FIDELITY REVERE STR TR</b>	5.2%
<b>ROCHE HOLDING AG DIVIDEND RIGHT CERT.</b>	2.6%
<b>SAP SE</b>	2.5%
<b>ASML HOLDING NV ADR</b>	2.4%
<b>NESTLE SA</b>	2.4%
<b>KEYENCE CORP</b>	1.8%
<b>HOYA CORP</b>	1.7%
<b>RELIANCE INDUSTRIES LTD</b>	1.7%
<b>AIA GROUP LTD</b>	1.6%
<b>LONDON STOCK EXCHANGE GROUP PLC</b>	1.6%

#### Sector Allocation as of September 30, 2020

<b>BASIC MATERIALS</b>	6.1%
<b>COMMUNICATION SERVICES</b>	6.9%
<b>CONSUMER CYCLICAL</b>	7.7%
<b>CONSUMER DEFENSIVE</b>	9.0%
<b>ENERGY</b>	1.9%
<b>FINANCIAL SERVICES</b>	15.3%
<b>HEALTHCARE</b>	16.8%
<b>INDUSTRIALS</b>	13.3%
<b>REAL ESTATE</b>	1.3%
<b>TECHNOLOGY</b>	19.0%
<b>UTILITIES</b>	2.7%

#### Portfolio Fund Information as of September 30, 2020

<b>Ticker</b>	RERGX
<b>Morningstar Category</b>	Foreign Large Growth
<b>Average Market Cap (\$mm)</b>	54,791.57
<b>Net Assets (\$mm)</b>	76,867.69
<b>% Assets in Top 10 Holdings</b>	22.01
<b>Total Number of Holdings</b>	332
<b>Manager Name</b>	Carl M. Kawaja
<b>Manager Tenure</b>	19
<b>Expense Ratio</b>	0.46%
<b>Closed to New Investors</b>	No

#### Top Regions as of September 30, 2020

<b>EUROZONE</b>	23.57%
<b>ASIA EMERGING</b>	21.65%
<b>JAPAN</b>	15.23%
<b>ASIA DEVELOPED</b>	8.93%
<b>UNITED KINGDOM</b>	8.40%

#### Return Summary Ending September 30, 2020



#### Equity Characteristics Within Mutual Funds as of September 30, 2020 Versus MSCI ACWI ex USA

	Portfolio	MSCI ACWI ex USA
<b>Average Market Cap (Billions)</b>	54.79	97.19
<b>Price To Earnings</b>	26.83	16.54
<b>Price To Book</b>	2.27	2.86
<b>Return On Equity</b>	12.41	10.38
<b>Dividend Yield</b>	1.82%	2.63%
<b>Beta (3 Year)</b>	1.05	1.00
<b>R-Squared (3 Year)</b>	0.96	1.00

#### Top Holdings as of September 30, 2020

<b>RELIANCE INDUSTRIES LTD</b>	3.8%
<b>ALIBABA GROUP HOLDING LTD</b>	2.8%
<b>ORDINARY SHARES</b>	
<b>ASML HOLDING NV</b>	2.5%
<b>AIA GROUP LTD</b>	2.3%
<b>DAIICHI SANKYO CO LTD</b>	2.2%
<b>MERCADOLIBRE INC</b>	1.8%
<b>SHOPIFY INC A</b>	1.8%
<b>KEYENCE CORP</b>	1.7%
<b>TAIWAN SEMICONDUCTORS</b>	1.6%

#### Sector Allocation as of September 30, 2020

<b>BASIC MATERIALS</b>	5.6%
<b>COMMUNICATION SERVICES</b>	8.1%
<b>CONSUMER CYCLICAL</b>	16.5%
<b>CONSUMER DEFENSIVE</b>	5.4%
<b>ENERGY</b>	6.2%
<b>FINANCIAL SERVICES</b>	14.0%
<b>HEALTHCARE</b>	14.9%
<b>INDUSTRIALS</b>	8.7%
<b>REAL ESTATE</b>	1.3%
<b>TECHNOLOGY</b>	16.6%
<b>UTILITIES</b>	2.8%

#### Portfolio Fund Information as of September 30, 2020

Ticker	PCBIX
Morningstar Category	Mid-Cap Growth
Average Market Cap (\$mm)	19,704.07
Net Assets (\$mm)	12,428.64
% Assets in Top 10 Holdings	30.10
Total Number of Holdings	86
Manager Name	K. William Nolin
Manager Tenure	20
Expense Ratio	0.70%
Closed to New Investors	No

#### Return Summary Ending September 30, 2020



#### Equity Characteristics Within Mutual Funds as of September 30, 2020

Versus Russell MidCap

	Portfolio	Russell MidCap
Average Market Cap (Billions)	19.70	17.03
Price To Earnings	31.20	22.39
Price To Book	2.86	3.49
Return On Equity	15.35	2.52
Dividend Yield	0.79%	1.59%
Beta (3 Year)	0.97	1.00
R-Squared (3 Year)	0.94	1.00

#### Top Holdings as of September 30, 2020

TRANSDIGM GROUP INC	4.1%
BROOKFIELD ASSET MANAGEMENT INC CLASS A	3.9%
CARMAX INC	3.1%
COPART INC	3.0%
SBA COMMUNICATIONS CORP	2.9%
BLACK KNIGHT INC A	2.9%
O'REILLY AUTOMOTIVE INC	2.7%
WIX.COM LTD	2.6%
AUTODESK INC	2.6%
VULCAN MATERIALS CO	2.4%

#### Sector Allocation as of September 30, 2020

BASIC MATERIALS	4.7%
COMMUNICATION SERVICES	6.4%
CONSUMER CYCLICAL	17.4%
CONSUMER DEFENSIVE	1.1%
ENERGY	0.0%
FINANCIAL SERVICES	19.6%
HEALTHCARE	2.8%
INDUSTRIALS	16.2%
REAL ESTATE	8.8%
TECHNOLOGY	20.5%
UTILITIES	2.5%

#### Portfolio Fund Information as of September 30, 2020

<b>Ticker</b>	PMEGX
<b>Morningstar Category</b>	Mid-Cap Growth
<b>Average Market Cap (\$mm)</b>	16,237.74
<b>Net Assets (\$mm)</b>	7,341.06
<b>% Assets in Top 10 Holdings</b>	20.40
<b>Total Number of Holdings</b>	145
<b>Manager Name</b>	Brian W.H. Berghuis
<b>Manager Tenure</b>	24
<b>Expense Ratio</b>	0.61%
<b>Closed to New Investors</b>	Yes

#### Return Summary Ending September 30, 2020



#### Equity Characteristics Within Mutual Funds as of September 30, 2020

Versus Russell MidCap Growth

	Portfolio	Russell MidCap Growth
<b>Average Market Cap (Billions)</b>	16.24	19.88
<b>Price To Earnings</b>	28.27	34.83
<b>Price To Book</b>	3.71	9.99
<b>Return On Equity</b>	10.35	3.05
<b>Dividend Yield</b>	0.71%	0.54%
<b>Beta (3 Year)</b>	0.98	1.00
<b>R-Squared (3 Year)</b>	0.96	1.00

#### Top Holdings as of September 30, 2020

<b>RESERVE INVT FDS</b>	2.8%
<b>HOLOGIC INC</b>	2.7%
<b>BALL CORP</b>	2.4%
<b>TELEFLEX INC</b>	2.2%
<b>CATALENT INC</b>	2.0%
<b>AGILENT TECHNOLOGIES INC</b>	1.8%
<b>MICROCHIP TECHNOLOGY INC</b>	1.7%
<b>MARVELL TECHNOLOGY GROUP LTD</b>	1.6%
<b>MATCH GROUP INC</b>	1.6%
<b>DOCUSIGN INC</b>	1.6%

#### Sector Allocation as of September 30, 2020

<b>BASIC MATERIALS</b>	2.4%
<b>COMMUNICATION SERVICES</b>	3.6%
<b>CONSUMER CYCLICAL</b>	16.1%
<b>CONSUMER DEFENSIVE</b>	4.5%
<b>ENERGY</b>	0.9%
<b>FINANCIAL SERVICES</b>	5.7%
<b>HEALTHCARE</b>	25.7%
<b>INDUSTRIALS</b>	14.8%
<b>REAL ESTATE</b>	1.2%
<b>TECHNOLOGY</b>	23.7%
<b>UTILITIES</b>	1.4%



#### Portfolio Fund Information as of September 30, 2020

Ticker	FLPKX
Morningstar Category	Mid-Cap Value
Average Market Cap (\$mm)	7,936.54
Net Assets (\$mm)	4,296.13
% Assets in Top 10 Holdings	31.58
Total Number of Holdings	809
Manager Name	Joel C. Tillinghast
Manager Tenure	31
Expense Ratio	0.43%
Closed to New Investors	No

#### Return Summary Ending September 30, 2020



#### Equity Characteristics Within Mutual Funds as of September 30, 2020 Versus Russell 2500 Value

	Portfolio	Russell 2500 Value
Average Market Cap (Billions)	7.94	4.80
Price To Earnings	13.14	17.24
Price To Book	1.16	2.06
Return On Equity	19.34	2.77
Dividend Yield	2.97%	2.10%
Beta (3 Year)	0.77	1.00
R-Squared (3 Year)	0.93	1.00

#### Top Holdings as of September 30, 2020

UNITEDHEALTH GROUP INC	5.5%
METRO INC	4.4%
NEXT PLC	3.5%
AUTOZONE INC	3.2%
ROSS STORES INC	3.2%
SEAGATE TECHNOLOGY PLC	2.6%
AMGEN INC	2.5%
METLIFE INC	2.3%
MONSTER BEVERAGE CORP	2.2%
ANTHEM INC	2.2%

#### Sector Allocation as of September 30, 2020

BASIC MATERIALS	3.9%
COMMUNICATION SERVICES	1.8%
CONSUMER CYCLICAL	23.3%
CONSUMER DEFENSIVE	14.5%
ENERGY	3.9%
FINANCIAL SERVICES	11.2%
HEALTHCARE	13.1%
INDUSTRIALS	7.8%
REAL ESTATE	0.2%
TECHNOLOGY	15.1%
UTILITIES	2.2%

#### Portfolio Fund Information as of September 30, 2020

<b>Ticker</b>	DFSTX
<b>Morningstar Category</b>	Small Blend
<b>Average Market Cap (\$mm)</b>	1,897.12
<b>Net Assets (\$mm)</b>	13,078.28
<b>% Assets in Top 10 Holdings</b>	4.08
<b>Total Number of Holdings</b>	2,014
<b>Manager Name</b>	Jed S. Fogdall
<b>Manager Tenure</b>	9
<b>Expense Ratio</b>	0.35%
<b>Closed to New Investors</b>	No

#### Return Summary Ending September 30, 2020



#### Equity Characteristics Within Mutual Funds as of September 30, 2020

Versus Russell 2000

	Portfolio	Russell 2000
<b>Average Market Cap (Billions)</b>	1.90	2.45
<b>Price To Earnings</b>	15.67	17.92
<b>Price To Book</b>	1.45	2.86
<b>Return On Equity</b>	7.36	-0.90
<b>Dividend Yield</b>	1.67%	1.31%
<b>Beta (3 Year)</b>	1.01	1.00
<b>R-Squared (3 Year)</b>	0.99	1.00

#### Top Holdings as of September 30, 2020

<b>S+P500 EMINI FUT DEC20 XCME</b>	0.6%
<b>20201218</b>	
<b>QUIDEL CORP</b>	0.5%
<b>LITHIA MOTORS INC CLASS A</b>	0.4%
<b>TOPBUILD CORP</b>	0.4%
<b>DARLING INGREDIENTS INC</b>	0.4%
<b>LHC GROUP INC</b>	0.4%
<b>TETRA TECH INC</b>	0.4%
<b>TREX CO INC</b>	0.4%
<b>AMEDISYS INC</b>	0.4%
<b>HELEN OF TROY LTD</b>	0.3%

#### Sector Allocation as of September 30, 2020

<b>BASIC MATERIALS</b>	4.6%
<b>COMMUNICATION SERVICES</b>	3.3%
<b>CONSUMER CYCLICAL</b>	15.1%
<b>CONSUMER DEFENSIVE</b>	5.8%
<b>ENERGY</b>	2.5%
<b>FINANCIAL SERVICES</b>	18.0%
<b>HEALTHCARE</b>	10.9%
<b>INDUSTRIALS</b>	22.0%
<b>REAL ESTATE</b>	0.5%
<b>TECHNOLOGY</b>	14.0%
<b>UTILITIES</b>	3.1%

### Wellington Opportunistic Emerging Market Debt | As of September 30, 2020

#### Account Information

Account Name	Wellington Opportunistic Emerging Market Debt
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	5/01/10
Account Type	Global Fixed Income
Benchmark	JP Morgan EMBI Global TR
Universe	eV Emg Mkts Fixed Inc - Hard Currency Net

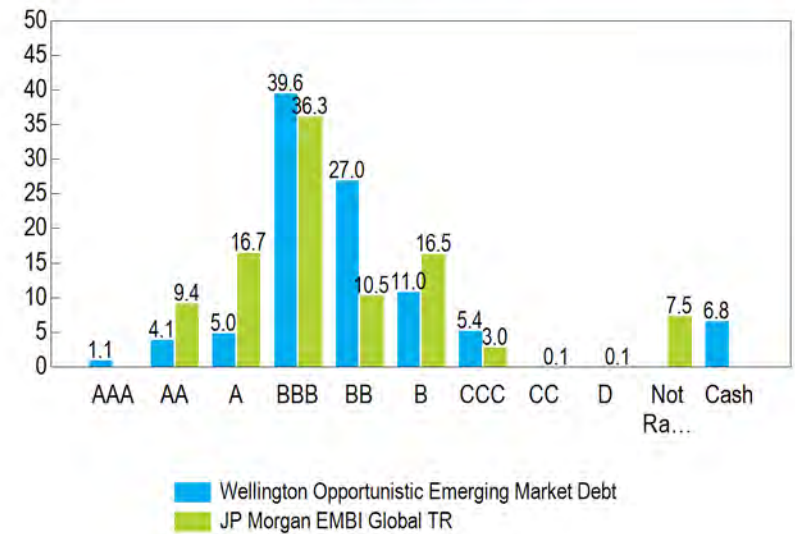
#### Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Wellington Opportunistic Emerging Market Debt	2.5	1.0	4.0	3.6	7.0	5.6	6.0	May-10
JP Morgan EMBI Global TR	2.3	0.4	2.5	3.3	6.0	5.2	5.8	May-10
eV Emg Mkts Fixed Inc - Hard Currency Net Median	2.9	-0.8	1.9	2.5	6.3	5.0	5.5	May-10
eV Emg Mkts Fixed Inc - Hard Currency Net Rank	73	18	17	29	13	17	21	May-10

#### Wellington Emerging Market Debt Fixed Income Characteristics vs. JP Morgan EMBI Global TR

	Portfolio Q3-20	Index Q3-20
Fixed Income Characteristics		
Yield to Maturity	4.61	4.21
Average Duration	8.27	8.16
Average Quality	BBB	BBB

#### Credit Quality Allocation



#### Fixed Income Sectors as of September 30, 2020

GOVERNMENT	70.6%
MUNICIPAL	0.0%
CORPORATE	27.4%
SECURITIZED	0.0%
CASH & EQUIVALENTS	2.0%
DERIVATIVE	0.0%



#### Portfolio Fund Information as of September 30, 2020

<b>Ticker</b>	PDRDX
<b>Morningstar Category</b>	World Allocation
<b>Average Market Cap (\$mm)</b>	13,137.64
<b>Net Assets (\$mm)</b>	1,924.30
<b>% Assets in Top 10 Holdings</b>	19.11
<b>Total Number of Holdings</b>	1,023
<b>Manager Name</b>	Kelly A. Grossman
<b>Manager Tenure</b>	11
<b>Expense Ratio</b>	0.84%
<b>Closed to New Investors</b>	No

#### Fund Characteristics as of September 30, 2020

Versus Real Asset Custom Benchmark

<b>Sharpe Ratio (3 Year)</b>	-0.08
<b>Average Market Cap (\$mm)</b>	13,137.64
<b>Price/Earnings</b>	19.68
<b>Price/Book</b>	1.41
<b>Price/Sales</b>	1.32
<b>Price/Cash Flow</b>	7.01
<b>Dividend Yield</b>	4.50
<b>Number of Equity Holdings</b>	344
<b>R-Squared (3 Year)</b>	0.93
<b>Alpha (3 Year)</b>	-0.40%

#### Return Summary Ending September 30, 2020



#### Top Holdings as of September 30, 2020

<b>DRACAY CREDIT SUISSE - 30</b>	9.7%
<b>PRINCIPAL GOVERNMENT MONEY MARKET INSTL</b>	2.0%
<b>2 YEAR TREASURY NOTE FUTURE DEC 20</b>	1.9%
<b>5 YEAR TREASURY NOTE FUTURE DEC 20</b>	0.9%
<b>UNITED STATES TREASURY NOTES 0.75%</b>	0.8%
<b>TRANSURBAN GROUP</b>	0.8%
<b>UNITED STATES TREASURY NOTES 0.12%</b>	0.8%
<b>UNITED STATES TREASURY NOTES 0.38%</b>	0.8%
<b>UNITED STATES TREASURY NOTES 0.38%</b>	0.8%
<b>UNITED STATES TREASURY NOTES 0.5%</b>	0.7%

<sup>1</sup> The Real Asset Custom Benchmark is comprised of 40% Barclays U.S. TIPS, 40% MSCI ACWI, and 20% Bloomberg Commodity Index.

### Aberdeen Emerging Markets Equity | As of September 30, 2020

#### Portfolio Fund Information as of September 30, 2020

<b>Ticker</b>	ABEMX
<b>Morningstar Category</b>	Diversified Emerging Mkts
<b>Average Market Cap (\$mm)</b>	70,653.52
<b>Net Assets (\$mm)</b>	3,341.06
<b>% Assets in Top 10 Holdings</b>	42.78
<b>Total Number of Holdings</b>	60
<b>Manager Name</b>	Mark Gordon-James
<b>Manager Tenure</b>	13
<b>Expense Ratio</b>	1.10%
<b>Closed to New Investors</b>	No

#### Top Regions as of September 30, 2020

<b>ASIA EMERGING</b>	52.79%
<b>ASIA DEVELOPED</b>	26.59%
<b>LATIN AMERICA</b>	9.86%
<b>EUROPE EMERGING</b>	4.28%
<b>EUROZONE</b>	3.48%

#### Return Summary Ending September 30, 2020



#### Equity Characteristics Within Mutual Funds as of September 30, 2020 Versus MSCI Emerging Markets

	Portfolio	MSCI Emerging Markets
<b>Average Market Cap (Billions)</b>	70.65	178.51
<b>Price To Earnings</b>	20.15	12.55
<b>Price To Book</b>	2.70	3.07
<b>Return On Equity</b>	15.90	9.69
<b>Dividend Yield</b>	2.24%	2.32%
<b>Beta (3 Year)</b>	1.06	1.00
<b>R-Squared (3 Year)</b>	0.95	1.00

#### Top Holdings as of September 30, 2020

<b>TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD</b>	8.6%
<b>TENCENT HOLDINGS LTD</b>	8.5%
<b>SAMSUNG ELECTRONICS CO LTD PARTICIPATING PREFERRED</b>	8.0%
<b>PING AN INSURANCE (GROUP) CO. OF CHINA LTD CLASS H</b>	3.5%
<b>MEITUAN</b>	2.9%
<b>HOUSING DEVELOPMENT FINANCE CORP LTD</b>	2.4%
<b>NASPERS LTD CLASS N</b>	2.2%
<b>LG CHEM LTD</b>	2.2%
<b>PROSUS NV ORDINARY SHARES - CLASS N</b>	2.2%

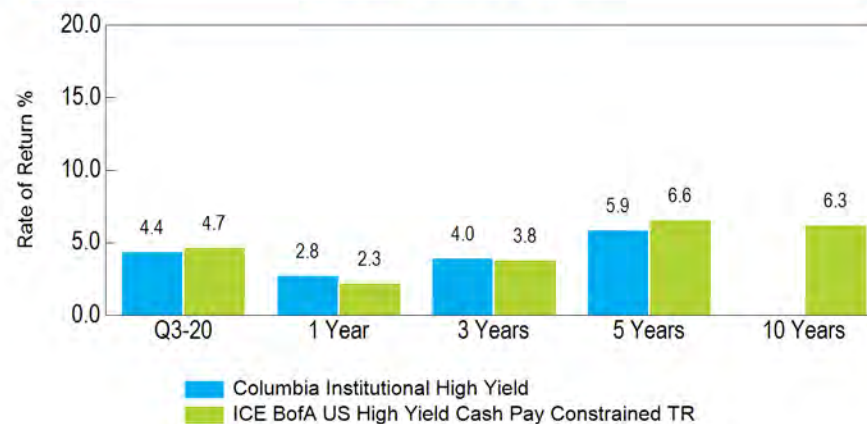
#### Sector Allocation as of September 30, 2020

<b>BASIC MATERIALS</b>	6.1%
<b>COMMUNICATION SERVICES</b>	16.3%
<b>CONSUMER CYCLICAL</b>	12.1%
<b>CONSUMER DEFENSIVE</b>	7.5%
<b>ENERGY</b>	2.7%
<b>FINANCIAL SERVICES</b>	19.3%
<b>HEALTHCARE</b>	2.1%
<b>INDUSTRIALS</b>	3.8%
<b>REAL ESTATE</b>	3.6%
<b>TECHNOLOGY</b>	25.5%
<b>UTILITIES</b>	1.0%

#### Fund Information as of September 30, 2020

<b>Fund Name</b>	COLUMBIA HIGH YIELD BOND INST3
<b>Ticker</b>	CHYYX
<b>Morningstar Category</b>	High Yield Bond
<b>Benchmark</b>	ICE BofA US High Yield Cash Pay Constrained TR
<b>Expense Ratio</b>	0.63%
<b>Fund Assets (\$mm)</b>	396.19
<b>Share Class Inception Date</b>	11/8/2012
<b>Manager Tenure</b>	10

#### Return Summary Ending September 30, 2020



#### Fund Characteristics as of September 30, 2020

<b>Sharpe Ratio (3 Year)</b>	0.26
<b>Average Duration</b>	4.10
<b>Average Coupon</b>	5.84%
<b>Average Effective Maturity</b>	4.93
<b>R-Squared (3 Year)</b>	0.98
<b>Alpha (3 Year)</b>	0.01%
<b>Beta (3 Year)</b>	0.99

#### Credit Quality as of September 30, 2020

<b>AAA</b>	1.3%
<b>AA</b>	0.0%
<b>A</b>	0.0%
<b>BBB</b>	1.5%
<b>BB</b>	42.4%
<b>B</b>	38.3%
<b>Below B</b>	15.2%
<b>Not Rated</b>	1.3%

#### Fixed Income Sectors as of September 30, 2020

<b>GOVERNMENT</b>	0.0%
<b>MUNICIPAL</b>	0.0%
<b>CORPORATE</b>	98.0%
<b>SECURITIZED</b>	0.0%
<b>CASH &amp; EQUIVALENTS</b>	2.0%
<b>DERIVATIVE</b>	0.0%

<sup>1</sup> Columbia Institutional High Yield is a component of the LifeCycle Funds only and is not available as a participant directed investment option.

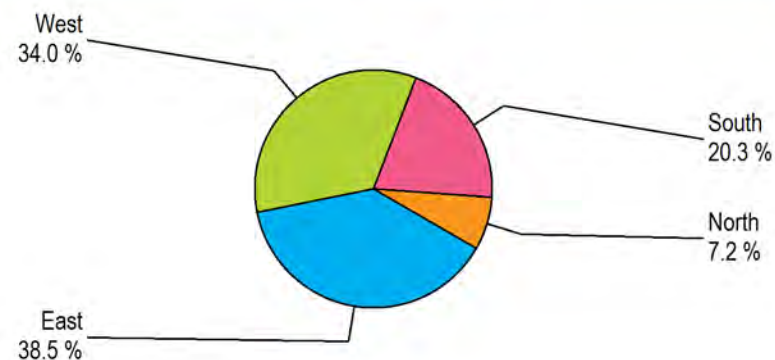
### Prudential Retirement Real Estate Fund II | As of September 30, 2020

#### Account Information

Account Name	Prudential Retirement Real Estate Fund II
Account Structure	Other
Investment Style	Active
Inception Date	1/01/18
Account Type	Real Estate
Benchmark	PRREF II Custom Benchmark
Expense Ratio	0.90%

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Inception (%)	Inception Date
Prudential Retirement Real Estate Fund II	0.4	-2.4	-1.3	--	--	4.1	Jan-18
PRREF II Custom Benchmark	0.6	-2.5	-1.4	--	--	4.2	Jan-18

#### Geographic Diversification Allocation as of September 30, 2020



#### Property Type Allocation Allocation as of September 30, 2020



<sup>1</sup> The PRREF II Custom Benchmark is comprised of 15% MSCI REIT and 85% NCREIF ODCE Index.

**Benchmark History**  
**As of September 30, 2020**
**New Mexico Conservative Portfolio**

1/1/2020	Present	22% Citigroup 3-month Treasury Bill + 1% / 19% BBgBarc US Aggregate TR / 12% BBgBarc US TIPS TR / 5% FTSE WGBI TR / 8% BBgBarc US High Yield TR / 8% S&P 500 / 3% Russell 2500 / 7% MSCI ACWI ex USA / 3% MSCI Emerging Markets / 8% PRREF II Custom Benchmark / 5% Real Asset Custom Benchmark
1/1/2019	12/31/2019	22% Citigroup 3-month Treasury Bill + 1% / 19% BBgBarc US Aggregate TR / 12% BBgBarc US TIPS TR / 5% FTSE WGBI TR / 8% BBgBarc US High Yield TR / 8% S&P 500 / 3% Russell 2500 / 7% MSCI ACWI ex USA / 3% MSCI Emerging Markets / 8% PRREF II Custom Benchmark / 5% Real Asset Custom Benchmark
1/1/2018	12/31/2018	22% Citigroup 3-month Treasury Bill + 1% / 19% BBgBarc US Aggregate TR / 12% BBgBarc US TIPS TR / 5% FTSE WGBI TR / 8% BBgBarc US High Yield TR / 8% S&P 500 / 3% Russell 2500 / 7% MSCI ACWI ex USA / 3% MSCI Emerging Markets / 8% PRREF II Custom Benchmark / 5% Real Asset Custom Benchmark
1/1/2017	12/31/2017	22% Citigroup 3-month Treasury Bill + 1% / 19% BBgBarc US Aggregate TR / 12% BBgBarc US TIPS TR / 5% FTSE WGBI TR / 8% BBgBarc US High Yield TR / 8% S&P 500 / 3% Russell 2500 / 7% MSCI ACWI ex USA / 3% MSCI Emerging Markets / 8% FTSE EPRA/NAREIT Global Real Estate Index / 5% Real Asset Custom Benchmark
5/1/2016	12/31/2016	22% FTSE T-Bill 3 Months TR / 12% BBgBarc US TIPS TR / 22% BBgBarc US Aggregate TR / 10% S&P 500 / 3% Russell 2500 / 8% MSCI EAFE / 6% FTSE WGBI TR / 8% FTSE EPRA/NAREIT Global Real Estate Index / 4% MSCI Emerging Markets / 5% Real Asset Custom Benchmark

**New Mexico LifeCycle 2020 Portfolio**

1/1/2020	Present	20.3% Citigroup 3-month Treasury Bill + 1% / 18.7% BBgBarc US Aggregate TR / 11.3% BBgBarc US TIPS TR / 5% FTSE WGBI TR / 7.8% BBgBarc US High Yield TR / 9% S&P 500 / 3.5% Russell 2500 / 7.9% MSCI ACWI ex USA / 3.4% MSCI Emerging Markets / 8.1% PRREF II Custom Benchmark / 5% Real Asset Custom Benchmark
1/1/2019	12/31/2019	18.6% Citigroup 3-month Treasury Bill + 1% / 18.4% BBgBarc US Aggregate TR / 10.6% BBgBarc US TIPS TR / 5% FTSE WGBI TR / 7.6% BBgBarc US High Yield TR / 10% S&P 500 / 4% Russell 2500 / 8.8% MSCI ACWI ex USA / 3.8% MSCI Emerging Markets / 8.2% PRREF II Custom Benchmark / 5% Real Asset Custom Benchmark
1/1/2018	12/31/2018	16.9% Citigroup 3-month Treasury Bill + 1% / 18.1% BBgBarc US Aggregate TR / 9.9% BBgBarc US TIPS TR / 5% FTSE WGBI TR / 7.4% BBgBarc US High Yield TR / 11% S&P 500 / 4.5% Russell 2500 / 9.7% MSCI ACWI ex USA / 4.2% MSCI Emerging Markets / 8.3% PRREF II Custom Benchmark / 5% Real Asset Custom Benchmark

1/1/2017	12/31/2017	15.2% Citigroup 3-month Treasury Bill + 1% / 17.8% BBgBarc US Aggregate TR / 9.2% BBgBarc US TIPS TR / 5% FTSE WGBI TR / 7.2% BBgBarc US High Yield TR / 12% S&P 500 / 5% Russell 2500 / 10.6% MSCI ACWI ex USA / 4.6% MSCI Emerging Markets / 8.4% FTSE EPRA/NAREIT Global Real Estate Index / 5% Real Asset Custom Benchmark
6/30/2016	12/31/2016	13.5% FTSE T-Bill 3 Months TR / 8.5% BBgBarc US TIPS TR / 20.5% BBgBarc US Aggregate TR / 14.3% S&P 500 / 5.8% Russell 2500 / 12.5% MSCI EAFE / 6% FTSE WGBI TR / 8.5% FTSE EPRA/NAREIT Global Real Estate Index / 5.5% MSCI Emerging Markets / 5% Real Asset Custom Benchmark
New Mexico LifeCycle 2025 Portfolio		
1/1/2020	Present	11.8% Citigroup 3-month Treasury Bill + 1% / 17.2% BBgBarc US Aggregate TR / 7.8% BBgBarc US TIPS TR / 5% FTSE WGBI TR / 6.8% BBgBarc US High Yield TR / 14.1% S&P 500 / 5.9% Russell 2500 / 12.6% MSCI ACWI ex USA / 5.2% MSCI Emerging Markets / 8.6% PRREF II Custom Benchmark / 5% Real Asset Custom Benchmark
1/1/2019	12/31/2019	10.1% Citigroup 3-month Treasury Bill + 1% / 16.9% BBgBarc US Aggregate TR / 7.1% BBgBarc US TIPS TR / 5% FTSE WGBI TR / 6.6% BBgBarc US High Yield TR / 15.2% S&P 500 / 6.3% Russell 2500 / 13.7% MSCI ACWI ex USA / 5.4% MSCI Emerging Markets / 8.7% PRREF II Custom Benchmark / 5% Real Asset Custom Benchmark
1/1/2018	12/31/2018	8.4% Citigroup 3-month Treasury Bill + 1% / 16.6% BBgBarc US Aggregate TR / 6.4% BBgBarc US TIPS TR / 5% FTSE WGBI TR / 6.4% BBgBarc US High Yield TR / 16.3% S&P 500 / 6.7% Russell 2500 / 14.8% MSCI ACWI ex USA / 5.6% MSCI Emerging Markets / 8.8% PRREF II Custom Benchmark / 5% Real Asset Custom Benchmark
1/1/2017	12/31/2017	6.7% Citigroup 3-month Treasury Bill + 1% / 16.3% BBgBarc US Aggregate TR / 5.7% BBgBarc US TIPS TR / 5% FTSE WGBI TR / 6.2% BBgBarc US High Yield TR / 17.4% S&P 500 / 7.1% Russell 2500 / 15.9% MSCI ACWI ex USA / 5.8% MSCI Emerging Markets / 8.9% FTSE EPRA/NAREIT Global Real Estate Index / 5% Real Asset Custom Benchmark
5/1/2016	12/31/2016	5% FTSE T-Bill 3 Months TR / 5% BBgBarc US TIPS TR / 19% BBgBarc US Aggregate TR / 18.5% S&P 500 / 8.5% Russell 2500 / 17% MSCI EAFE / 6% FTSE WGBI TR / 9% FTSE EPRA/NAREIT Global Real Estate Index / 7% MSCI Emerging Markets / 5% Real Asset Custom Benchmark
New Mexico LifeCycle 2030 Portfolio		
1/1/2020	Present	4.7% Citigroup 3-month Treasury Bill + 1% / 14.9% BBgBarc US Aggregate TR / 4.8% BBgBarc US TIPS TR / 4.9% FTSE WGBI TR / 5.9% BBgBarc US High Yield TR / 18.9% S&P 500 / 7.7% Russell 2500 / 17.4% MSCI ACWI ex USA / 6.4% MSCI Emerging Markets / 9.2% PRREF II Custom Benchmark / 5.2% Real Asset Custom Benchmark
1/1/2019	12/31/2019	4.4% Citigroup 3-month Treasury Bill + 1% / 13.8% BBgBarc US Aggregate TR / 4.6% BBgBarc US TIPS TR / 4.8% FTSE WGBI TR / 5.8% BBgBarc US High Yield TR / 19.3% S&P 500 / 7.9% Russell 2500 / 17.8% MSCI ACWI ex USA / 6.8% MSCI Emerging Markets / 9.4% PRREF II Custom Benchmark / 5.4% Real Asset Custom Benchmark
1/1/2018	12/31/2018	4.1% Citigroup 3-month Treasury Bill + 1% / 12.7% BBgBarc US Aggregate TR / 4.4% BBgBarc US TIPS TR / 4.7% FTSE WGBI TR / 5.7% BBgBarc US High Yield TR / 19.7% S&P 500 / 8.1% Russell 2500 / 18.2% MSCI ACWI ex USA / 7.2% MSCI Emerging Markets / 9.6% PRREF II Custom Benchmark / 5.6% Real Asset Custom Benchmark



1/1/2017	12/31/2017	3.8% Citigroup 3-month Treasury Bill + 1% / 11.6% BBgBarc US Aggregate TR / 4.2% BBgBarc US TIPS TR / 4.6% FTSE WGBI TR / 5.6% BBgBarc US High Yield TR / 20.1% S&P 500 / 8.3% Russell 2500 / 18.6% MSCI ACWI ex USA / 7.6% MSCI Emerging Markets / 9.8% FTSE EPRA/NAREIT Global Real Estate Index / 5.8% Real Asset Custom Benchmark
6/30/2016	12/31/2016	3.5% FTSE T-Bill 3 Months TR / 4% BBgBarc US TIPS TR / 13% BBgBarc US Aggregate TR / 20.8% S&P 500 / 9.3% Russell 2500 / 19.5% MSCI EAFE / 5.5% FTSE WGBI TR / 10% FTSE EPRA/NAREIT Global Real Estate Index / 8.5% MSCI Emerging Markets / 6% Real Asset Custom Benchmark
New Mexico LifeCycle 2035 Portfolio		
1/1/2020	Present	3.2% Citigroup 3-month Treasury Bill + 1% / 9.4% BBgBarc US Aggregate TR / 3.8% BBgBarc US TIPS TR / 4.4% FTSE WGBI TR / 5.4% BBgBarc US High Yield TR / 20.8% S&P 500 / 8.8% Russell 2500 / 19.5% MSCI ACWI ex USA / 8.3% MSCI Emerging Markets / 10.2% PRREF II Custom Benchmark / 6.2% Real Asset Custom Benchmark
1/1/2019	12/31/2019	2.9% Citigroup 3-month Treasury Bill + 1% / 8.3% BBgBarc US Aggregate TR / 3.6% BBgBarc US TIPS TR / 4.3% FTSE WGBI TR / 5.3% BBgBarc US High Yield TR / 21.1% S&P 500 / 9.1% Russell 2500 / 20% MSCI ACWI ex USA / 8.6% MSCI Emerging Markets / 10.4% PRREF II Custom Benchmark / 6.4% Real Asset Custom Benchmark
1/1/2018	12/31/2018	2.6% Citigroup 3-month Treasury Bill + 1% / 7.2% BBgBarc US Aggregate TR / 3.4% BBgBarc US TIPS TR / 4.2% FTSE WGBI TR / 5.2% BBgBarc US High Yield TR / 21.4% S&P 500 / 9.4% Russell 2500 / 20.5% MSCI ACWI ex USA / 8.9% MSCI Emerging Markets / 10.6% PRREF II Custom Benchmark / 6.6% Real Asset Custom Benchmark
1/1/2017	12/31/2017	2.3% Citigroup 3-month Treasury Bill + 1% / 6.1% BBgBarc US Aggregate TR / 3.2% BBgBarc US TIPS TR / 4.1% FTSE WGBI TR / 5.1% BBgBarc US High Yield TR / 21.7% S&P 500 / 9.7% Russell 2500 / 21% MSCI ACWI ex USA / 9.2% MSCI Emerging Markets / 10.8% FTSE EPRA/NAREIT Global Real Estate Index / 6.8% Real Asset Custom Benchmark
5/1/2016	12/31/2016	2% FTSE T-Bill 3 Months TR / 3% BBgBarc US TIPS TR / 7% BBgBarc US Aggregate TR / 23% S&P 500 / 10% Russell 2500 / 22% MSCI EAFE / 5% FTSE WGBI TR / 11% FTSE EPRA/NAREIT Global Real Estate Index / 10% MSCI Emerging Markets / 7% Real Asset Custom Benchmark
New Mexico LifeCycle 2040 Portfolio		
1/1/2020	Present	1.8% Citigroup 3-month Treasury Bill + 1% / 4.9% BBgBarc US Aggregate TR / 2.9% BBgBarc US TIPS TR / 3.9% FTSE WGBI TR / 4.8% BBgBarc US High Yield TR / 22.2% S&P 500 / 10.1% Russell 2500 / 21.8% MSCI ACWI ex USA / 9.6% MSCI Emerging Markets / 11% PRREF II Custom Benchmark / 7% Real Asset Custom Benchmark
1/1/2019	12/31/2019	1.6% Citigroup 3-month Treasury Bill + 1% / 4.8% BBgBarc US Aggregate TR / 2.8% BBgBarc US TIPS TR / 3.8% FTSE WGBI TR / 4.6% BBgBarc US High Yield TR / 22.4% S&P 500 / 10.2% Russell 2500 / 22.1% MSCI ACWI ex USA / 9.7% MSCI Emerging Markets / 11% PRREF II Custom Benchmark / 7% Real Asset Custom Benchmark

1/1/2018	12/31/2018	1.4% Citigroup 3-month Treasury Bill + 1% / 4.7% BBgBarc US Aggregate TR / 2.7% BBgBarc US TIPS TR / 3.7% FTSE WGBI TR / 4.4% BBgBarc US High Yield TR / 22.60% S&P 500 / 10.3% Russell 2500 / 22.4% MSCI ACWI ex USA / 9.8% MSCI Emerging Markets / 11% PRREF II Custom Benchmark / 7% Real Asset Custom Benchmark
1/1/2017	12/31/2017	1.2% Citigroup 3-month Treasury Bill + 1% / 4.6% BBgBarc US Aggregate TR / 2.6% BBgBarc US TIPS TR / 3.6% FTSE WGBI TR / 4.2% BBgBarc US High Yield TR / 22.8% S&P 500 / 10.4% Russell 2500 / 22.7% MSCI ACWI ex USA / 9.9% MSCI Emerging Markets / 11% FTSE EPRA/NAREIT Global Real Estate Index / 7% Real Asset Custom Benchmark
6/30/2016	12/31/2016	1% FTSE T-Bill 3 Months TR / 2.5% BBgBarc US TIPS TR / 6.5% BBgBarc US Aggregate TR / 23.8% S&P 500 / 10.3% Russell 2500 / 23.5% MSCI EAFE / 4.5% FTSE WGBI TR / 11% FTSE EPRA/NAREIT Global Real Estate Index / 10% MSCI Emerging Markets / 7% Real Asset Custom Benchmark
New Mexico LifeCycle 2045 Portfolio		
1/1/2020	Present	0.8% Citigroup 3-month Treasury Bill + 1% / 4.4% BBgBarc US Aggregate TR / 2.3% BBgBarc US TIPS TR / 3.4% FTSE WGBI TR / 3.9% BBgBarc US High Yield TR / 23.2% S&P 500 / 10.6% Russell 2500 / 23.4% MSCI ACWI ex USA / 10% MSCI Emerging Markets / 11% PRREF II Custom Benchmark / 7% Real Asset Custom Benchmark
1/1/2019	12/31/2019	0.6% Citigroup 3-month Treasury Bill + 1% / 4.3% BBgBarc US Aggregate TR / 2.1% BBgBarc US TIPS TR / 3.3% FTSE WGBI TR / 3.8% BBgBarc US High Yield TR / 23.4% S&P 500 / 10.7% Russell 2500 / 23.8% MSCI ACWI ex USA / 10% MSCI Emerging Markets / 11% PRREF II Custom Benchmark / 7% Real Asset Custom Benchmark
1/1/2018	12/31/2018	0.4% Citigroup 3-month Treasury Bill + 1% / 4.2% BBgBarc US Aggregate TR / 1.9% BBgBarc US TIPS TR / 3.2% FTSE WGBI TR / 3.7% BBgBarc US High Yield TR / 23.6% S&P 500 / 10.8% Russell 2500 / 24.2% MSCI ACWI ex USA / 10% MSCI Emerging Markets / 11% PRREF II Custom Benchmark / 7% Real Asset Custom Benchmark
1/1/2017	12/31/2017	.2% Citigroup 3-month Treasury Bill + 1% / 4.1% BBgBarc US Aggregate TR / 1.7% BBgBarc US TIPS TR / 3.1% FTSE WGBI TR / 3.6% BBgBarc US High Yield TR / 23.8% S&P 500 / 10.9% Russell 2500 / 24.6% MSCI ACWI ex USA / 10% MSCI Emerging Markets / 11% FTSE EPRA/NAREIT Global Real Estate Index / 7% Real Asset Custom Benchmark
5/1/2016	12/31/2016	2% BBgBarc US TIPS TR / 6% BBgBarc US Aggregate TR / 24.5% S&P 500 / 10.5% Russell 2500 / 25% MSCI EAFE / 4% FTSE WGBI TR / 11% FTSE EPRA/NAREIT Global Real Estate Index / 10% MSCI Emerging Markets / 7% Real Asset Custom Benchmark



**New Mexico LifeCycle 2050 Portfolio**

1/1/2020	Present	3.8% BBgBarc US Aggregate TR / 1.4% BBgBarc US TIPS TR / 2.9% FTSE WGBI TR / 3.4% BBgBarc US High Yield TR / 24.2% S&P 500 / 10.9% Russell 2500 / 25.2% MSCI ACWI ex USA / 10% MSCI Emerging Markets / 11.1% PRREF II Custom Benchmark / 7.1% Real Asset Custom Benchmark
1/1/2019	12/31/2019	3.6% BBgBarc US Aggregate TR / 1.3% BBgBarc US TIPS TR / 2.8% FTSE WGBI TR / 3.3% BBgBarc US High Yield TR / 24.4% S&P 500 / 10.8% Russell 2500 / 25.4% MSCI ACWI ex USA / 10% MSCI Emerging Markets / 11.2% PRREF II Custom Benchmark / 7.2% Real Asset Custom Benchmark
1/1/2018	12/31/2018	3.4% BBgBarc US Aggregate TR / 1.2% BBgBarc US TIPS TR / 2.7% FTSE WGBI TR / 3.2% BBgBarc US High Yield TR / 24.6% S&P 500 / 10.7% Russell 2500 / 25.6% MSCI ACWI ex USA / 10% MSCI Emerging Markets / 11.3% PRREF II Custom Benchmark / 7.3% Real Asset Custom Benchmark
1/1/2017	12/31/2017	3.2% BBgBarc US Aggregate TR / 1.1% BBgBarc US TIPS TR / 2.6% FTSE WGBI TR / 3.1% BBgBarc US High Yield TR / 24.8% S&P 500 / 10.6% Russell 2500 / 25.8% MSCI ACWI ex USA / 10% MSCI Emerging Markets / 11.4% FTSE EPRA/NAREIT Global Real Estate Index / 7.4% Real Asset Custom Benchmark
6/30/2016	12/31/2016	5% BBgBarc US Aggregate TR / 25% S&P 500 / 10.5% Russell 2500 / 26% MSCI EAFE / 3.5% FTSE WGBI TR / 11.5% FTSE EPRA/NAREIT Global Real Estate Index / 10% MSCI Emerging Markets / 7.5% Real Asset Custom Benchmark

**New Mexico LifeCycle 2055 Portfolio**

1/1/2020	Present	2.9% BBgBarc US Aggregate TR / 0.8% BBgBarc US TIPS TR / 2.4% FTSE WGBI TR / 2.9% BBgBarc US High Yield TR / 25.1% S&P 500 / 10.5% Russell 2500 / 26.2% MSCI ACWI ex USA / 10% MSCI Emerging Markets / 11.6% PRREF II Custom Benchmark / 7.6% Real Asset Custom Benchmark
1/1/2019	12/31/2019	2.8% BBgBarc US Aggregate TR / 0.6% BBgBarc US TIPS TR / 2.3% FTSE WGBI TR / 2.8% BBgBarc US High Yield TR / 25.2% S&P 500 / 10.5% Russell 2500 / 26.4% MSCI ACWI ex USA / 10% MSCI Emerging Markets / 11.7% PRREF II Custom Benchmark / 7.7% Real Asset Custom Benchmark
1/1/2018	12/31/2018	2.7% BBgBarc US Aggregate TR / 0.4% BBgBarc US TIPS TR / 2.2% FTSE WGBI TR / 2.7% BBgBarc US High Yield TR / 25.3% S&P 500 / 10.5% Russell 2500 / 26.6% MSCI ACWI ex USA / 10% MSCI Emerging Markets / 11.8% PRREF II Custom Benchmark / 7.8% Real Asset Custom Benchmark
1/1/2017	12/31/2017	2.6% BBgBarc US Aggregate TR / 0.2% BBgBarc US TIPS TR / 2.1% FTSE WGBI TR / 2.6% BBgBarc US High Yield TR / 25.4% S&P 500 / 10.5% Russell 2500 / 26.8% MSCI ACWI ex USA / 10% MSCI Emerging Markets / 11.9% FTSE EPRA/NAREIT Global Real Estate Index / 7.9% Real Asset Custom Benchmark
5/1/2016	12/31/2016	4% BBgBarc US Aggregate TR / 25.5% S&P 500 / 10.5% Russell 2500 / 27% MSCI EAFE / 3% FTSE WGBI TR / 12% FTSE EPRA/NAREIT Global Real Estate Index / 10% MSCI Emerging Markets / 8% Real Asset Custom Benchmark

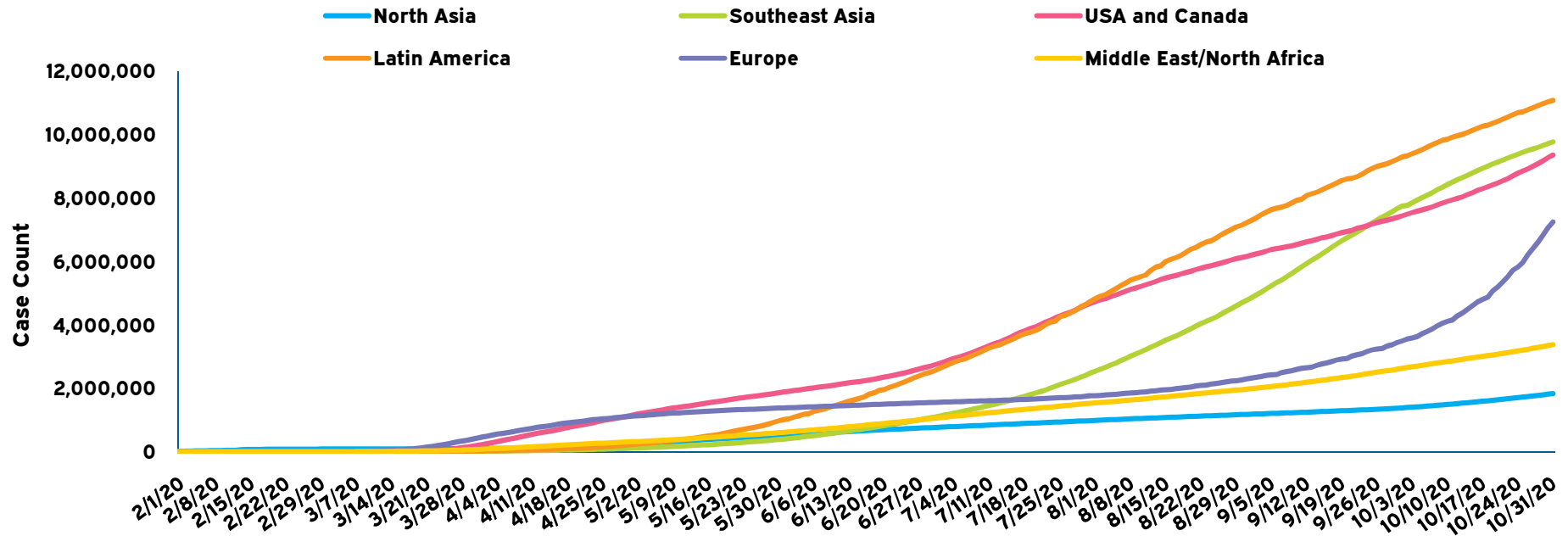
## Appendices

## Economic and Market Update

Data as of October 31, 2020



Case Count by Select Region<sup>1,2</sup>

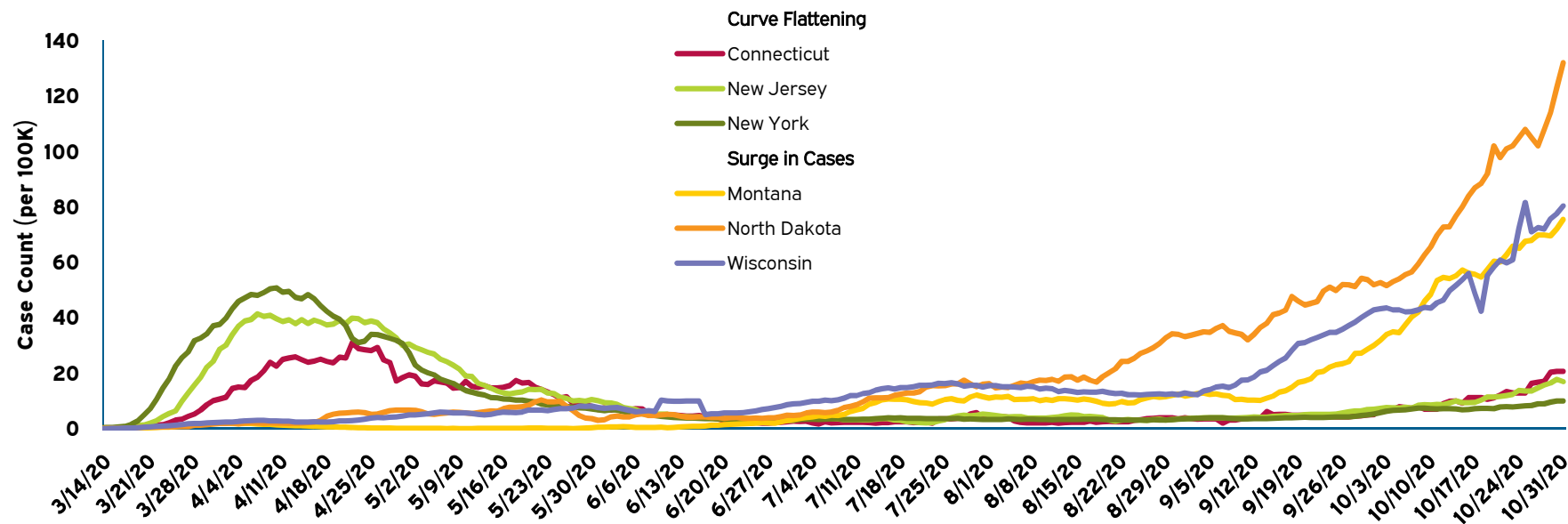


- Cases of COVID-19 continue to grow globally with now over 55 million reported cases across 191 countries.
- The US still has the highest number of cases, with India surpassing Brazil for the second spot. Europe has experienced the largest spike in case counts recently.

<sup>1</sup> Source: Bloomberg. Data is as of October 31, 2020.

<sup>2</sup> North Asia: China, Hong Kong, Japan, Russia, South Korea, and Taiwan. Southeast Asia: Singapore, India, Indonesia, Malaysia, Pakistan, Philippines, Thailand, Bangladesh, Sri Lanka, and Vietnam. Europe: Austria, Belarus, Bulgaria, Croatia, Czech Republic, Denmark, France, Germany, Hungary, Italy, Netherlands, Norway, Poland, Romania, Spain, Sweden, United Kingdom, Switzerland, and Ukraine. Latin America: Chile, Brazil, Mexico, Argentina, Colombia, Peru, Venezuela, Ecuador, Panama, Paraguay, Costa Rica, Bolivia, Uruguay, El Salvador, Honduras, Cuba, Dominican Republic, Haiti, and Nicaragua. Middle East/North Africa: Algeria, Bahrain, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Syria, Turkey, Tunisia, United Arab Emirates, and Yemen.

### New Daily Reported COVID-19 Cases<sup>1</sup>



- Cases are trending back up in most states. Some states experienced initial spikes in cases with subsequent improvements, while other states fared better early on and are now seeing cases spike.
- Moving into the colder months, with flu season and people spending more time indoors, infections are rising notably and putting significant stresses on the hardest hit areas and their respective healthcare systems.

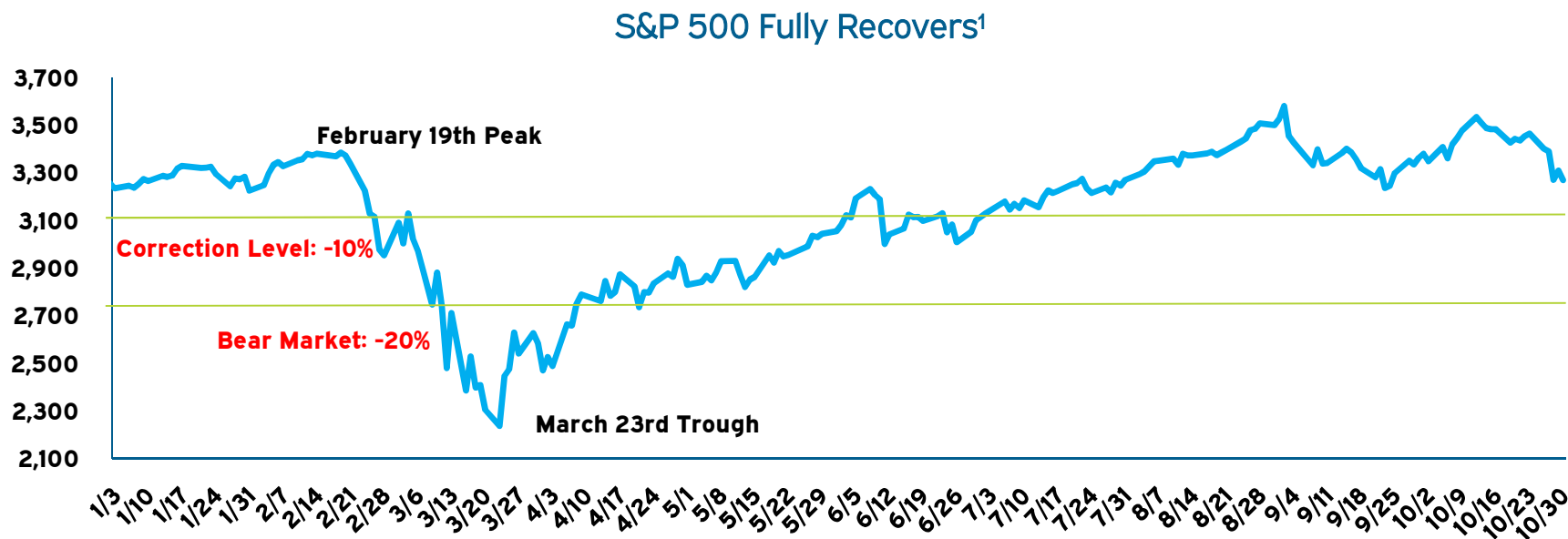
<sup>1</sup> Source: TrackTheRecovery. Data is as of October 31, 2020.

## Market Returns<sup>1</sup>

Indices	October	YTD	1 Year	3 Year	5 Year	10 Year
S&P 500	-2.7%	2.8%	9.7%	10.4%	11.7%	13.0%
MSCI EAFE	-4.0%	-10.8%	-6.9%	-1.2%	2.8%	3.8%
MSCI Emerging Markets	2.1%	0.9%	8.3%	1.9%	7.9%	2.4%
MSCI China	5.3%	22.6%	35.7%	8.5%	12.7%	6.7%
Bloomberg Barclays Aggregate	-0.4%	6.3%	6.2%	5.1%	4.1%	3.6%
Bloomberg Barclays TIPS	-0.6%	8.5%	9.1%	5.5%	4.4%	3.2%
Bloomberg Barclays High Yield	0.5%	1.1%	3.5%	4.2%	6.3%	6.3%
10-year US Treasury	-1.6%	10.9%	10.0%	6.7%	3.9%	3.7%
30-year US Treasury	-4.2%	18.8%	16.5%	12.2%	7.6%	7.1%

- Global risk assets have recovered meaningfully from their lows, largely driven by record fiscal and monetary policy stimulus. The S&P 500 has appreciated by over 45% from its mid-March trough.
- European and Japanese equity markets have lagged behind the recovery in the US and emerging markets.
- In October, risk appetite waned on weakening US economic fundamentals and fears over rising virus cases.
- Counter to risk assets, longer-dated US interest rates rose over the month on expectations at the time for a greater fiscal stimulus package.

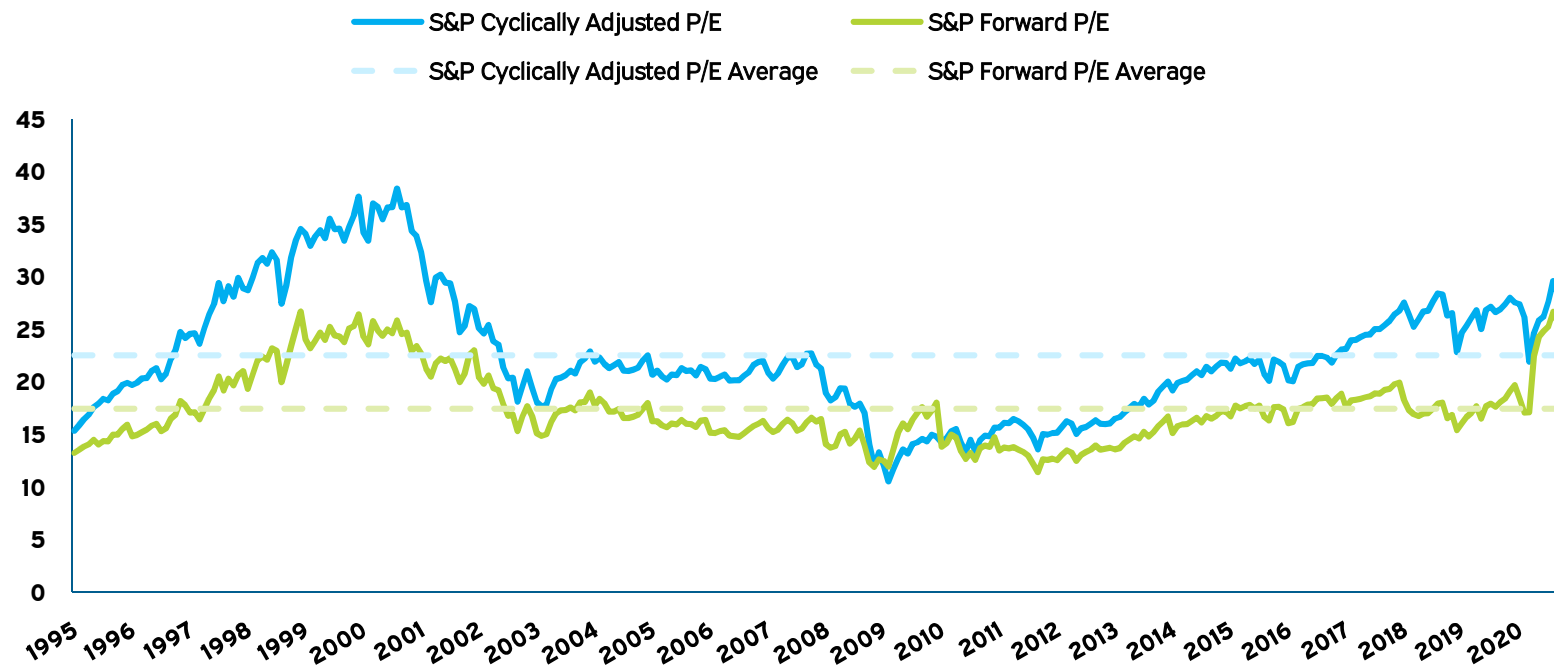
<sup>1</sup> Source: InvestorForce and Bloomberg. Data is as of October 31, 2020.



- Given the anticipated economic carnage surrounding the pandemic, US stocks declined from a February peak into bear market (-20%) territory at the fastest pace in history.
- From the February 19 peak, the S&P 500 plunged 34% in just 24 trading days.
- After quickly rebounding from its lows and finishing above its pre-COVID levels at the end of August, the market retraced 2.7% in October, bringing its year-to-date gain to 2.8%.
  - After month-end, there have been significant market gains, given meaningful progress on a vaccine and the US election results.
- The key risk going forward remains that a spike in COVID-19 cases could slow, or reverse, reopening plans.

<sup>1</sup> Source: Bloomberg. Data is as of October 31, 2020.

### S&P Equity Valuations<sup>1</sup>

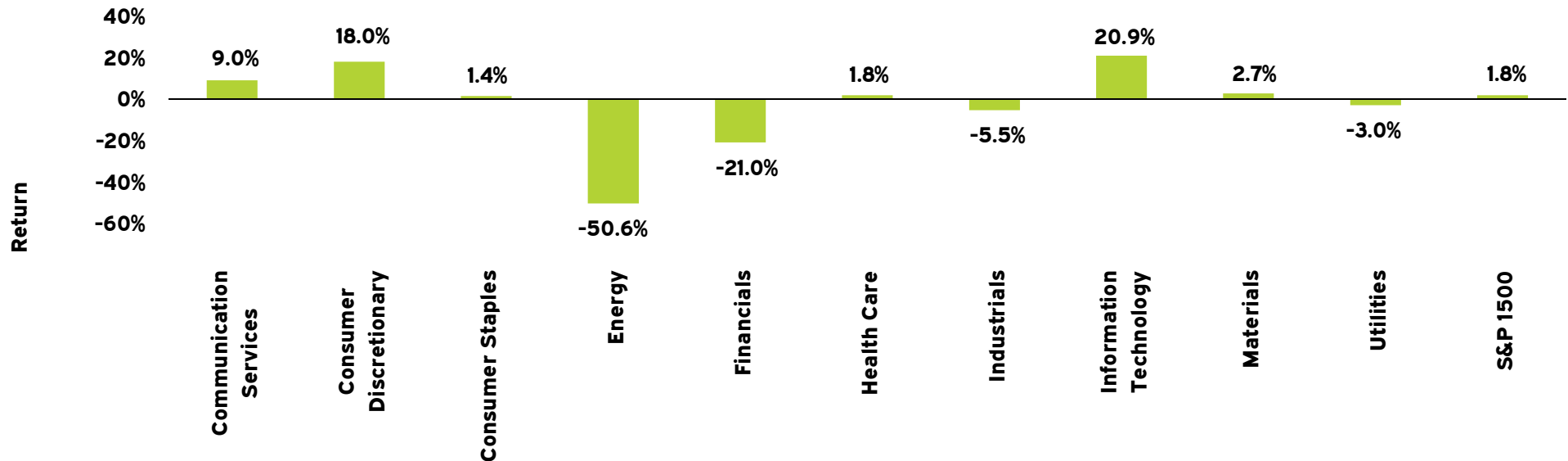


- Despite the pullback in October, valuations based on both forward- and backward-looking earnings remain rich versus longer-term averages.
- Many are looking to improvements in earnings growth as the US economy continues to reopen to justify market levels, with historically low interest rates also providing support.

<sup>1</sup> Source: Bloomberg. Data is as of October 31, 2020.



### 2020 YTD Sector Returns<sup>1</sup>

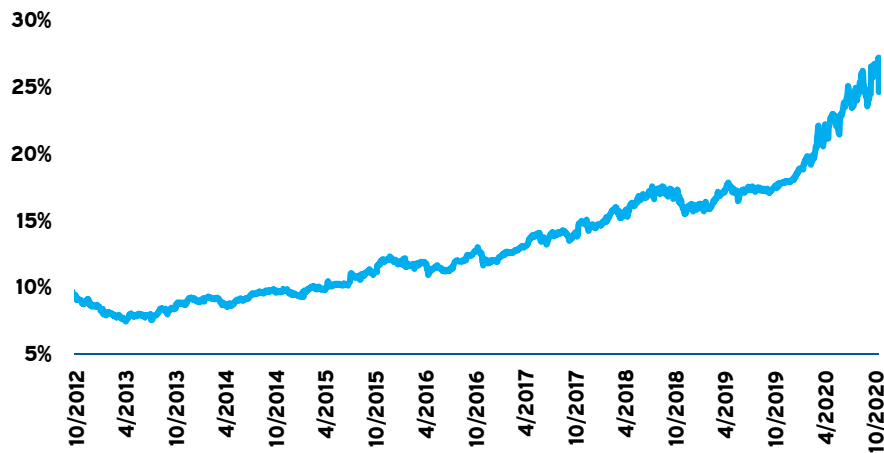


- Information technology remains the best performing sector, with a narrow group of companies including Amazon and Netflix driving market gains. The outperformance has been due to consumers moving to online purchases and streaming services.
- The consumer discretionary sector also experienced gains as the economy reopened, people returned to work, and stimulus checks were spent.
- Energy remains the sector with the greatest 2020 decline, triggered by the plunge in oil prices. Financials have also struggled in this slow growth environment with demand for loans down and low interest rates weighing on loan revenue.

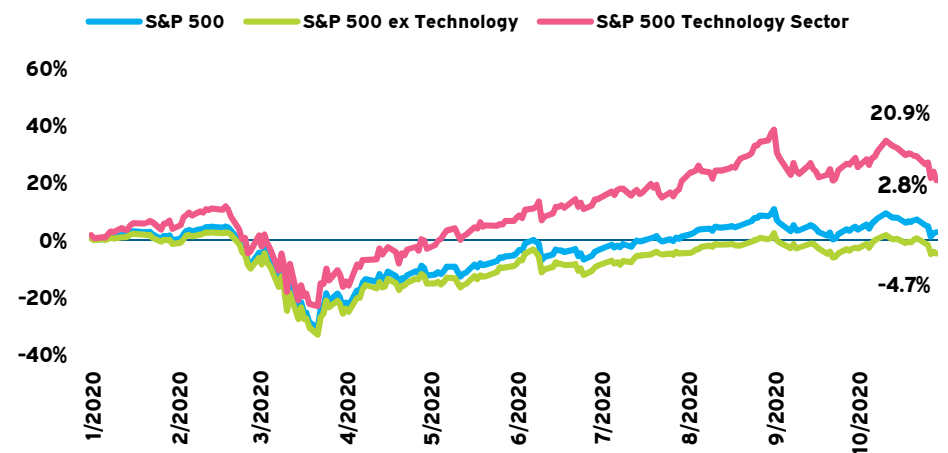
<sup>1</sup> Source: Bloomberg. Data is as of October 31, 2020.

### Technology has led the way in the Rebound

FAANG+M Share of S&P 500<sup>1</sup>



Returns Year to Date through October 31<sup>2</sup>

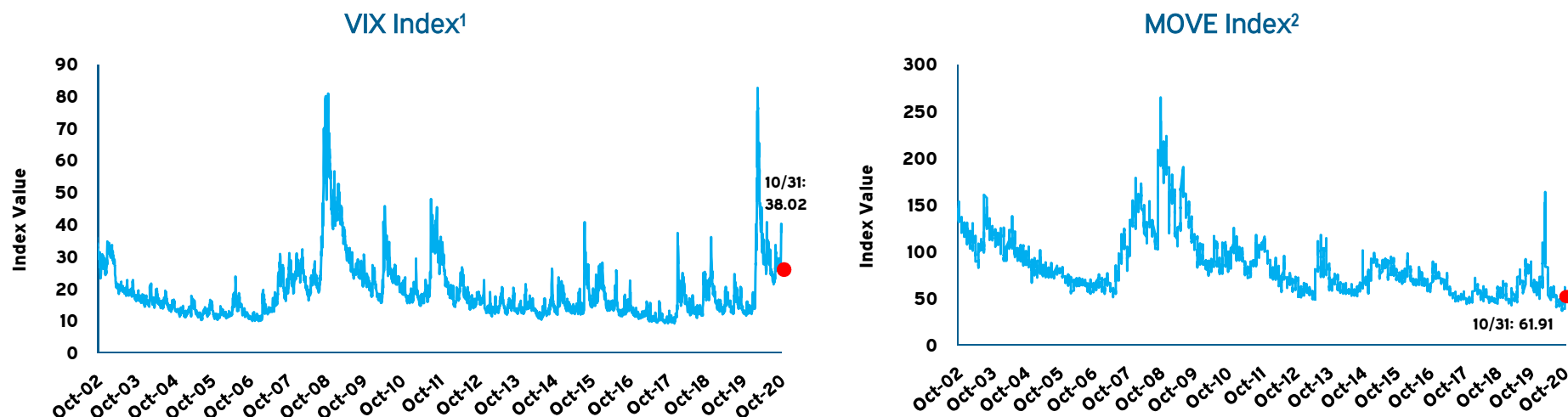


- The market recovery has largely been driven by a few select technology companies that benefited from the stay-at-home environment related to the virus.
- Year-to-date, the S&P 500 technology sector returned +20.9%, compared to -4.7% for the S&P 500 ex-technology index, with Amazon (+64%), Netflix (+47%), and Apple (+48%) posting strong results.
- The strong relative returns of these companies has led to them comprising an increasingly large portion (25%) of the S&P 500, which makes their future performance particularly impactful.

<sup>1</sup> FAANG+M = Facebook, Amazon, Apple, Netflix, Google (Alphabet), and Microsoft. The percentage represents the aggregate market capitalization of the 6 companies compared to the total market capitalization of the S&P 500 as of October 31, 2020.

<sup>2</sup> Each data point represents the price change relative to the 12/31/2019 starting value.

### Volatility has Declined



- Expectations of short-term equity volatility, as measured by the VIX index, have trended down from record levels, but increased in October due to increased cases and concerns over the US election outcome.
- At the recent peak, the VIX reached 82.7, surpassing the pinnacle of volatility during the GFC, thus showing the magnitude of the crisis and of investor fear.
- Expectations of volatility within fixed income, as represented by the MOVE index, spiked and then dropped to historic lows, helped by the broad level of monetary support and forward guidance by the Fed. Volatility expectations in fixed income modestly increased in October, influenced by the potential for increased fiscal stimulus.

<sup>1</sup> Source: Chicago Board of Exchange. Data is as of October 31, 2020.

<sup>2</sup> Source: Bloomberg. Data is as of October 31, 2020.

## Global Financial Crisis Comparison

2007-2009 Global Financial Crisis		COVID-19 Crisis
Primary Causes	<p>Excess Risk Taking Due to:</p> <ul style="list-style-type: none"> <li>Deregulation, un-constrained securitization, shadow banking system, fraud</li> </ul>	<p>Pandemic/Natural Disaster:</p> <ul style="list-style-type: none"> <li>Large scale global restrictions on businesses and individuals leading to immediate and significant deterioration in economic fundamentals</li> </ul>
2007-2009 Global Financial Crisis		COVID-19 Crisis
Fiscal Measures	<ul style="list-style-type: none"> <li>American Recovery Reinvestment Act of 2009: \$787 billion</li> <li>Economic Stimulus Act of 2008: \$152 billion</li> </ul>	<ul style="list-style-type: none"> <li>PPP Act: \$659 billion</li> <li>CARES Act of 2020: \$2.3 trillion</li> <li>Families First Coronavirus Response Act: \$150 billion</li> <li>Coronavirus Preparedness &amp; Response Supplemental Appropriations Act 2020: \$8.3 billion</li> <li>National Emergency: \$50 billion</li> </ul>
2007-2009 Global Financial Crisis		COVID-19 Crisis
Monetary Measures		
Lowering Fed Funds Rate	X	X
Quantitative Easing	X	X
Primary Dealer Repos	X	X
Central Bank Swap Lines	X	X
Commercial Paper Funding Facility	X	X
Primary Dealers Credit Facility	X	X
Money Market Lending Facility	X	X
Term Auction Facility	X	
TALF	X	X
TSLF	X	
FIMA Repo Facility		X
Primary & Secondary Corp. Debt		X
PPP Term Facility		X
Municipal Liquidity Facility		X
Main Street Loan Facility		X

### Global Financial Crisis Comparison (continued)

- The US **fiscal** response to the COVID-19 Crisis has been materially larger than the response to the 2007-2009 Global Financial Crisis (GFC), and stimulus is acutely focused on areas of the economy showing the greatest need, including small- and mid-sized companies. For example, the Paycheck Protection Program (PPP) helped small businesses keep employees working by offering forgivable loans to cover salaries.
- On the **monetary** side, markets targeted during both crises represent those most in need, but for the COVID-19 Crisis the policy response was dramatically faster, measured in weeks, not years, as in the GFC.
- Of the monetary stimulus measures, the corporate debt (Primary & Secondary Corporate Debt) programs and Main Street Loan Facility are new and garnered much attention from market participants.
- Through the end of October, Fed programs have experienced various degrees of usage. However, at this point, none has come close to reaching program limits. Still, programs have been extended through December 2020, and the psychological value of knowing the programs are available, if necessary, likely supports market sentiment.

## Policy Responses

	Fiscal	Monetary
United States	\$50 billion to states for virus related support, interest waived on student loans, flexibility on tax payments and filings, expanded COVID-19 testing, paid sick leave for hourly workers, \$2 trillion package for individuals, businesses, and state/local governments. Additional \$484 billion package to replenish small business loans, provide funding to hospitals, and increase testing.	Cut policy rates to zero, outcome-based forward guidance suggesting aggressively accommodative policy for the foreseeable future, unlimited QE4, offering trillions in repo market funding, restarted and extended CPFF, PDCF, MMTF programs to support lending and financing markets, expanded US dollar swap lines with foreign central banks, announced IG corporate debt buying program with subsequent amendment for certain HY securities, Main Street Lending program, Muni liquidity facility, repo facility with foreign central banks, easing of some financial regulations for lenders, and changing the inflation mandate to an average target of 2.0%
Euro Area	European Union: Shared 750 billion euro stimulus package. Germany: 220 billion euro stimulus France: 57 billion euro stimulus. Italy: 75 billion euro stimulus. Spain: 200 billion euro and 700 million euro loan and aid package, respectively.	Targeted longer-term refinancing operations aimed at small and medium sized businesses, under more favorable pricing, and announced the 750 billion euro Pandemic Emergency Purchase Program, and then expanded the purchases to include lower-quality corporate debt.
Japan	Hundreds of trillions in yen stimulus for citizens and businesses, including low interest loans, deferrals on taxes, and direct cash handouts.	Initially increased QE purchases (ETFs, corporate bonds, and CP) and then expanded to unlimited purchases and doubling of corporate debt and commercial paper, expanded collateral and liquidity requirements, and 0% interest loans to businesses hurt by virus.
China	Tax cuts, low-interest business loans, extra payments to gov't benefit recipients.	Expanded repo facility, policy rate cuts, lowered reserve requirements, loan-purchase scheme.
Canada	\$7.1 billion in loans to businesses to help with virus damage, C\$381 billion stimulus.	Cut policy rates, expanded bond-buying and repos, lowered bank reserve requirements.
UK (BOE)	190 billion pound stimulus, Tax cut for retailers, small business cash grants, benefits for those infected with virus, expanded access to gov't benefits for self and un-employed.	Lowered policy rates and capital requirements for UK banks, restarts QE program and subsequently increased the purchase amounts.
Australia	\$11.4 billion, subsidies for impacted industries like tourism, one-time payment to gov't benefit recipients.	Policy rate cut, started QE.

## Next Round of US Fiscal Stimulus

	Republican Proposal <sup>1</sup>	Democratic Proposal <sup>2</sup>
Status	Offered by the President and republican leaders in mid-October	Passed in House on October 1
Direct payments	\$1,200 for adults, \$1,000 per child	\$1,200 for adults, \$500 per dependent
Unemployment / Assistance	\$400 per week, through the third week of January and retroactive to Sept. 12	\$600 per week enhanced unemployment benefit through January. 15% increase in food stamps
State and local aid	\$300 billion	\$436 billion
Airlines	\$20 billion	\$25 billion
Paycheck Protection	\$330 billion	Extend program
Testing / Tracing / Healthcare	\$175 billion	\$75 billion
Education	\$150 billion	\$225 billion
Childcare	\$25 billion	\$57 billion
Total	\$1.8 Trillion	\$2.2 Trillion

- The next round of fiscal stimulus that the market has been anticipating remains in gridlock.
- Without further stimulus, many businesses might not survive, particularly services like restaurants, as we move into the colder months in much of the country.
- The enhanced unemployment benefits from the initial stimulus program were particularly impactful to those without jobs. After it ended in July an extension of a lesser amount (\$300 extra per week) was implemented, but is in the process of winding down and at risk of ending without replacement.

<sup>1</sup> Source: <https://www.cnn.com/2020/10/10/pelosi-dismisses-trump-coronavirus-stimulus-offer.html>

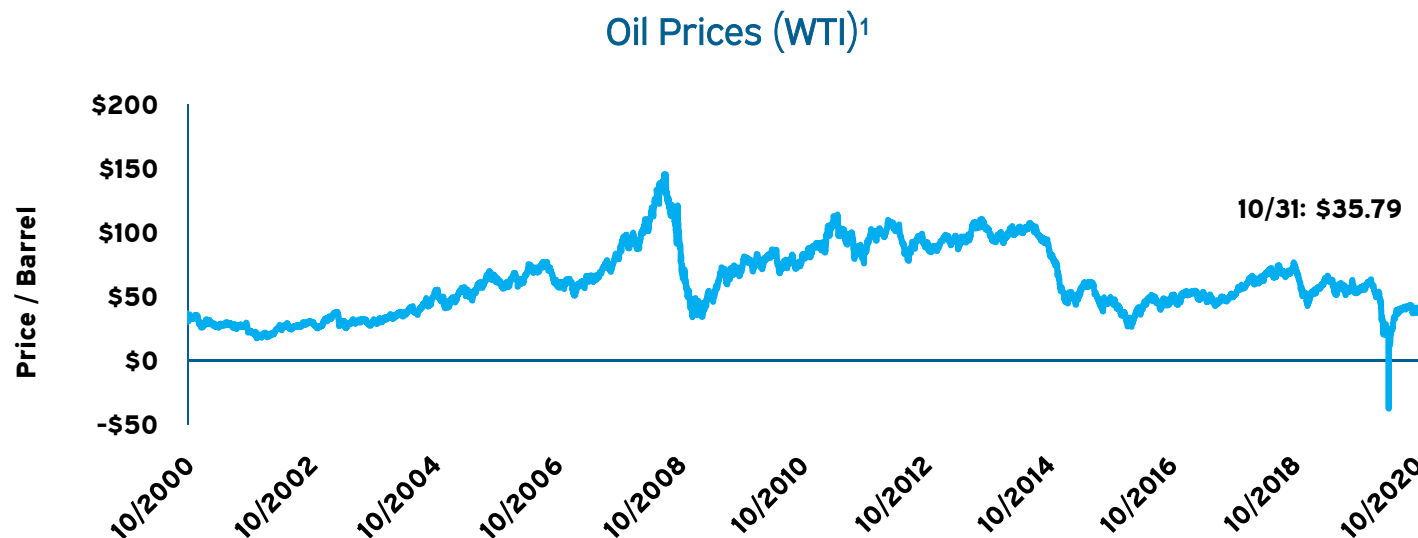
<sup>2</sup> Source: <https://www.cnn.com/2020/10/01/coronavirus-stimulus-update-house-passes-democratic-relief-bill.html>

## Election Results Likely Leave a Split Government

	Result	Change from Previous	Potential Implications
Presidency	<ul style="list-style-type: none"> <li>Democratic victory.</li> </ul>	<ul style="list-style-type: none"> <li>Donald Trump, Republican, to leave office January 20th.</li> </ul>	<ul style="list-style-type: none"> <li>Day one executive actions announced to set new 12 person COVID-19 task force, rejoin the WHO, repeal Muslim travel ban, reinstate DACA program, and rejoin Paris climate accord.</li> <li>Biden listed a number of other priorities on the campaign trail that include addressing systemic racism, climate change, and expanding protections for union employees.</li> <li>Additional plans include bills for infrastructure, trade, foreign policy, and tax increases, but all seem less likely given the potential for a divided congress.</li> </ul>
Senate	<ul style="list-style-type: none"> <li>48 seats for the Democrats.</li> <li>50 seats for the Republicans.</li> <li>2 seats to be decided in a January run off in Georgia.</li> </ul>	<ul style="list-style-type: none"> <li>Yet to be determined. Democrats will pick up between 2 and 4 seats.</li> <li>It is possible, though unlikely, that the Democrats can win both run offs and obtain a supermajority with Vice President elect Harris casting the tiebreaking vote.</li> </ul>	<ul style="list-style-type: none"> <li>Biden's agenda is particularly impacted by a divided Congress in a few key areas, namely the next round of fiscal stimulus (lesser amount), cabinet appointments (more moderate), tax reform (less rollbacks of Trump cuts), infrastructure spending (less green, less in amount).</li> </ul>
House	<ul style="list-style-type: none"> <li>Democratic majority maintained.</li> <li>As of November 16<sup>th</sup> 219 seats for Democrats, 203 seats for Republicans, and 13 still to be decided.</li> </ul>	<ul style="list-style-type: none"> <li>Heading into the November 3, 2020, election, Democrats held a 232-197 advantage in the US House. Libertarians held one seat, and five seats were vacant.</li> </ul>	<ul style="list-style-type: none"> <li>While the Democrats maintained their majority and therefore control of the agenda, Republicans gained ground, setting up a close battle for the midterms in 2022.</li> <li>Nancy Pelosi remains Speaker of the House.</li> </ul>

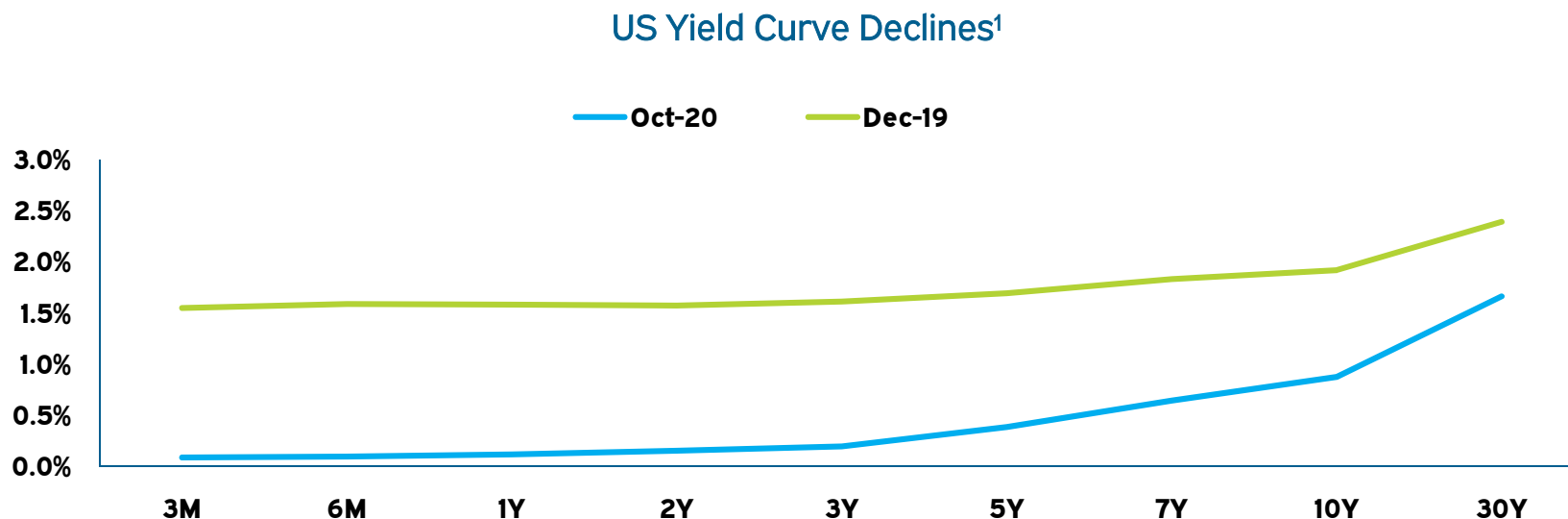
- While the path to final election results could be bumpy, we do know that ultimately the new President will be sworn in on January 20th, with the two Senate run-off elections in Georgia taking place in January as well.
- Overall markets have generally responded positively to the election results, as the potential for a divided government has reduced fears over higher taxes and fiscal stimulus.





- While global oil prices have rallied from April lows, they remain below their pre-pandemic level.
- In October, OPEC+ maintained their 7.7 million barrels/day production cuts (~8% of global output) in an effort to support oil prices.
- Counterbalancing the OPEC+ production cut agreement, US oil producers (particularly shale output) are turning wells back on, due to higher prices.
- If OPEC+ starts rolling back production cuts, and if an increasing virus spread weighs on demand, oil prices could experience renewed downward pressure.

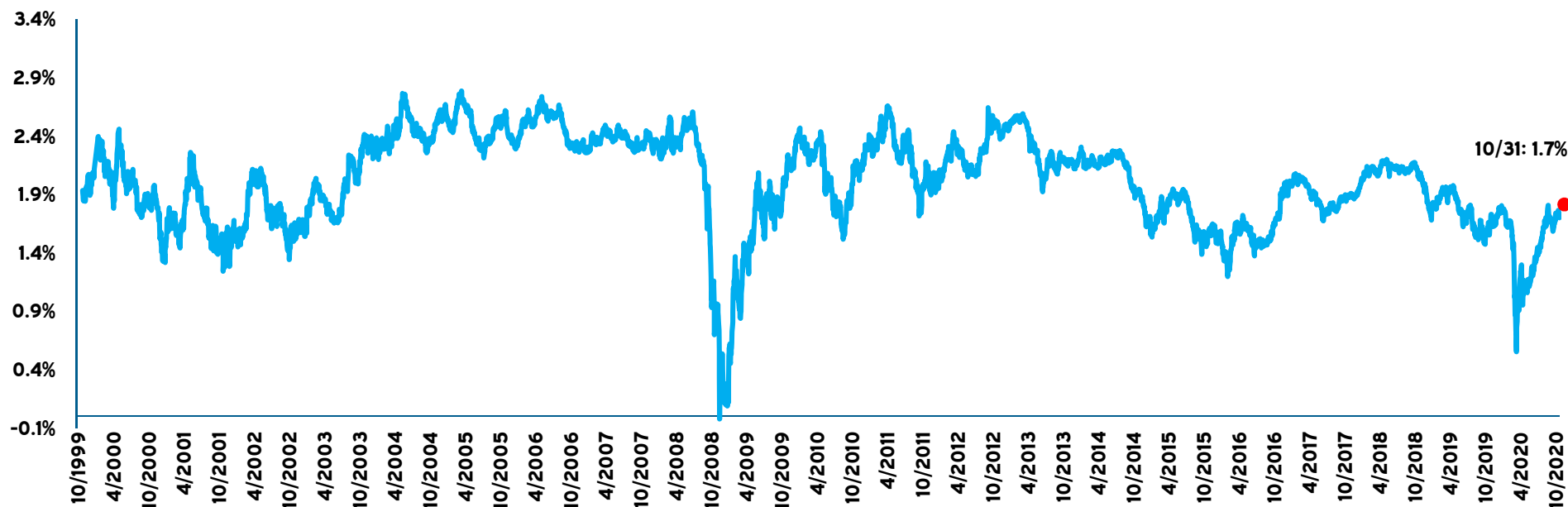
<sup>1</sup> Source: Bloomberg. Represents WTI first available futures contract. Data is as of October 31, 2020.



- The US Treasury yield curve declined materially during 2020, driven by safe-haven demand, Federal Reserve policies (policy rate cuts and the quantitative easing program), and weak US economic fundamentals.
- Over the last few months, the curve has steepened on gradual signs of economic improvement and expectations for longer-dated Treasury issuance to support additional fiscal stimulus in the coming months.

<sup>1</sup> Source: Bloomberg. Data is as of October 31, 2020.

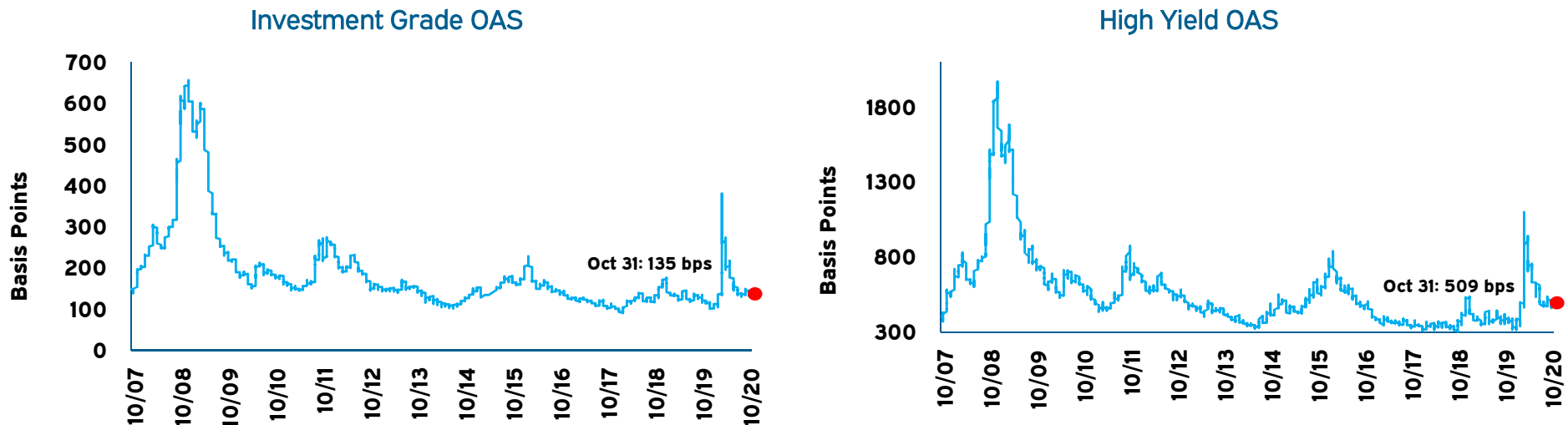
### 10-Year Breakeven Inflation<sup>1</sup>



- Inflation breakeven rates initially declined sharply, due to a combination of lower growth and inflation expectations, as well as liquidity dynamics in TIPS during the height of market volatility.
- Liquidity eventually improved and breakeven rates increased as deflationary concerns moderated, but given the uncertainty regarding economic growth and the inflationary effects of the unprecedented US fiscal response, inflation expectations remain below historical averages.

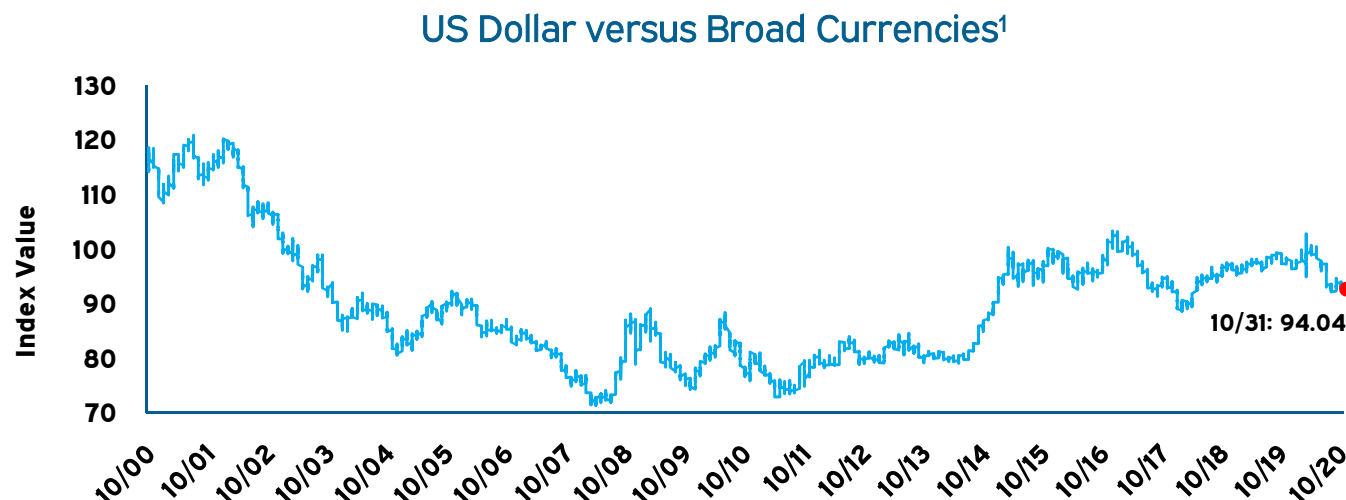
<sup>1</sup> Source: Bloomberg. Data is as of October 31, 2020.

### Credit Spreads (High Yield & Investment Grade)<sup>1</sup>



- Credit spreads (the spread above a comparable Treasury) for investment grade and high yield corporate debt widened sharply at the start of the pandemic as investors sought safety.
- Investment grade bonds held up better than high yield bonds. The Federal Reserve's corporate debt purchase program for investment grade and certain high yield securities recently downgraded from investment grade, was well received by investors, leading to a decline in spreads to around long-term averages.
- Overall, corporate debt issuance has more than doubled since 2008, which magnifies the impact of deterioration in the corporate debt market. This is particularly true in the energy sector, which represents over 10% of the high yield bond market.

<sup>1</sup> Source: Federal Reserve Bank of St. Louis Economic Research. Data is as of October 31, 2020.



- When financial markets began aggressively reacting to COVID-19 developments, the US dollar came under selling pressure as investors sought safe-haven exposure.
- As the crisis grew into a pandemic, investors' preferences shifted to holding US dollars and highly liquid, short-term securities like US Treasury bills.
- Recently we have seen some weakness in the dollar as the US struggles with containing the virus and investors seek higher-yielding non-US assets, particularly in emerging markets. This has created pressures on already stressed export-focused countries.
- Going forward, the dollar's safe haven quality and the relatively higher rates in the US could provide support.

<sup>1</sup> Source: Bloomberg. Represents the DXY Index. Data is as of October 31, 2020.

## Economic Impact

### Supply Chain Disruptions:

- Factories closing, increased cost of stagnant inventory, and disrupted supply agreements.
- Reduced travel, tourism, and separation policies including closed borders: Significant impact on service-based economies.

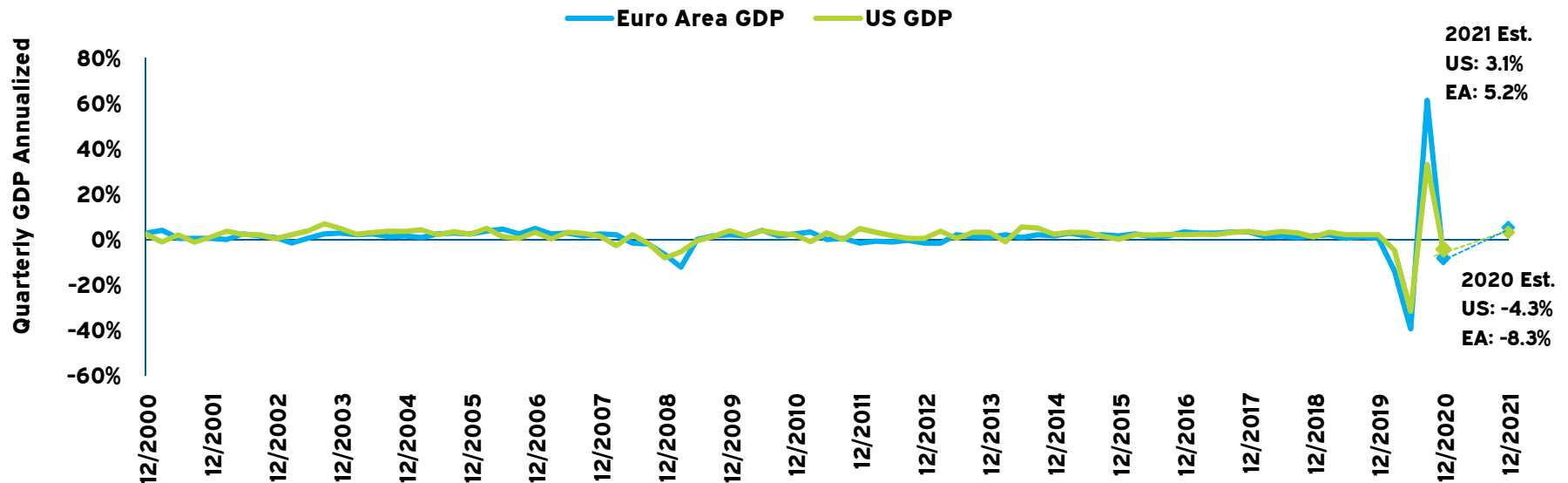
### Labor Force Impacts:

- Huge layoffs across service and manufacturing economies.
- Increased strains as workforce productivity declines from increased societal responsibilities (e.g., home schooling of children) and lower functionality working from home.
- Illnesses from the disease also depresses the labor force.

### Declines in Business and Consumer Sentiment:

- Sentiment drives investment and consumption, which leads to increased recessionary pressures as sentiment slips.

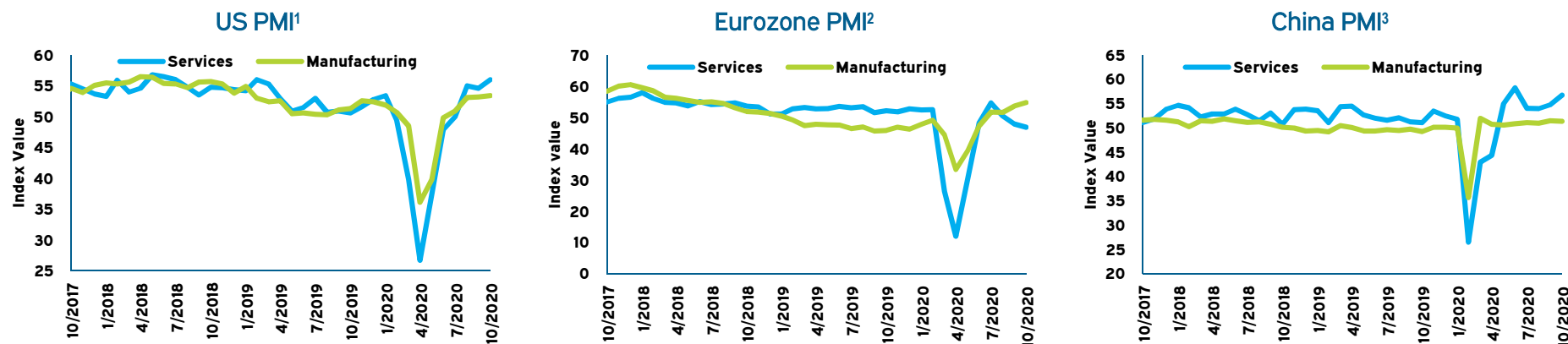
### GDP Data Shows Impact of the Pandemic<sup>1</sup>



- The global economy faces major recessionary pressures this year, but optimism remains for improvements in 2021, as economies are expected to gradually reopen despite the recent spike in virus cases.
- Historic declines in growth in the US and Europe during the second quarter, were followed by record increases in the third quarter, due to pent up demand from the lockdown measures earlier in the year.
- At the middle of November, Bloomberg Economics estimated that fourth quarter US GDP growth could be 2.5% (QoQ annualized). Full year US GDP growth is forecasted to decline by 4.3%.

<sup>1</sup> Source: Bloomberg and IMF. Q3 2020 data represents the first estimate of GDP for the Euro Area and United States. Euro Area figures annualized by Meketa. Projections via October 2020 IMF World Economic Outlook and represent annual numbers.

### Global PMIs



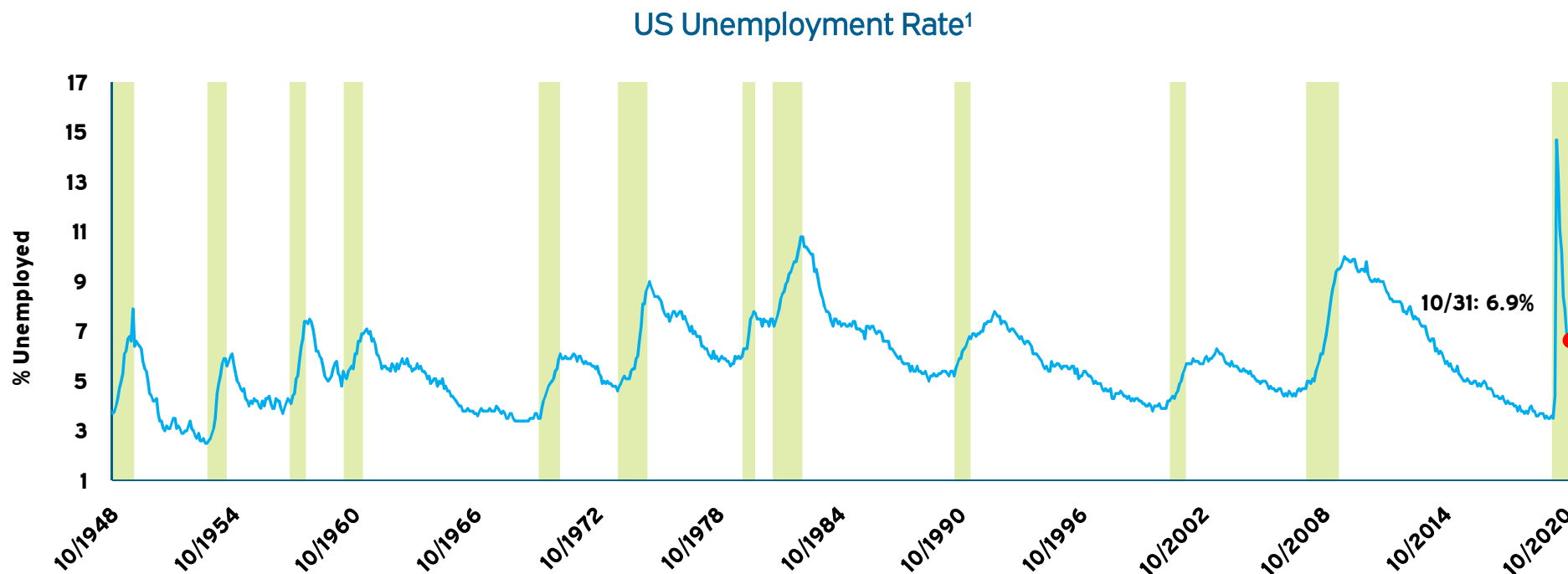
- Purchasing Managers Indices (PMI), based on surveys of private sector companies, initially collapsed across the world to record lows, as output, new orders, production, and employment were materially impacted by closed economies.
- Readings below 50 represent contractions across underlying components and act as a leading indicator of economic activity, including the future paths of GDP, employment, and industrial production.
- The services sector was particularly hard hit by stay-at-home restrictions in many places.
- As the Chinese economy reopened, their PMI's, particularly in the service sector, recovered materially. In the US and Europe, the indices have also improved from their lows to above contraction levels, in most cases.

<sup>1</sup> Source: Bloomberg. US Markit Services and Manufacturing PMI. Data is as of October 2020.

<sup>2</sup> Source: Bloomberg. Eurozone Markit Services and Manufacturing PMI. Data is as of October 2020.

<sup>3</sup> Source: Bloomberg. Caixin Services and Manufacturing PMI. Data is as of October 2020.



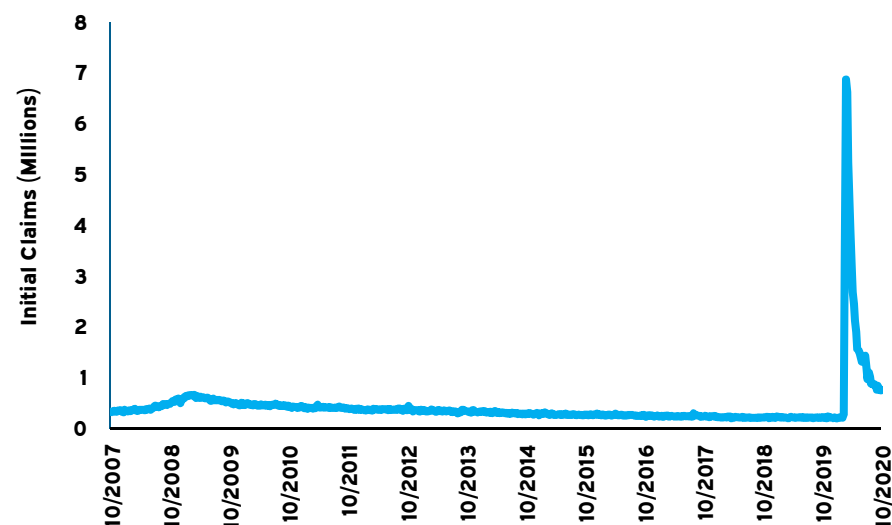


- In October, the unemployment rate continued its decline from the recent April 14.7% peak, falling to 6.9% as businesses and consumers emerged from the lockdown.
- Despite the improvement, unemployment levels remain well above pre-virus readings and are likely higher than reported, as some workers appear misclassified. According to the Bureau of Labor Statistics, absent the misclassification issue, the October unemployment rate would be higher by 0.3%.
- The recent spike in infections and the potential shutting down of some parts of the economy, could lead to an increase in the unemployment rate.

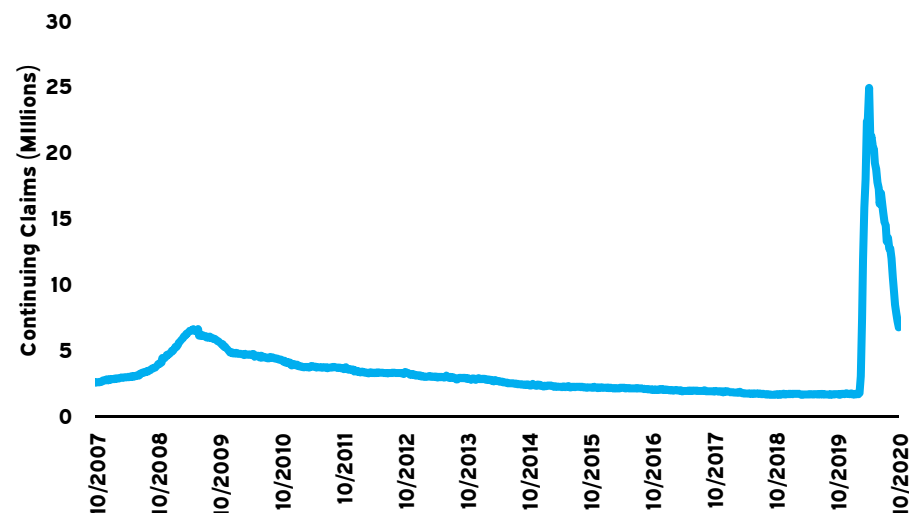
<sup>1</sup> Source: Bloomberg. Data is as of October 31, 2020. Bars represent recessions.

### US Jobless Claims

US Initial Jobless Claims<sup>1</sup>



Continuing Claims<sup>2</sup>

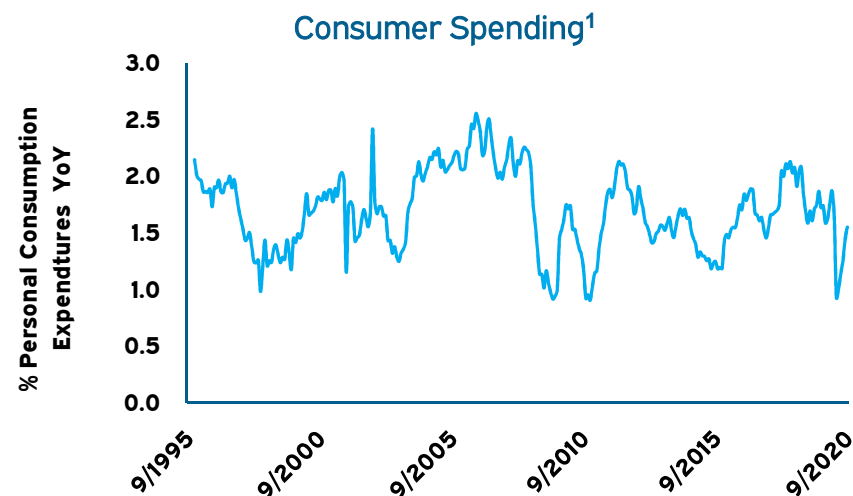
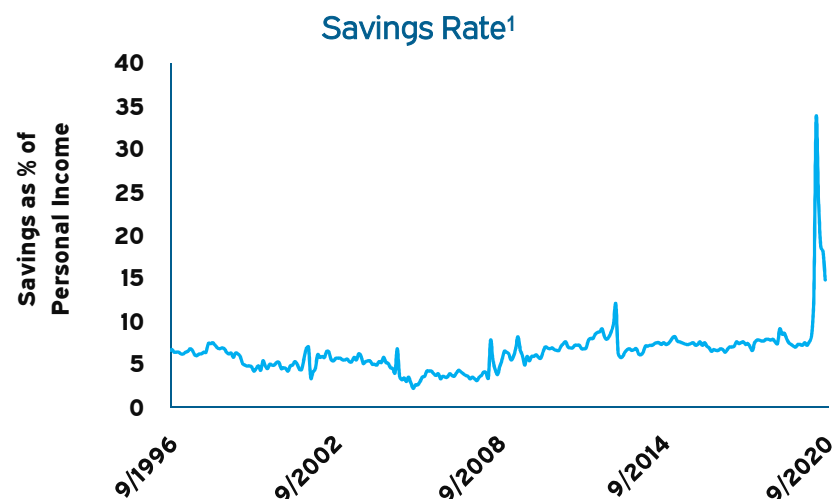


- Over the last 33 weeks, roughly 61 million people filed for initial unemployment. This level far exceeds the 22 million jobs added since the GFC, highlighting the unprecedented impact of the virus.
- Despite the continued decline in initial jobless claims to below one million per week, levels remain many multiples above the worst reading during the Global Financial Crisis.
- Continuing jobless claims (i.e., those currently receiving benefits) have also declined from record levels, but remain elevated at 6.8 million.

<sup>1</sup> Source: Bloomberg. First reading of seasonally adjusted initial jobless claims. Data is as of October 31, 2020.

<sup>2</sup> Source: Bloomberg. US Continuing Jobless Claims SA. Data is as of October 31, 2020.

### Savings and Spending

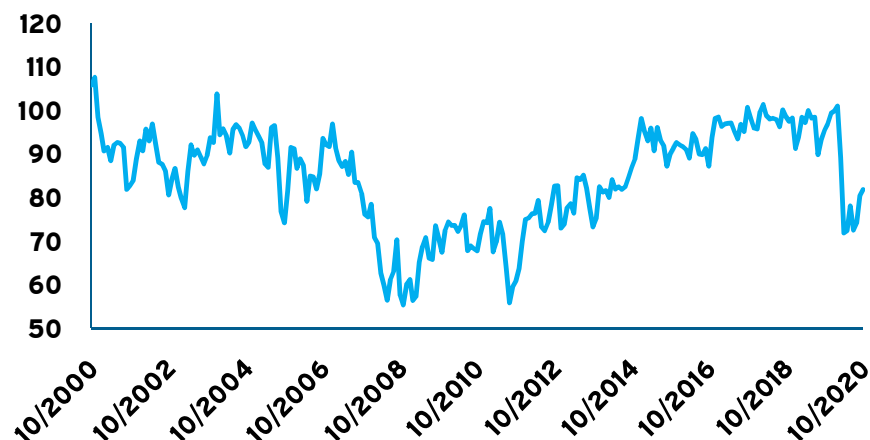


- Fiscal programs including stimulus checks, enhanced unemployment benefits, and loans to small businesses through the Paycheck Protection Program (PPP) have largely supported income levels through the shutdown.
- Despite the income support, the savings rate increased due to the decline in consumer spending, driven by the initial lock-down of the economy, and by uncertainties related to the future of the job market and stimulus programs.
- More recently, the savings rate declined from its peak as spending increased with the economy slowly reopening.

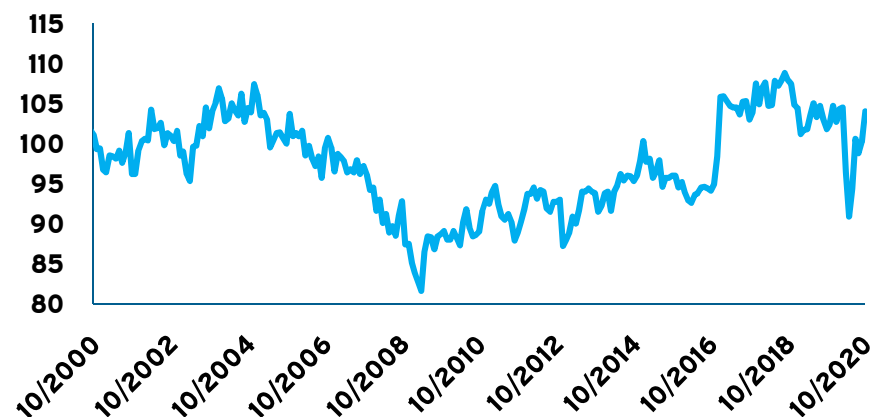
<sup>1</sup> Source: Bloomberg. Latest data is as of September 30, 2020.

### Sentiment Indicators

University of Michigan Consumer Sentiment<sup>1</sup>



Small Business Confidence<sup>2</sup>



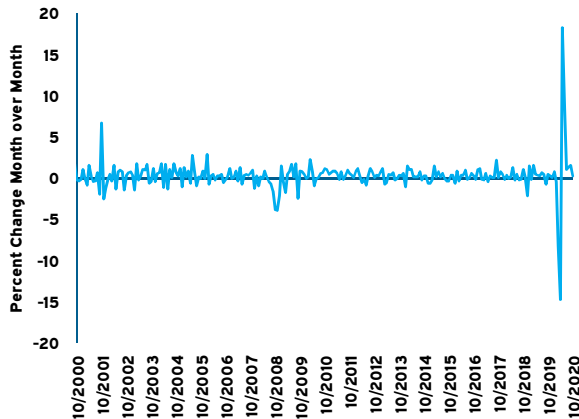
- A strong indicator of future economic activity are the attitudes of businesses and consumers today.
- Consumer spending comprises close to 70% of US GDP, making the attitudes of consumers an important driver of economic growth. Additionally, small businesses generate around half of US GDP, making sentiment in that segment important.
- Sentiment indicators have shown some improvements as the economy re-opens, particularly for small businesses which are approaching pre-pandemic levels.

<sup>1</sup> Source: Bloomberg. University of Michigan Consumer Sentiment Index. Data is as of October 31, 2020.

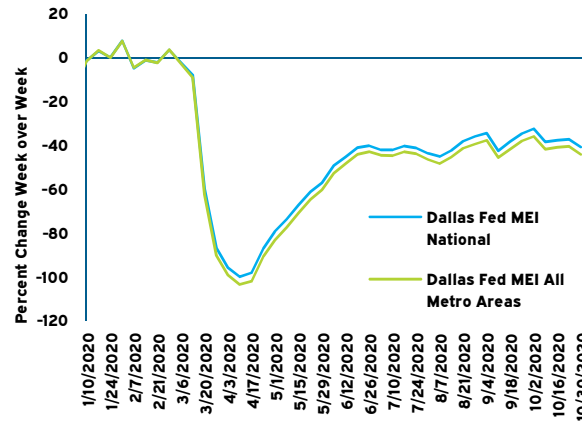
<sup>2</sup> Source: Bloomberg. NFIB Small Business Optimism Index. Latest data is as of October 31, 2020.

### Some US Data has Improved

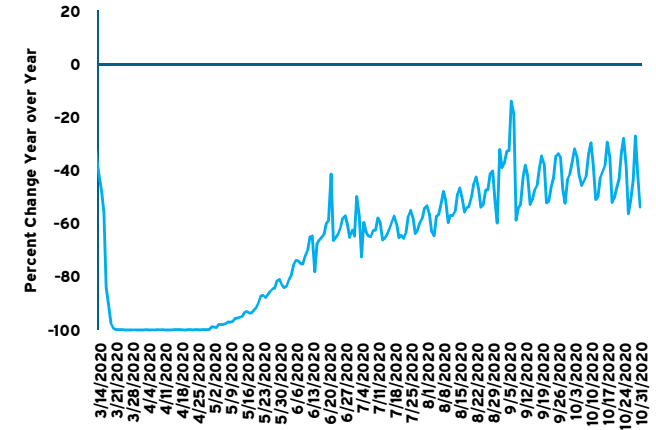
Retail Sales<sup>1</sup>



Dallas Fed Mobility and Engagement Index<sup>2</sup>



OpenTable Seated Diners YoY % Change<sup>3</sup>



- There have been improvements in high frequency data, but overall levels remain well below historical averages, and have slowed in some instances from the recent spike in cases.
- Generally, people have become more active as restrictions eased and stores reopened. Retail sales recovered from a record decline with six consecutive months of growth as the economy reopened, but the pace of growth has been declining.
- Restaurants have seen some improvements from the dramatic declines earlier in the year, but seating remains around half the level from a year prior as in-store dining has contributed to the increase in infections.

<sup>1</sup> Source: Bloomberg. Data is as of October 31, 2020 and represents the US Retail Sales SA MoM%.

<sup>2</sup> Source: Bloomberg. Data is as of October 31, 2020 and represents the deviation from normal mobility behaviors induced by COVID-19 (formerly the "Social Distancing Index"). The index represents a weighted average of various lengths of time that a mobile device, like a cell phone, leaves its "home" or place of residence, and/or how long a device stays at home. A decline in this index represents a mobile device at home for a longer period of time than average.

<sup>3</sup> Source: Bloomberg. This data shows year-over-year seated diners at restaurants on the OpenTable network across all channels: online reservations, phone reservations, and walk-ins. Only states or cities with 50+ restaurants in the sample are included. All such restaurants on the OpenTable network in either period are included. Data is as of October 31, 2020. Index start date 2/19/20.

### Looking Forward...

- There has been a significant economic impact and a global recession.
  - How deep it will be and how long it will last depend on factors (below) that are unknowable at this time.
- The length of the virus and country responses will be key considerations.
  - As of now, despite the recent vaccine announcements it is not clear the end is in sight, particularly with the recent increases in cases in certain areas; however, individual countries are attempting to lay the groundwork to support recoveries in their economies.
- Central banks and governments are pledging support, but will it be enough?
  - Market reactions to announced policies have been positive, but additional support will likely be required until the virus gets better contained and a vaccine is distributed.
- Expect heightened market volatility should economies start to shut back down in response to the recent spike in cases.
  - This has been a consistent theme recently; volatility is likely to remain at risk of spiking again for the foreseeable future.
- It is important to retain a long-term focus.
  - History supports the argument that maintaining a long-term focus will ultimately prove beneficial for diversified portfolios.

### Prior Drawdowns and Recoveries from 1926-2020<sup>1</sup>

Period	Peak-to-Trough Decline of the S&P 500	Approximate Time to Recovery
Sept 1929 to June 1932	-85%	266 months
February 1937 to April 1942	-57%	48 months
May 1946 to February 1948	-25%	27 months
August 1956 to October 1957	-22%	11 months
December 1961 to June 1962	-28%	14 months
February 1966 to October 1966	-22%	7 months
November 1968 to May 1970	-36%	21 months
January 1973 to October 1974	-48%	69 months
October 1976 to March 1978	-19%	17 months
November 1980 to August 1982	-27%	3 months
August 1987 to December 1987	-32%	19 months
July 1990 to October 1990	-20%	4 months
July 1998 to August 1998	-19%	3 months
March 2000 to October 2002	-49%	56 months
October 2007 to March 2009	-57%	49 months
February 2020 to March 2020	-34%	6 months
<b>Average</b>	<b>-36%</b>	<b>39 months</b>
<b>Average ex. Great Depression</b>	<b>-33%</b>	<b>24 months</b>

- As markets have fully recovered to above pre-COVID levels, questions remain about the sustainability of the rally.
- The six-month recovery period represents one of the shortest on record, similar to the historic decline.

<sup>1</sup> Source: Goldman Sachs.

## Implications for Clients

- Portfolios have experienced significant improvements from the March lows.
- Diversification and a disciplined rebalancing approach worked.
- Even though equity markets have recovered from their lows, it is important to remain vigilant and be prepared to rebalance if high volatility returns.
  - Before rebalancing, consider changes in liquidity needs given the potential for cash inflows to decline in some cases.
  - Also, consider the cost of rebalancing if investment liquidity declines.

### Performance YTD (through October 31, 2020)

S&P 500	ACWI (ex. US)	Aggregate Bond Index	Balanced Portfolio <sup>1</sup>
2.8%	-7.5%	6.3%	1.7%

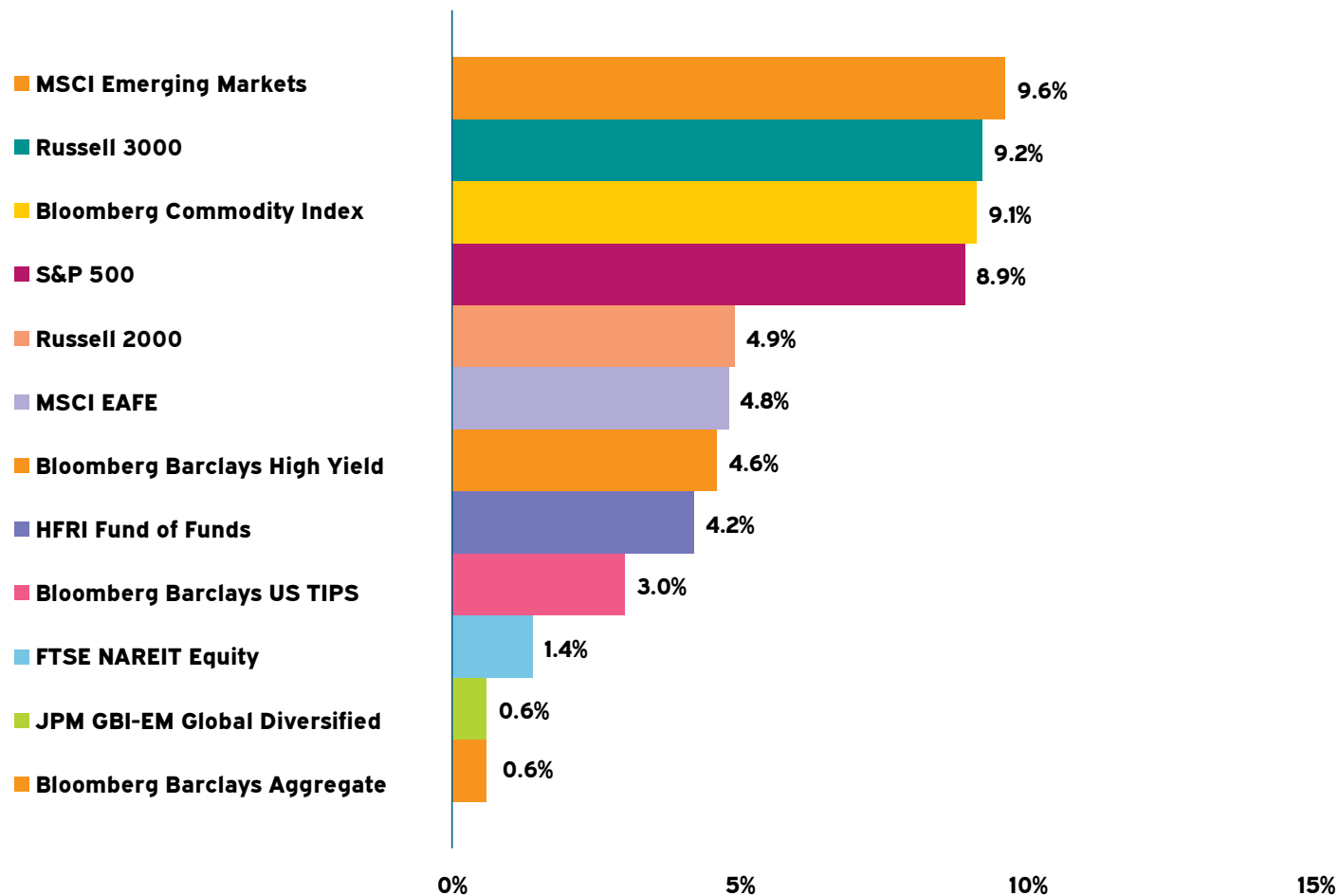
- Meketa will continue to monitor the situation and communicate frequently.
  - The situation is fluid and the economic impact is uncertain at this stage.
- Please feel free to reach out with any questions.

<sup>1</sup> Source: InvestorForce. Balanced Portfolio represents 60% MSCI ACWI and 40% Bloomberg Barclays Global Aggregate.



## **The World Markets Third Quarter of 2020**

### The World Markets<sup>1</sup> Third Quarter of 2020



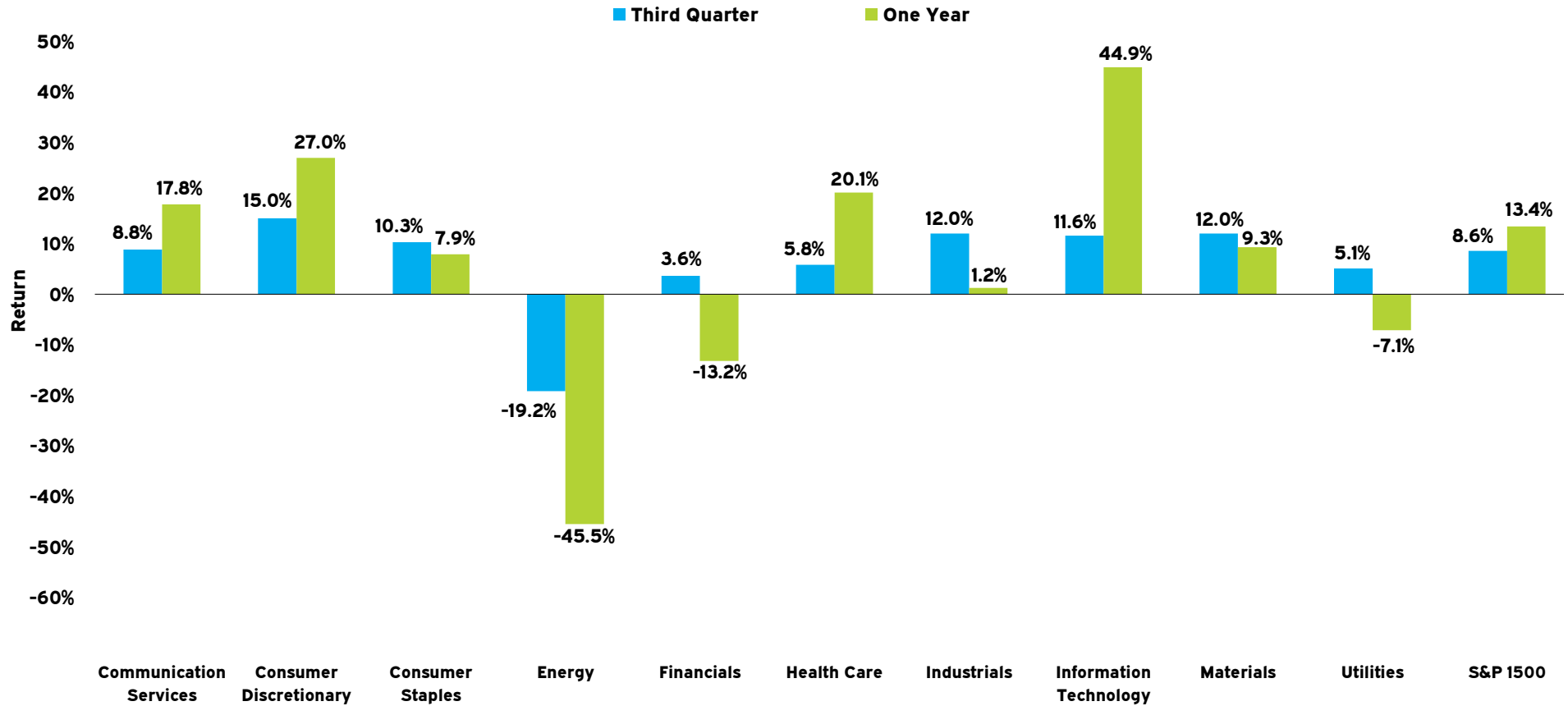
<sup>1</sup> Source: InvestorForce.

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

	3Q20 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
<b>Domestic Equity</b>						
S&P 500	8.9	5.6	15.1	12.3	14.1	13.7
Russell 3000	9.2	5.4	15.0	11.6	13.7	13.5
Russell 1000	9.5	6.4	16.0	12.4	14.1	13.8
Russell 1000 Growth	13.2	24.3	37.5	21.7	20.1	17.3
Russell 1000 Value	5.6	-11.6	-5.0	2.6	7.7	9.9
Russell MidCap	7.5	-2.3	4.6	7.1	10.1	11.8
Russell MidCap Growth	9.4	13.9	23.2	16.2	15.5	14.6
Russell MidCap Value	6.4	-12.8	-7.3	0.8	6.4	9.7
Russell 2000	4.9	-8.7	0.4	1.8	8.0	9.9
Russell 2000 Growth	7.2	3.9	15.7	8.2	11.4	12.3
Russell 2000 Value	2.6	-21.5	-14.9	-5.1	4.1	7.1
<b>Foreign Equity</b>						
MSCI ACWI (ex. US)	6.3	-5.4	3.0	1.2	6.2	4.0
MSCI EAFE	4.8	-7.1	0.5	0.6	5.3	4.6
MSCI EAFE (Local Currency)	1.2	-9.4	-4.7	0.6	4.8	6.3
MSCI EAFE Small Cap	10.3	-4.2	6.8	1.4	7.4	7.3
MSCI Emerging Markets	9.6	-1.2	10.5	2.4	9.0	2.5
MSCI Emerging Markets (Local Currency)	8.6	2.7	12.5	4.8	9.6	5.6
<b>Fixed Income</b>						
Bloomberg Barclays Universal	1.0	6.2	6.7	5.1	4.5	3.9
Bloomberg Barclays Aggregate	0.6	6.8	7.0	5.2	4.2	3.6
Bloomberg Barclays US TIPS	3.0	9.2	10.1	5.8	4.6	3.6
Bloomberg Barclays High Yield	4.6	0.6	3.3	4.2	6.8	6.5
JPM GBI-EM Global Diversified	0.6	-6.3	-1.4	0.2	4.8	0.5
<b>Other</b>						
FTSE NAREIT Equity	1.4	-17.5	-18.2	0.2	3.9	7.9
Bloomberg Commodity Index	9.1	-12.1	-8.2	-4.2	-3.1	-6.0
HFRI Fund of Funds	4.2	2.5	5.6	2.9	3.1	2.9

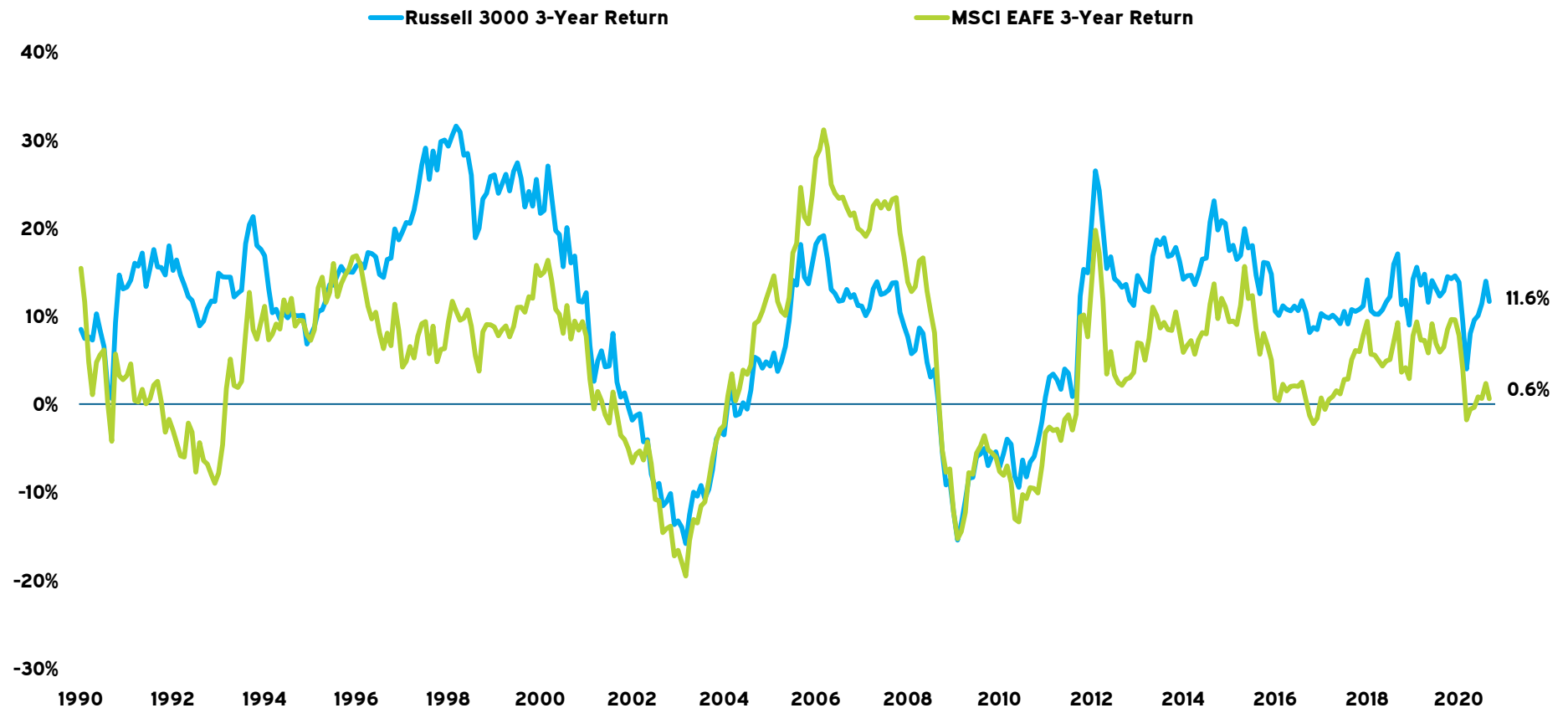
<sup>1</sup> Source: InvestorForce.

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



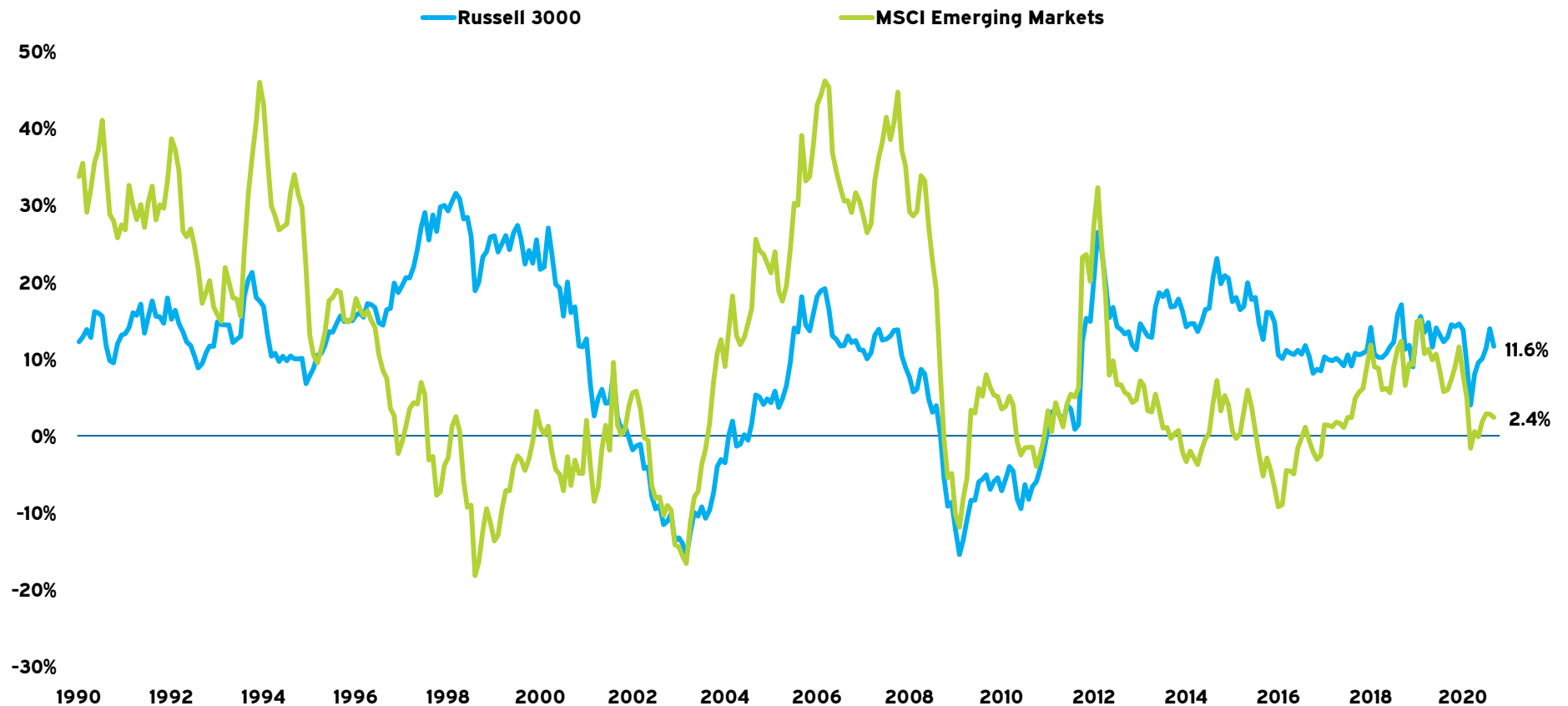
<sup>1</sup> Source: InvestorForce. Represents S&P 1500 (All Cap) data.

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



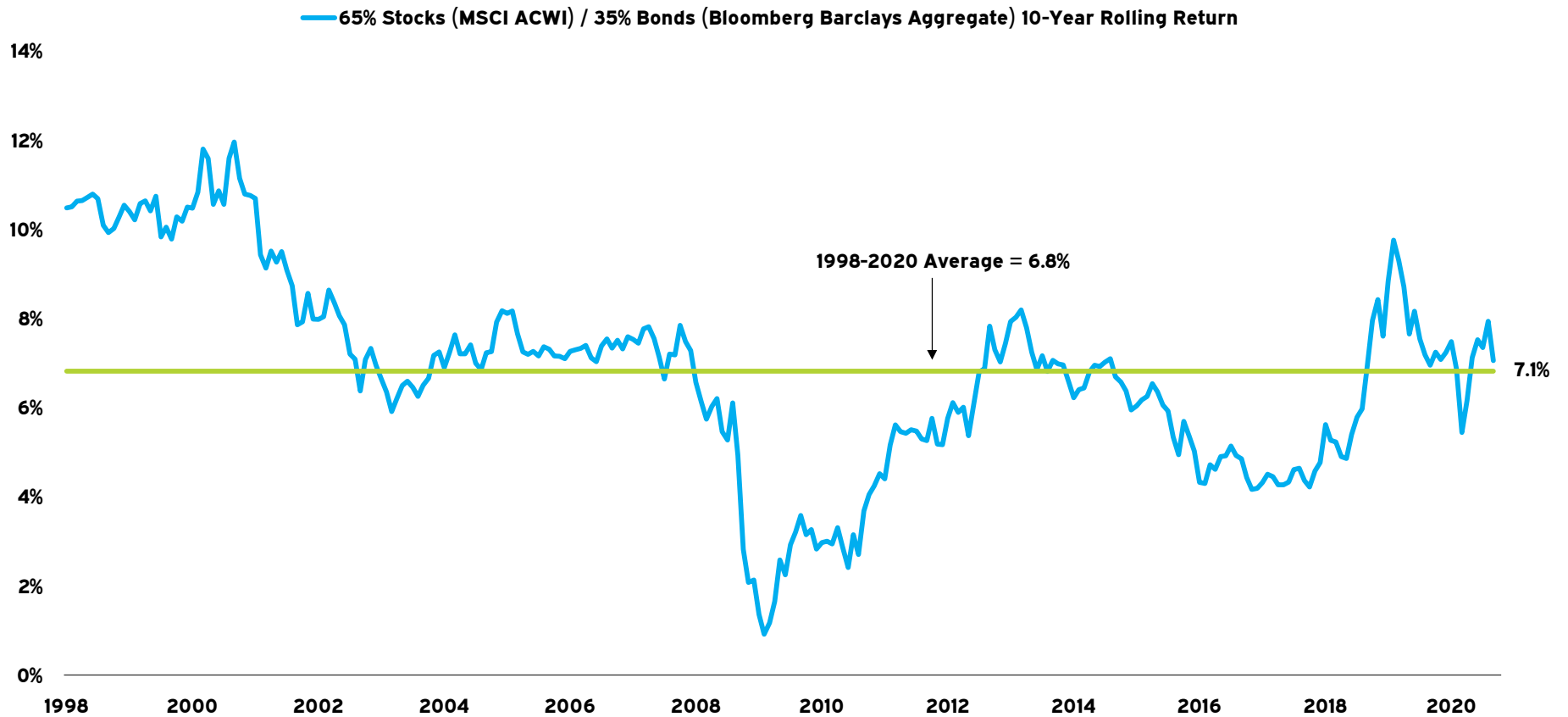
<sup>1</sup> Source: InvestorForce.

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



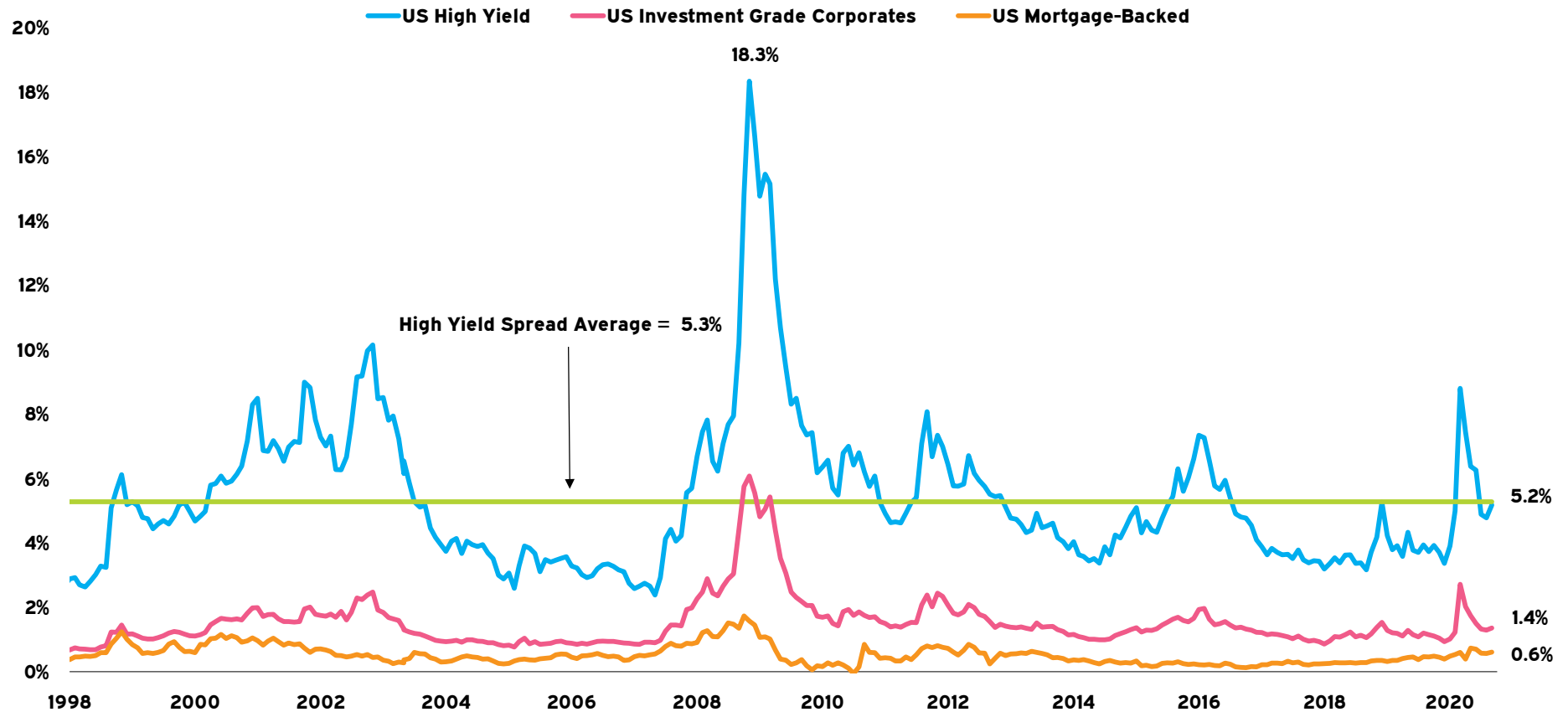
<sup>1</sup> Source: InvestorForce.

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



<sup>1</sup> Source: InvestorForce.

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

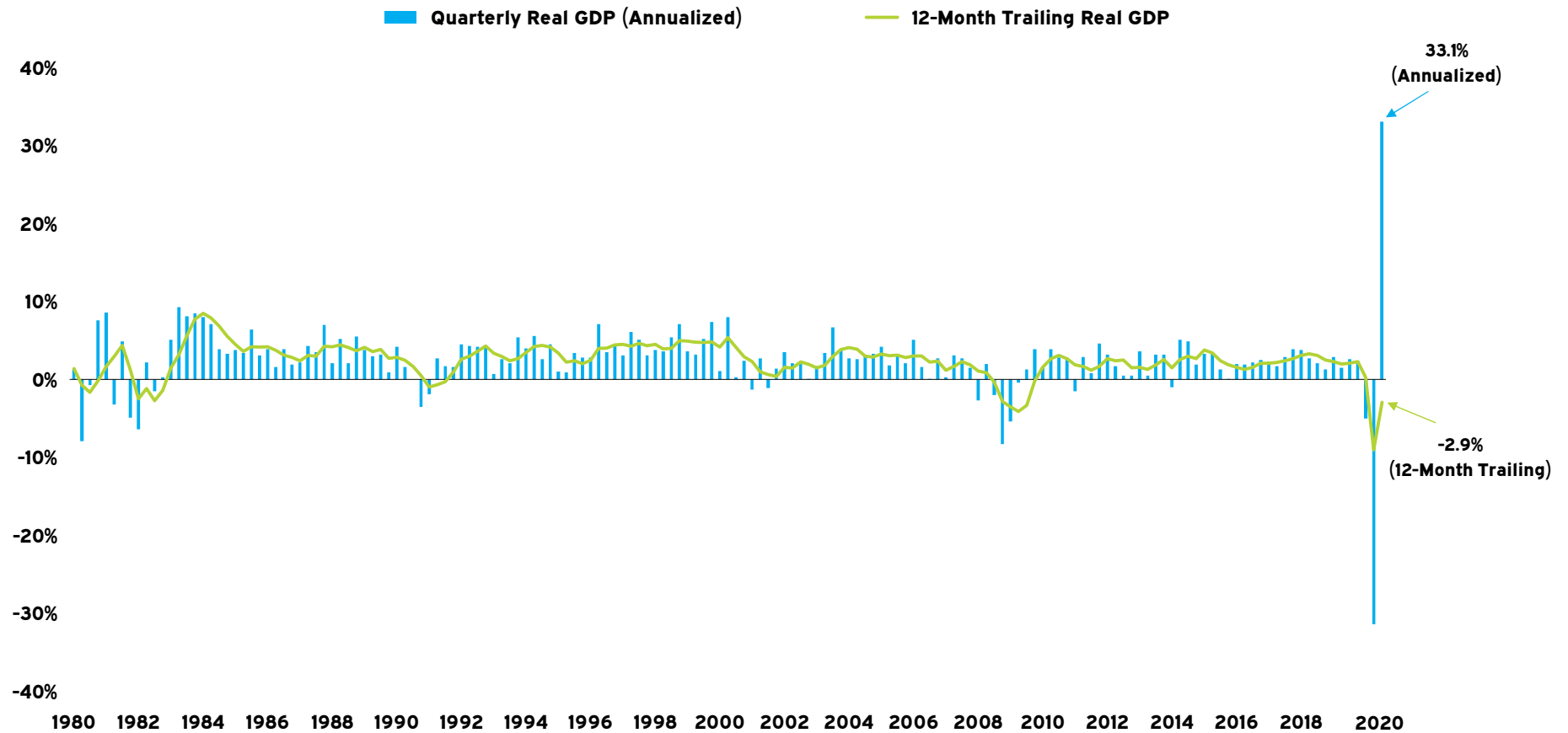


<sup>1</sup> Source: Barclays Live. Data represents the OAS.

<sup>2</sup> The median high yield spread was 4.8% from 1997-2020.

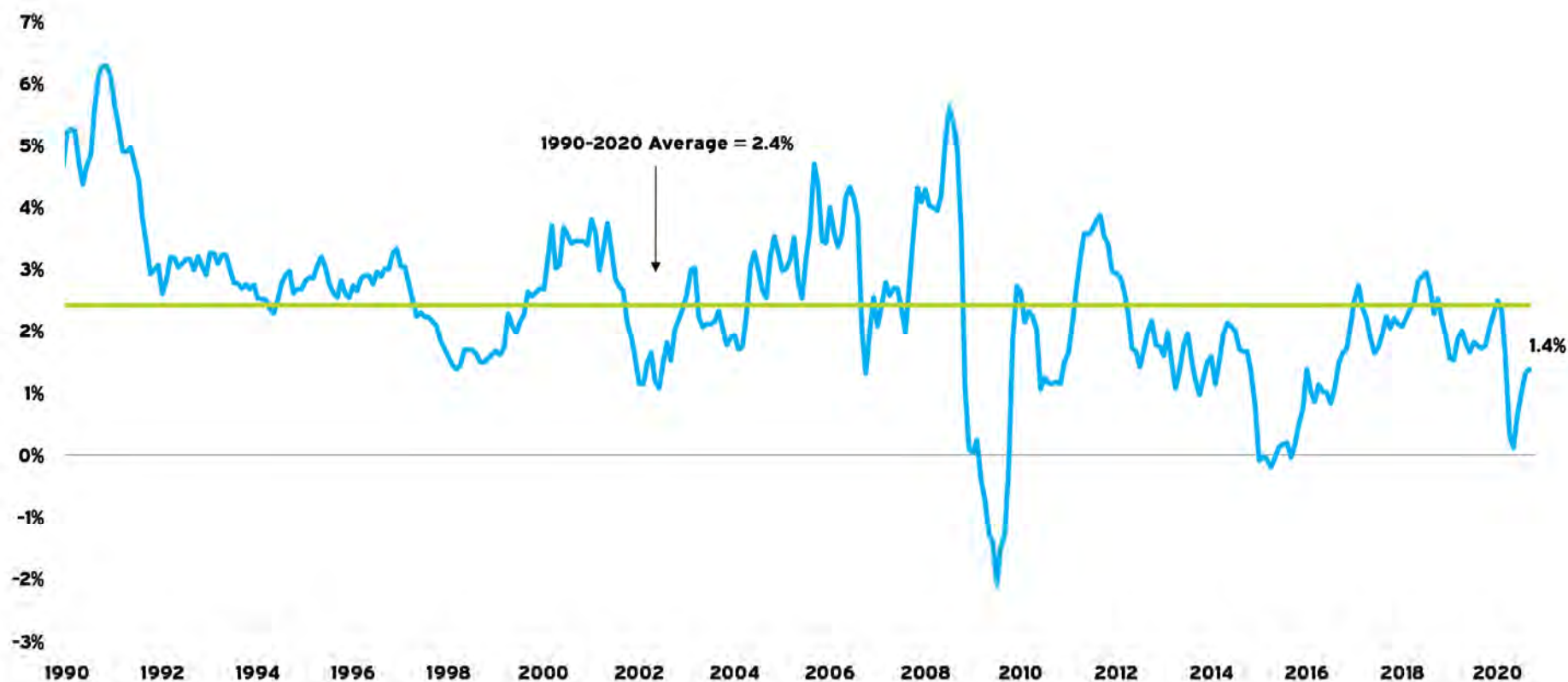


## US Real Gross Domestic Product (GDP) Growth<sup>1</sup>



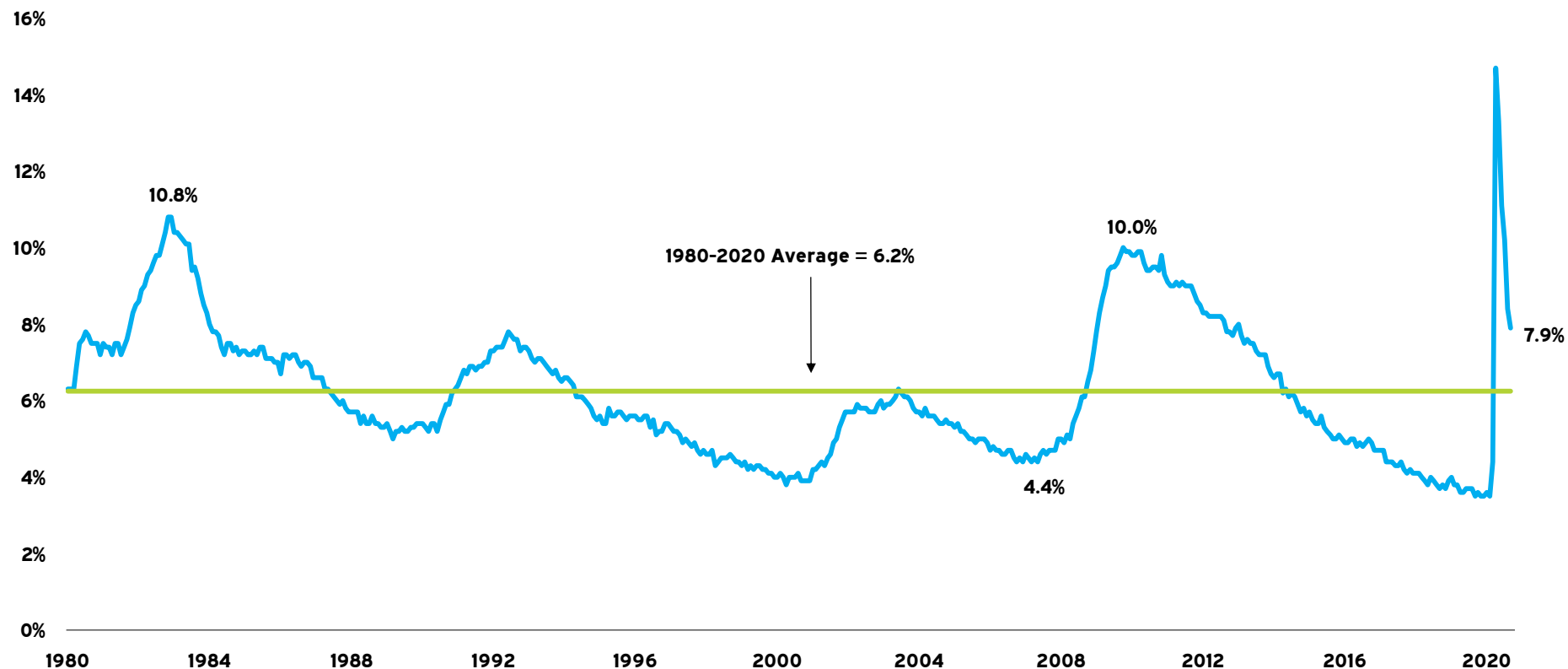
<sup>1</sup> Source: Bureau of Economic Analysis. Data is as of Q3 2020 and represents the second estimate.

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



<sup>1</sup> Source: Bureau of Labor Statistics. Data is non-seasonally adjusted CPI, which may be volatile in the short-term. Data is as of September 30, 2020.

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



<sup>1</sup> Source: Bureau of Labor Statistics. Data is as of September 30, 2020.

## Capital Markets Outlook & Risk Metrics

As of October 31, 2020

## Capital Markets Outlook

### Takeaways

- October saw a modest reversal from the primary themes of Q2 and Q3. In particular, global equity markets generally produced flat-to-negative returns, although small cap and value stocks regained some ground relative to their counterparts. Additionally, longer-term interest rates in the US ticked up slightly, resulting in negative returns for most safe haven assets (e.g., US Treasury bonds).
- Risk-oriented markets have rebounded significantly since the March lows, although October represented a pause to the recovery. Despite some catch-up in October, there continues to be a high degree of divergence among equity regions/styles/capitalizations, and this is exemplified at the extremes with US large cap growth stocks outperforming US small cap value stocks by nearly 40% thus far in 2020.
- While the shorter portions of the US Treasury curve were stable during October, yields rose by 10-20 basis points for US Treasuries greater than 5 years in maturity. Although this movement is not significant in an absolute sense, at current interest rate levels such a move does modestly impact bond prices.
- Real yields in the US ticked up during October, with the most significant movements occurring at the longer end of the curve. The entire real yield curve does, however, remain in negative territory.
- Q3 GDP and other economic data indicate that an economic recovery was well underway. However, recent increases in COVID-related cases/deaths, as well as newly announced shutdowns in Europe and other regions, represent a new headwind to the recovery.

## Capital Markets Outlook

### Takeaways

- Market activity appears to be focused on two items: 1) 2020 election results and 2) vaccine development and COVID-related shutdowns. Returning to pre-COVID levels of economic activity is not expected to occur until 2021 at the earliest.
- Implied equity market volatility<sup>1</sup> increased throughout October before ending the month at around 38. Conversely, our Systemic Risk measure decreased during the month, while implied fixed income volatility<sup>2</sup> increased.
- While valuations for several risk-based asset classes appear neutral-to-attractive at first glance, it is important to note that the full impact on corporate earnings and solvencies remains unknown. The path that the global economy will take moving forward is uncertain.
- The Market Sentiment Indicator<sup>3</sup> returned to grey (i.e., neutral) at month-end.

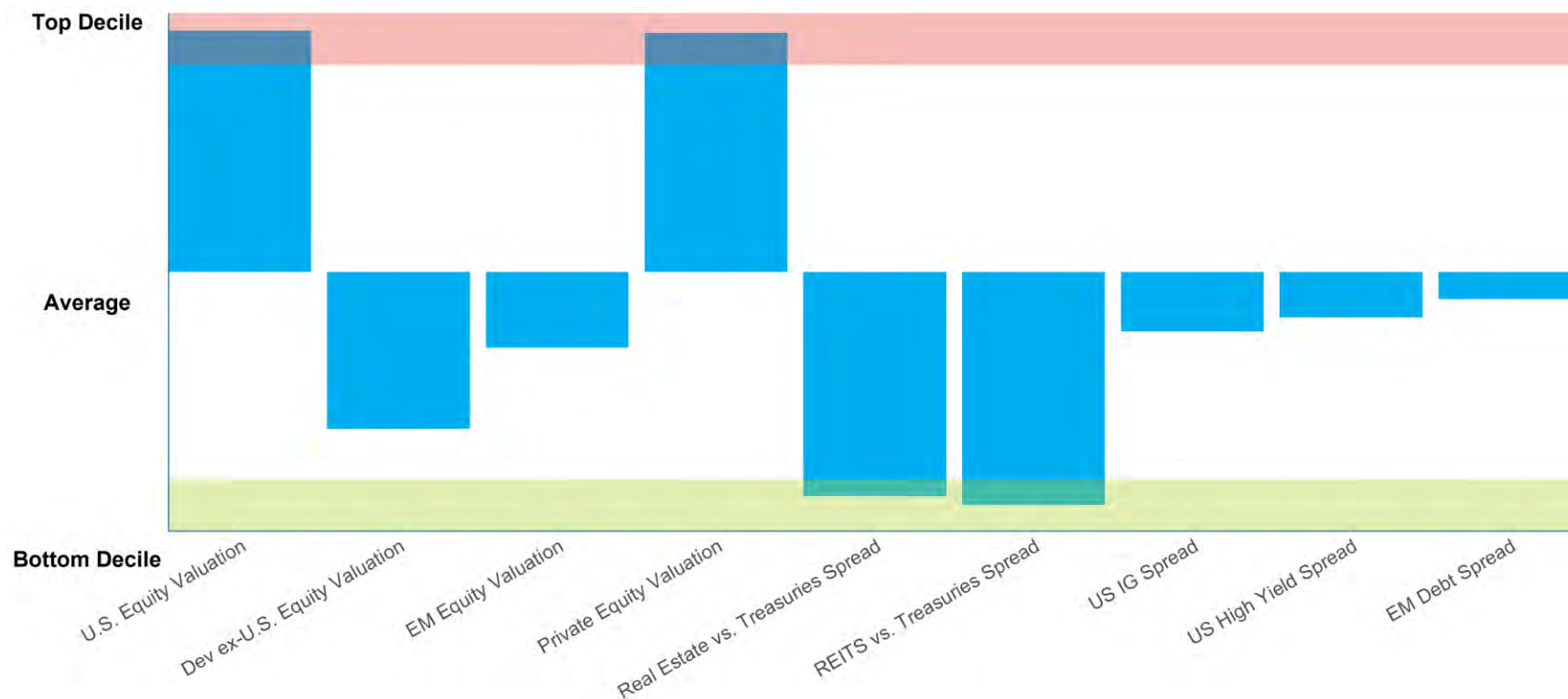
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<sup>1</sup> As measured by VIX Index.

<sup>2</sup> As measured by MOVE Index.

<sup>3</sup> See Appendix for the rationale for selection and calculation methodology used for the risk metrics.

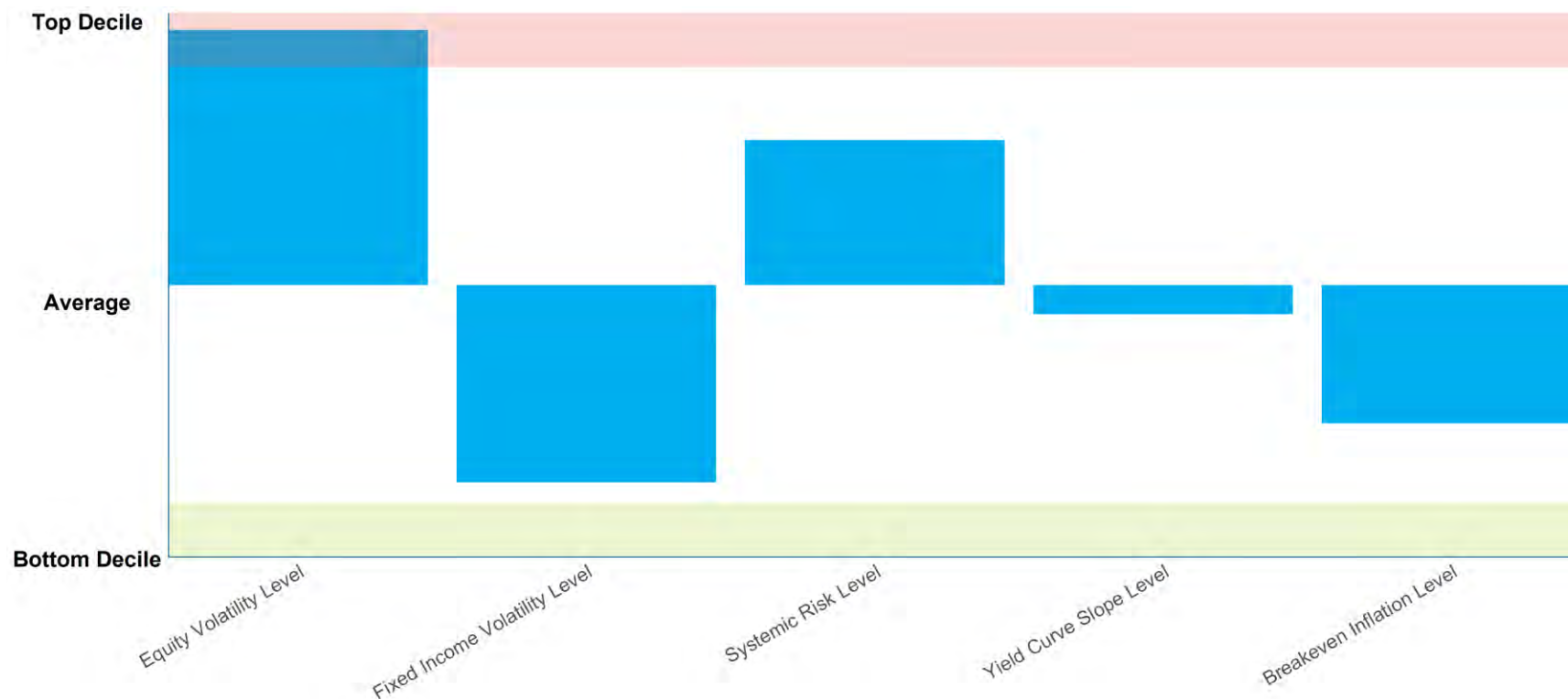
### Risk Overview/Dashboard (1) (As of October 31, 2020)<sup>1</sup>



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

<sup>1</sup> With the exception of Private Equity Valuation, that is YTD as of December 31, 2019.

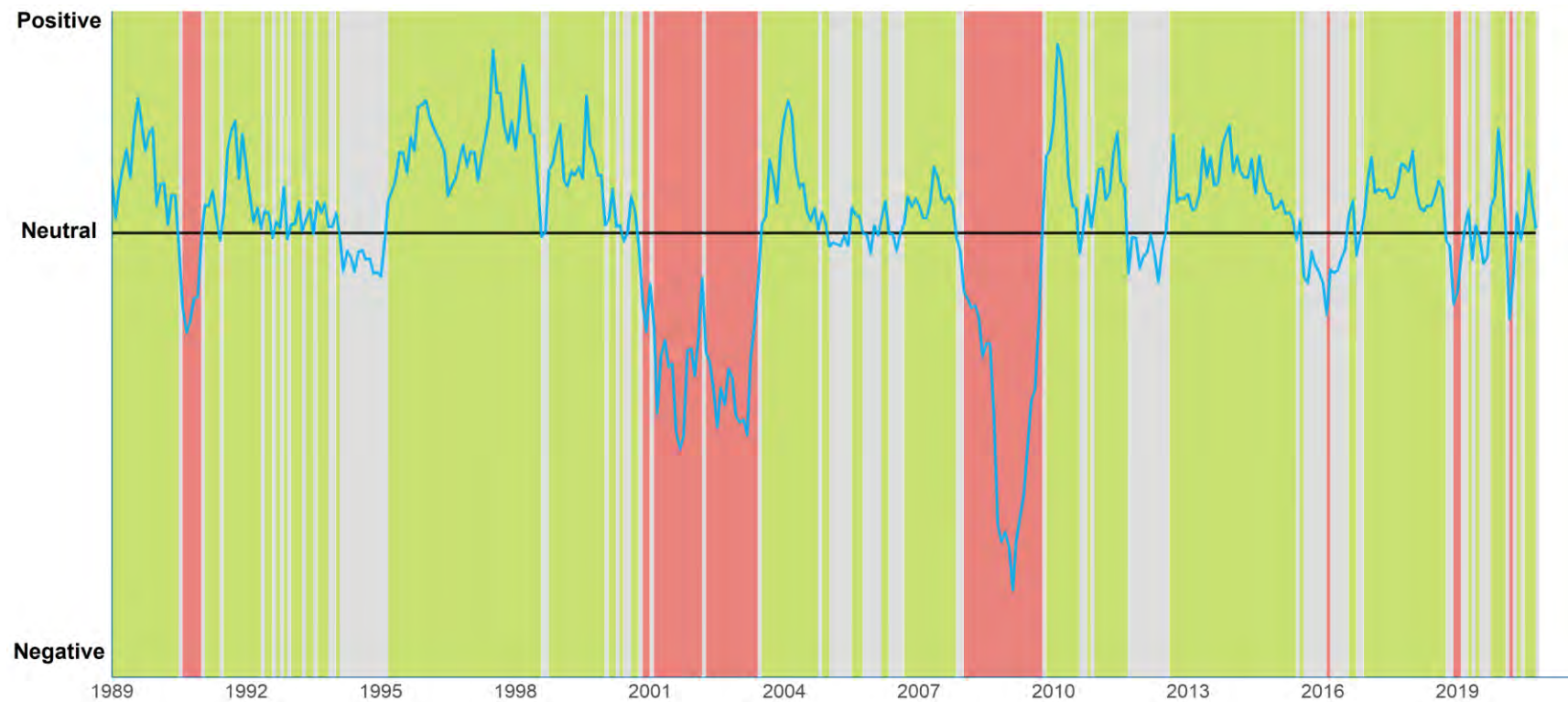
### Risk Overview/Dashboard (2) (As of October 31, 2020)



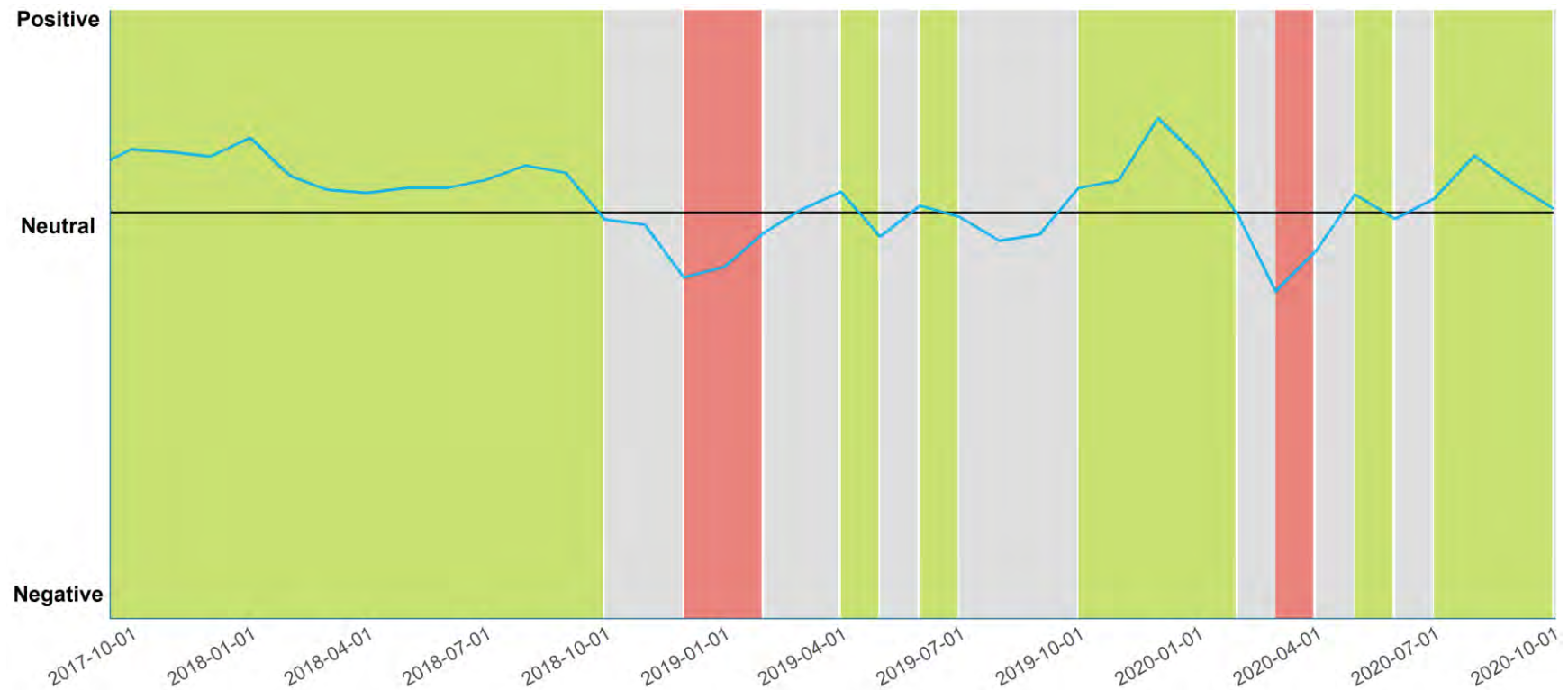
- Dashboard (2) shows how the current level of each indicator compares to its respective history.



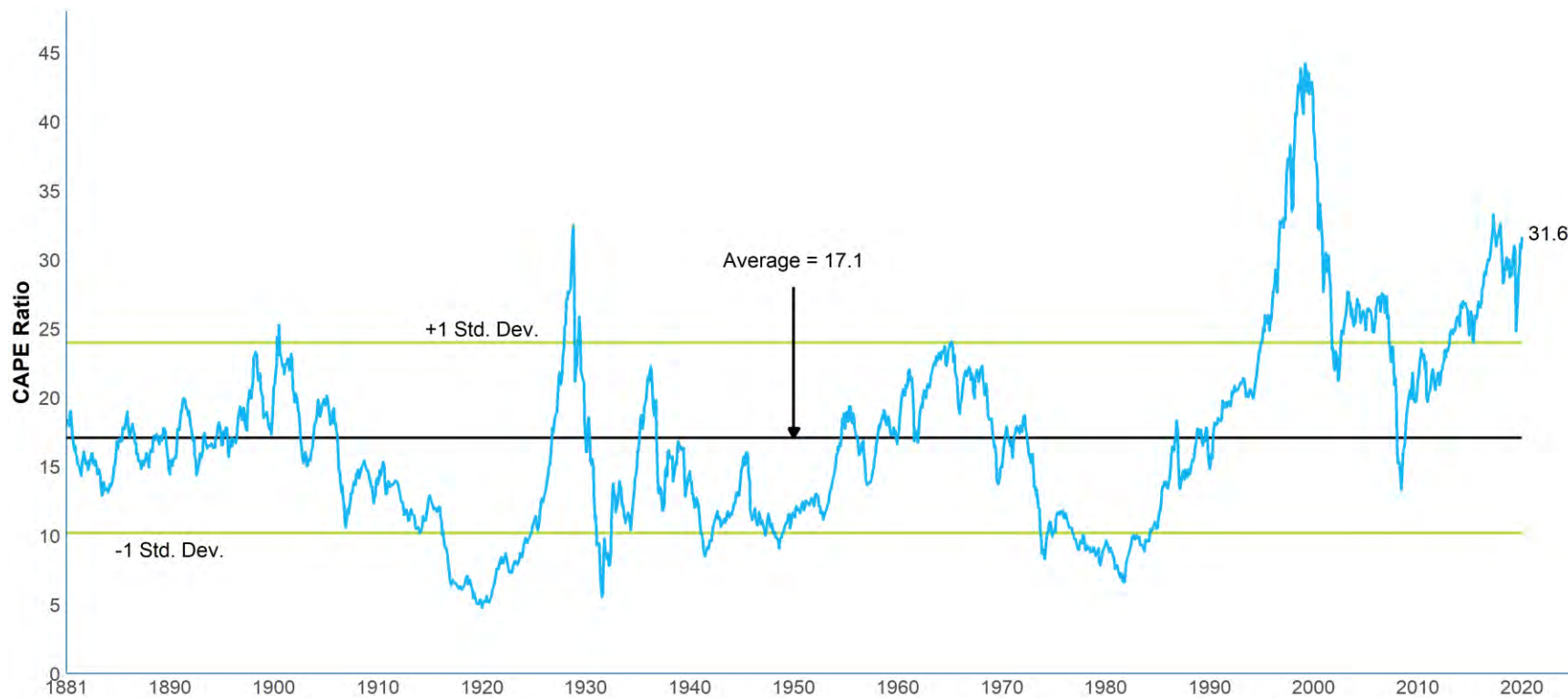
### Market Sentiment Indicator (All History) (As of October 31, 2020)



Market Sentiment Indicator (Last Three Years)  
(As of October 31, 2020)



### US Equity Cyclically Adjusted P/E<sup>1</sup> (As of October 31, 2020)



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

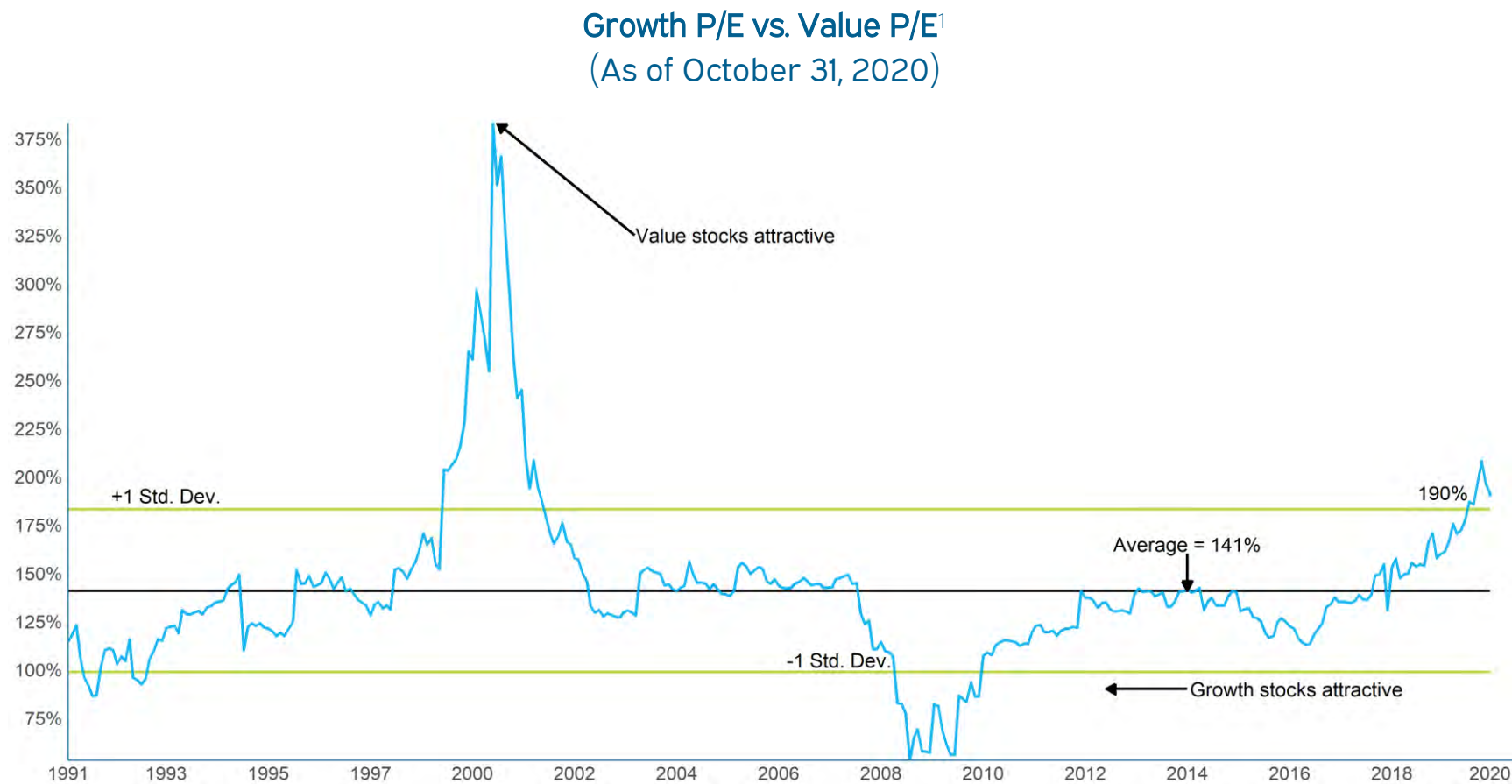
<sup>1</sup> US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group.

### Small Cap P/E vs. Large Cap P/E<sup>1</sup> (As of October 31, 2020)



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

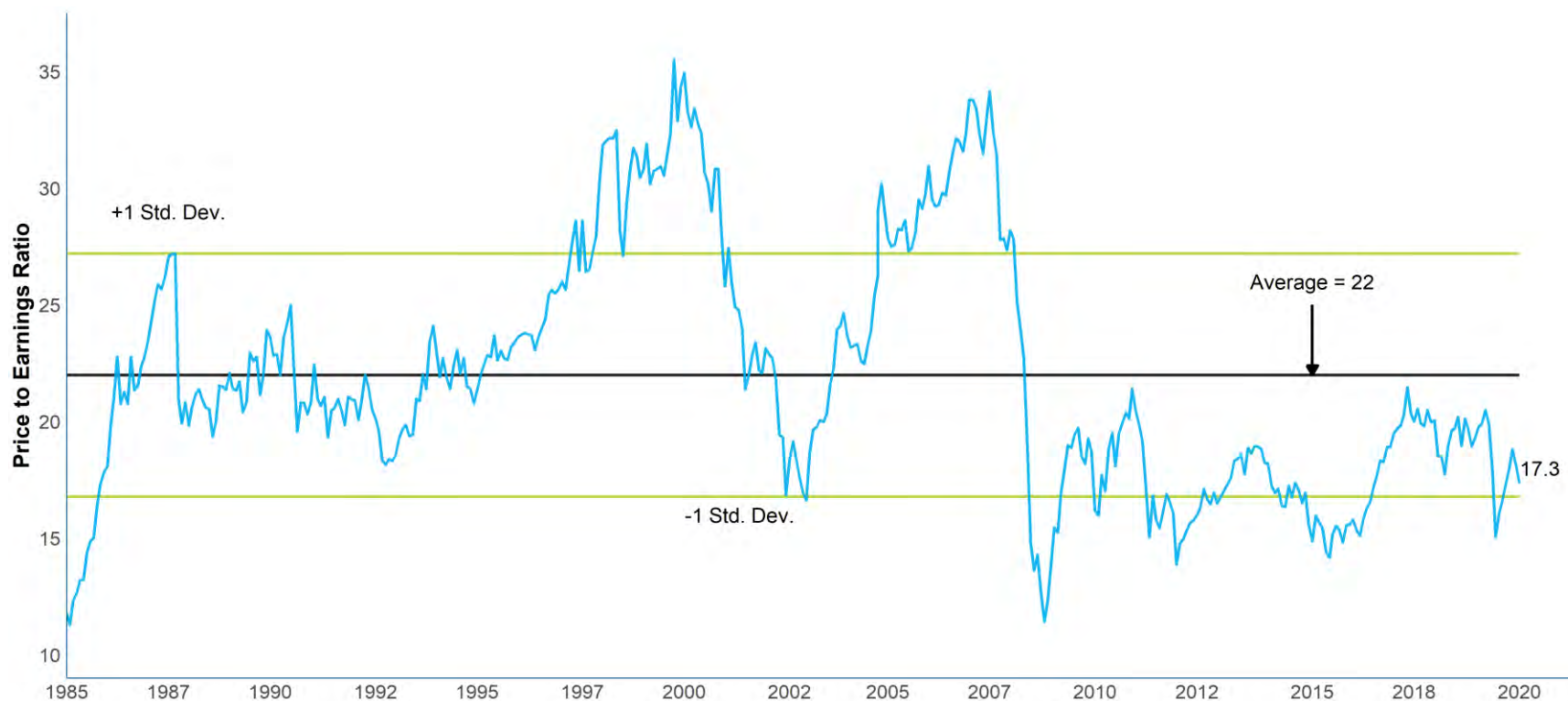
<sup>1</sup> Small Cap P/E (Russell 2000 Index) vs. Large Cap P/E (Russell 1000 Index) - Source: Russell Investments. Earnings figures represent 12-month "as reported" earnings.



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

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

### Developed International Equity Cyclically Adjusted P/E<sup>1</sup> (As of October 31, 2020)



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

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



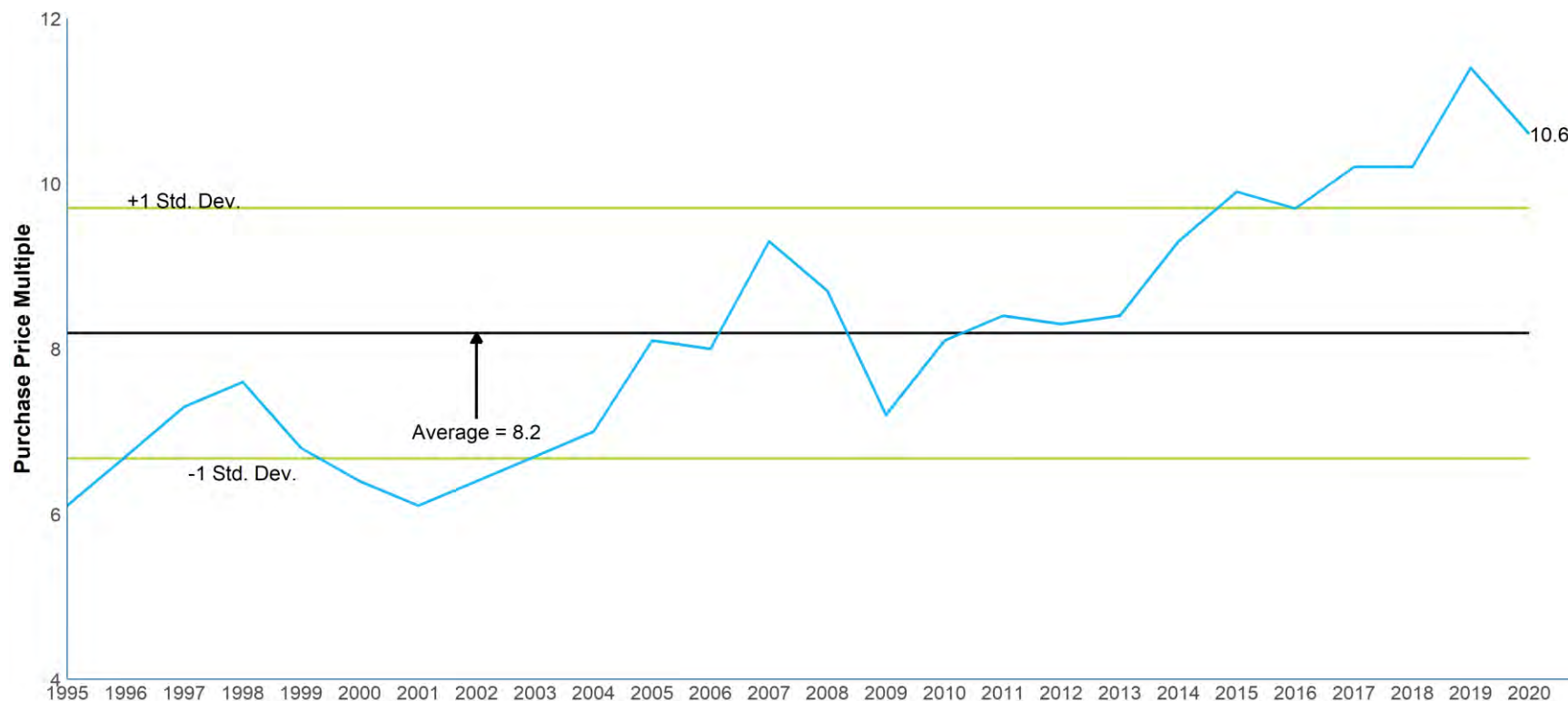
### Emerging Market Equity Cyclically Adjusted P/E<sup>1</sup> (As of October 31, 2020)



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

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

### Private Equity Multiples<sup>1</sup> (As of February 29, 2020)<sup>2</sup>



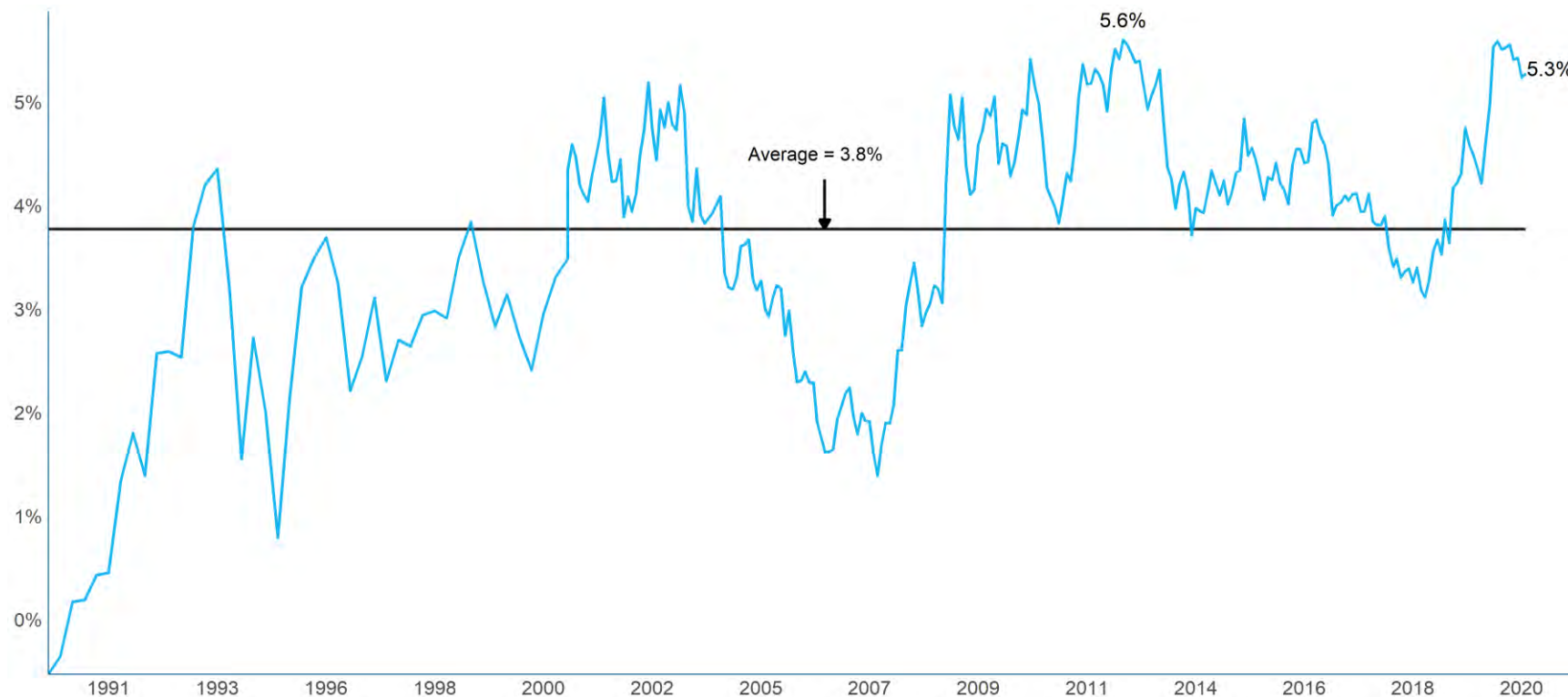
- This chart details one valuation metric for the private equity market. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

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

<sup>2</sup> Annual figures, except for 2020 (YTD).



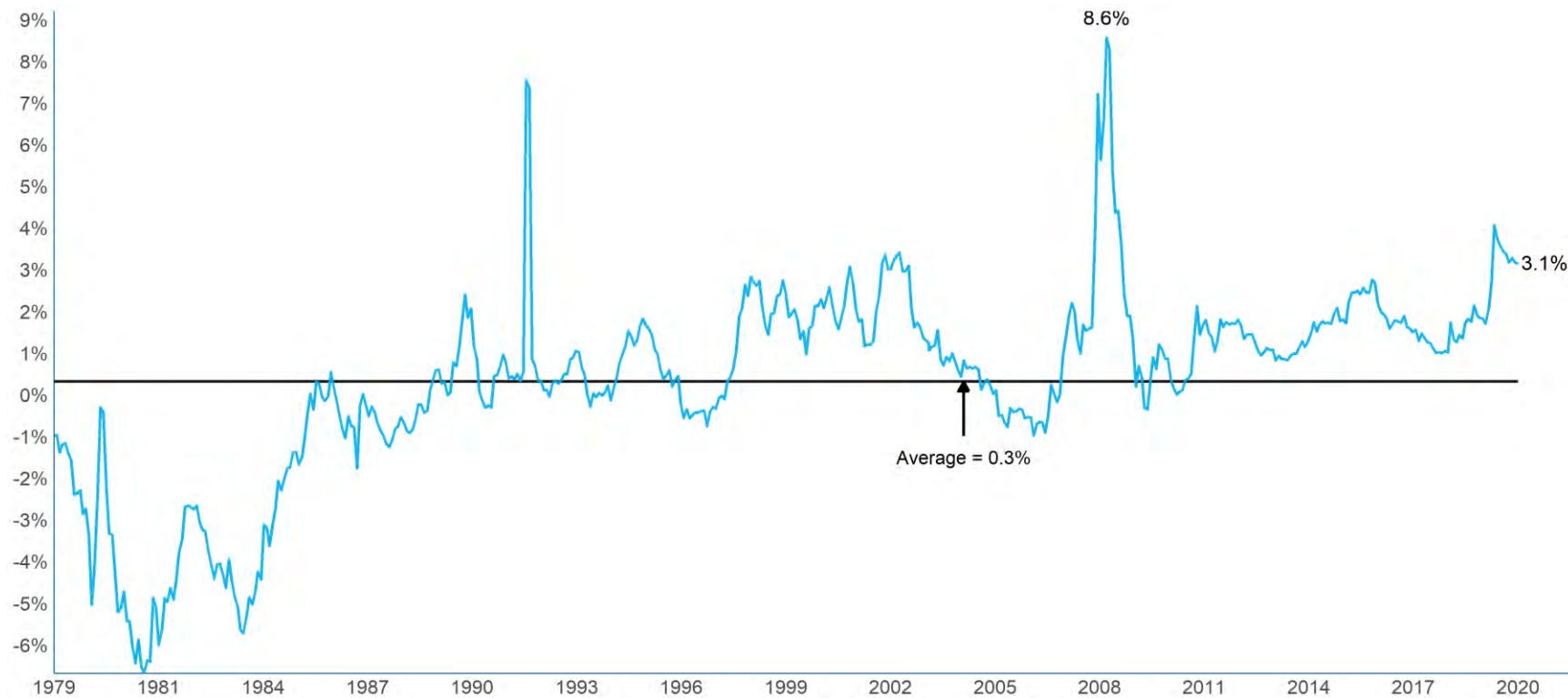
### Core Real Estate Spread vs. Ten-Year Treasury<sup>1</sup> (As of October 31, 2020)



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

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

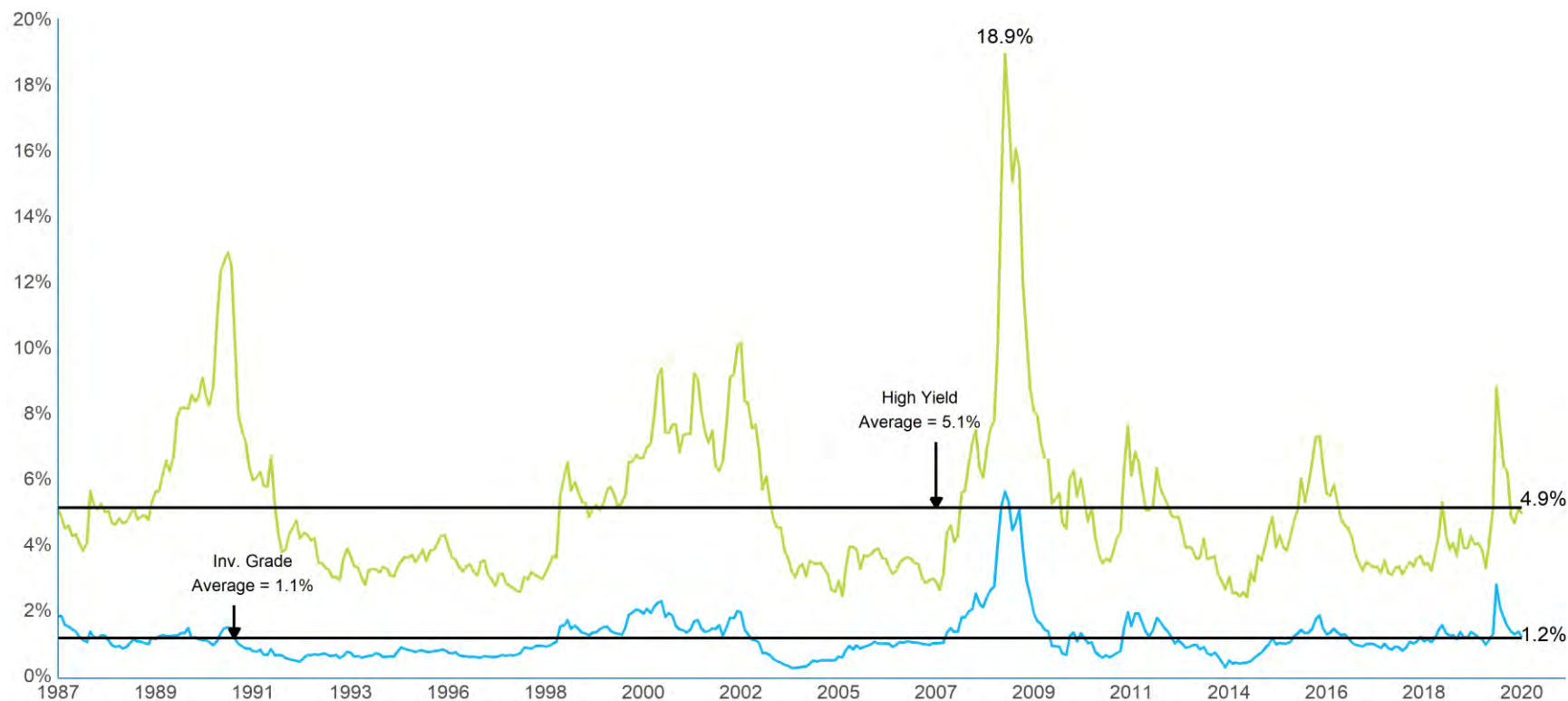
REITs Dividend Yield Spread vs. Ten-Year Treasury<sup>1</sup>  
(As of October 31, 2020)



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

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

### Credit Spreads<sup>1</sup> (As of October 31, 2020)



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

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

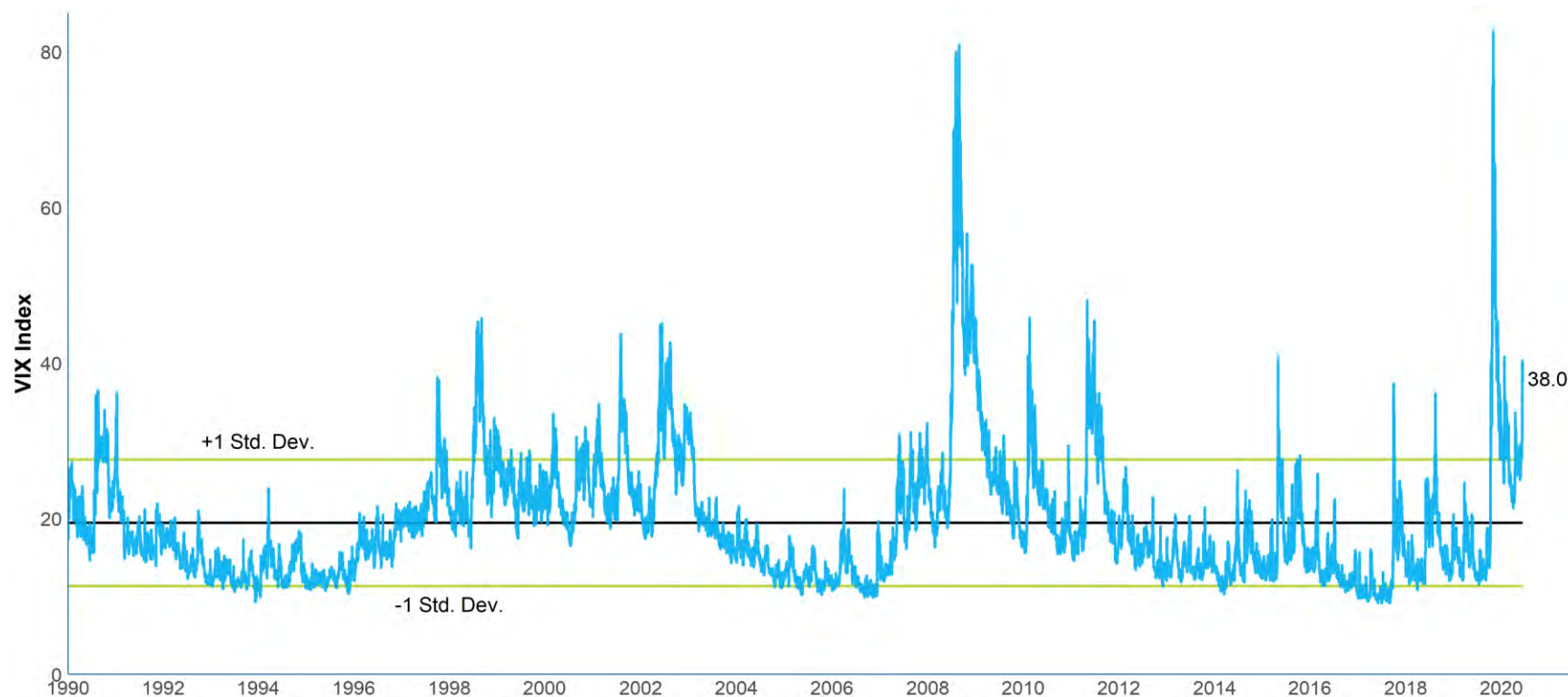
### Emerging Market Debt Spreads<sup>1</sup> (As of October 31, 2020)



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

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

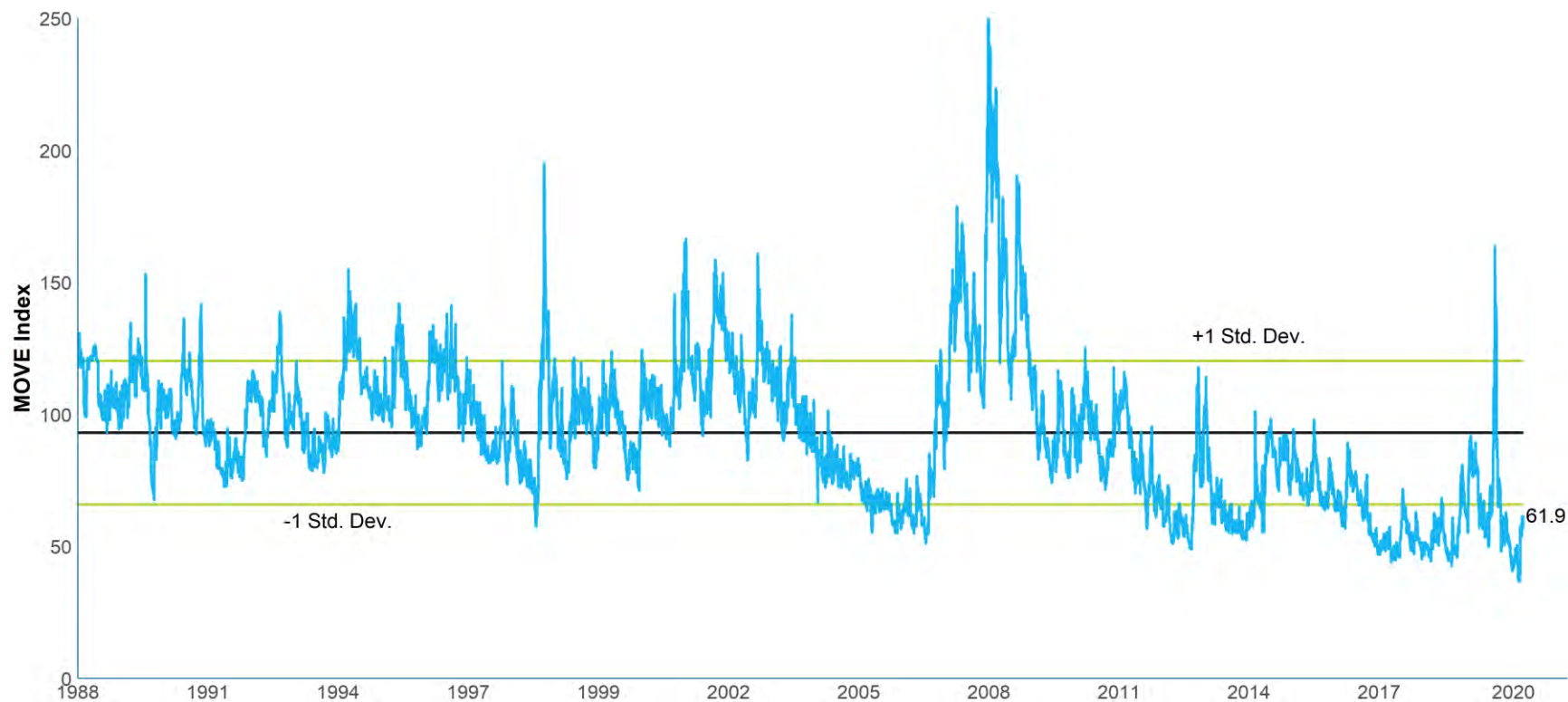
### Equity Volatility<sup>1</sup> (As of October 31, 2020)



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

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

### Fixed Income Volatility<sup>1</sup> (As of October 31, 2020)

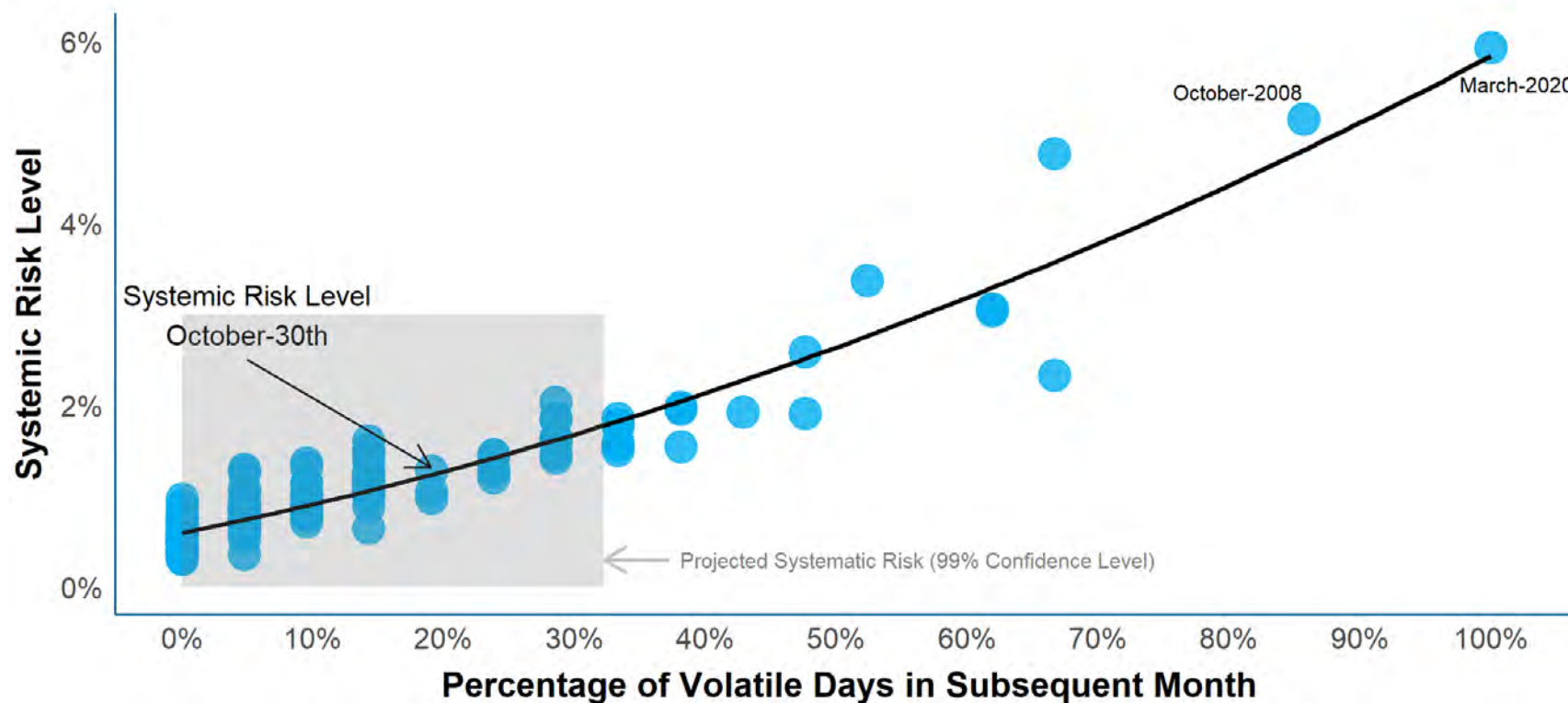


- This chart details historical implied fixed income market volatility. This metric tends to increase during times of stress/fear and while declining during more benign periods.

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



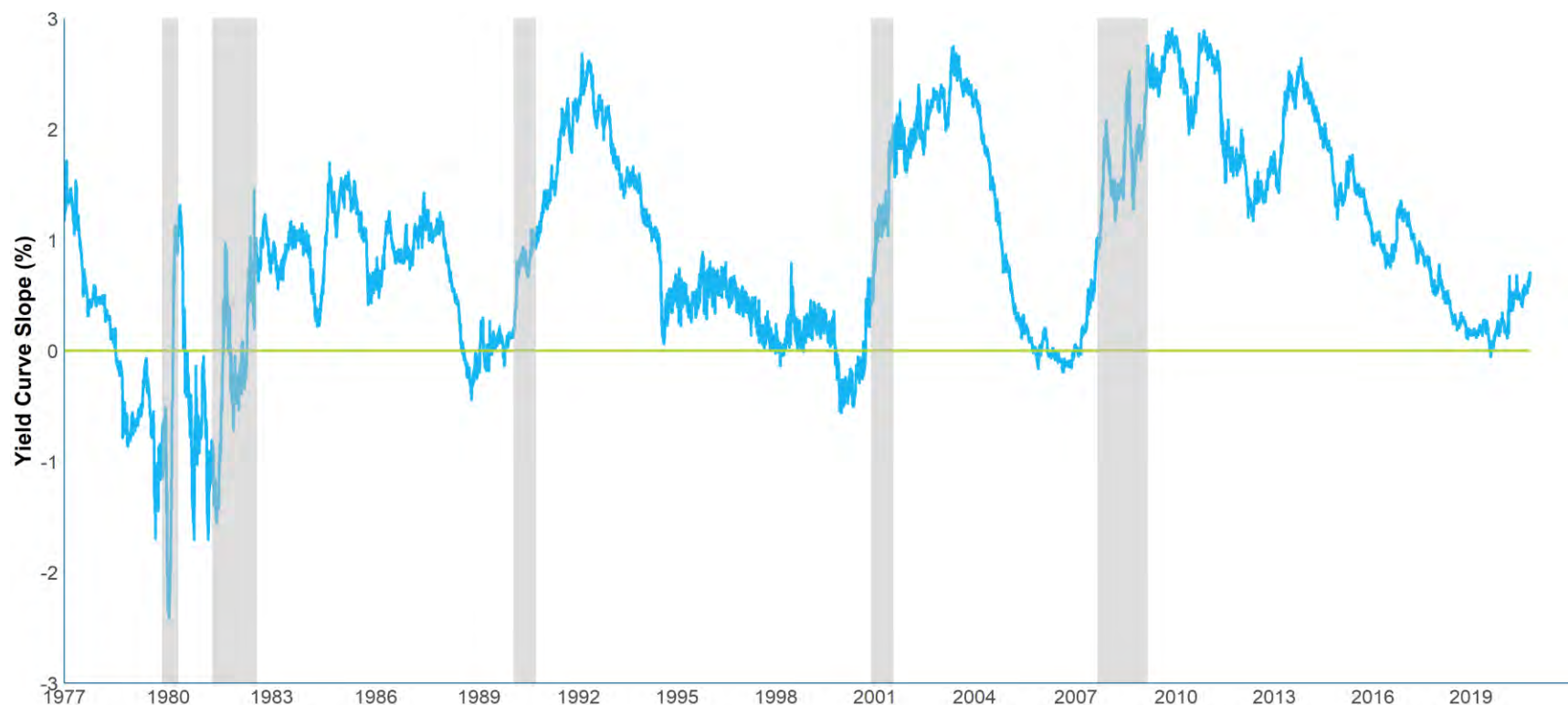
### Systemic Risk and Volatile Market Days<sup>1</sup> (As of October 31, 2020)



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

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

Yield Curve Slope (Ten Minus Two)<sup>1</sup>  
(As of October 31, 2020)



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

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



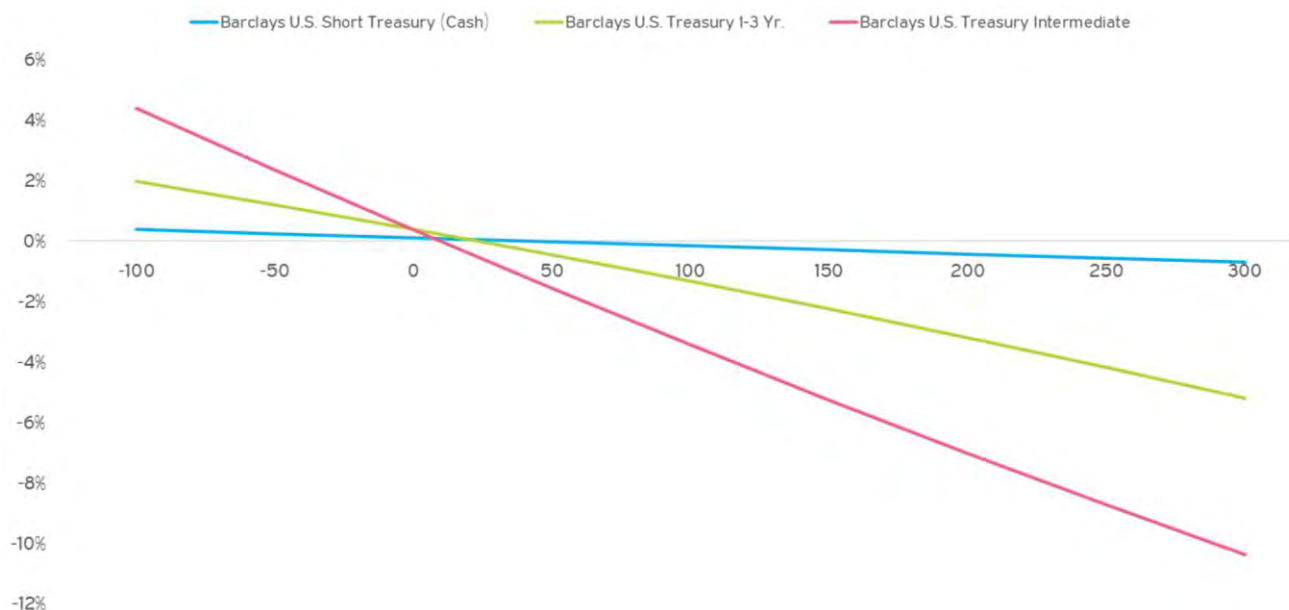
### Ten-Year Breakeven Inflation<sup>1</sup> (As of October 31, 2020)



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

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

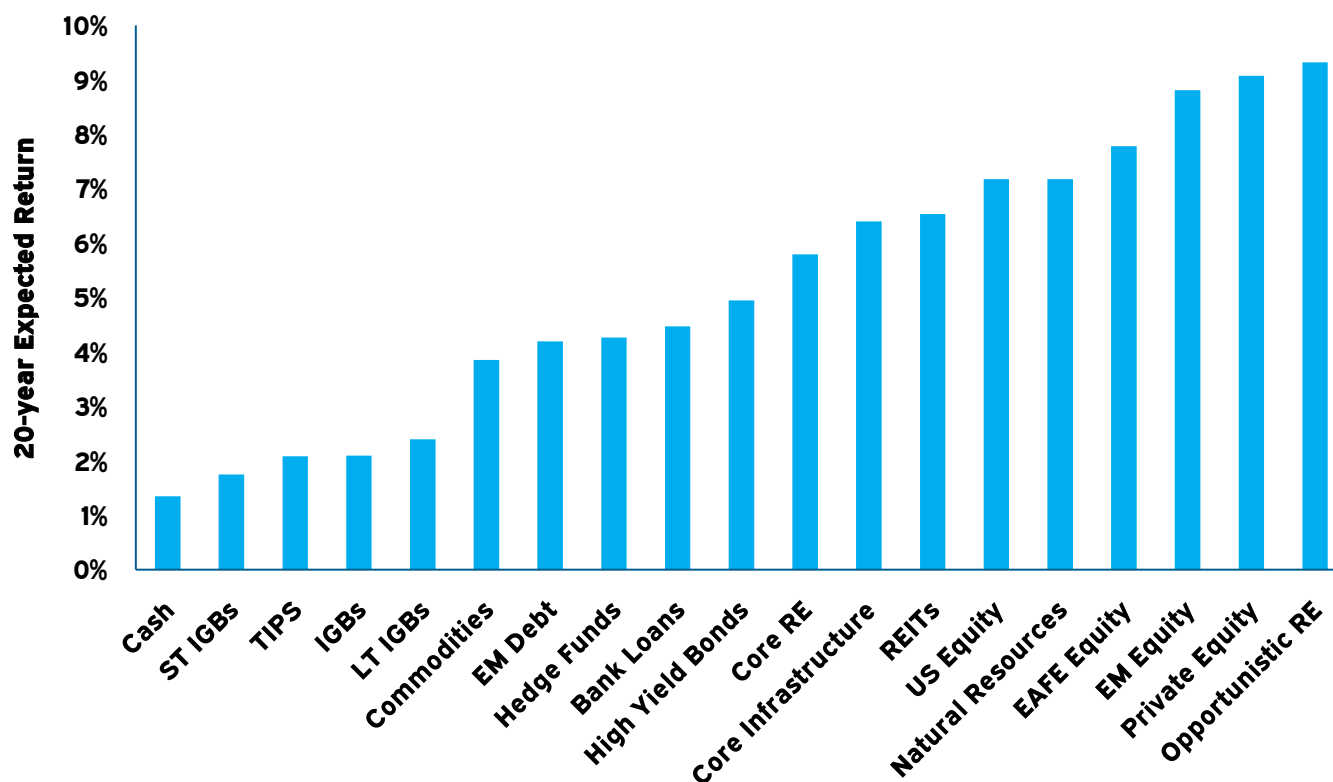
### Total Return Given Changes in Interest Rates (bps)<sup>1</sup> (As of October 31, 2020)



	Total Return for Given Changes in Interest Rates (bps)									Statistics	
	-100	-50	0	50	100	150	200	250	300	Duration	YTW
Barclays US Short Treasury (Cash)	0.4%	0.2%	0.1%	0.0%	-0.2%	-0.3%	-0.4%	-0.6%	-0.7%	0.27	0.09%
Barclays US Treasury 1-3 Yr.	1.9%	1.2%	0.4%	-0.5%	-1.4%	-2.3%	-3.2%	-4.2%	-5.2%	1.65	0.37%
Barclays US Treasury Intermediate	4.4%	2.3%	0.3%	-1.6%	-3.5%	-5.3%	-7.0%	-8.8%	-10.4%	3.92	0.34%
Barclays US Treasury Long	23.0%	11.7%	1.5%	-7.6%	-15.5%	-22.3%	-27.9%	-32.4%	-35.8%	19.24	1.50%

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

### Long-Term Outlook – 20-Year Annualized Expected Returns<sup>1</sup>



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

<sup>1</sup> Source: Meketa Investment Group's 2020 Annual Asset Study.

## Appendix

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

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

<sup>1</sup> All Data as of October 31, 2020 unless otherwise noted.

## Appendix

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

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

<sup>1</sup> All Data as of October 31, 2020 unless otherwise noted.

## Appendix

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

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

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<sup>1</sup> All Data as of October 31, 2020 unless otherwise noted.

## Meketa Market Sentiment Indicator

### Explanation, Construction and Q&A

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

### This appendix explores:

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



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

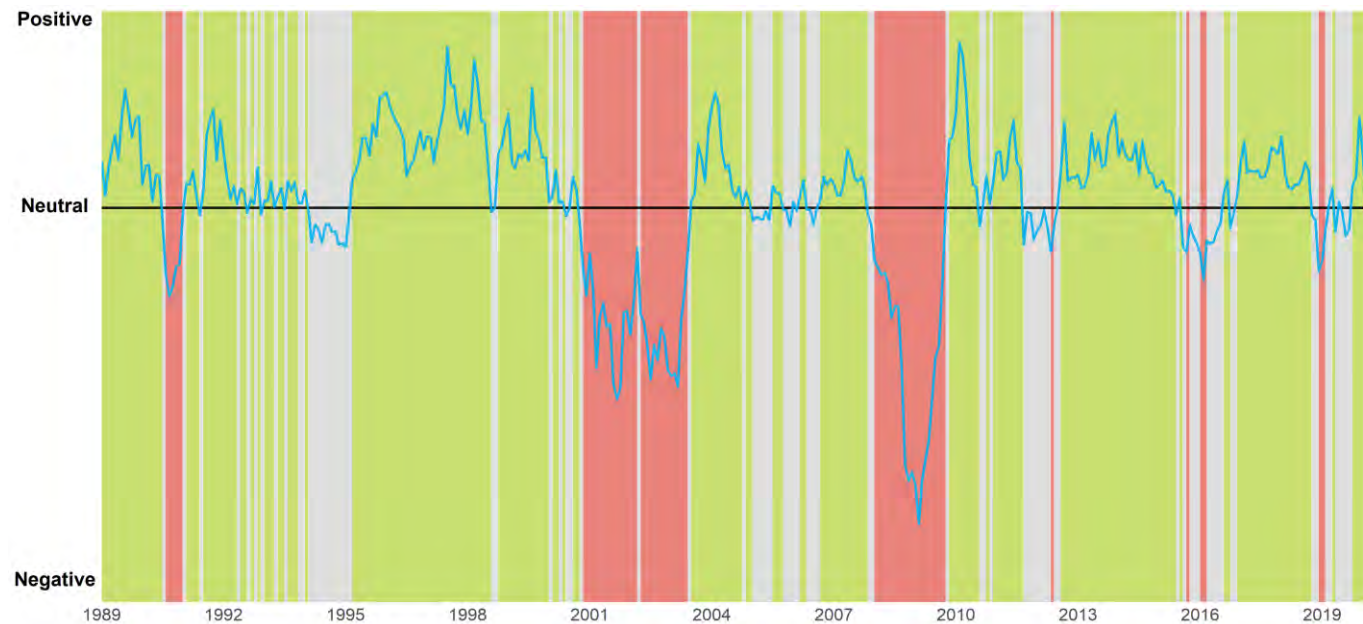
- Meketa's Risk Metrics, which rely significantly on standard market measures of relative valuation, often provide valid early signals of increasing long-term risk levels in the global investment markets. However, as is the case with numerous valuation measures, the Risk Metrics may convey such risk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

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

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

### How do I read the Meketa Market Sentiment Indicator graph?

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



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

- The MIG-MSI is constructed from two sub-elements representing investor sentiment in stocks and bonds:
  - Stock return momentum: Return momentum for the S&P 500 Equity Index (trailing 12-months)
  - Bond yield spread momentum: Momentum of bond yield spreads (excess of the measured bond yield over the identical duration US Treasury bond yield) for corporate bonds (trailing 12-months) for both investment grade bonds (75% weight) and high yield bonds (25% weight).
  - Both measures are converted to Z-scores and then combined to get an “apples to apples” comparison without the need of re-scaling.
- The black line reading on the graph is calculated as the average of the stock return momentum measure and the bonds spread momentum measure.<sup>1</sup> The color reading on the graph is determined as follows:
  - If both stock return momentum and bond spread momentum are positive = GREEN (positive)
  - If one of the momentum indicators is positive, and the other negative = GRAY (inconclusive)
  - If both stock return momentum and bond spread momentum are negative = RED (negative)

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

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

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

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

## Disclaimer Information

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## **Global Macroeconomic Outlook September 2020**

## Global Economic Outlook

The lock-down of the global economy to slow the spread of the COVID-19 pandemic led the IMF to materially alter expectations for economic growth.

- The IMF now forecasts a 4.4% decline in global GDP in 2020, followed by a sharp 5.2% recovery in 2021.
- In advanced economies, GDP is projected to decline by 5.8% for 2020, and recover by 3.9% in 2021, as economies reopen and vaccine progress is potentially made. The US is expected to fare similarly, declining 4.3% in 2020 and recovering by 3.1% in 2021.
- The euro-area is forecasted to take the greatest hit to growth, declining 8.3% in 2020 and recovering 5.2% in 2021. Expectations for Spain and Italy, which implemented some of the most stringent and aggressive quarantine and containment measures, are heavily influencing weakness across the broader region; both economies are anticipated to decline by double digits this year. The Japanese economy is expected to decline by 5.3% in 2020, but only recover by 2.3% in 2021.
- Growth projections are also weak for emerging economies, although China is expected to post 1.9% growth for 2020, and significant 8.2% growth in 2021. The growth expectations are due primarily to the Chinese government's ability to quickly impose aggressive distancing measures, largely isolate and contain the virus, and then quickly move to re-open their economy.
- Inflation is projected to be low, consistent with decreased economic activity, with inflation in most developed economies expected below 1.0%; in some countries, notably Japan, deflation is expected.

	Real GDP (%) <sup>1</sup>			Inflation (%) <sup>1</sup>		
	IMF 2020 Forecast	IMF 2021 Forecast	Actual 10 Year Average	IMF 2020 Forecast	IMF 2021 Forecast	Actual 10 Year Average
World	-4.4	5.2	3.7	3.2	3.4	3.5
Advanced Economies	-5.8	3.9	2.0	0.8	1.6	1.5
US	-4.3	3.1	2.3	1.5	2.8	1.8
Euro Area	-8.3	5.2	1.4	0.4	0.9	1.3
Japan	-5.3	2.3	1.4	-0.1	0.3	1.4
Emerging Economies	-3.3	6.1	5.1	5.0	4.7	5.2
China	1.9	8.2	7.6	2.9	2.7	2.5

<sup>1</sup> Source: IMF. World Economic Outlook. As of October 2020 Update. "Actual 10 Year Average" represents data from 2010 to 2019.

### Global Economic Outlook (continued)

In an effort to stem the expected significant declines in economic activity, fiscal and monetary authorities across the globe responded with immediate and aggressive stimulus measures.

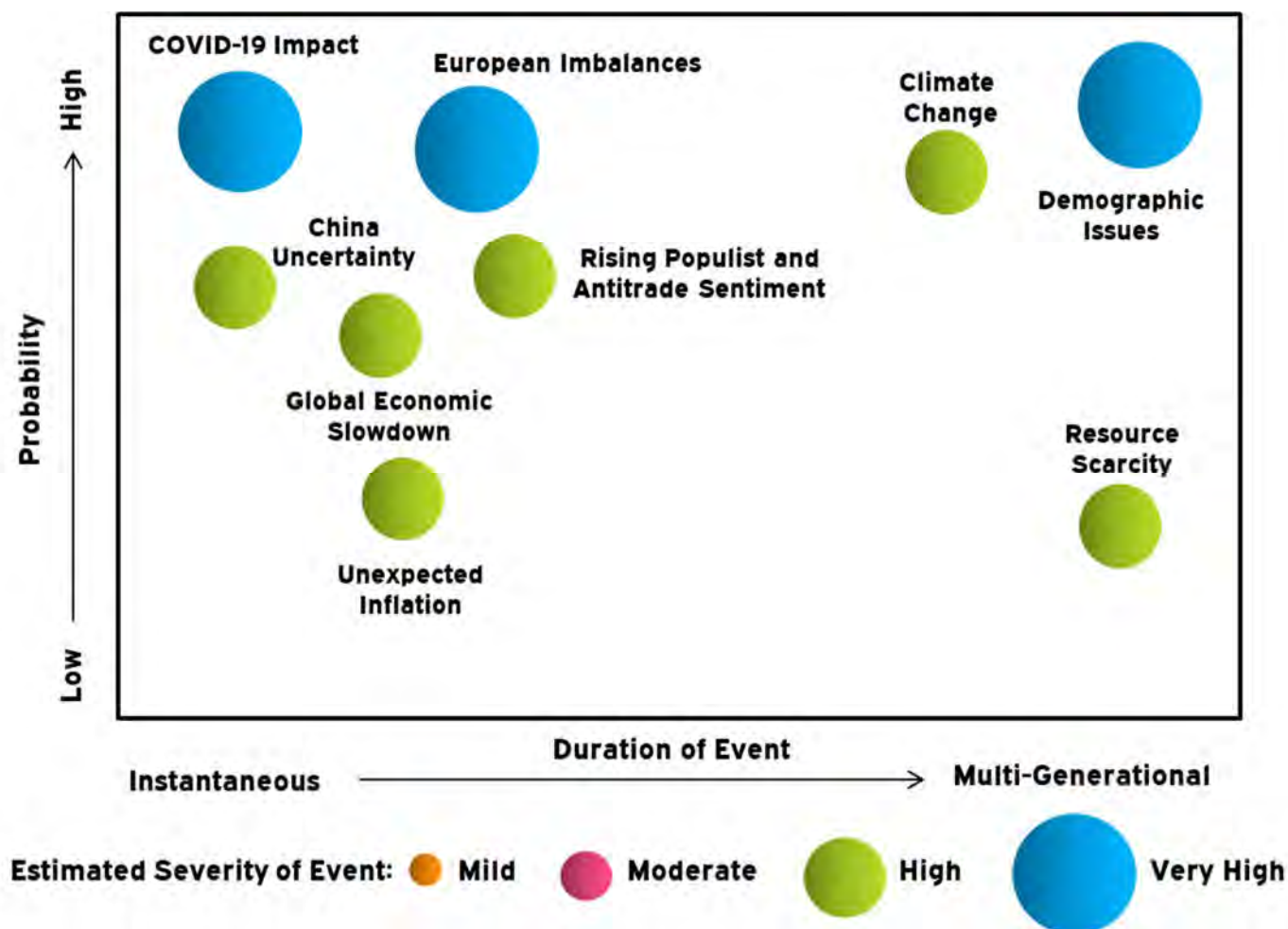
- US fiscal and monetary responses have been unprecedented. Fiscal authorities released over \$2.4 trillion in directed stimulus and are discussing the next round of support, while monetary authorities cut policy rates effectively to zero, deployed trillions in stimulus measures, backstop liquidity, and funding programs to mitigate the economic deterioration. Monetary policy makers are also actively considering additional measures, including yield curve targeting and maturity extension of QE purchases should conditions warrant.
- Japanese authorities took measures similar to those in the US, directing fiscal stimulus where needed most, including loans to small businesses and direct stimulus to consumers, while the central bank continued, and expanded, their quantitative easing purchase program. The Bank of Japan also expanded collateral and liquidity requirements, and initiated 0% loans to businesses directly hit by the virus. They continue to keep short-term interest rates in negative territory (-0.1%) and target a 0% rate on the ten-year government bond.
- Countries in the euro-area launched stimulus packages targeting areas hit hardest by virus-related restrictions. The European Central Bank also took directed measures, with targeted long-term refinancing operations for small and medium sized business, keeping rates at historic lows, and a 750 billion euro emergency purchase program, which was subsequently expanded to include lower-quality corporate debt. The majority of funds from the 750 billion euro package will be distributed to the countries and sectors most impacted by the virus, and will take the form of grants and loans.
- Fiscal and monetary policy in China was already accommodative prior to the onset of the COVID-19 crisis, but as the pandemic developed, policy makers took further steps to support the economy. Additional tax cuts, low-interest rate loans, and extra government payments to qualifying citizens represented the bulk of the fiscal response. On the monetary side, policy rates were cut, repo facilities were expanded, and reserve requirements were lowered further.

We acknowledge the wide breadth of new issues being presented by the pandemic, and among those we are considering are the following:

1) Economies opening too soon from virus-related restrictions, and ultimately needing to re-deploy lockdown policies; 2) Consumers permanently, or for an extended period of time, changing economic behavior; 3) Persistently high unemployment due to a significant number of companies not surviving the economic downturn, and; 4) Virus-related fears affecting the future of globalization.



### Macroeconomic Risk Matrix



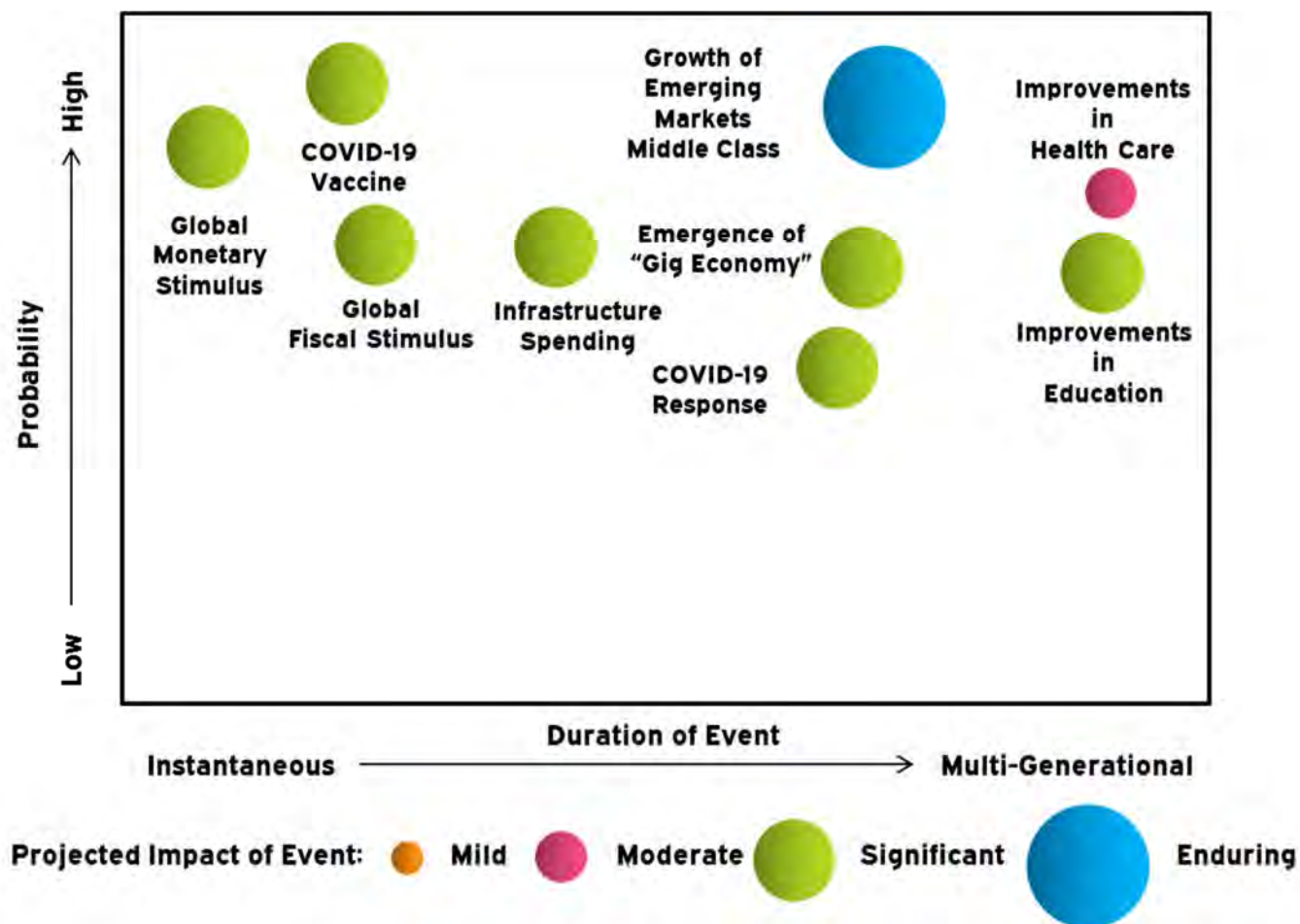
## Macroeconomic Risk Overviews

<b>China Uncertainty</b>	The process of transitioning from a growth model based on fixed asset investment by the government to a model of consumption-based growth will be difficult. Some progress was made on trade tensions with the US by the passing of a phase-one trade deal, but many issues still need to be resolved with uncertainties related to the next administration's approach toward China. As China tries to manage a smooth economic transition through fiscal and monetary policies, heightened financial risks exist. An increase in COVID-19 cases in China could further weigh on the economy, and others, going forward.
<b>Climate Change</b>	The earth's average temperature has been increasing since preindustrial times with the pace accelerating over the last 35 years. Increased levels of greenhouse gases like carbon dioxide have been the main cause of higher temperatures as they trap heat in the atmosphere. Warmer temperatures have led to the melting of glaciers and polar ice and increased precipitation in wet regions and reduced it in dry regions. The economic impacts of climate change are many, including declining crop yields, effects on livestock health, shifts in tourism, damage to infrastructure (rising sea levels and more extreme weather), and higher levels of disease and malnutrition.
<b>COVID-19 Impact &amp; Response Risks</b>	Developments with the COVID-19 pandemic are of principal and immediate concern. Clarity on when a vaccine might be available for public distribution will be the greatest factor impacting when the global economy may fully re-open and begin to meaningfully rebuild from the record job losses and the significant decline in global GDP. Relatedly, market participants are also discussing the potential risk across sovereign debt markets, particularly the US Treasury market, amidst the significant increase in debt issuance necessary to fund the stimulus measures. While appetite for safe-haven assets remains given all the uncertainty, as economies begin to recover and demand for these assets wane, selling pressures on the back of the record issuance could push yields higher than expected and put pressure on government debt servicing requirements. Asset price inflation could also be a risk, as the record easing from monetary policy prompts increased (and potentially excessive) demand for risk assets.
<b>Demographic Issues</b>	In Japan and Europe, birth rates have declined for decades, resulting in populations becoming older and smaller relative to the rest of the world. In China, their so-called "one child" policy helped to reduce population growth, but has created other issues for the government. As life expectancy increases, the prior policy creates complications with a low working base left to support a relatively large and aging population. These demographic trends will have negative long-term impacts on GDP growth and fiscal budgets, amplifying debt problems. In the US, an increase in savings rates by age cohorts that are traditionally biased to spending is also impacting respective economic growth rates.
<b>European Imbalances</b>	Structural issues persist in the Eurozone, related to the combination of a single currency and monetary authority with 17 separate fiscal authorities. Within the European Union, tensions exist, as highlighted by political changes in Italy and the prior UK referendum, related to policies on immigration, laws, and budgetary issues. The UK officially left the EU in January 2020, and has now entered an 11-month transition period where the two parties are attempting to negotiate a trade deal.

## Macroeconomic Risk Overviews (continued)

<b>Global Economic Slowdown</b>	COVID-19 restrictions have significantly weighed on economic activity globally and lead to many countries entering recessions. The question now is the degree of economic deterioration and the duration of the recovery once it takes hold. Many economies have started to reopen, but with the rise in cases in some areas there could be a return to restrictions, or a slowing of the reopening process, further delaying recovery. Expectations for a vaccine are high with some strong recent developments, but the fact remains that broad distribution of a vaccine is months away (assuming one is approved) making it too early to reasonably assess when this risk declines.
<b>Resource Scarcity</b>	The growing world population, urbanization, and a growing middle class, particularly in emerging economies, could all lead to a scarcity of resources, including food, water, land, energy, and minerals. As natural resource demand continues to grow, rising commodity prices may hurt the living standards of many and increase the risk of geopolitical conflicts.
<b>Rising Populist and Antitrade Sentiment</b>	Tariffs started by the US against China and some of its allies, along with elections/votes in Europe, UK, and Latin America highlight growing populist/antitrade sentiment. Stagnant wages, growing inequality, and the perception of jobs being lost abroad are key contributors to ongoing unrest. Reducing trade and imposing tariffs will likely lead to higher prices, reduced efficiencies, and heightened tensions between countries. As economies begin to recover from the COVID-19 crisis, the risk remains for certain areas to be blamed for the outbreak and the emergency measures taken disproportionately benefiting some, further increasing tensions.
<b>Unexpected Inflation</b>	Developed countries across the world are struggling to generate inflation despite record low (or negative) interest rates and monetary and fiscal stimulus. Most traditional measures of inflation remain near or below central bank targets. With expectations for a significant increase in inflation low, an unexpected rise could be disruptive, leading to higher interest rates and lower growth and valuations. Further, the inability of monetary authorities to meaningfully impact the direction of inflation could prove problematic should deflationary-forces take hold.

### Positive Macroeconomic Trends Matrix



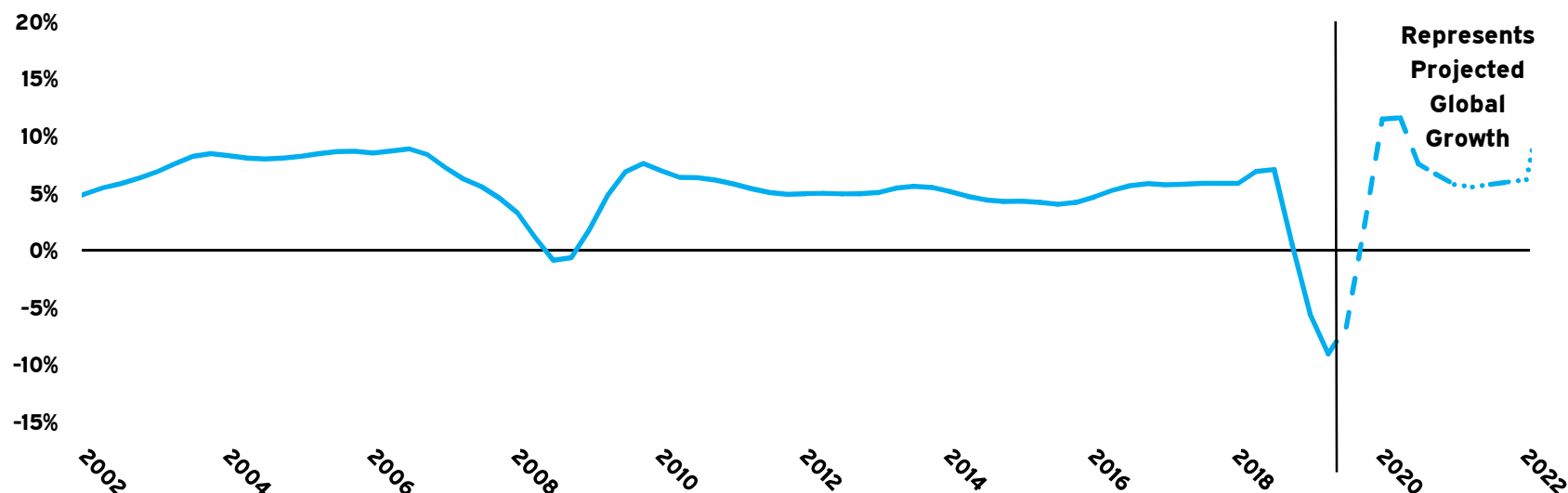
## Positive Macroeconomic Trends Overviews

<b>COVID-19 Response</b>	Many public and private companies are aggressively working towards a vaccine, rebuilding personal protective equipment supplies and capabilities, and changing business operating frameworks to better support the immediate societal changes due to the pandemic. The collective efforts of the global community, and the lessons learned from the various measures taken, will provide valuable guidance for addressing pandemic-related risks in the future.
<b>COVID-19 Vaccine</b>	Pharmaceutical companies globally are racing to develop a vaccine to fight COVID-19 with many in late stage trials. One vaccine developed by Pfizer, in collaboration with the German drug company BioNTech, appears particularly promising. In its trial it was over 90% effective in preventing the disease among participants who did not have the virus. Pfizer is planning to petition the FDA for an emergency authorization of the vaccine later in November once all the required data is collected. If all goes well, they anticipate producing enough doses by year-end to immunize 15 to 20 million people with production continuing into 2021. A highly effective treatment for COVID-19 would allow people to slowly return to previous activities driving economic growth, employment, and particularly benefiting industries like travel and tourism that have been hard hit by the pandemic.
<b>Emergence of "Gig Economy"</b>	The "gig economy" has taken a material hit due to the virus-related economic shut-down, but should ultimately rebound once the recovery is meaningfully underway. The new structure allows workers flexibility in the jobs they take, their schedules, and offers the ability to work outside of a traditional office. For companies, it has led to lower labor and overhead costs (more employees are working remotely), flexibility in hiring workers temporarily, and lower recruiting and training costs.
<b>Global Monetary Stimulus</b>	The record stimulus measures taken by global central banks have provided a meaningful support to financial markets. With policymakers openly stating their strategy to keep policy extremely accommodative until the COVID-19 induced crisis has passed with a measured degree of confidence, easy financial conditions should provide support for riskier and higher-yielding assets, and support broad economic growth.
<b>Global Fiscal Stimulus</b>	Consistent with the emergency measures taken by monetary authorities, fiscal policy turned notably accommodative amidst the COVID-19 crisis. A number of countries, including the world's largest, unleashed record levels of direct stimulus to support their respective economies. Measures have taken many forms, including direct cash disbursements to consumers, extension of unemployment benefits, and loans and grants to small- and mid-sized businesses. The recently announced EU stimulus measures, which represents a broadly positive development for the Union that has historically resisted reaching coordinated agreements, suggests a more positive and cordial relationship going forward which should help the overall economic picture for the area.
<b>Growth of Emerging Markets Middle Class</b>	In emerging economies, the middle class is projected to grow significantly over the next twenty years. This growing middle class should increase consumption globally, which in turn will drive GDP growth and create jobs.

**Positive Macroeconomic Trends Overviews (continued)**

<b>Improvements in Education/Health Care</b>	Literacy rates and average life spans have increased globally, particularly in emerging economies. Higher literacy rates will drive future growth, helping people learn new skills and improve existing skills. Longer lives increase incentives for long-term investments in education and training, resulting in a more productive work force and ultimately more growth.
<b>Infrastructure Spending</b>	The incoming Biden administration plans to make a significant investment in infrastructure (~\$2 trillion) with the goal of increasing economic growth, adding jobs, and reducing climate change. The plan focuses on improving roads, bridges, transportation (trains/auto industry), and broadband. It includes a focus on having public transportation and freight transitioning to running on clean energy or electricity, as well as encouraging increased production of energy efficient cars. Incentives would also be introduced to make buildings and homes more prepared to withstand harsh weather and be more energy efficient.

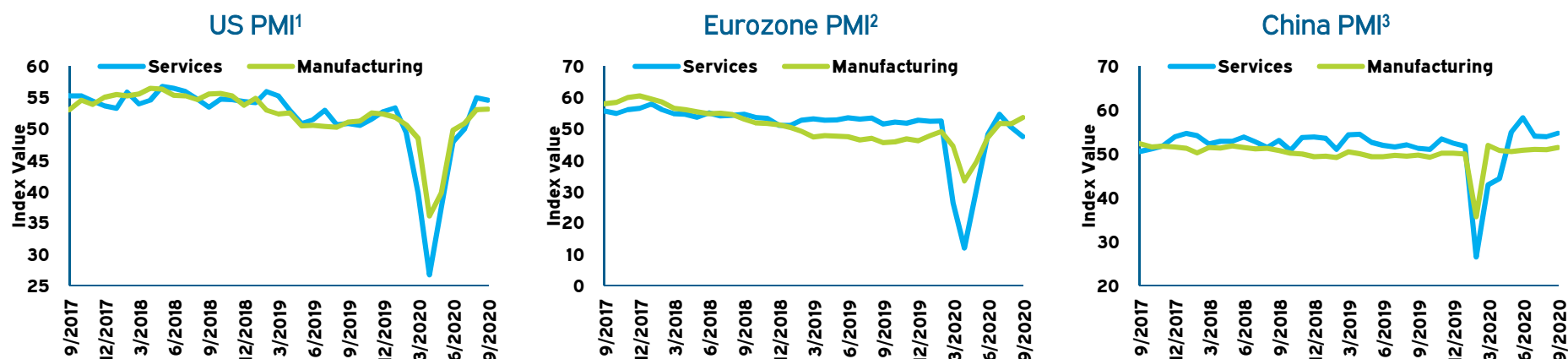
### Global Nominal Gross Domestic Product (GDP) Growth<sup>1</sup>



- Global GDP experienced a historic decline in the second quarter of 2020 due to the COVID-19 pandemic and the severe economic restrictions to stem the spread.
- The third quarter saw strong recoveries in many countries as economies reopened. Looking forward, forecasts are for a notable recovery over the next year as a vaccine is anticipated and economic growth is expected to return to longer-term averages.
- That said, the recent rise in infections could increase the risk of economies needing to reinstate economic restrictions, which would weigh on growth.

<sup>1</sup> Source: Oxford Economics (GDP, US\$ prices & PPP exchange rate, nominal (World), QoQ annualized). Updated September 2020.

### Global PMIs



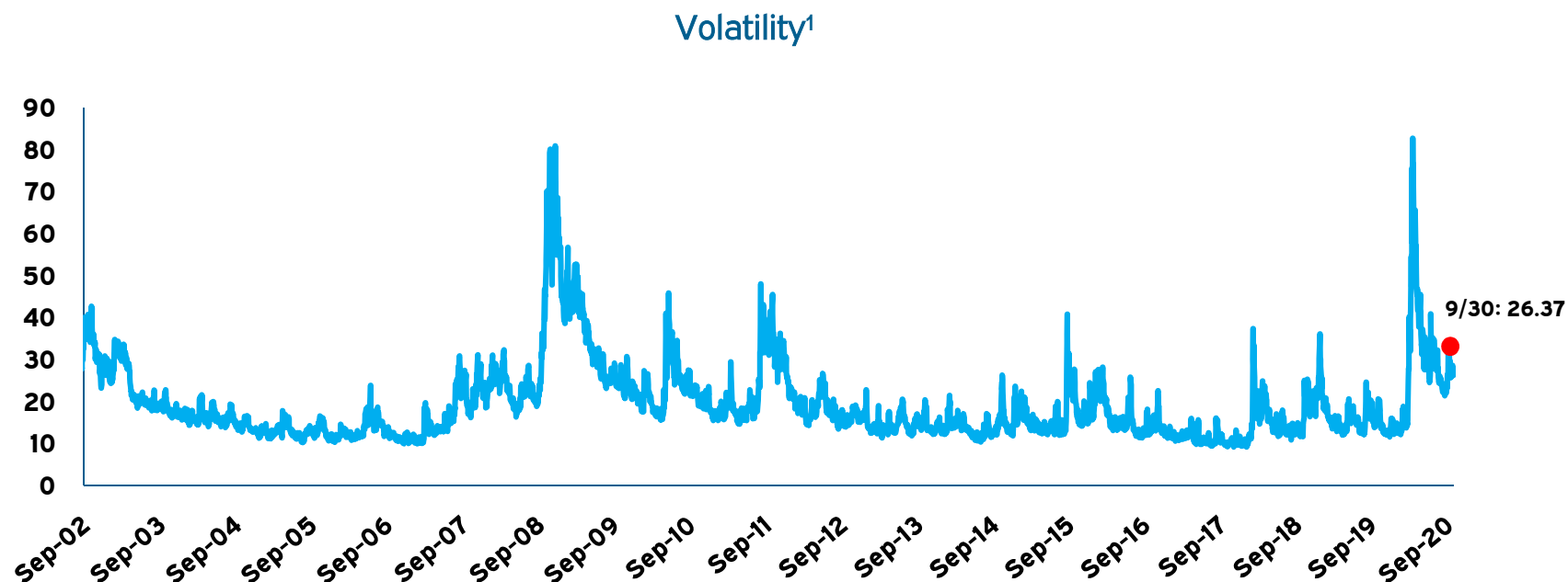
- Purchasing Managers Indices (PMI) based on surveys of private sector companies, initially collapsed across the world to record lows, as output, new orders, production, and employment were materially impacted by closed economies.
- Readings below 50 represent contractions across underlying components and act as a leading indicator of economic activity, including the future paths of GDP, employment, and industrial production.
- The services sector has been particularly hard hit by the stay-at-home restrictions in many places.
- As the Chinese economy reopened over the last few months, their PMIs, particularly in the service sector, recovered materially. In the US and Europe the indices have improved from their lows to above contraction levels in most cases.

<sup>1</sup> Source: Bloomberg. US Markit Services and Manufacturing PMI. Data is as of September 2020.

<sup>2</sup> Source: Bloomberg. Eurozone Markit Services and Manufacturing PMI. Data is as of September 2020.

<sup>3</sup> Source: Bloomberg. Caixin Services and Manufacturing PMI. Data is as of September 2020.





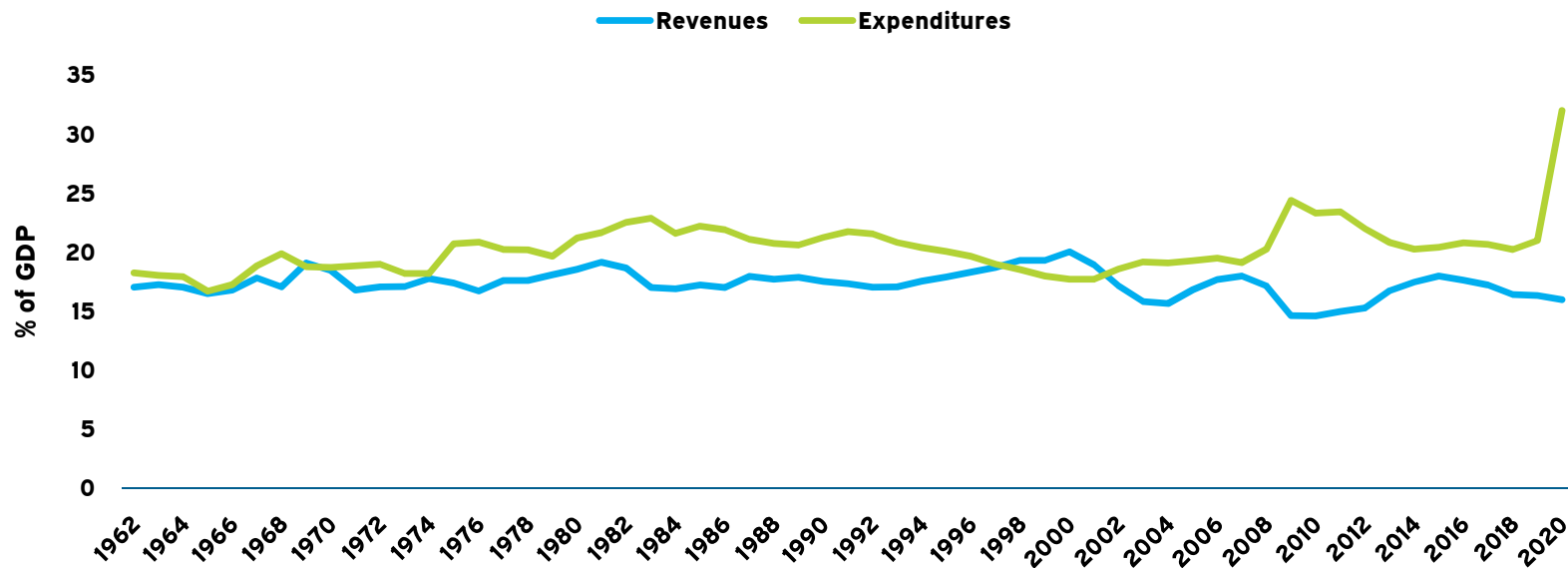
- With the fiscal and monetary support and corresponding improvement in investor risk sentiment, expectations of short-term volatility, as measured by the VIX index, declined relatively quickly from record levels.
- At the recent height, the VIX index reached 82.7, surpassing the pinnacle of volatility during the GFC, showing the magnitude of the crisis, and of investor fear.
- We saw a recent spike in volatility, given stalled fiscal stimulus in the US, the impending election, and rising COVID-19 cases.
- Going forward, there remains the risk of additional spikes in volatility (as seen in the continued elevated index level), as investors continue to process the impacts of COVID-19 and the effectiveness of the policy response.

<sup>1</sup> Bloomberg. Represents daily VIX data and is as of September 30, 2020.

## Policy Responses

	Fiscal	Monetary
United States	<p>\$50 billion to states for virus-related support, interest waived on student loans, flexibility on tax payments and filings, expanded COVID-19 testing, paid sick leave for hourly workers, \$2 trillion package for individuals, businesses, and state/local governments. Additional \$484 billion package to replenish small business loans, provide funding to hospitals, and increase testing.</p>	<p>Cut policy rates to zero, deployed outcome-based forward guidance suggesting aggressively accommodative policy for the foreseeable future, unlimited QE4, offering trillions in repo market funding, restarted and extended CPFF, PDCF, MMMF programs to support lending and financing markets, expanded US dollar swap lines with foreign central banks, announced IG corporate debt buying program with subsequent amendment for certain HY securities, Main Street Lending program, Muni liquidity facility, repo facility with foreign central banks, easing of some financial regulations for lenders, and changed inflation mandate to allow for periods of inflation beyond policy target.</p>
Euro Area	<p>European Union: Shared 750 billion euro stimulus package. German: 220 billion euro stimulus. France: 57 billion euro stimulus. Italy: 75 billion euro stimulus. Spain: 200 billion euro and 700 million euro loan and aid package, respectively.</p>	<p>Targeted longer-term refinancing operations aimed at small and medium sized businesses, under more favorable pricing, and announced the 750 billion euro Pandemic Emergency Purchase Program, and then expanded the purchases to include lower-quality corporate debt.</p>
Japan	<p>Hundreds of trillions in yen stimulus for citizens and businesses, including low interest loans, deferrals on taxes, and direct cash handouts.</p>	<p>Initially increased QE purchases (ETFs, corporate bonds, and CP) and then expanded to unlimited purchases and doubling of corporate debt and commercial paper, expanded collateral and liquidity requirements, and 0% interest loans to businesses hurt by virus.</p>
China	<p>Tax cuts, low-interest business loans, extra payments to gov't benefit recipients.</p>	<p>Expanded repo facility, policy rate cuts, lowered reserve requirements, loan-purchase scheme.</p>
Canada	<p>\$7.1 billion in loans to businesses to help with virus damage, C\$381 billion stimulus.</p>	<p>Cut policy rates, expanded bond-buying and repos, lowered bank reserve requirements.</p>
UK (BOE)	<p>190 billion pound stimulus, Tax cut for retailers, small business cash grants, benefits for those infected with virus, expanded access to gov't benefits for self and un-employed.</p>	<p>Lowered policy rates and capital requirements for UK banks, restarts QE program and subsequently increased the purchase amounts.</p>
Australia	<p>\$11.4 billion, subsidies for impacted industries like tourism, one-time payment to gov't benefit recipients.</p>	<p>Policy rate cut, started QE.</p>

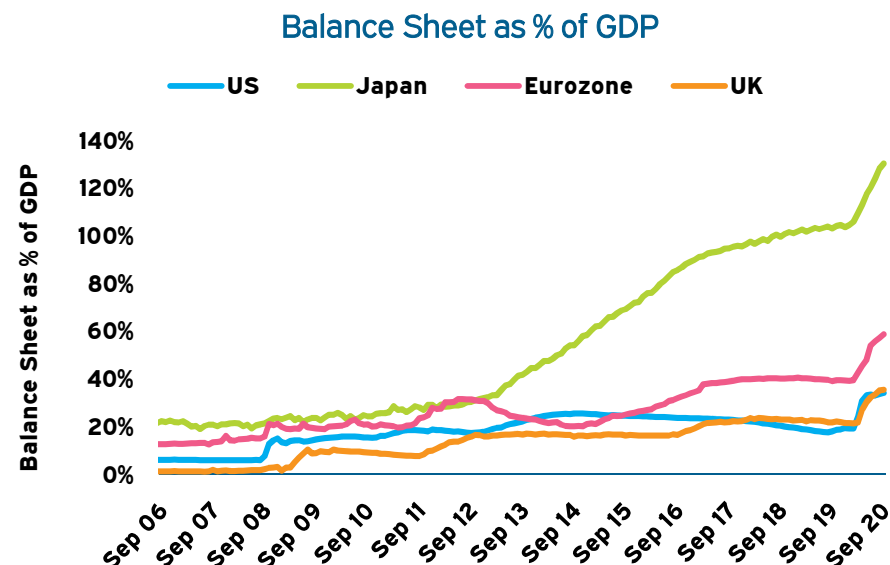
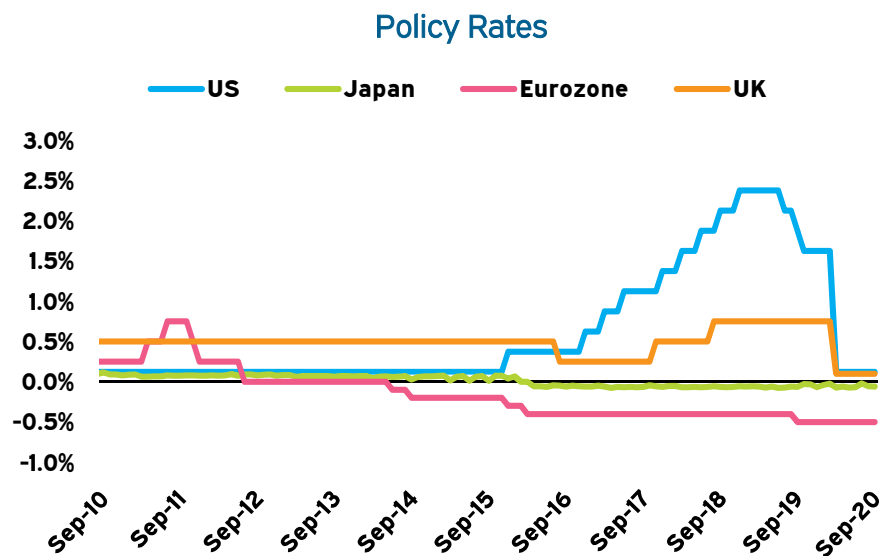
### Fiscal Stimulus so far in Context<sup>1</sup>



- The spread between federal spending and receipts was relatively narrow from the 1960s up until the Global Financial Crisis.
- With a few exceptions, the US government has generally spent more than it has taken in.
- The pandemic pushed expenditures as a percentage of GDP to above 30%; far exceeding revenues.
- Going forward, the pace of economic growth and potential changes to US tax policy will likely impact the degree to which this issue becomes a risk for US borrowing costs over the long-run.

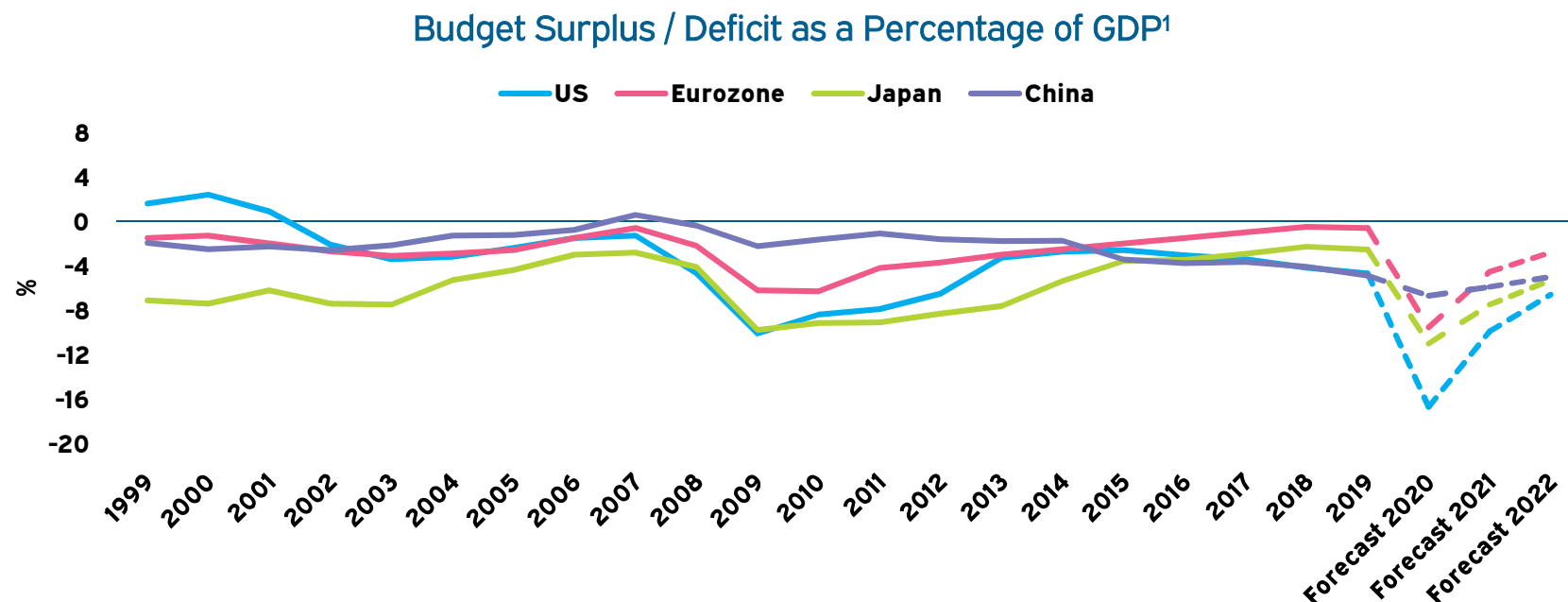
<sup>1</sup> Source: Congressional Budget Office. As of September 30, 2020.

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



- Global central banks took aggressive policy actions as signs of economic deterioration emerged due to the restrictions put in place to stop the spread of COVID-19.
- Measures include the cutting of policy rates, deploying emergency stimulus through expanded quantitative easing, liquidity programs to support funding markets, targeted refinancing operations, and outcome-based forward guidance commitments to keep monetary policy accommodative until the pandemic is thoroughly under control.
- Stimulative measures will likely stay in place for some time, but uncertainties remain regarding the effectiveness of monetary policy supporting the economy through COVID-19 and the potential inflationary impacts of the response.

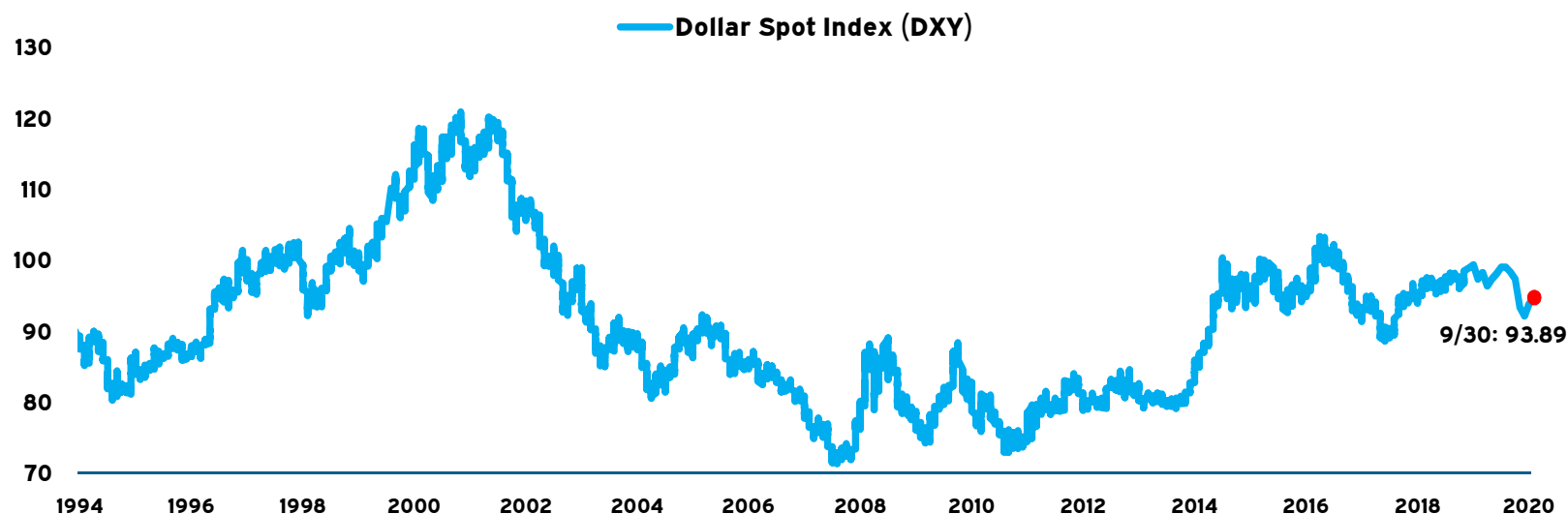
<sup>1</sup> Source: Bloomberg. Data is as of September 30, 2020.



- Budget deficits are deteriorating meaningfully for developed economies due to the massive fiscal support and the severe economic contraction's effect on tax revenue.
- If fiscal and monetary policy stimulus measures fail to meaningfully stimulate growth, deficits could remain historically high and require additional sovereign debt issuance to cover the shortfall, increasing solvency concerns and interest rate risks.

<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2019. Projections via Bloomberg Forecasts September 2020.

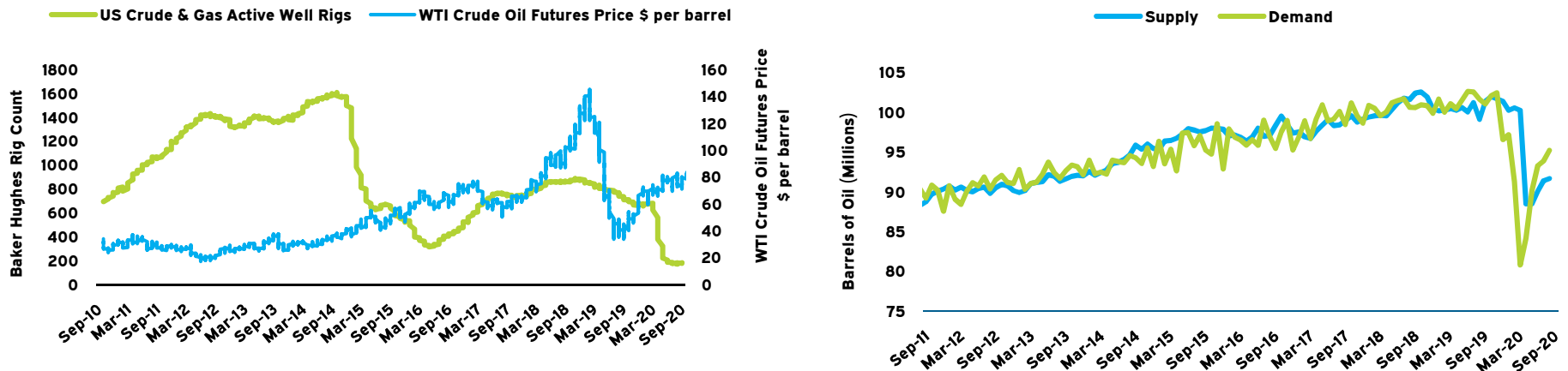
### US Dollar versus Broad Currencies<sup>1</sup>



- When financial markets began aggressively reacting to the COVID-19 developments, the US dollar experienced notable selling pressure as investors sought safe-haven exposure in currencies like the Japanese yen.
- As the crisis grew into a pandemic, investors' preferences shifted to holding US dollars and highly liquid, short-term securities like US Treasury bills. This global demand for US dollars led to appreciation versus most major currencies.
- To help ease the heightened demand for US dollars, the Federal Reserve, working with a number of global central banks, re-established the US dollar swap program, providing relief to other currencies.
- Recently we have seen some weakness in the dollar as the US has struggled with containing the virus and the economic recovery has slowed. Going forward, the dollar's safe haven quality and the higher interest rates in the US could provide support.

<sup>1</sup> Source: Bloomberg. Data is as of September 30, 2020.

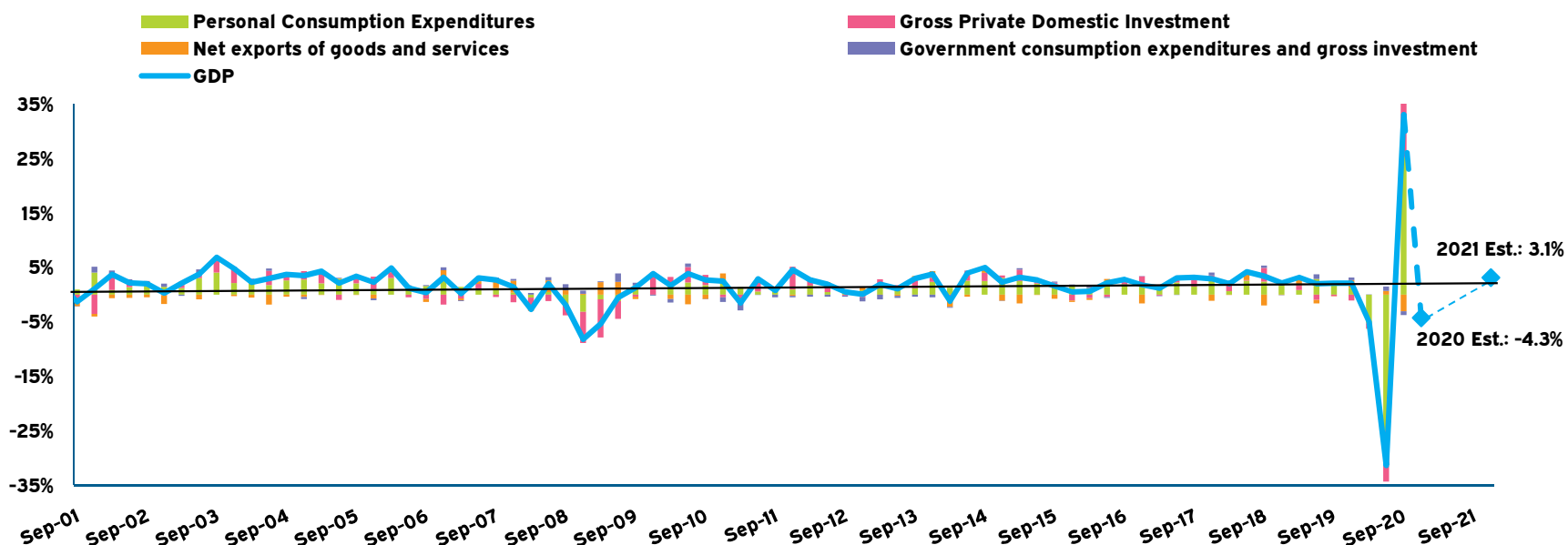
### Oil Price and Rig Activity<sup>1</sup>



- Oil prices experienced significant pressure earlier in the year given pandemic induced declines in demand, as well as a Saudi Arabia-initiated price war after Russia decided not to participate in the proposed OPEC+ supply cuts.
- An agreement across the cartel was finally achieved, providing support to oil prices, and then expectations on building demand by reopening global economies pushed oil prices back to roughly \$40 by the end of the quarter.
- As OPEC+ starts rolling back production cuts, and the virus spread increases with the potential to weigh on demand, oil prices could experience renewed price pressure.

<sup>1</sup> Source: Monthly data via Bloomberg. Rig count and oil price data is weekly. Data is as of September 30, 2020.

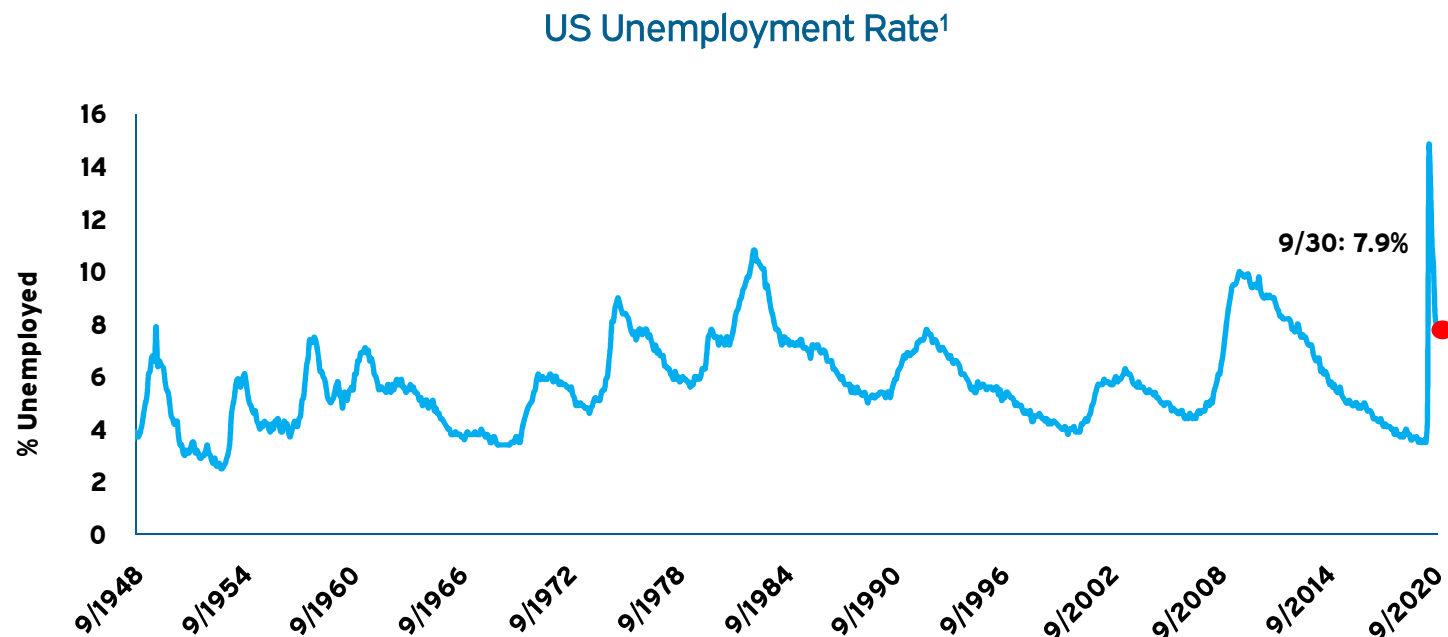
### US Real Gross Domestic Product (GDP) Growth<sup>1</sup>



- After a record decline in GDP during the second quarter (-31.4% annualized), the US economy experienced a record gain (+33.1 annualized) in the third quarter as the economy slowly reopened.
- A recovery in consumption was the main driver of the historic growth given significant pent-up demand from pandemic related restrictions earlier in the year.
- US growth is forecasted to rebound by 3.1% annually in 2021, as the economy normalizes. The risk remains that the recent spike in cases may drive renewed restrictions and consumers to reconsider returning to their prior spending and consumption preferences.

<sup>1</sup> Source: US Bureau of Economic Analysis. Data is as of the third quarter of 2020 and represents the second estimate. Annual projections via IMF World Economic Outlook October 2020 thereafter.



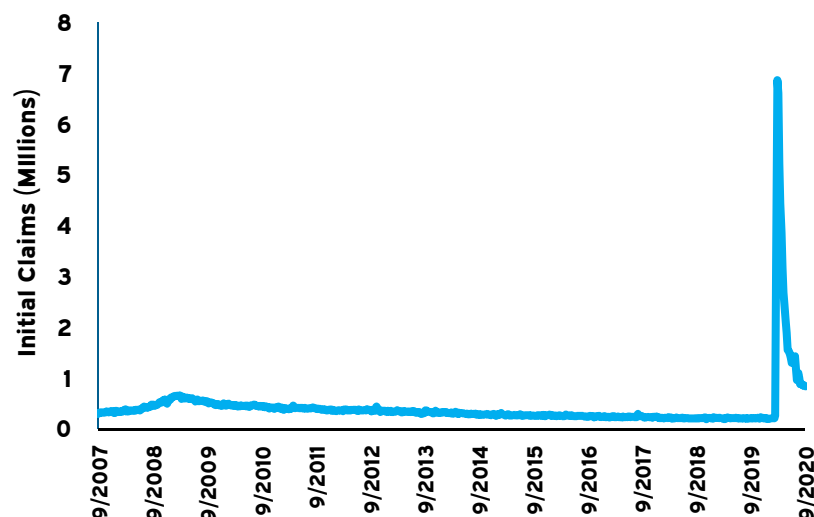


- The US labor picture improved over the quarter, as the economy slowly reopened, but unemployment levels remain high. The jump in cases as the quarter ended prompted concerns about the sustainability of the recovery.
- The Bureau of Labor Statistics continues to include supplementary notes in monthly labor releases, cautioning about the overall reliability of the data due to collection challenges amidst the pandemic.
- Enhanced unemployment benefits has largely supported those without jobs. As of this writing, the \$300 extension of benefits provided by President Trump is in the process of expiring.

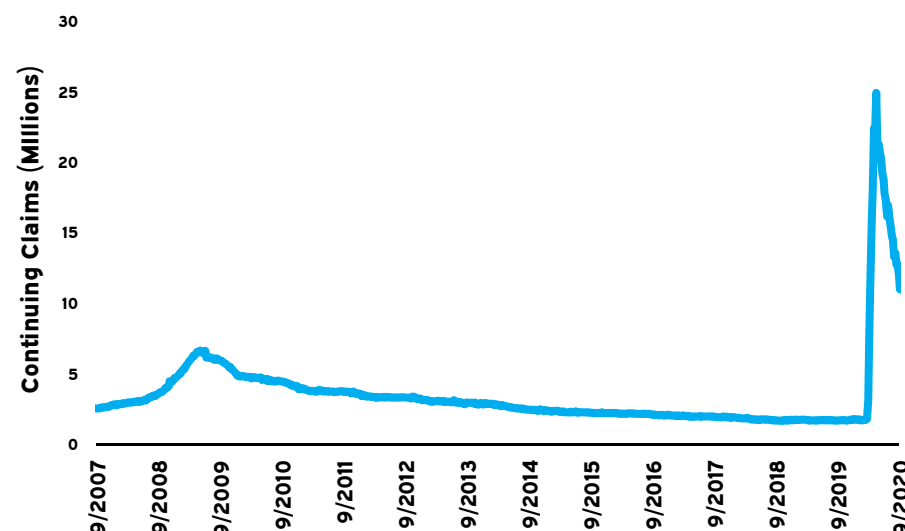
<sup>1</sup> Source: Bloomberg. Data is as of September 30, 2020.

### US Jobless Claims

US Initial Jobless Claims<sup>1</sup>



Continuing Claims<sup>2</sup>

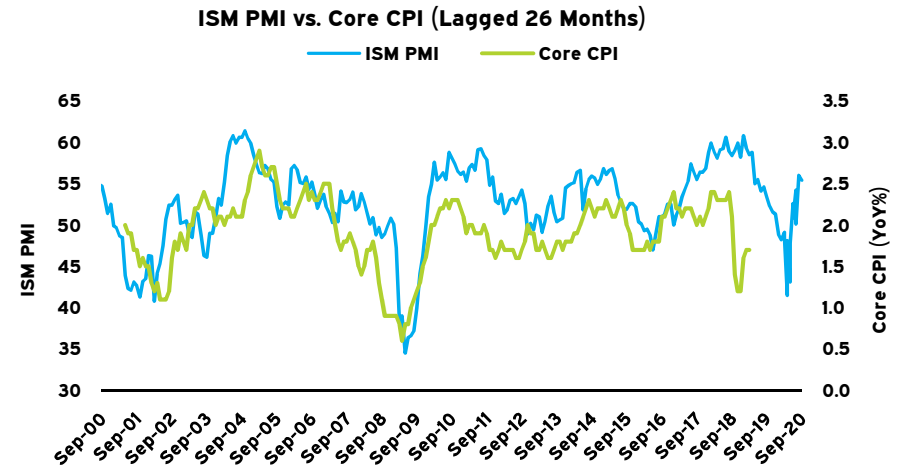
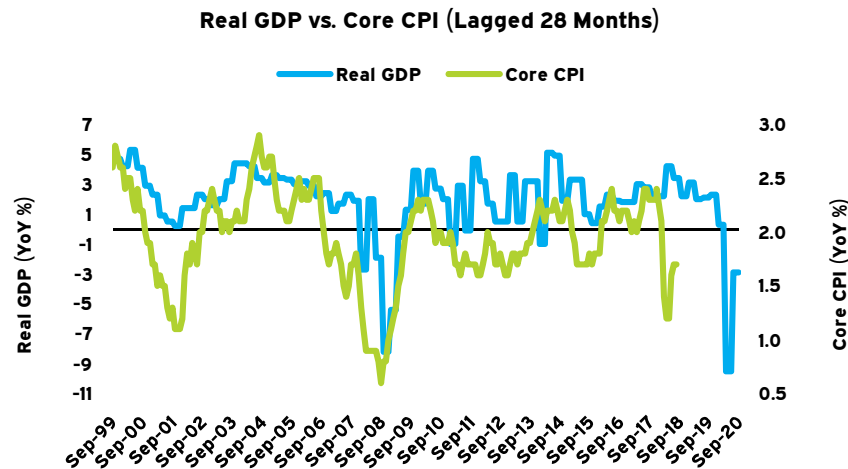


- Through September, nearly 63 million people filed for initial unemployment benefits since the onset of the crisis. This level exceeds the 22 million jobs added since the GFC, highlighting that this situation is without precedent. Despite the recent decline in initial claims, they remain many multiples above the peak of the GFC.
- Continuing jobless claims (i.e., those currently receiving benefits) declined from the record level of 24.9 million people, ending the quarter at 11.2 million, but also remain at record levels.

<sup>1</sup> Source: Bloomberg. Seasonally adjusted initial jobless claims. Data is as of September 25, 2020.

<sup>2</sup> Source: Bloomberg. US Continuing Jobless Claims SA. Data is as of September 25, 2020.

### US Inflation<sup>1, 2</sup>



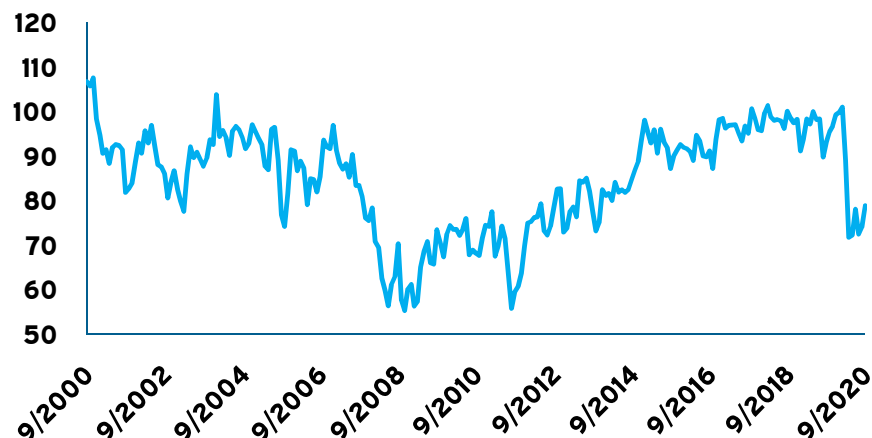
- Inflation is considered a lagging indicator, reflecting past economic conditions.
- This leads to economic conditions today being a means of forecasting future inflation levels.
- Real GDP and manufacturing indicators, like the ISM Purchasing Managers Index, have historically been useful indicators of future inflation.
- Initially, manufacturing data and GDP declined dramatically from their peaks. This led to aggressive fiscal and monetary responses in the US (and globally) to help mitigate the impact of the pandemic on the global economy resulting in corresponding improvements in data.
- As fiscal and monetary policy measures stimulate the economy, we could ultimately see increases in growth and inflation but, in the short-term, deflationary risks are of a greater concern.

<sup>1</sup> Source: Bloomberg. Data is monthly and as of September 30, 2020 for Core CPI. Data for US Real GDP is annual and as of the third quarter (second estimate). It is compared to each monthly CPI data point for the respective quarter for illustrative purposes.

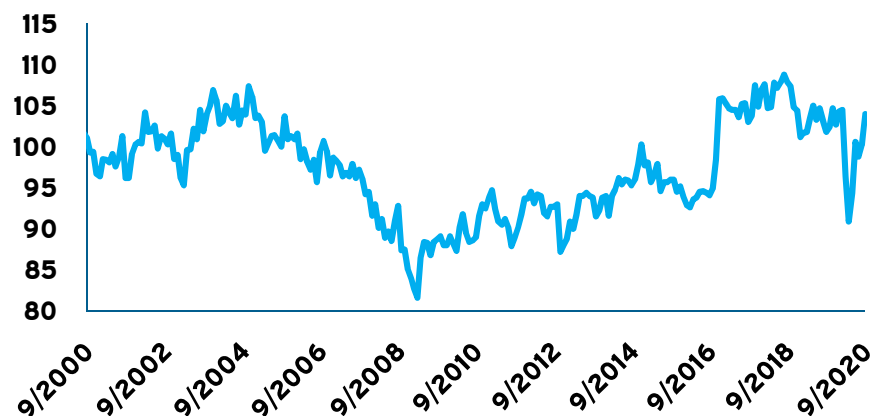
<sup>2</sup> The last data point for ISM PMI and Core CPI represents the September 30, 2020 value.

### Sentiment Indicators

University of Michigan Consumer Sentiment<sup>1</sup>



Small Business Confidence<sup>2</sup>



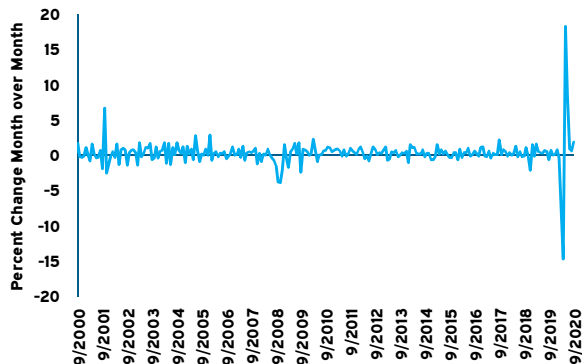
- The attitudes of businesses and consumers today are often a useful indicator of future economic activity.
- Consumer spending comprises close to 70% of US GDP, making the attitudes of consumers an important driver of economic growth. Additionally, small businesses comprise a majority of the economy, making sentiment in that segment important too.
- As restrictions caused many businesses to close and employees to be laid off, sentiment indicators saw corresponding declines.
- Recently, as the economy began reopening, sentiment measures improved, but they remain at multi-year lows and fragile going forward given the spike in virus cases.

<sup>1</sup> Source: Bloomberg. University of Michigan Consumer Sentiment Index. Data is as of September 30, 2020.

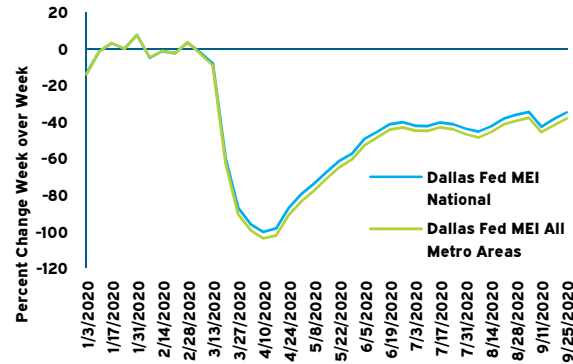
<sup>2</sup> Source: Bloomberg. NFIB Small Business Optimism Index. Data is as of September 30, 2020.

### US High Frequency Data

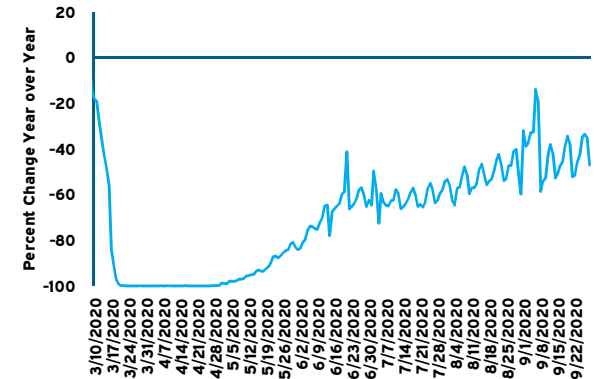
US Retail Sales<sup>1</sup>



Dallas Fed Mobility and Engagement Index<sup>2</sup>



Restaurant Traffic<sup>3</sup>

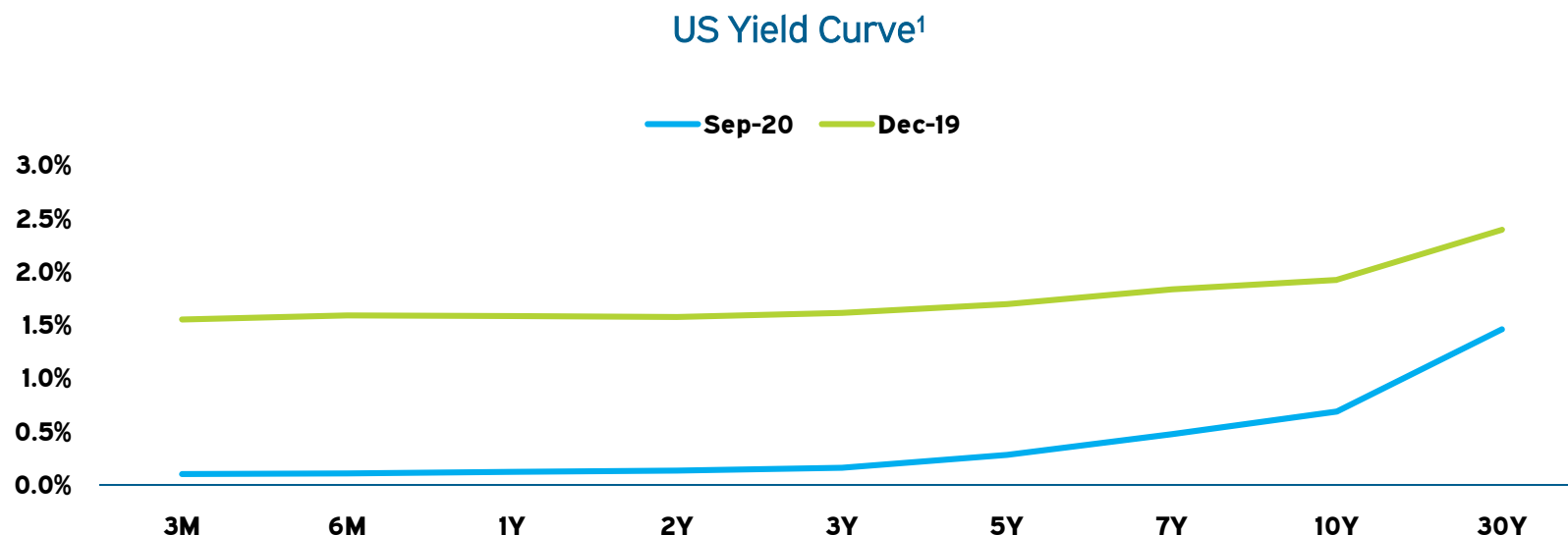


- Due to stay-at-home orders and forced business closures, many industries have seen revenues plummet, and in some cases, virtually vanish. As the economy reopens, some measures have improved significantly while others remain weak.
- Companies operating in the retail and restaurant industries, and other leisure and hospitality focused businesses, have been impacted dramatically and remain vulnerable depending on the tracking of the virus.
- Looking forward, improvements in these indicators could offer early signs of a decline in the virus' economic impact.

<sup>1</sup> Source: Bloomberg. Data is as of September 30, 2020 and represents the adjusted Retail Sales SA Monthly % Change.

<sup>2</sup> Source: Bloomberg. Data is as of September 25, 2020 and represents the deviation from normal mobility behaviors induced by COVID-19 (formerly the "Social Distancing Index"). The index represents a weighted average of various lengths of time that a mobile device, like a cell phone, leaves its "home" or place of residence, and/or how long a device stays at home. A decline in this index represents a mobile device at home for a longer period of time than average.

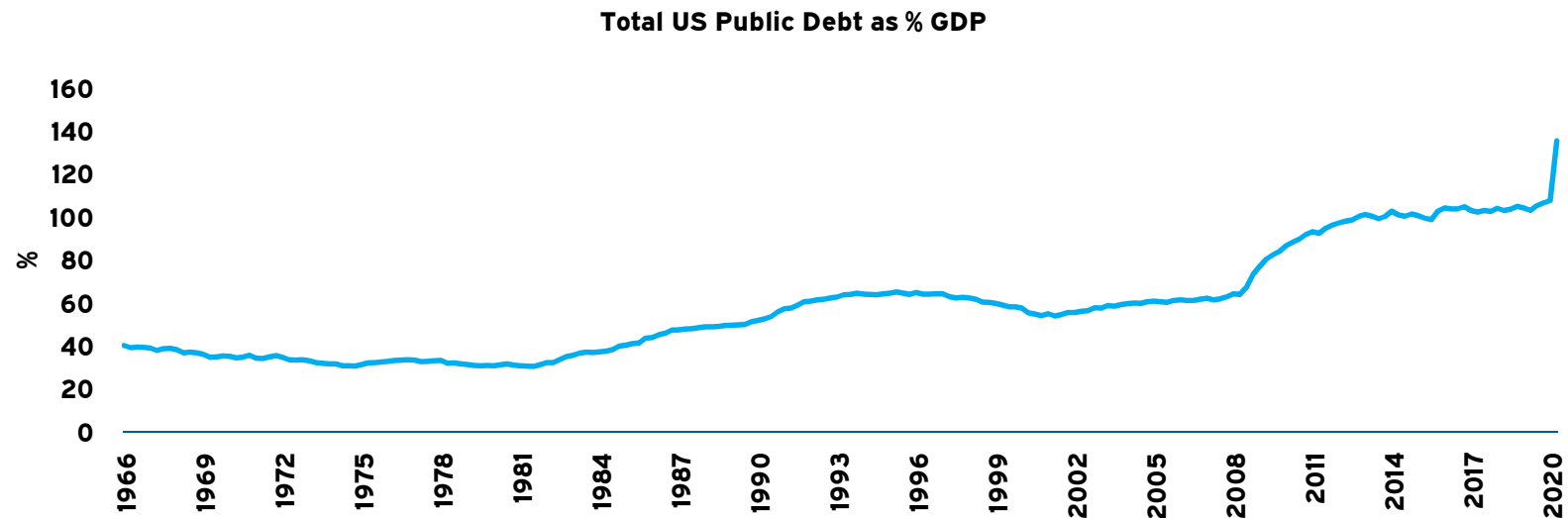
<sup>3</sup> Source: Bloomberg. This data shows year-over-year seated diners at restaurants on the OpenTable network across all channels: online reservations, phone reservations, and walk-ins. Only states or cities with 50+ restaurants in the sample are included. All such restaurants on the OpenTable network in either period are included. Data is as of September 30, 2020. Index start date 2/19/20.



- The US Treasury yield curve declined materially since 2019.
- Cuts in monetary policy rates and policy makers' open commitments to keep rates low for the foreseeable future drove yields down in shorter maturities, while flight-to-quality flows, low inflation, and economic growth uncertainty drove the changes in longer maturities.
- The Federal Reserve's unlimited quantitative easing purchase program provided further downward pressure on interest rates, particularly in the short- and medium-term sectors due to the purchases being focused on those segments.
- It is likely that rates will remain low for some time given the Federal Reserve's pledge to support the economy. This will pressure investors to consider higher risk assets to meet their return objectives.

<sup>1</sup> Source: Bloomberg. Data is as of September 30 2020. Numbers represent month-end values.

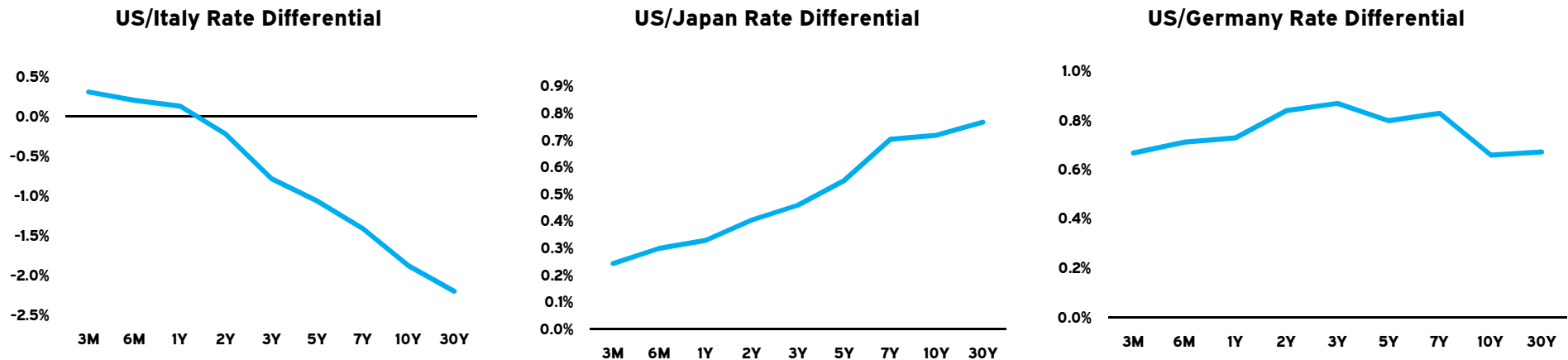
## Treasury Issuance Continues to Increase<sup>1</sup>



- Treasury issuance continues to increase as the government raises funds to pay for programs related to supporting the economy during the pandemic.
- Many are becoming more concerned about the rising debt service as the debt surpasses 100% of US GDP.
- However, the Federal Reserve's purchase program is acquiring a significant portion of outstanding Treasury debt, and thus the government needs to worry less about those interest or principal payments as the Fed's interest payments are remitted back to the Treasury. Also, for an advanced economy like the US with domestic denominated debt, high levels of debt can often be supported for some time, as has been the case in Japan.

<sup>1</sup> Source: Federal Reserve Bank of St. Louis. As of June 30, 2020.

### Government Sovereign Debt Curves<sup>1</sup>

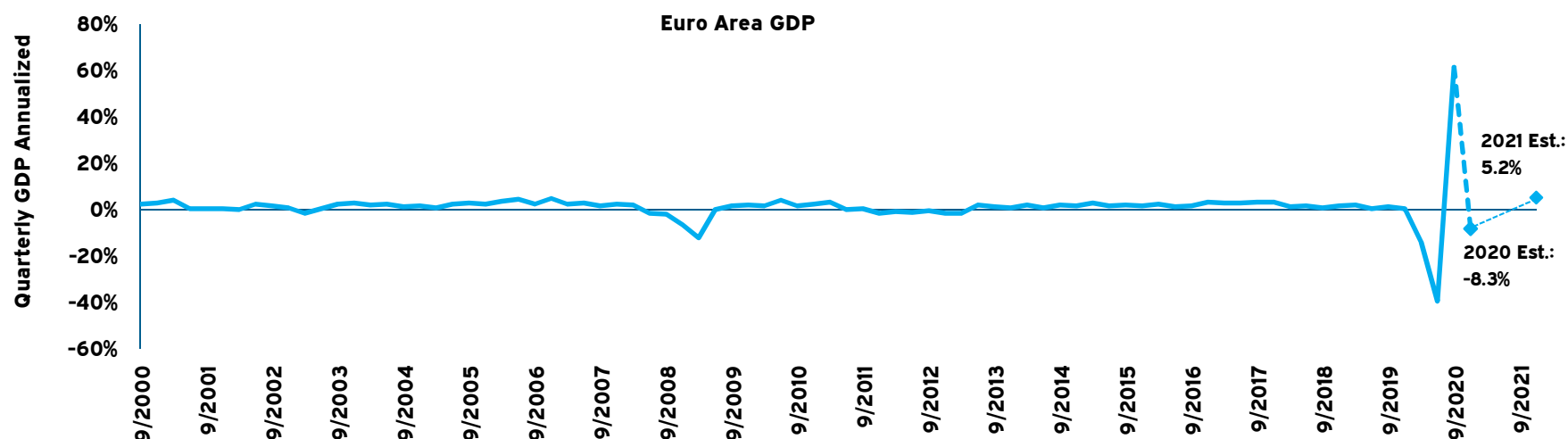


- Despite the US yield curve declining dramatically this year, interest rates in the US remain higher than many other countries.
- Compared to Japanese and German sovereign debt yields, US rates remain higher across the yield curve. However, the majority of the US yield curve is now lower than that of Italy, given greater risks to the Italian economy from the impact of COVID-19.

<sup>1</sup> Source: Bloomberg. Data is as of September 30, 2020. Rate differential data represents the differences in the yield for a US Treasury at each maturity versus the respective similar bond for each country.



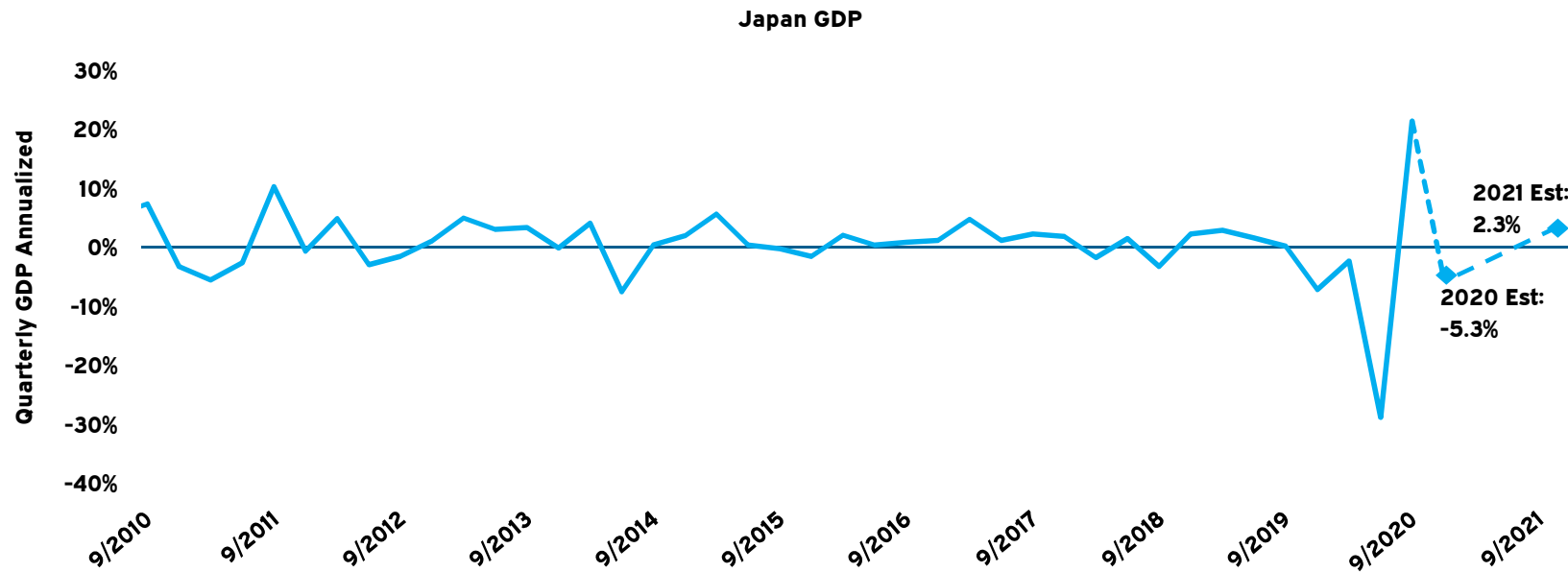
### European Economic Conditions<sup>1</sup>



- Like the US, euro area GDP fell at a historic annualized rate in the second quarter (-39.5%) only to post a historic gain (+61.3%) in the third quarter as economies reopened.
- Projections for the full year are for a decline of 8.3% in the broad euro area, according to the IMF. Economic growth is expected to be around 5.2% in 2021, but with the same risks as in the US of potentially reopening economies too soon.
- Major economies such as France, Spain, and Italy have been materially impacted by distancing measures and the recent spike in cases, and are expected to decline by as much as 9.5% (France), 12.0% (Spain), and 9.8% (Italy) for the year; recovery estimates for 2021 are 6.6%, 6.3%, and 5.5% respectively.

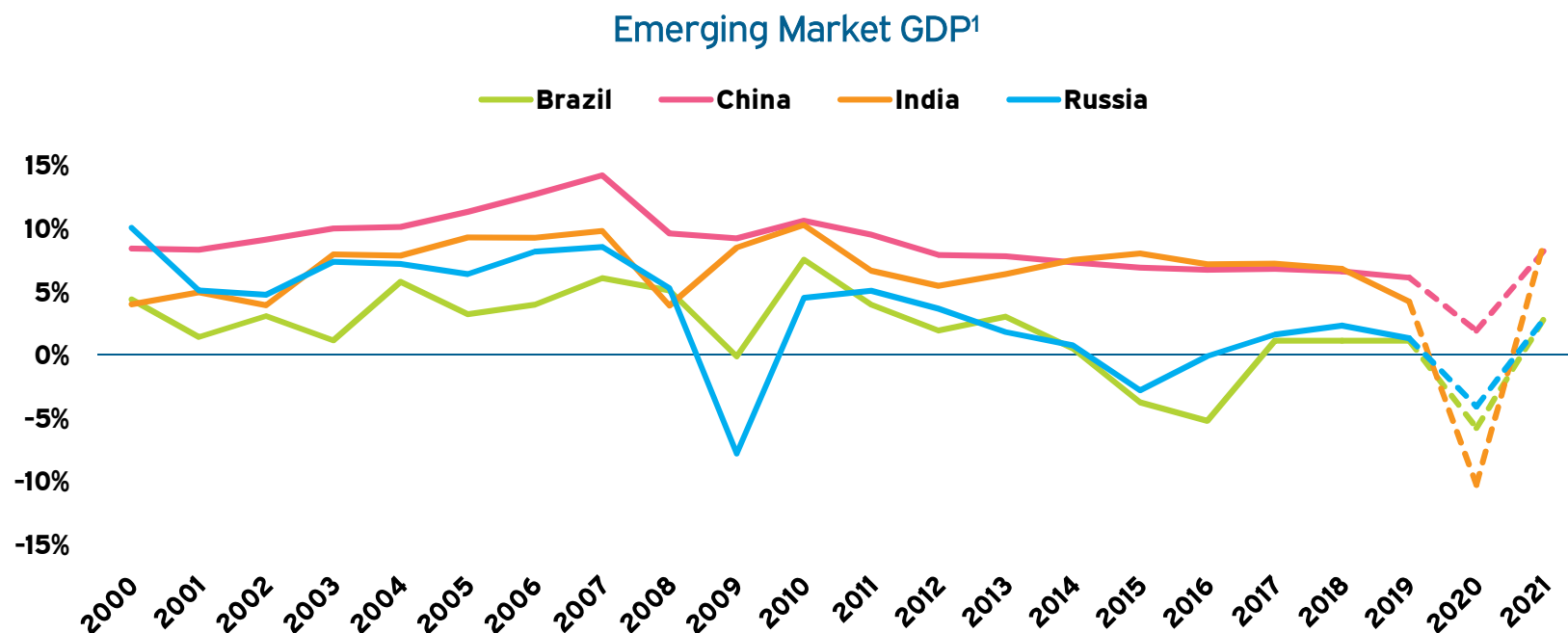
<sup>1</sup> Source: Bloomberg. Data is as of the third quarter of 2020. Annual projections via IMF World Economic Outlook October 2020 thereafter. Euro Area figures are annualized by Meketa.

### Japanese Economic Conditions<sup>1</sup>



- After three consecutive quarterly declines in GDP, Japan also posted historic results for the quarter.
- In the third quarter, GDP increased at a 21.4% annualized rate following the 28.8% record decline in the prior quarter.
- Of all the major economies, Japan's central bank had the largest stimulus in place coming into the crisis that they, like others, expanded to offset the economic impact of restrictions.
- Similar to other major economies, the Japanese economy is expected to decline in 2020, but recover in 2021.

<sup>1</sup> Source: Bloomberg. Data is as of the third quarter of 2020. Annual projections via IMF World Economic Outlook October 2020 thereafter.



- Emerging markets, broadly, are expected to see economic deterioration and recoveries similar to developed economies.
- Behind the US, emerging economies like India, Brazil, Russia, and Mexico have become hotspots for the virus and with relatively weaker healthcare systems, often close living conditions, and generally poor populations, the potential exist for a huge humanitarian crisis.
- However, some economies such as China, are expected to experience less impact, largely due to aggressive societal measures taken to mitigate the spread of the virus, which, in the case of China, has allowed authorities to re-open sooner than other economies.

<sup>1</sup> Source: IMF. World Economic Outlook. October 2020 update. Estimates start after 2019.



- China is one of the few major economies with positive growth projections for 2020 (+1.9%) with a significant increase (+8.2%) forecasted in 2021.
- The positive growth expectations are largely due to the Chinese government's ability to quickly impose aggressive distancing measures, largely isolate and contain the virus, and then quickly move to re-open their economy.

<sup>1</sup> Source: Bloomberg. Data is as of the third quarter of 2020. Annual projections via IMF World Economic Outlook October 2020 thereafter.

## Summary

Several issues are of primary concern going forward:

- 1) **Economies opening too soon from virus-related restrictions, and ultimately needing to re-deploy lockdown policies.**
  - A number of countries, including the US, whose policies allowed for greater flexibility in social distancing are now seeing spikes in infections. This could move governments to re-impose distancing measures, or completely shutter economies, which would likely depress employment and economic growth.
- 2) **Consumers permanently, or for an extended period of time, changing economic behaviors.**
  - The COVID-19 pandemic resulted in an immediate change to societal norms that could last beyond the actual virus. Changing consumer spending and work-environment preferences could limit large events including concerts and sports, dining out, travel, and leisure activities. As consumers make up a large portion of developed economy GDPs, this could drive many companies to failure with lasting impacts on the economy.
- 3) **Persistently high unemployment due to a significant number of companies not surviving the downturn.**
  - Persistently high unemployment due to the failure of companies (and potentially entire sectors) and changing consumer preferences could hurt the growth of economies and, subsequently, government spending on mandatory and discretionary services going forward.

### Summary (continued)

#### 4) Virus-related fears affecting globalization.

- Appetite for globalization was already waning before the pandemic, as seen in the increase in populist and anti-trade sentiment over the last few years. This has been perhaps most evident in the trade wars initiated by the current US administration against a number of its trading partners, including China and Europe. With an increase in rhetoric regarding certain countries not doing enough to limit the spread of the virus outside their borders, as well as restrictions on transportation and sanitation concerns, many countries could elect to advance policies that limit trade and globalization.

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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.