



San Joaquin County Employees Retirement Association

A G E N D A

**SPECIAL MEETING
SAN JOAQUIN COUNTY EMPLOYEES RETIREMENT ASSOCIATION
BOARD OF RETIREMENT
THURSDAY, OCTOBER 7, 2021
AT 8:00 AM**

Location: Wine & Roses
2505 West Turner Road, Lodi, CA 95242

- 1.0 ROLL CALL**
- 2.0 PLEDGE OF ALLEGIANCE**
- 3.0 WELCOME AND INTRODUCTION OF PARTICIPANTS**
- 4.0 OVERVIEW OF SJCERA - ASSET ALLOCATION, RETURN AND RISK**
 - 4.01 Presentation by David Sancewich Meketa Investment Group 2
- 5.0 KEYNOTE SPEAKER - INVESTING AFTER COVID**
 - 5.01 Presentation by Erik Knutzen Neuberger Berman 28
- 6.0 PRIVATE ASSETS - WHAT'S NEXT AND WHERE ARE THE MARKETS TODAY.**
 - 6.01 Presentation by Jeff Ennis Ocean Avenue, Melanie Levine Davidson Kempner, and Raj Menon Grandview 73
- 7.0 INFLATION - WHAT IS IT? HOW IS IT MEASURED? WHAT CAN SJCERA DO TO PROTECT ITS PORTFOLIO.**
 - 7.01 Presentation by Klaus Thuerbach PIMCO and Mimi Yang Dodge & Cox 99
- 8.0 EDUCATIONAL AND INTERACTIVE DISCUSSION ON ALL THINGS INVESTING AND SJCERA**
 - 8.01 Presented by David Sancewich Meketa Investment Group
- 9.0 INTEREST RATES AND GLOBAL GROWTH - CAN THE FED CONTROL RATES? IS THE U.S. THE NEXT JAPAN?**
 - 9.01 Presentation by Dave Torchia Stone Harbor and Tim Rudderow Mt. Lucas 119
- 10.0 OPEN DISCUSSION - WHERE DO WE GO FROM HERE?**
- 11.0 OPEN DISCUSSION AND RECAP**
 - 11.01 Comments from the Board of Retirement
 - 11.02 Comments from the Public
- 12.0 ADJOURNMENT**

San Joaquin County Employees' Retirement Association

October 2021

Pension Challenges and
SJCERA Overview

The SJCERA Mission

SJCERA's Mission:

We are trusted financial stewards committed to providing excellent service and lifetime retirement benefits to our members.

SJCERA's Role:

The Board of Retirement and SJCERA staff administer the defined benefit pension plan authorized by state law and provided by participating employers to their employees.

Under the California State Constitution, the Board of Retirement has plenary authority, sole and exclusive fiduciary responsibility for:

- Investment of assets; diversification to minimize risk of loss and maximize the rate of return; "prudent person" rule.
- Actuarial services to assure the competency of the assets.
- Administration of the system.
- Prompt delivery of benefits and related services to plan participants and beneficiaries.
- Acting solely in the interest of, and for the exclusive purpose of providing benefits to, plan participants and their beneficiaries.

The Defined Benefit Pension Equation

Essential Equation for Pension Funds:

$$C + I + B + E$$

Where:

- C = Contributions (by Employers and Employees)
- I = Interest (investment return – appreciation/income)
- B = Benefits
- E = Expenses

Work Together as Strategic Partners

Summary Statistics

SJCERA – At a Glance*

	Membership Information										
	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Active	6,350	6,369	6,345	6,218	6,102	5,924	5,706	5,553	5,295	5,254	5,473
Deferred	2,165	1,946	1,710	1,624	1,509	1,456	1,435	1,411	1,400	1,418	1,428
Subtotal Non-Retired	8,515	8,315	8,055	7,842	7,611	7,380	7,141	6,964	6,695	6,672	6,901
Service Retired	4,845	4,703	4,588	4,389	4,227	4,060	3,909	3,743	3,627	3,431	3,268
Disabled	640	645	633	623	614	600	598	587	582	571	571
Beneficiaries	876	860	832	810	787	775	742	711	688	683	650
Subtotal Retired	6,361	6,208	6,053	5,822	5,628	5,435	5,249	5,041	4,897	4,685	4,489
Totals	14,876	14,523	14,108	13,664	13,239	12,815	12,390	12,005	11,592	11,357	11,390

Source: Annual Actuarial Valuation Report as of 1/1/2019.

SJCERA's Benefits:

Schedule of Average Benefit Payments

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
General Members										
Average Benefit	\$2,901	\$2,793	\$2,688	\$2,587	\$2,496	\$2,409	\$2,308	\$2,194	\$2,104	\$2,001
Number of Payees	5,250	5,125	5,010	4,806	4,657	4,494	4,358	4,172	4,041	3,871
Safety Members										
Average Benefit	\$5,192	\$5,065	\$4,903	\$4,744	\$4,678	\$4,500	\$4,292	\$4,176	\$4,090	\$3,900
Number of Payees	1,111	1,083	1,043	1,016	971	941	891	869	856	814
General & Safety Members										
Average Benefit	\$3,301	\$3,190	\$3,070	\$2,875	\$2,873	\$2,771	\$2,645	\$2,536	\$2,451	\$2,331
Number of Payees	6,361	6,208	6,053	5,822	5,628	5,435	5,249	5,041	4,897	4,685
Total Benefit Payments										
(\$ Millions)	\$252.0	\$237.6	\$223.0	\$200.9	\$194.0	\$180.7	\$166.6	\$154.2	\$143.7	\$131.6
% Increase	6.1%	6.6%	11.0%	3.5%	7.3%	8.5%	8.0%	7.3%	9.2%	8.6%

SJCERA's Contributions:

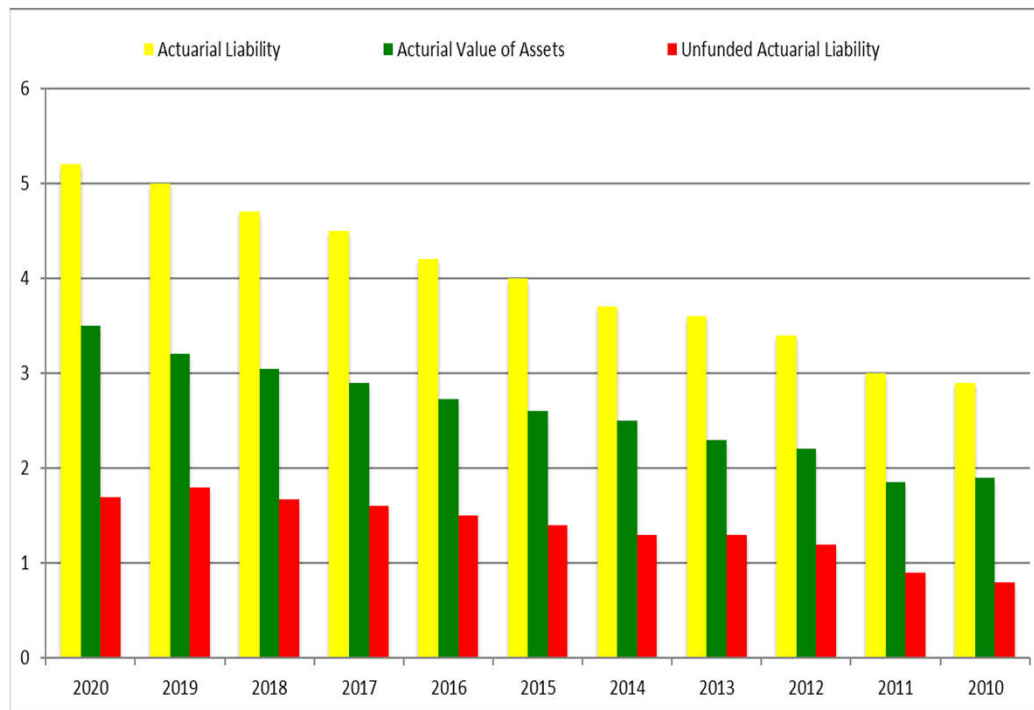
Employer and Employee Contributions
(\$ Millions)

	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>
Employee	\$41 14%	\$38 14%	\$35 14%	\$33 14%	\$30 16%	\$29 16%	\$27 16%	\$23 16%
Employer	<u>241 86%</u>	<u>226 86%</u>	<u>209 86%</u>	<u>200 86%</u>	<u>159 84%</u>	<u>150 84%</u>	<u>137 84%</u>	<u>120 84%</u>
Total	<u>\$281 100%</u>	<u>\$264 100%</u>	<u>\$244 100%</u>	<u>\$233 100%</u>	<u>\$189 100%</u>	<u>\$179 100%</u>	<u>\$164 100%</u>	<u>\$143 100%</u>

- Employee and Employer contributions have increased during the previous 5-years.

SJCERA – At a Glance

Market Value of Assets/ Actuarial Accrued Liability/UAL*



Funded Ratio*

YEAR	UAL	FUNDED RATIO	
		AVA %	MVA %
2011	\$ 918 M	70%	63%
2012	\$ 1.228 M	63%	64%
2013	\$ 1.277 M	64%	65%
2014	\$1.260 M	66%	66%
2015	\$1.402 M	65%	60%
2016	\$1.501 M	65%	60%
2017	\$1.584 M	64.8%	64.0%
2018	\$1.676 M	64.5%	60.2%
2019	\$1.788 M	64.3%	64.7%
2020	\$1.720 M	67.0%	68.1%

- The increase in liabilities have outpaced the market value of assets over the last five years.

Source: Annual Actuarial Valuation Report.

Capital Markets Review

Long-Term Capital Market Returns (June 2021)

	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Domestic Equity				
S&P 500	40.8	18.7	17.6	14.8
Russell 3000	44.2	18.7	17.9	14.7
Russell 1000	43.1	19.2	18.0	14.9
Russell 1000 Growth	42.5	25.1	23.7	17.9
Russell 1000 Value	43.7	12.4	11.9	11.6
Russell MidCap	49.8	16.4	15.6	13.2
Russell 2000	62.0	13.5	16.5	12.3
Foreign Equity				
MSCI ACWI (ex. US)	35.9	9.4	11.1	5.5
MSCI EAFE	32.3	8.3	10.3	5.9
MSCI EAFE Small Cap	41.1	8.4	12.0	8.4
MSCI Emerging Markets	40.9	11.3	13.0	4.3
Fixed Income				
Bloomberg Barclays Universal	1.1	5.6	3.5	3.7
Bloomberg Barclays Aggregate	-0.3	5.3	3.0	3.4
Bloomberg Barclays US TIPS	6.5	6.5	4.2	3.4
Bloomberg Barclays High Yield	15.4	7.4	7.5	6.7
Other				
FTSE NAREIT Equity	32.8	11.8	8.0	10.2
Bloomberg Commodity Index	45.6	3.9	2.4	-4.4

Long-Term Capital Market Returns (June 2021)

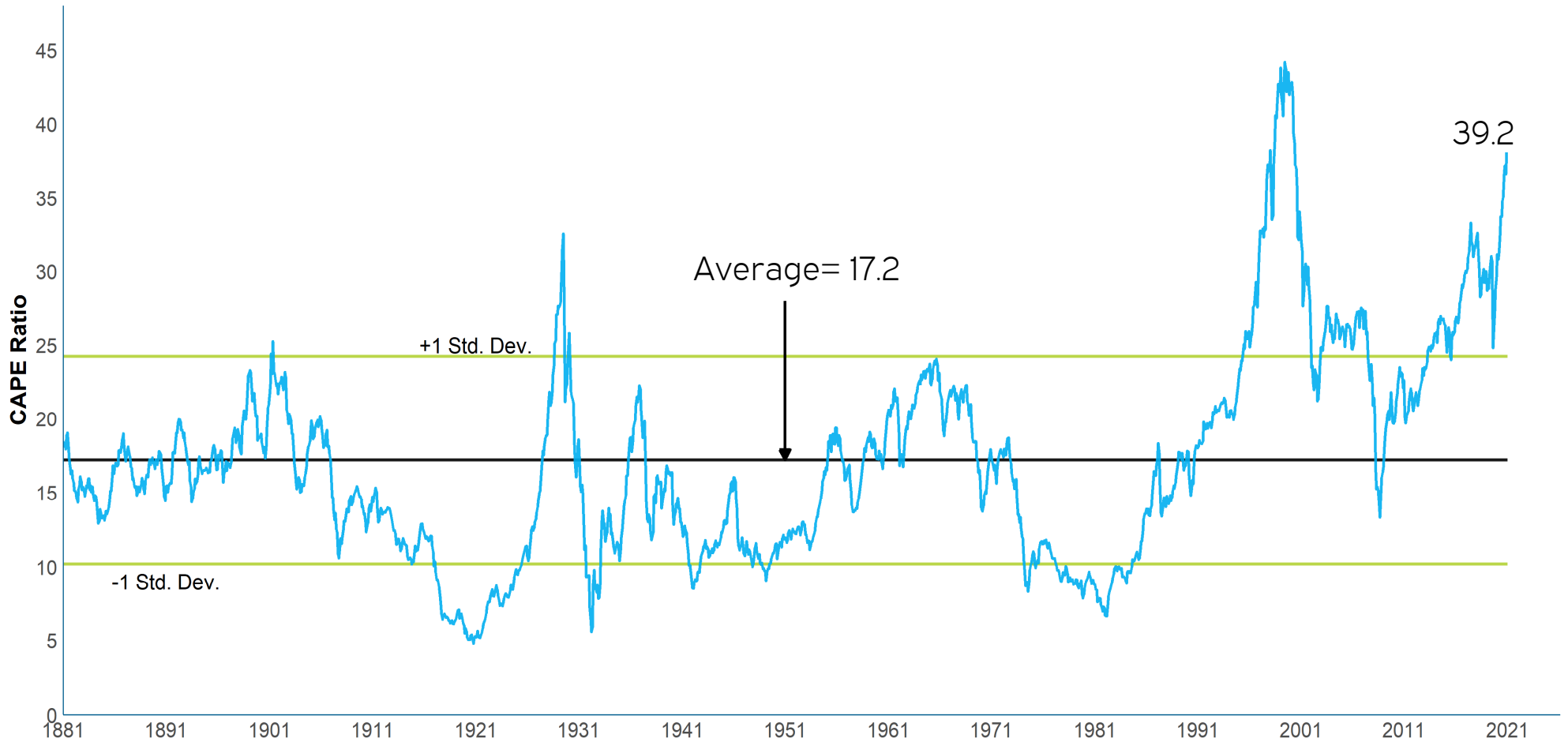
	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Domestic Equity				
S&P 500	30.7	3.3	2.9	2.7
Russell 3000	32.4	4.0	3.4	3.4
Russell 1000	31.9	3.7	3.3	3.2
Russell 1000 Growth	35.0	5.0	5.3	2.2
Russell 1000 Value	28.9	2.3	1.2	4.0
Russell MidCap	38.5	6.5	5.3	7.6
Russell 2000	37.4	7.8	4.1	6.3
Foreign Equity				
MSCI ACWI (ex. US)	29.7	(0.3)	3.7	7.5
MSCI EAFE	30.4	(1.8)	1.5	5.7
MSCI EAFE Small Cap	36.4	3.3	2.3	10.1
MSCI Emerging Markets	27.8	4.2	11.4	16.2
Fixed Income				
Bloomberg Barclays Universal	4.8	6.7	6.6	6.0
Bloomberg Barclays Aggregate	3.9	6.5	6.5	5.7
Bloomberg Barclays US TIPS	7.7	5.3	6.9	7.0
Bloomberg Barclays High Yield	15.6	12.7	9.3	9.0
Other				
FTSE NAREIT Equity	34.1	5.4	2.6	10.7
Bloomberg Commodity Index	25.9	(11.9)	(0.0)	6.6

Annual Asset Class Performance - June 2021

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	YTD
EM 79.0%	REIT 28.0%	REIT 8.3%	REIT 19.7%	Sm Cap 38.8%	REIT 28.0%	REIT 2.8%	Sm Cap 21.3%	EM 37.8%	Cash 1.8%	Lg Cap 31.5%	Sm Cap 20.0%	REIT 21.4%
HY Bnd 57.5%	Sm Cap 26.9%	HG Bnd 7.8%	EM 18.6%	Lg Cap 32.4%	Lg Cap 13.7%	Lg Cap 1.4%	HY Bnd 17.5%	Int'l 25.6%	HG Bnd 0.0%	REIT 28.7%	EM 18.7%	Sm Cap 17.5%
Int'l Stk 32.5%	EM 19.2%	HY Bnd 4.4%	Int'l Stk 17.9%	Int'l Stk 23.3%	AA 6.9%	HG Bnd 0.6%	Lg Cap 12.0%	Lg Cap 21.8%	HY Bnd -2.3%	Sm Cap 25.5%	Lg Cap 18.4%	Lg Cap 15.3%
REIT 28.0%	HY Bnd 15.2%	Lg Cap 2.1%	Sm Cap 16.4%	AA 11.5%	HG Bnd 6.0%	Cash 0.0%	EM 11.6%	Sm Cap 14.7%	REIT -4.0%	Int'l Stk 22.7%	AA 9.8%	Int'l 9.2%
Sm Cap 27.2%	Lg Cap 15.1%	AA 0.3%	Lg Cap 16.0%	HY Bnd 7.4%	Sm Cap 4.9%	Int'l Stk -0.4%	REIT 8.6%	AA 14.6%	Lg Cap -4.4%	AA 18.9%	Int'l Stk 8.3%	AA 7.7%
Lg Cap 26.5%	AA 13.5%	Cash 0.1%	HY Bnd 15.6%	REIT 2.9%	HY Bnd 2.5%	AA -1.3%	AA 7.2%	REIT 8.7%	AA -5.6%	EM 18.9%	HY Bnd 7.5%	EM 7.6%
AA 24.6%	Int'l Stk 8.2%	Sm Cap -4.2%	AA 12.2%	Cash 0.1%	Cash 0.0%	Sm Cap -4.4%	HG Bnd 2.7%	HY Bnd 7.5%	Sm Cap -11.0%	HY Bnd 14.4%	HG Bnd 6.1%	HY Bnd 3.7%
HG Bnd 5.9%	HG Bnd 6.5%	Int'l Stk -11.7%	HG Bnd 4.2%	HG Bnd -2.0%	EM -1.8%	HY Bnd -4.6%	Int'l Stk 1.5%	HG Bnd 3.5%	Int'l Stk -13.4%	HG Bnd 8.7%	Cash 0.6%	Cash 0.0%
Cash 0.1%	Cash 0.1%	EM -18.2%	Cash 0.1%	EM -2.3%	Int'l Stk -4.5%	EM -14.6%	Cash 0.3%	Cash 0.8%	EM -14.3%	Cash 2.2%	REIT -5.1%	HG Bnd -1.6%

¹ Source: Novel Investor: <https://novelinvestor.com/asset-class-returns/>

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



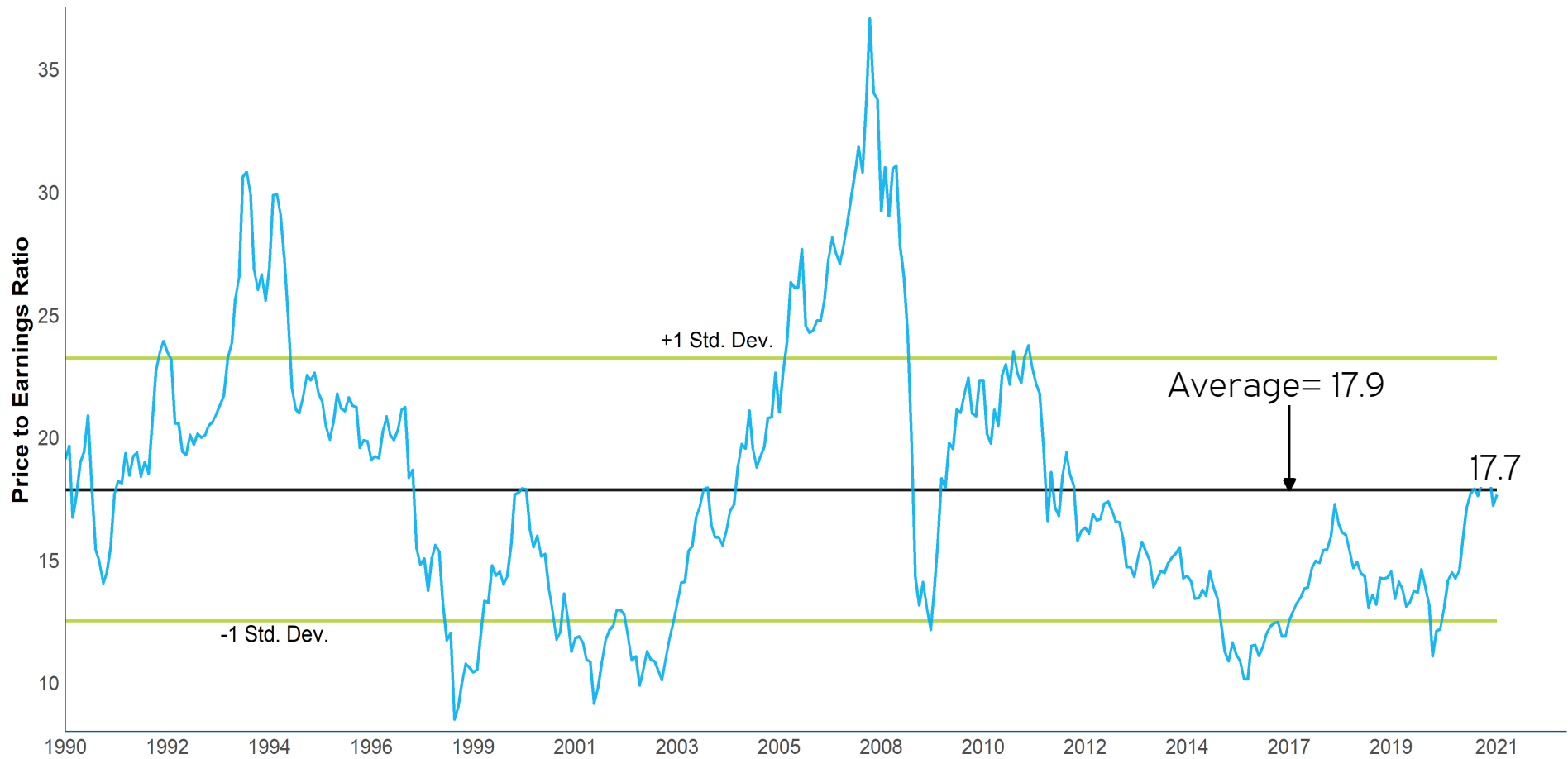
¹ Source: US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group

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



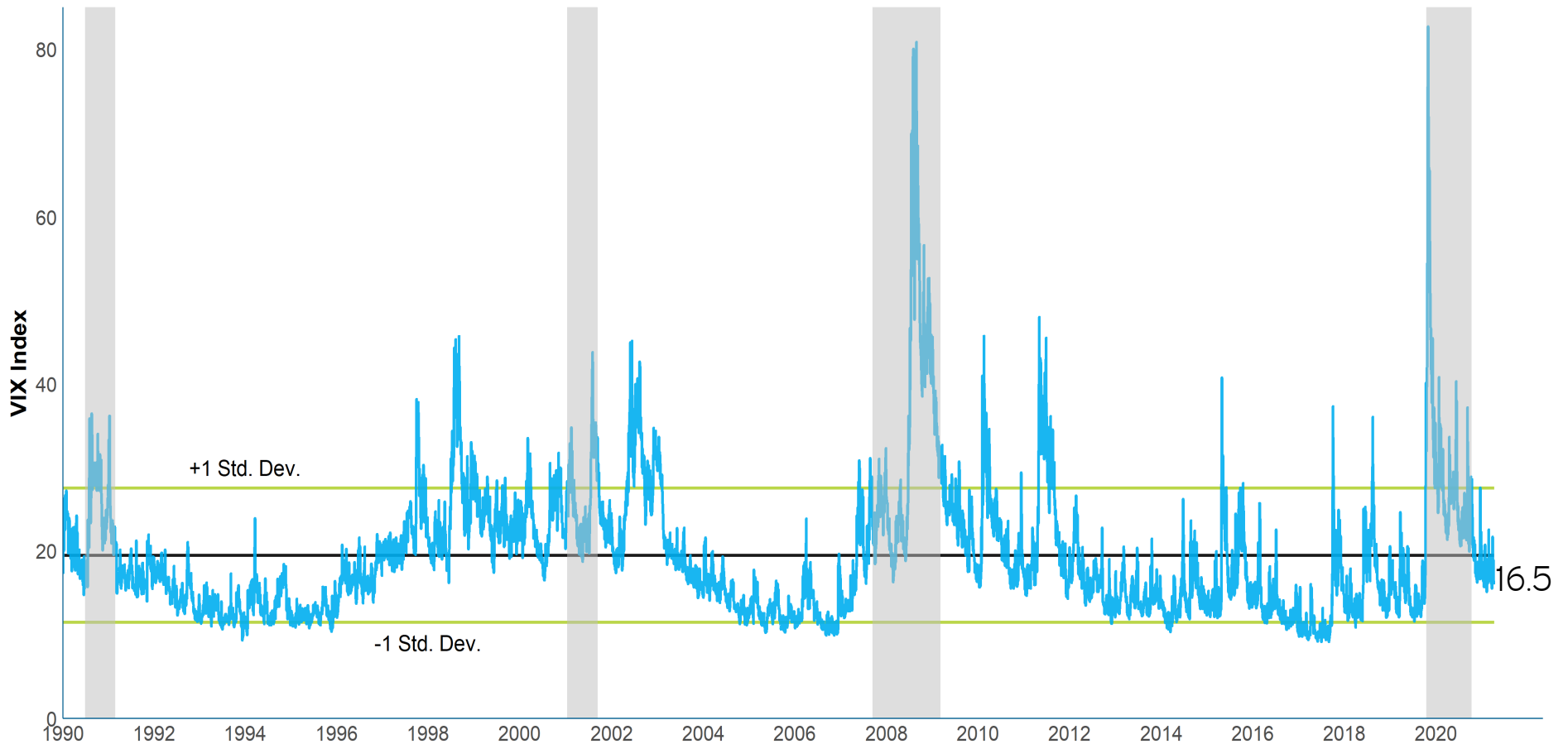
¹ Source: Developed International Equity (MSCI EAFE Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years.

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



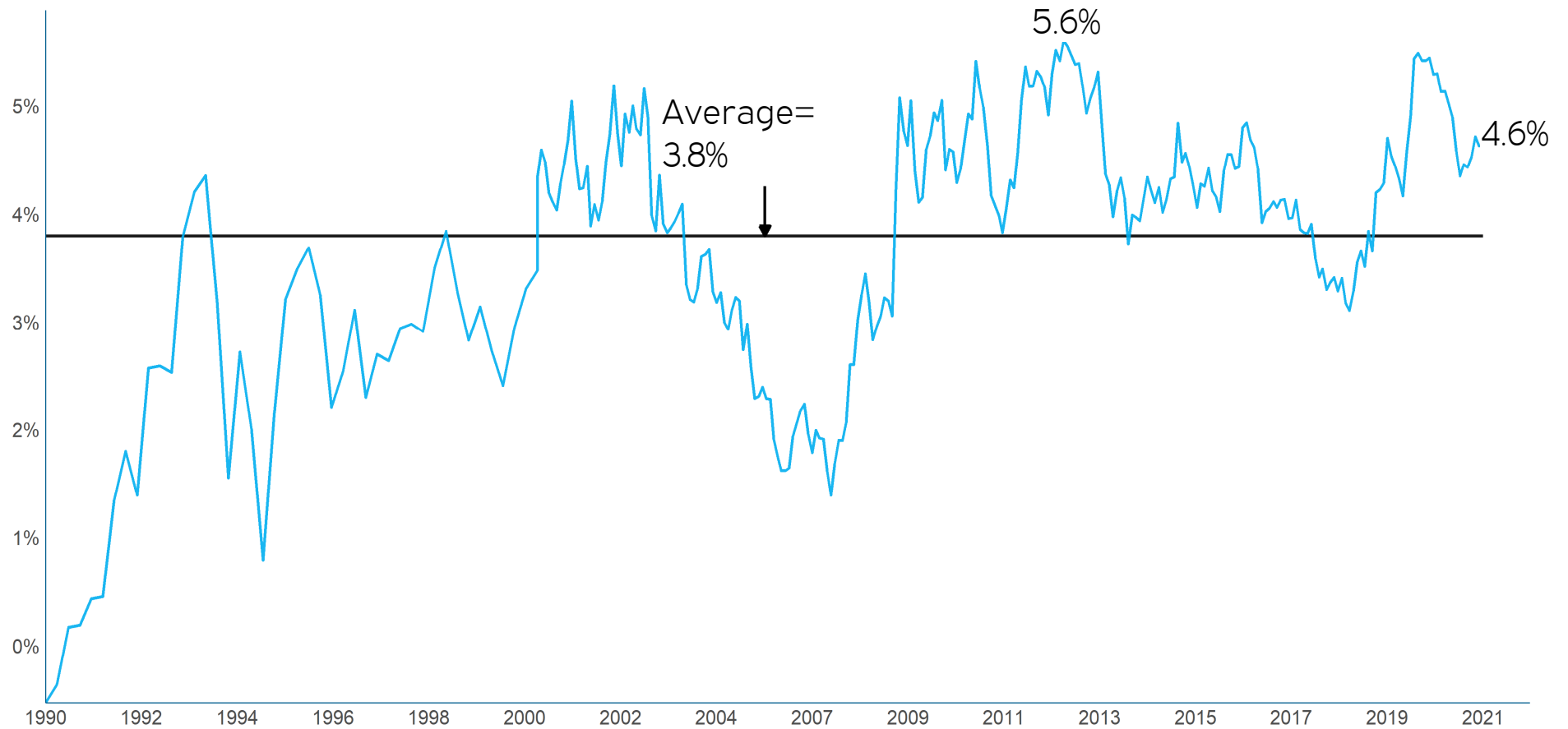
¹ Source: Emerging Market Equity (MSCI Emerging Markets Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years.

Equity Volatility¹ (As of August 31, 2021)



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

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



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

Asset Allocation

SJCERA Structural Framework

High-Level Class	Mid-Level Component	Strategy
Broad Growth	Aggressive Growth	Private-Equity / Non-Core Real Assets
		US Equity
	Traditional Growth	Non-US Equity
		REITs
		Risk Parity
	Stabilized Growth	Liquid Credit
		Private Credit
Private Core Real Assets		
Diversifying Strategies	Principal Protection	Core Fixed Income
	Crisis Risk Offset	Long Duration
		Systematic Trend Following
		Alternative Risk Premia

SJCERA Structural Framework

Strategic Classes	Previous	Current	Change
Broad Growth	70.0	75.0	5.0
Aggressive Growth	8.0	10.0	2.0
Traditional Growth	30.0	32.0	2.0
Stabilized Growth	32.0	33.0	1.0
<i>Risk Parity</i>	14.0	10.0	-4.0
<i>Credit</i>	14.0	17.0	3.0
<i>Core Real Assets</i>	4.0	6.0	2.0
Diversifying Strategies	30.0	25.0	-5.0
Principal Protection	10.0	10.0	0.0
Inflation Protection	0.0	0.0	0.0
CRO	20.0	15.0	-5.0
10 Year Simulation Stats	Previous (%)	Current (%)	Change (%)
Median Scenario Compound Return	7.15	7.30	0.15
Average Scenario Standard Deviation	8.4	9.1	-0.7
Sharpe Ratio	0.8	0.8	-0.0
Average Compound Return of bottom 10%	1.8	1.4	-0.4
Average Compound Return of top 10%	11.7	12.3	0.6
Percent of Compound Returns < 7.25%	52.0	49.4	-2.6
Percent of Compound Returns < 2.9%	7.8	9.1	1.3
Best Calendar Year	24.2	25.2	1.0
Worst Calendar Year	-15.6	-18.5	-2.9

20-Year Return expectations (2021)

2021 20-Year Assumptions				
Investment Class	Target * (%)	Exp. Arith. Return	Exp. Comp. Return**	Expected Std. Dev.
Aggressive Growth	10%	12.10	9.70	21.80
Traditional Growth	32%	8.70	7.10	18.00
Stabilized Growth	33%	6.00	5.50	9.85
Principal Protection	10%	1.90	1.80	4.00
Crisis Risk Offset	15%	4.45	4.05	8.90
Cash	0%	1.10	1.10	1.00
Inflation	---	2.10	2.10	3.00
Total	100%	6.85	6.25	10.65

*Long-term Target Allocation

Note: all numbers are rounded to the nearest 0.05%

Investment Performance

2020 Calendar Year Performance (Gross of Fees)

	Quarter	1-Year	3-Year	5-Year	10-Years
SJCERA	7.8	8.8	6.9	8.1	6.8
SJCERA Sharpe Ratio	0.7	0.8	0.8	1.2	1.0
Median Peer*	10.1	10.8	7.4	9.0	7.9
Median Peer* Sharpe Ratio	0.9	0.7	0.6	0.9	0.9
S&P 500	12.1	18.4	14.2	15.2	13.9
MSCI EAFE	16.0	7.8	4.3	7.4	5.5
MSCI EM	19.7	18.3	6.2	12.8	3.6
BB Agg	0.7	7.5	5.3	4.4	3.8
Cash	0.0	0.5	1.5	1.1	0.6

June 2021 Performance (Net of Fees)
 San Joaquin County Employees Retirement Association (SJCERA)

Preliminary Monthly Flash Report (Net)							
	YTD	1-Yr	3-Yrs	5-Yrs	10-Yrs	SI Return	SI Date
Total Plan	8.2	19.7	9.1	8.4	6.4	8.0	Apr-90
Policy Benchmark	6.9	21.0	9.8	9.3	7.2	7.8	
Difference:	1.3	-1.3	-0.7	-0.9	-0.8	0.2	
75/25 Portfolio	8.4	29.7	13.5	11.6	8.0	7.8	
Difference:	-0.2	-10.0	-4.4	-3.2	-1.6	0.2	

Disclaimer

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

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

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

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

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



Investing After COVID: Opportunities and Challenges in Global Markets

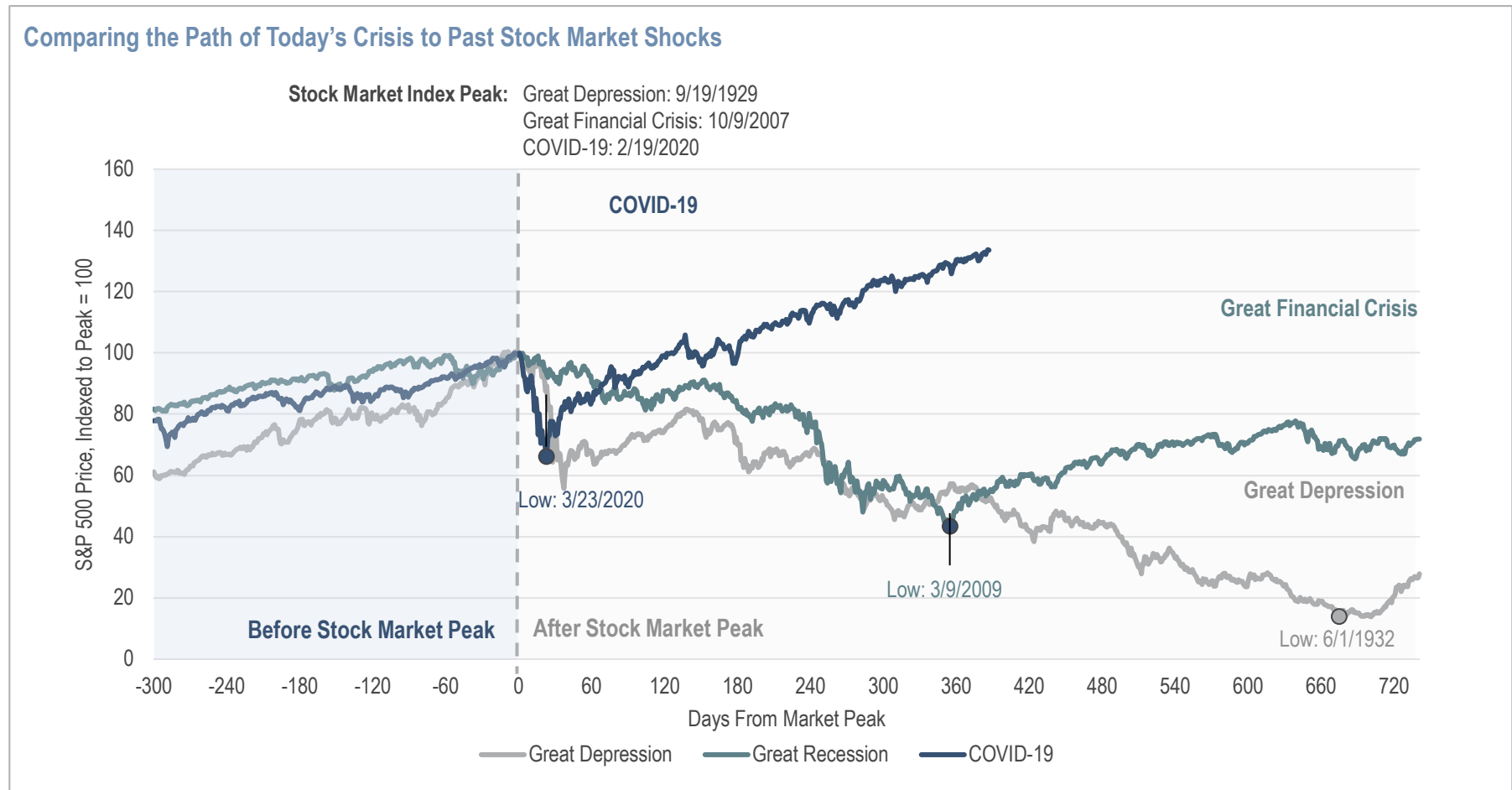
October 2021

Erik Knutzen, CFA, CAIA

Chief Investment Officer, Multi-Asset Class Investments

Remarkable Post-COVID-19 Rally Driven By Unprecedented Fiscal and Monetary Policies

Many assets have sharply recovered from March lows



Source: Bloomberg, as of August 31, 2021. Indexes are unmanaged and are not available for direct investment. Investing entails risks, including possible loss of principal. Past performance is no guarantee of future results.

Global Economic Environment

Post-COVID Recovery Transitioning to Mid-Cycle Expansion

Global growth likely to remain above long-term trend as re-opening continues despite short-term virus resurgence

Monetary policy to remain accommodative even as tapering approaches

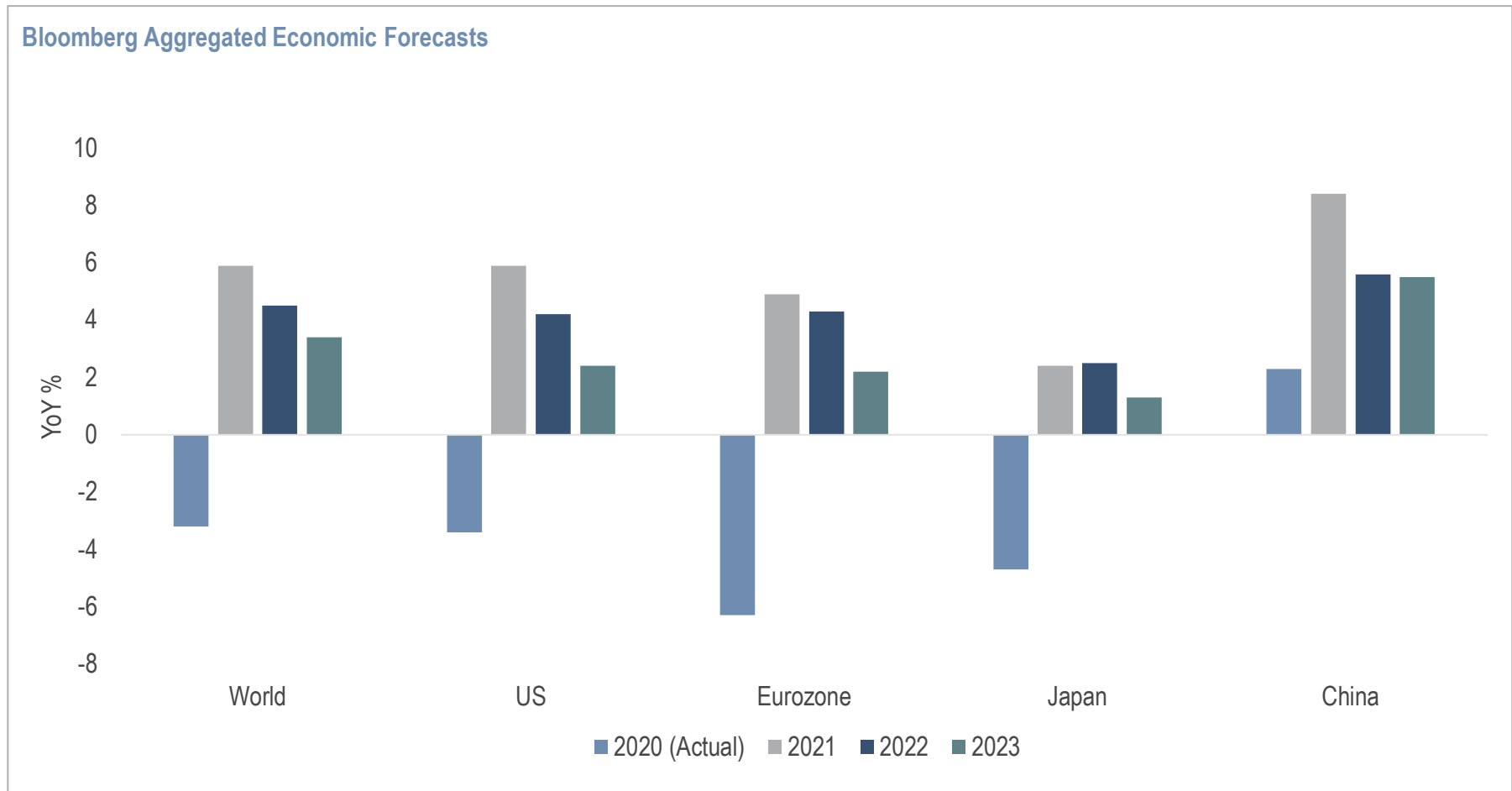
Inflation higher in short-term due to economic reopening and supply chain disruptions, although longer-term headwinds remain

Key risks to views:

- Inflation – transitory or sustained?
- Have we seen peak growth in a shortened cycle?
- Path of Delta variant and impact on growth?
- Policy uncertainty in U.S. – which way on further stimulus and taxes?
- China growth – impact of regulatory changes as credit impulse rolls over?

As of September 2021. Nothing herein constitutes a prediction or projection of future events or future market behavior. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed. See “Additional Disclosures” at the end of this presentation, for additional information regarding the Neuberger Berman Multi-Asset Class team and Asset Allocation Committee and the views expressed.

Global GDP Growth Forecast – Post-COVID-19 Rebound Unfolding



Source: Bloomberg. As of August 31, 2021. Nothing herein constitutes a prediction or projection of future events or future market behavior. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed. See “Additional Disclosures” at the end of this material, which are an important part of this presentation.

Strong Global Economic Data – Purchasing Manager Indices (PMIs)

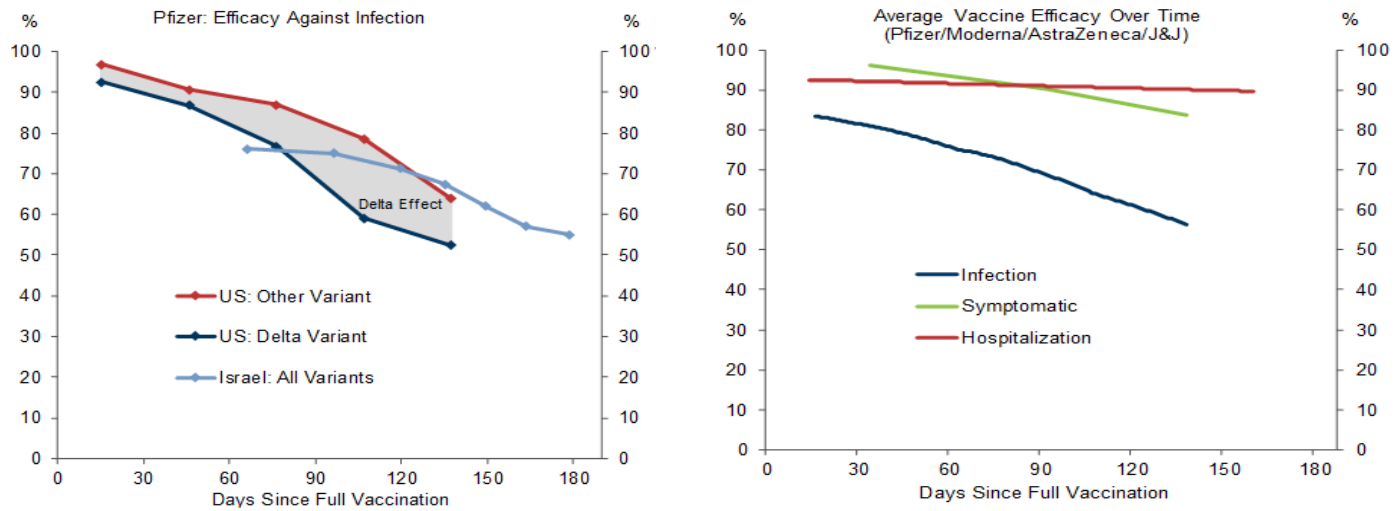
		Aug-21	Jul-21	Jun-21	May-21	Apr-21	Mar-21	12 Month Ago	24 Months Ago	2020 Average	2019 Average
Global	Composite	52.6	55.8	56.6	58.5	56.7	54.8	52.5	51.3	46.9	51.7
	Manufacturing	54.1	55.4	55.5	56.0	55.8	55.0	51.8	49.5	49.2	50.0
Developed Market	Composite	54.1	57.5	59.3	61.1	58.2	55.9	52.2	51.0	46.0	51.5
	Manufacturing	58.3	59.8	59.5	59.8	59.3	58.5	51.2	48.7	48.5	49.5
Emerging Market	Composite	49.3	52.0	50.8	52.8	53.5	52.6	53.0	51.8	48.7	51.9
	Manufacturing	49.6	50.6	51.2	52.0	52.2	51.3	52.5	50.4	49.9	50.5
US	Composite	55.4	59.9	63.7	68.7	63.5	59.7	54.6	50.7	48.8	52.5
	Manufacturing	59.9	59.5	60.6	61.2	60.7	64.7	55.6	48.4	52.5	51.2
UK	Composite	54.8	59.2	62.2	62.9	60.7	56.4	59.1	50.2	46.5	50.2
	Manufacturing	60.3	60.4	63.9	65.6	60.9	58.9	55.2	47.4	50.2	50.0
Germany	Composite	60.0	62.4	60.1	56.2	55.8	57.3	54.4	51.7	46.4	51.1
	Manufacturing	62.6	65.9	65.1	64.4	66.2	66.6	52.2	43.5	49.1	44.5
Euro Zone	Composite	59.0	60.2	59.5	57.1	53.8	53.2	51.9	51.9	44.0	51.3
	Manufacturing	61.4	62.8	63.4	63.1	62.9	62.5	51.7	47.0	48.6	47.4
Japan	Composite	45.5	48.8	48.9	48.8	51.0	49.9	45.2	51.9	42.4	50.5
	Manufacturing	52.7	53.0	52.4	53.0	53.6	52.7	47.2	49.3	45.8	49.3
China	Composite	47.2	53.1	50.6	53.8	54.7	53.1	55.1	51.6	51.4	51.8
	Manufacturing	49.2	50.3	51.3	52.0	51.9	50.6	53.1	50.4	51.1	50.5
% Expanding		72%	83%	83%	94%	94%	89%	89%	33%	17%	44%
% Neutral		17%	11%	11%	0%	6%	11%	0%	39%	22%	44%
% Contracting		11%	6%	6%	6%	0%	0%	11%	28%	61%	11%

Source: Bloomberg. As of August 31, 2021.

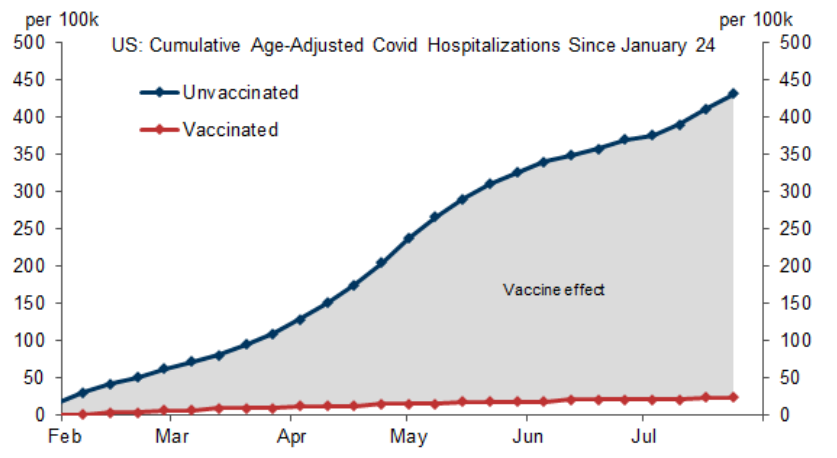
COVID-19 – Vaccine Driven Recovery

Vaccine efficacy against hospitalizations remains fairly stable over time; new cases rolling over in US

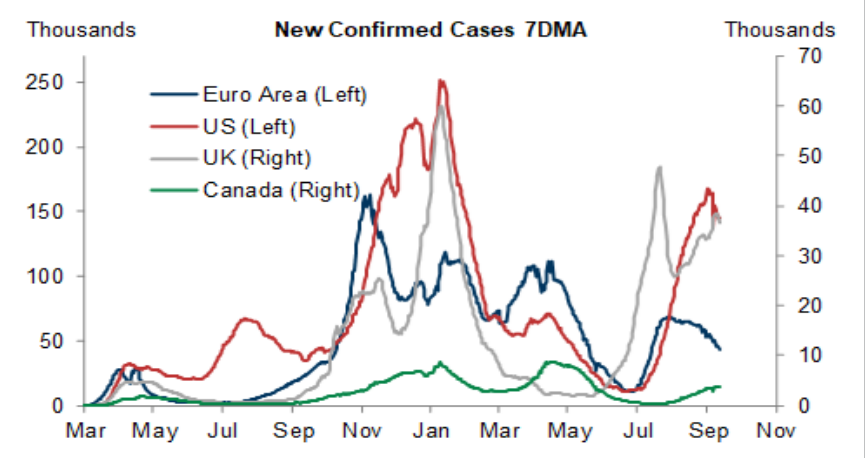
Vaccine efficacy wanes against infections but remains robust against hospitalizations



CDC: hospitalizations 17 times higher for the unvaccinated



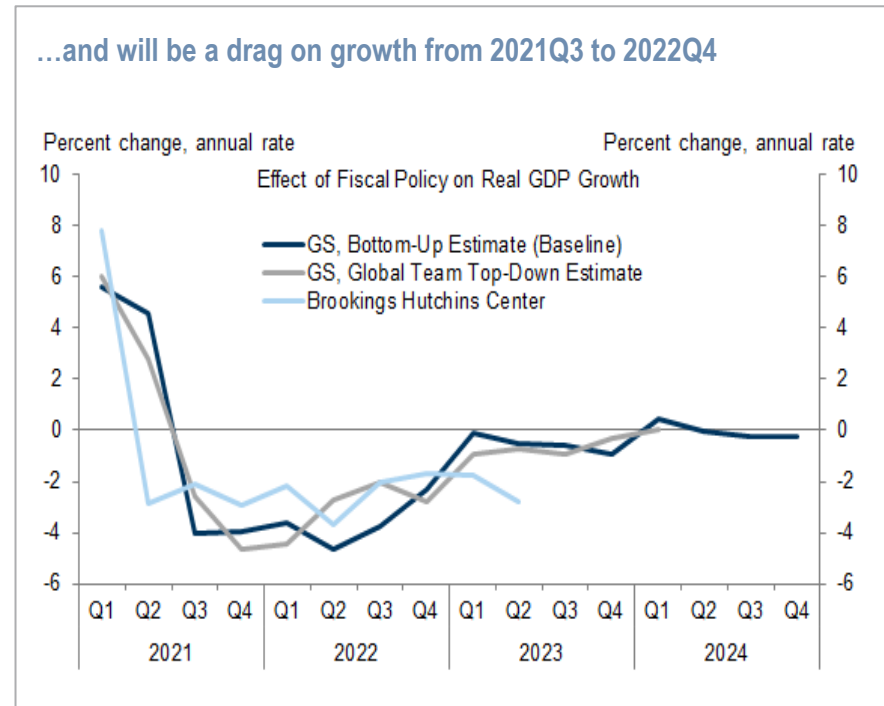
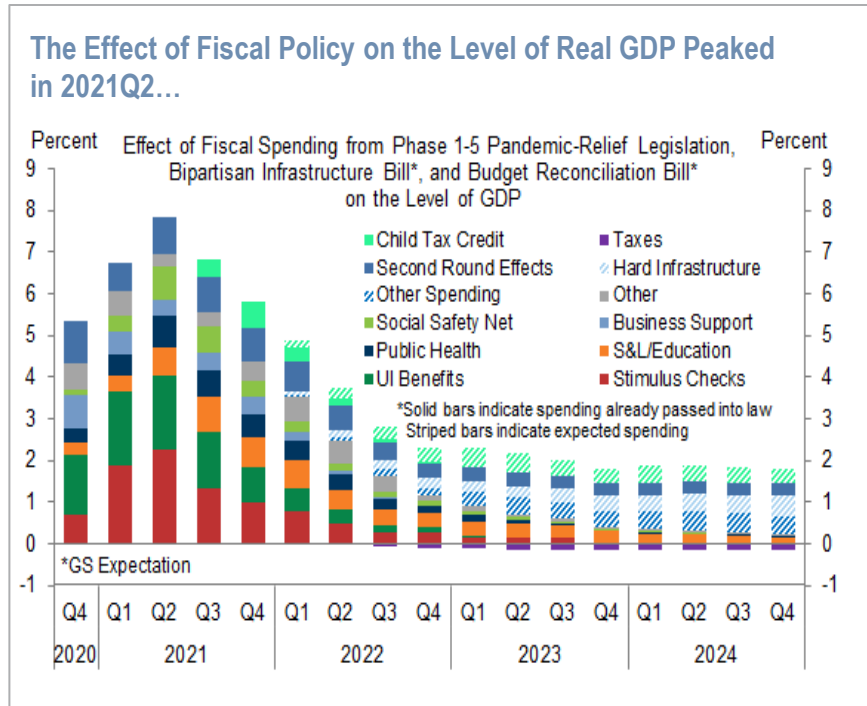
New cases rolled over in the US while reaccelerated in the UK



7dma: 7 days moving average. Source: Goldman Sachs, Top charts: as of August 31, 2021; Bottom left chart: as of August 26, 2021; Bottom right chart: as of September 14, 2021

U.S. Fiscal Impact Peaked in Q2 2021

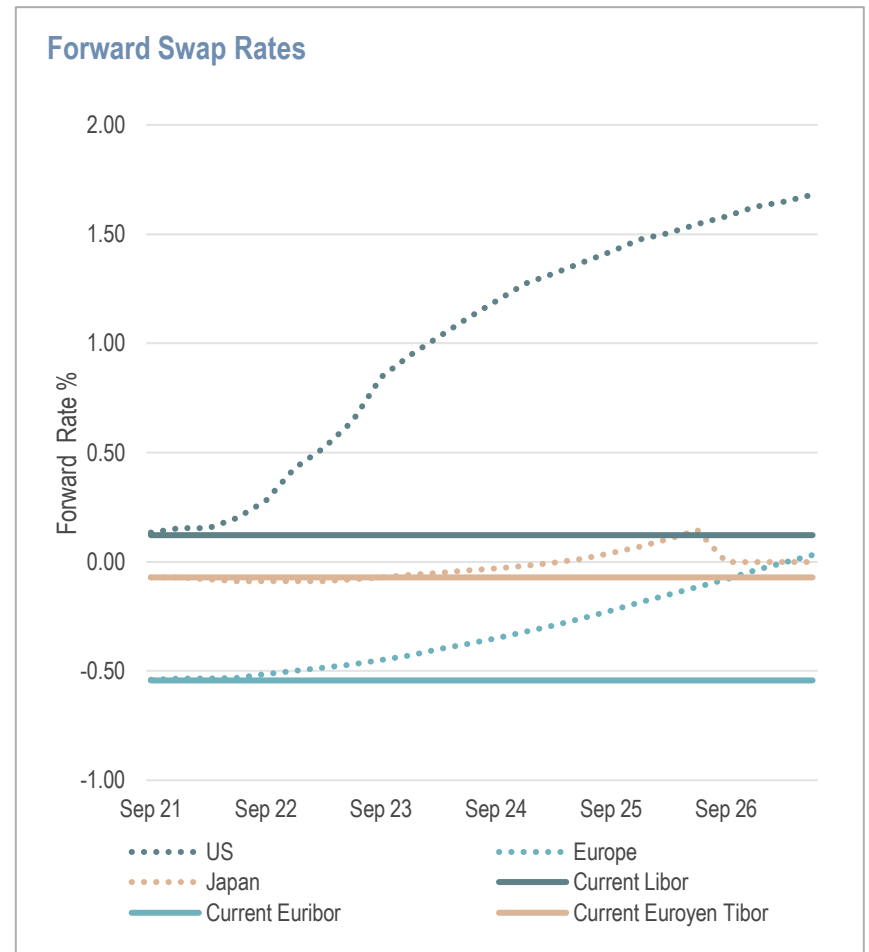
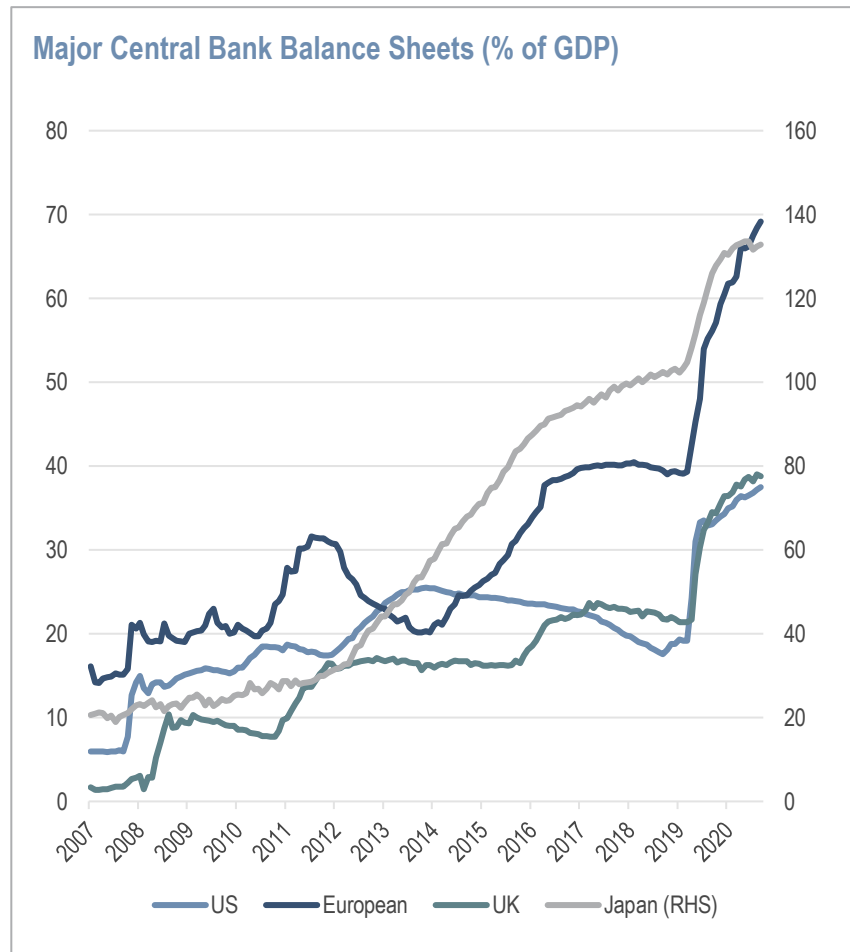
Fiscal impulse on growth turns negative until end of 2022 – potential for temporary below-trend growth next year



Source: Goldman Sachs. For illustrative and discussion purposes only. Nothing herein constitutes a prediction or projection of future events or future market behavior. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed or any historical results. See Additional Disclosures at the end of this presentation.

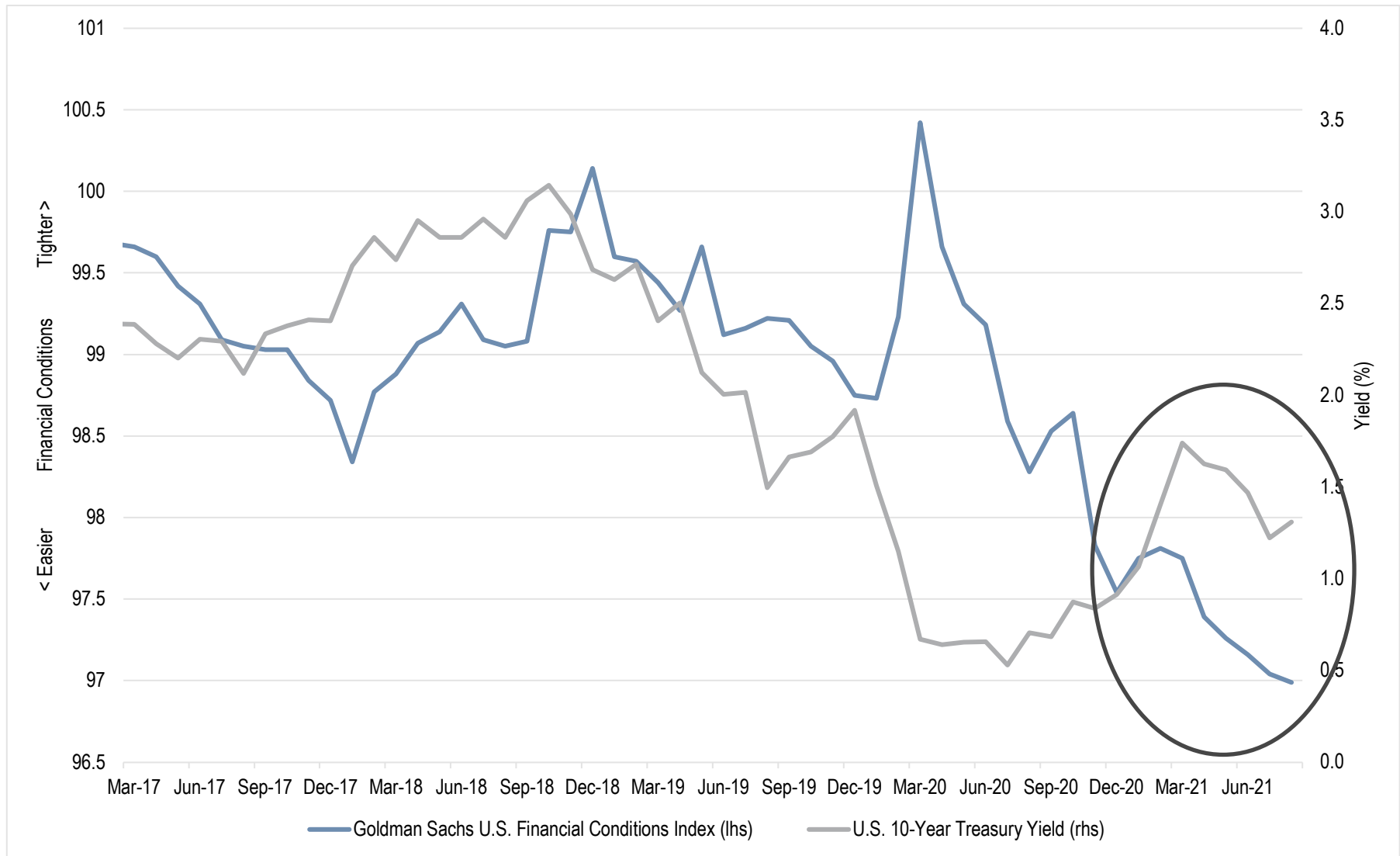
Key Growth Driver – Monetary Policy Response

Central Banks have expanded balance sheets and committed to historically low interest rates for the foreseeable future



Source: Bloomberg. Left chart: as of August 31, 2021. Right chart: as of September 14, 2021.

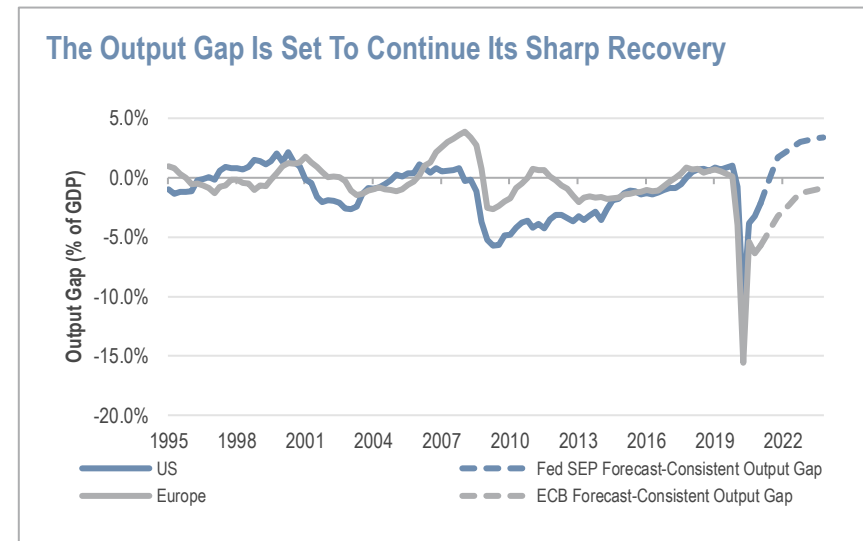
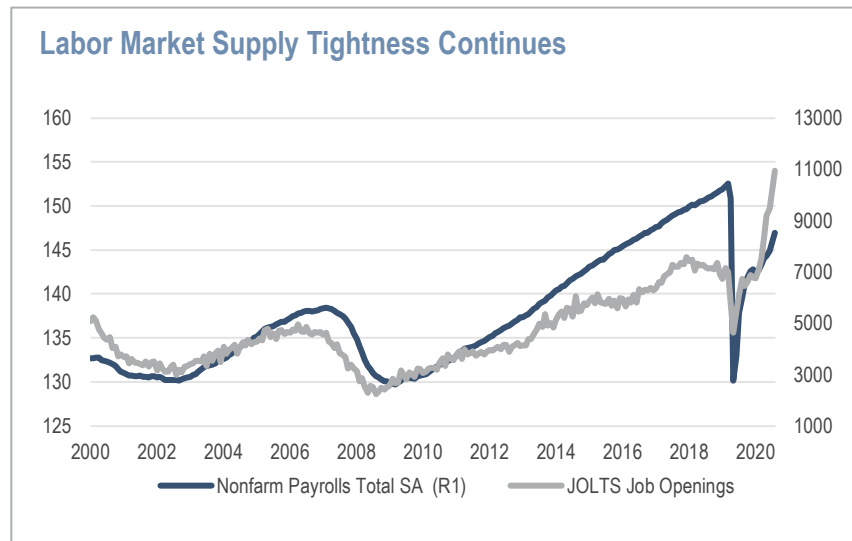
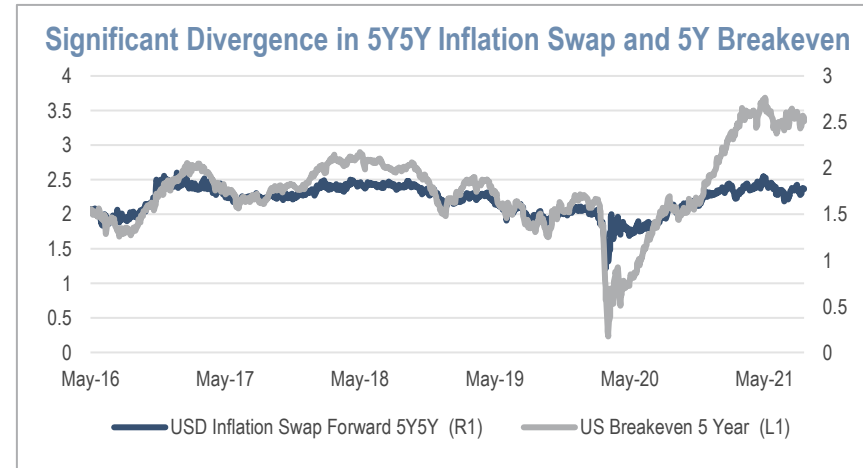
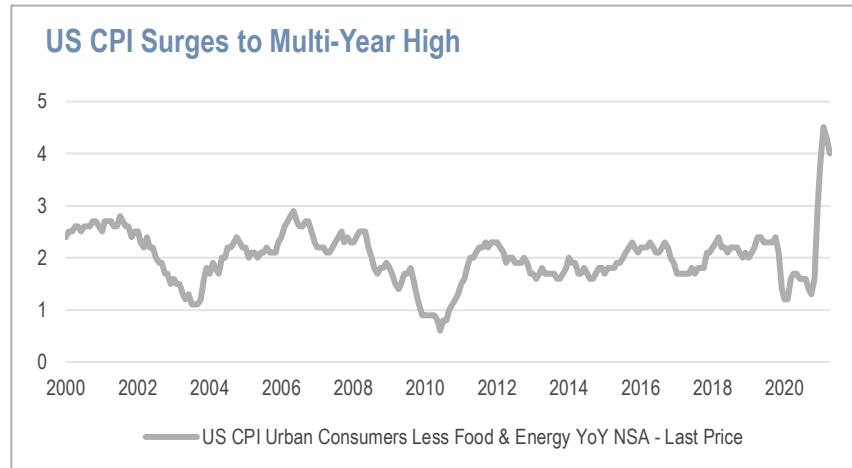
Financial Conditions Remain Very Accommodative Even After FOMC Shortened Path to Rate Hikes



Source: Bloomberg. As of August 31, 2021.

Inflation Environment – Transitory or Sustained?

Market expects inflation overshoot in medium-term then decline to around long-term target

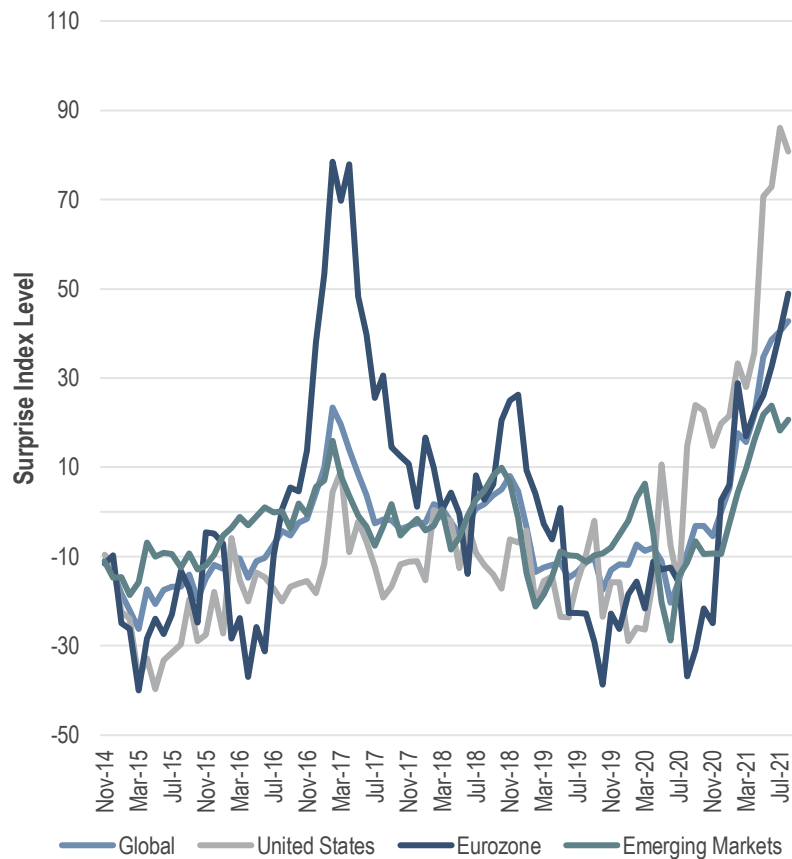


Sources: Top left: US Bureau of Labor Statistics, as of August 31, 2021. Top right: Bloomberg, as of August 31, 2021. Bottom Left: Bloomberg, as of July 31, 2021. Bottom right: OECD and TS Lombard, as of November 2020. Historical trends do not imply, forecast or guarantee future results. Information is as of the date indicated and subject to change without notice. Nothing herein constitutes a prediction or projection of future events or future market behavior.

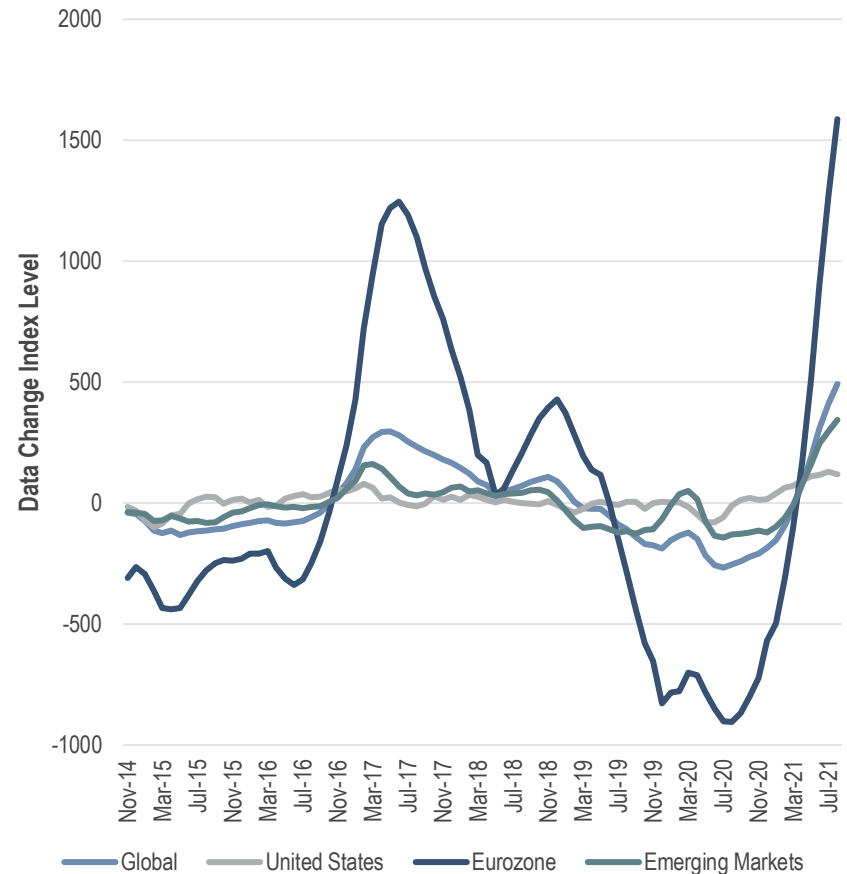
Inflation is a Global Phenomena

Surprising market participants and moving higher – U.S. as harbinger for building global pressures

Citi Inflation Surprise Index moving higher in the US and Europe...



...As are Citi Inflation Data Change Indices, with Europe being more volatile



Source: Bloomberg. As of August 31, 2021. Nothing herein constitutes a prediction or projection of future events or future market behavior. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed. See "Additional Disclosures" at the end of this material, which are an important part of this presentation

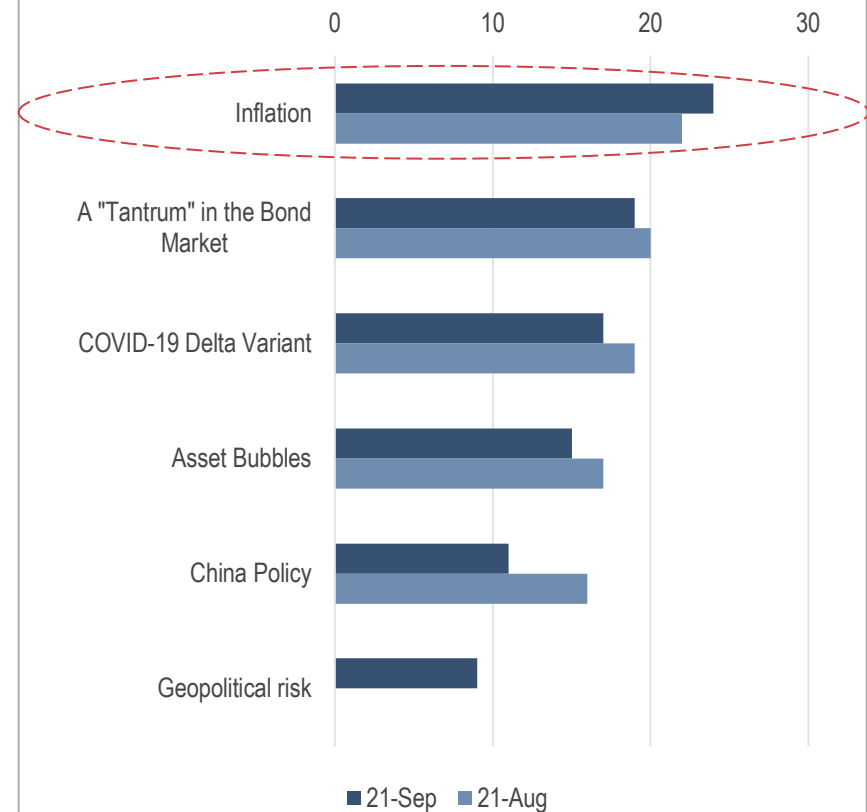
Investment Risks and Challenges

Neuberger Berman Multi-Asset Class team: key risks focus on uncertainties of Post-COVID-19 environment

Potential Risks

- Peak growth in a shorter than usual cycle
- Delta variant of COVID-19 slows global reopening
- Inflation shocks as economies re-open amidst record stimulus
- Shift in Fed policy
- Richly valued assets across markets driven by massive liquidity
- Washington DC policy uncertainty – debt ceiling, stimulus, and taxes
- Technology disruption - cyber-attacks and big tech regulation
- China regulatory and policy changes hit economic growth

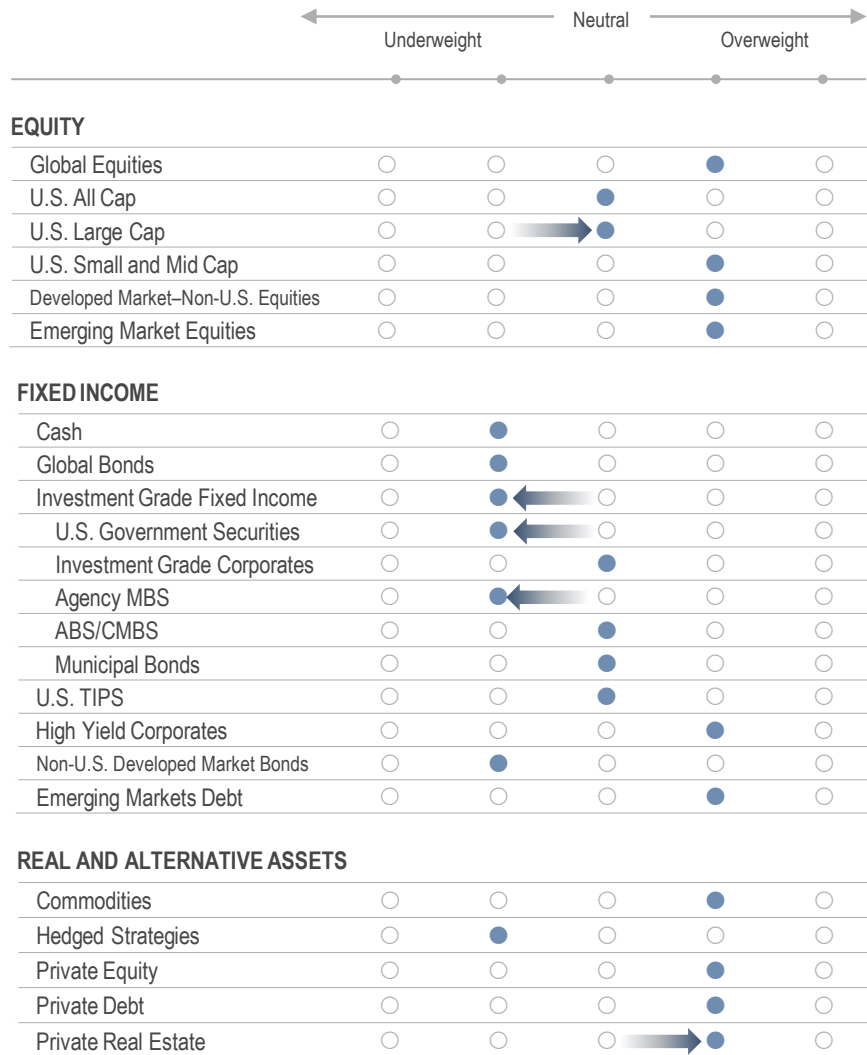
Biggest “Tail Risks”: Global Fund Manager Survey (%)



Source: Left chart: Neuberger Berman, as of August 2021. Right chart: Global Fund Manager Survey, Bank of America Merrill Lynch Global Research, September 2021. See “Additional Disclosures” at the end of this presentation, for additional information regarding the Neuberger Berman Multi-Asset Class team and Asset Allocation Committee and the views expressed.

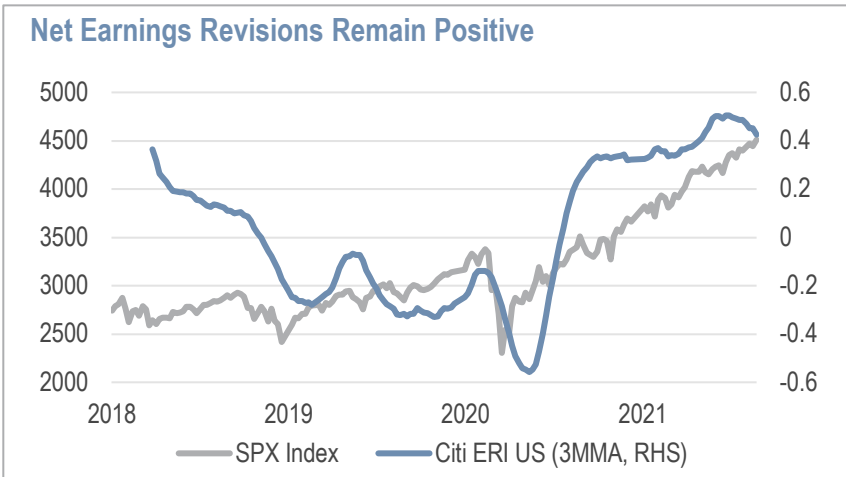
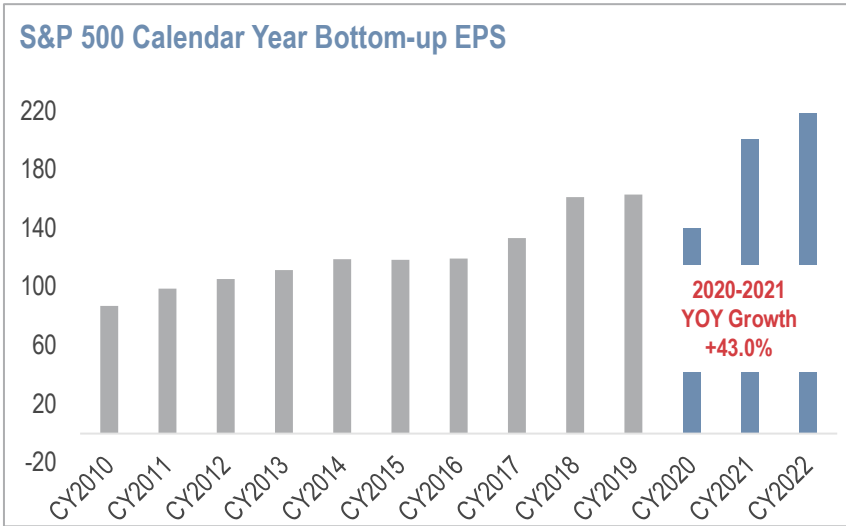
Asset Allocation Committee: 12-Month Outlook as of 3Q 2021

A multidisciplinary committee is polled quarterly for its asset class return outlook and allocation views



As of 3Q 2021. Views shown reflect near-term tactical asset allocation views and are based on a hypothetical reference portfolio. Nothing herein constitutes a recommendation, investment advice or a suggestion to engage in or refrain from any investment-related course of action. See disclosures at the end of this publication, which include additional information regarding the Asset Allocation Committee and the views expressed.

U.S. Equity Markets – Robust Earnings Growth Versus Full Valuation



S&P 500 Level Implied by Price to 12M Forward Earnings Combinations (ending December 2021)

EPS	vs CY 2020	P/E Multiple				
		16x	18x	20x	22x	24x
250	82%	4,000	4,500	5,000	5,500	6,000
240	75%	3,840	4,320	4,800	5,280	5,760
230	68%	3,680	4,140	4,600	5,060	5,520
220	61%	3,520	3,960	4,400	4,840	5,280
210	53%	3,360	3,780	4,200	4,620	5,040
200	46%	3,200	3,600	4,000	4,400	4,800
190	39%	3,040	3,420	3,800	4,180	4,560
180	31%	2,880	3,240	3,600	3,960	4,320
170	24%	2,720	3,060	3,400	3,740	4,080

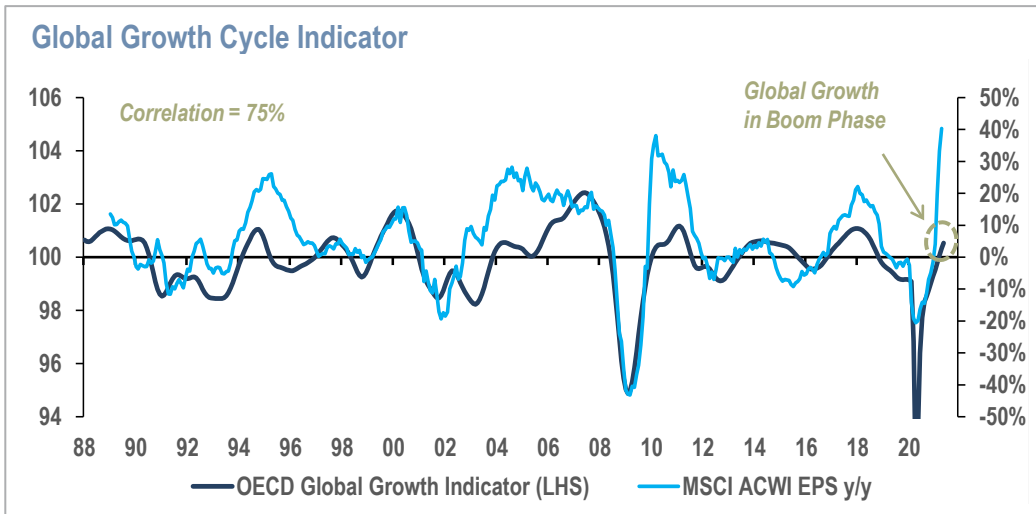
Source: Neuberger Berman, FactSet and Bloomberg. As of August 31, 2021.

Indexes are unmanaged and are not available for direct investment. Investing entails risks, including possible loss of principal. Past performance is no guarantee of future results. See Additional Disclosures at the end of this piece, which are an important part of this presentation.

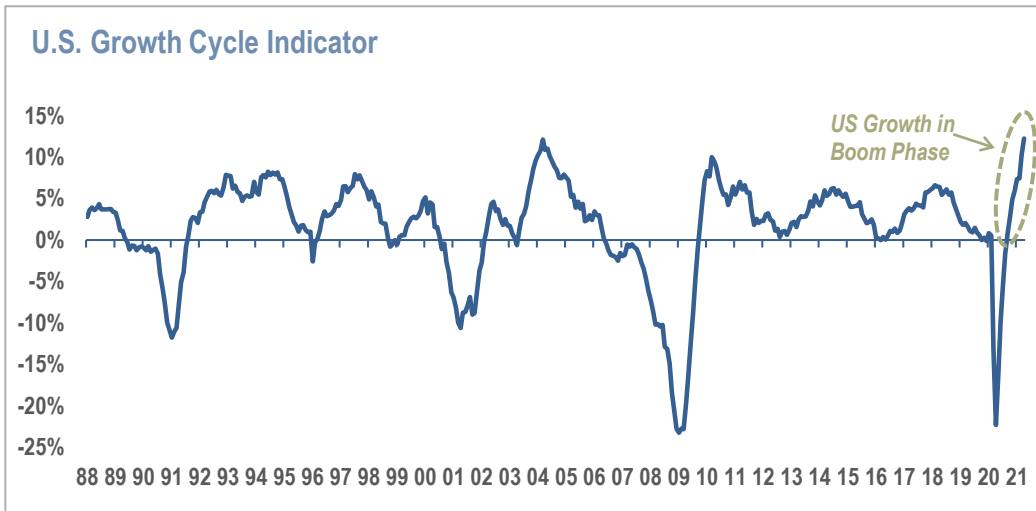
Where Are We in the Business Cycle?

Global Indicator: OECD Total CLI, Amplitude Adjusted

US Indicator: Conference Board's US LEI



1. **Equivalence:** Macro Trends = Earnings Trends
2. **Timeliness:** Macro data is much more timely
3. **Convenience:** Macro turning points are easier to observe
4. **Persistence:** Macro cycles last 18-24 months in one direction
5. **Relevance:** Macro phases are strongly correlated with risk on/risk off phases

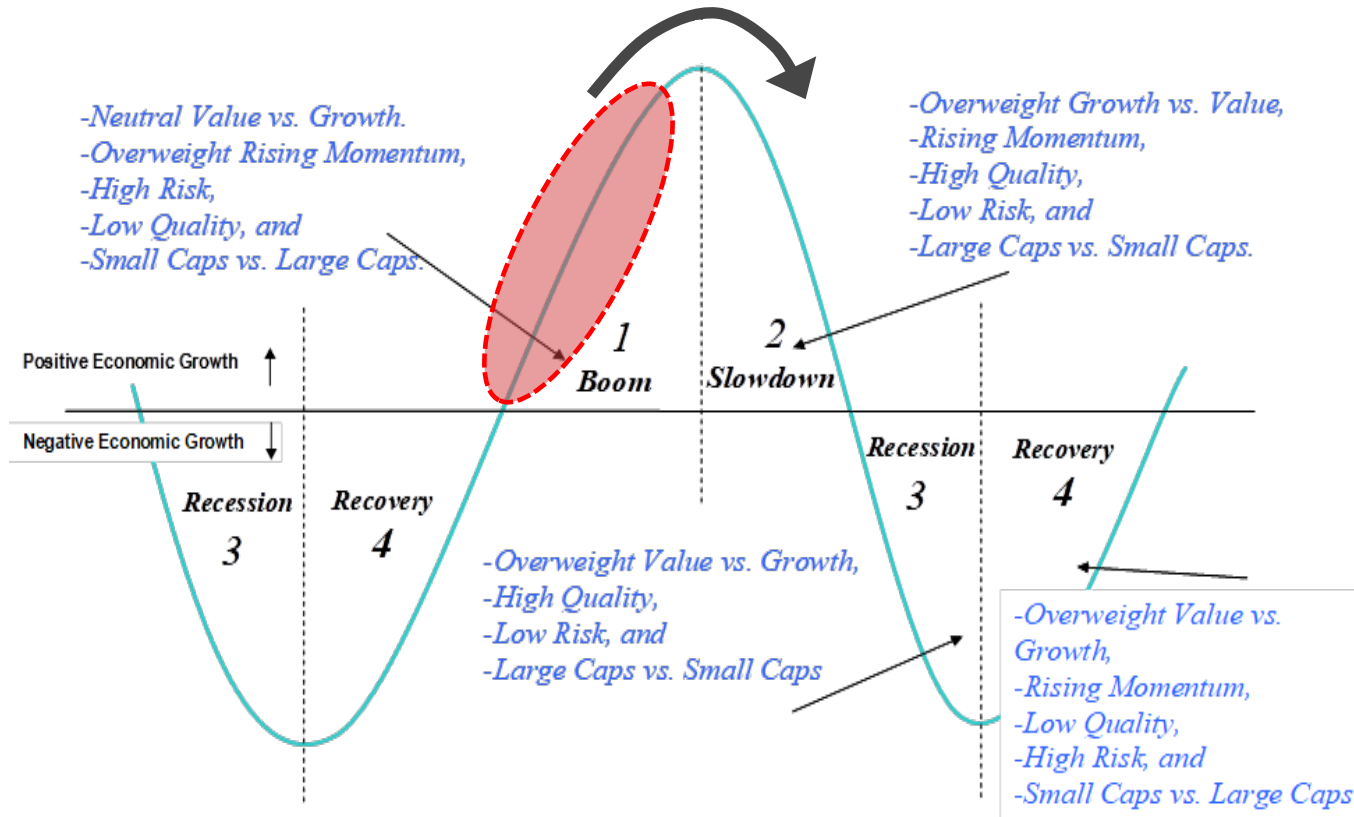


- Above the line and rising in macro is known as the "Boom Phase"
- Global and US and Global growth cycles is firmly in the Boom Phase
- But what does it mean in practical terms?

Source: BofA and Neuberger Berman. For illustrative and discussion purposes only. Nothing herein constitutes a prediction or projection of future events or future market behavior. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed. Indexes are unmanaged and are not available for direct investment. Investing entails risks, including possible loss of principal. Past performance is no guarantee of future results. See Additional Disclosures at the end of this presentation.

'Boom Phase' | U.S. Growth Cycle and Style Allocation

Market Transition From 'Boom' to 'Slowdown' Expected in 2Q 2022



Phase 1- Rising & Accelerating; Phase 2- Rising & Decelerating; Phase 3- Falling & Decelerating; Phase 4- Falling & Accelerating.

*Economic Cycle based on the ML Composite Macro Indicator

Source: BofA. For illustrative and discussion purposes only. Nothing herein constitutes a prediction or projection of future events or future market behavior. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed or any historical results. Investing entails risks, including possible loss of principal. Past performance is no guarantee of future results. See Additional Disclosures at the end of this presentation.

Key Conclusions – Equity Markets

1. **Macro trends = earnings trends**
2. **U.S. Style Cycle firmly in ‘Boom Phase’**
3. **‘Boom Phase’ expected to last through 2Q 2022**
4. **Free liquidity looks very supportive of the ongoing bull market**
5. **Global equity allocation has room to increase**
6. **Attractive investment trends**
 - Value over growth
 - Small caps over large caps
 - Low quality over high quality
 - EM over U.S.
 - Ex-US DM over U.S.

As of June 30, 2021. Nothing herein constitutes a prediction or projection of future events or future market behavior. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed. See “Additional Disclosures” at the end of this presentation, for additional information regarding the Neuberger Berman Multi-Asset Class team and Asset Allocation Committee and the views expressed.

LIQUIDITY: Free Liquidity Remains Supportive of the Stock Market

Free liquidity growth is slowing but remains positive, which is historically supportive of stock market gains over the next 12 months.

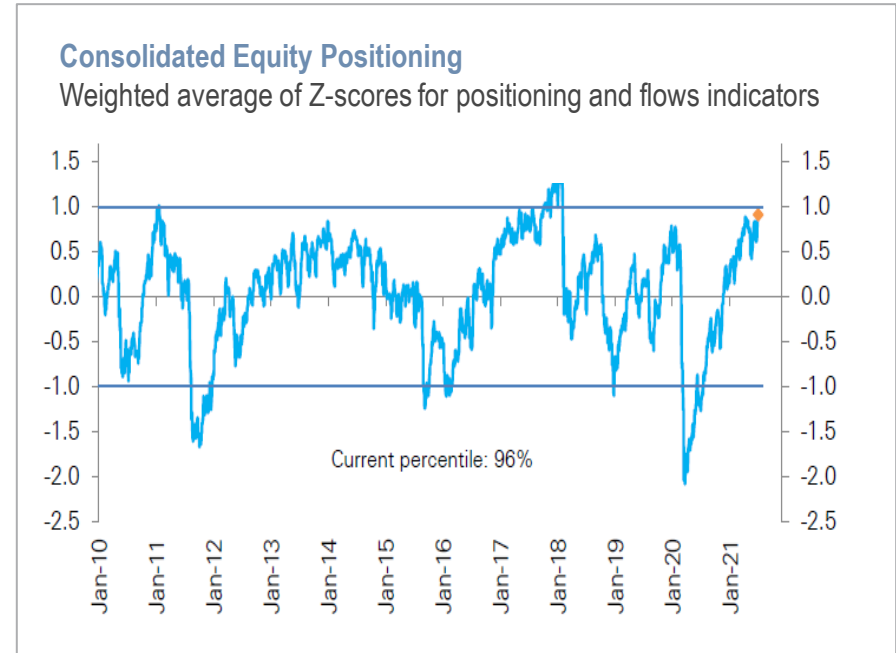
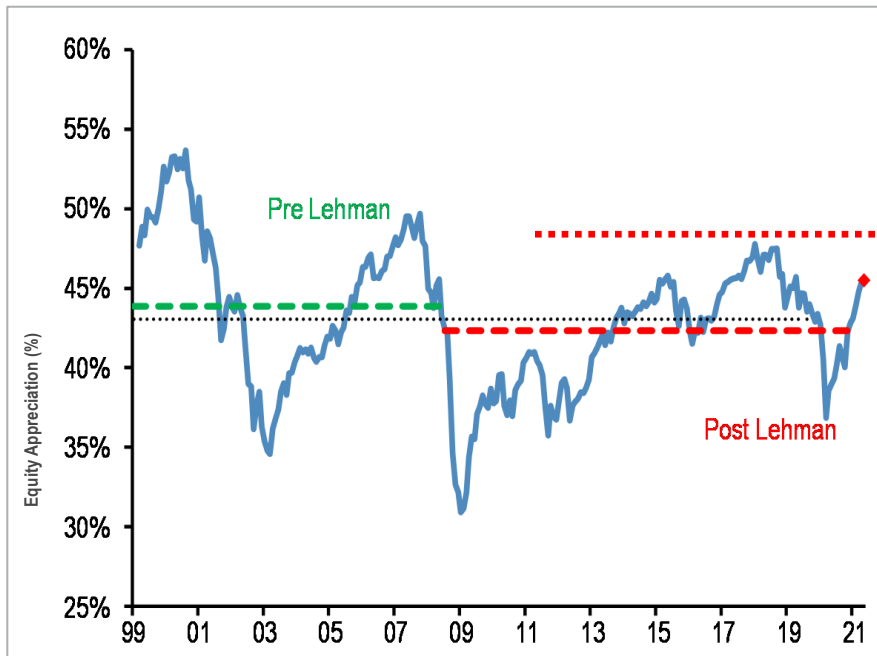


MSCI AC World (since GCF)	G7 + China free liquidity (%)			
	Below 0	Between 0 and 5	Between 5 and 10	Above 10
Time spent	11%	44%	35%	11%
Hit ratio	53%	62%	84%	100%
Average 1yr returns	1.7%	3.8%	10.8%	23.4%
Median 1yr returns	0.6%	3.5%	12.7%	16.4%
Base 1yr average returns	8.2%			
Base hit ratio	73%			

Source: BofA. For illustrative and discussion purposes only. Nothing herein constitutes a prediction or projection of future events or future market behavior. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed. Indexes are unmanaged and are not available for direct investment. Investing entails risks, including possible loss of principal. Past performance is no guarantee of future results. See Additional Disclosures at the end of this presentation.

POSITIONING: Global Equity Allocation Has Room to Increase

Global equity allocation isn't even at the prior cycle peak! That peak was before the extraordinary fiscal and monetary stimulus.

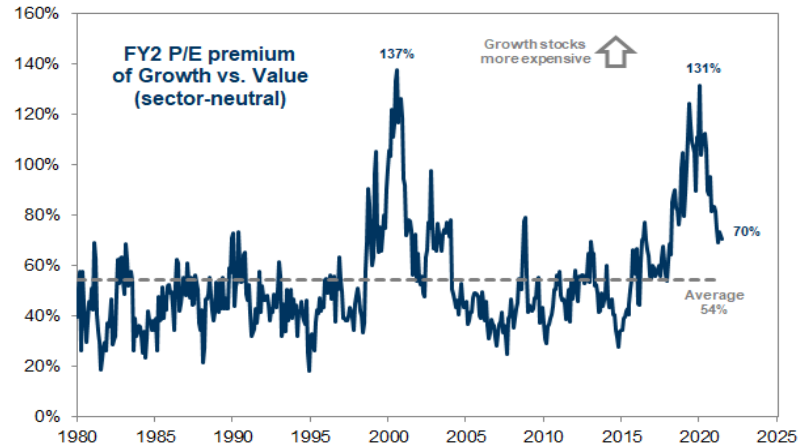


The equity appreciation needed to shift the implied equity allocation globally to the post-Lehman period high suggests 11% for the MSCI ACWI index and 14% for the S&P 500.

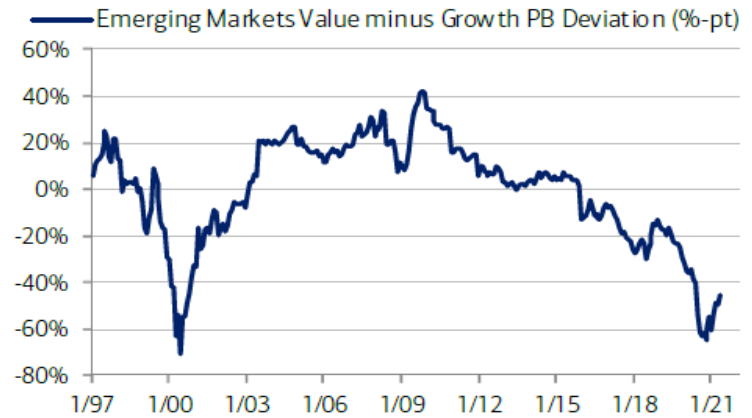
Source: JP Morgan. For illustrative and discussion purposes only. Nothing herein constitutes investment, legal, accounting or tax advice, or a recommendation to buy, sell or hold a security. Nothing herein constitutes a prediction or projection of future events or future market behavior. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed or any historical results. Indexes are unmanaged and are not available for direct investment. Investing entails risks, including possible loss of principal. Past performance is no guarantee of future results. See Additional Disclosures at the end of this presentation.

Key Messages From Equity Factor-land

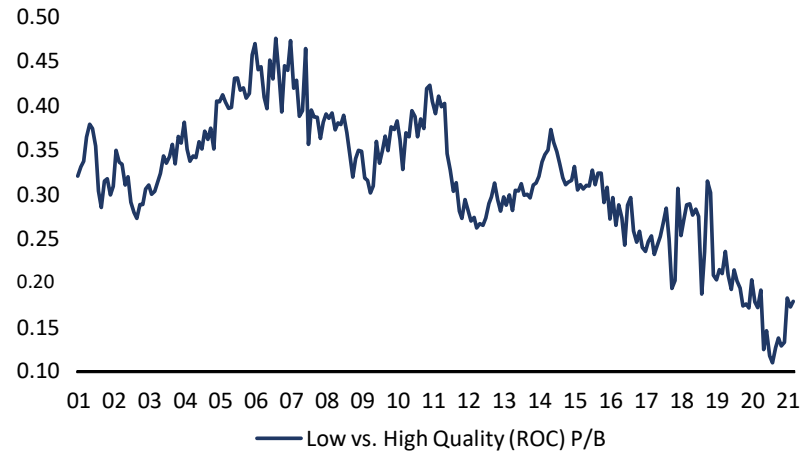
Value Remains Attractively Priced vs. Growth



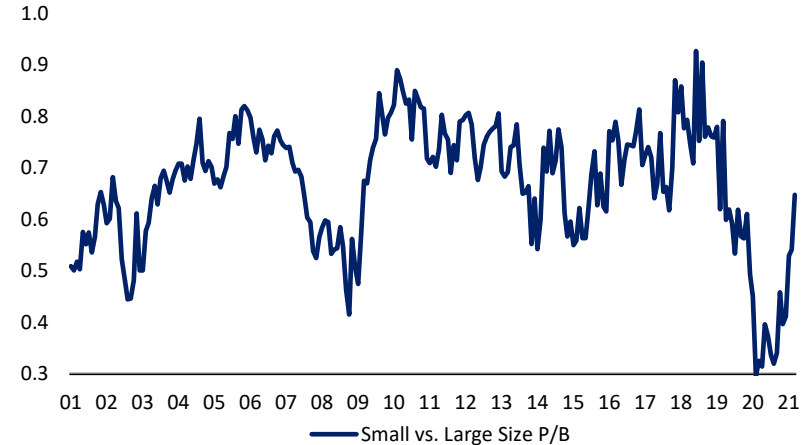
Value vs. Growth Is Not Just a U.S. Tech Sector Story



Low vs. High Quality Trading 43% Cheaper vs. History



Small vs. Large Cap Trading 3% Cheaper vs. History



Source: BofA and JP Morgan. For illustrative and discussion purposes only. Nothing herein constitutes a prediction or projection of future events or future market behavior. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed. Investing entails risks, including possible loss of principal. Past performance is no guarantee of future results. See Additional Disclosures at the end of this presentation.

KEY DEBATES: Small Caps vs. Large Caps

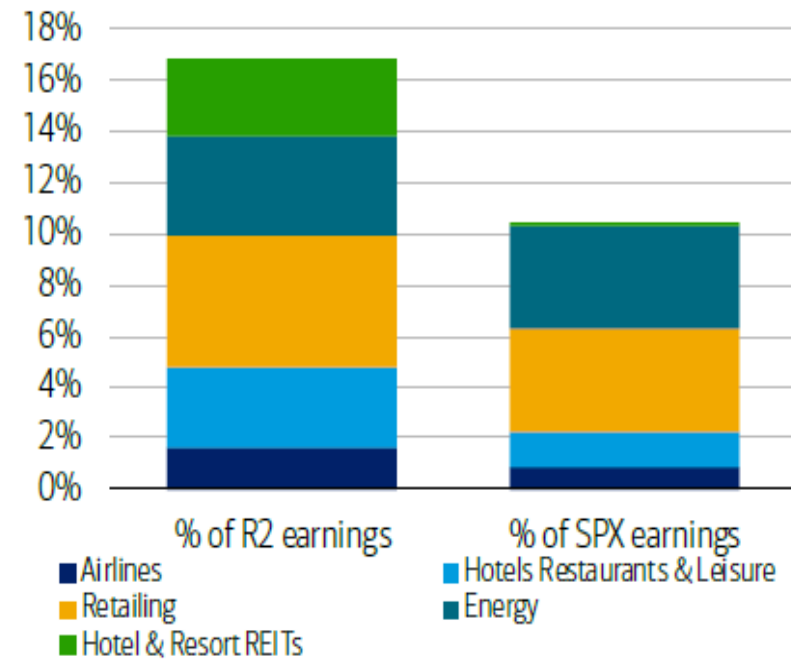
Did you know?

1. Small Caps earnings and prices are 50% more levered to U.S. GDP than Large Caps.
2. Small caps have a 50% greater representation of COVID-disrupted industries than large caps

Small and large caps' y/y performance and earnings sensitivity (beta) to U.S. GDP growth

	Price Beta to GDP Growth	Earnings Beta to GDP Growth
Small Caps	0.6	13.3
Large Caps	0.4	9.3

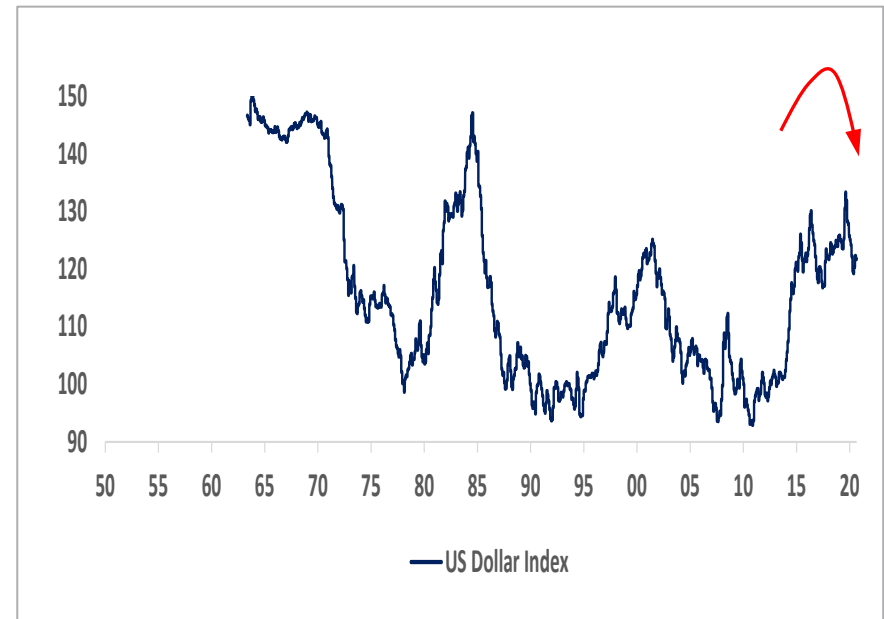
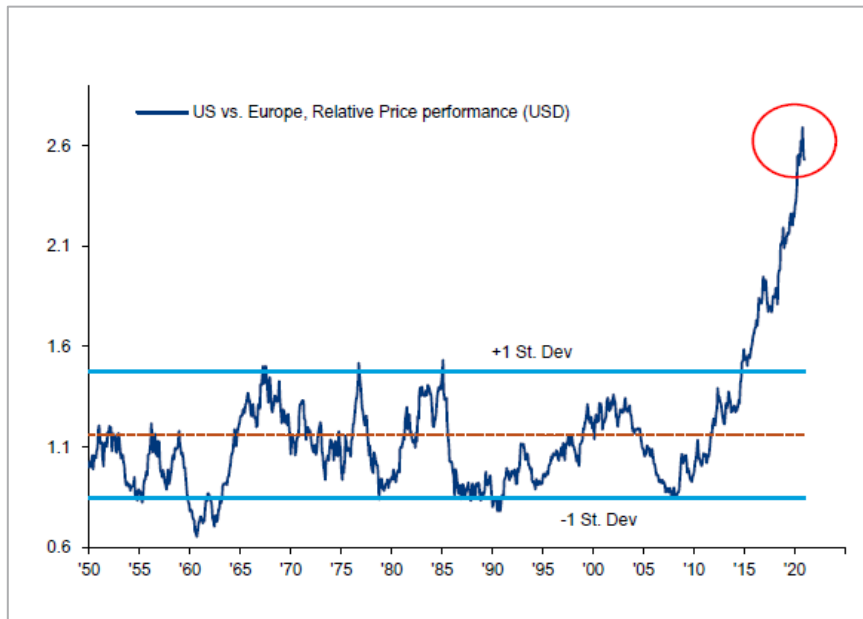
Earnings Exposure by Sub-sector (% of 2019 Earnings) for Russell 2000 vs. S&P 500



Source: BofA. For illustrative and discussion purposes only. Nothing herein constitutes investment, legal, accounting or tax advice, or a recommendation to buy, sell or hold a security. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed. Indexes are unmanaged and are not available for direct investment. Investing entails risks, including possible loss of principal. Past performance is no guarantee of future results. See Additional Disclosures at the end of this presentation.

KEY DEBATES: U.S. vs. European Equities

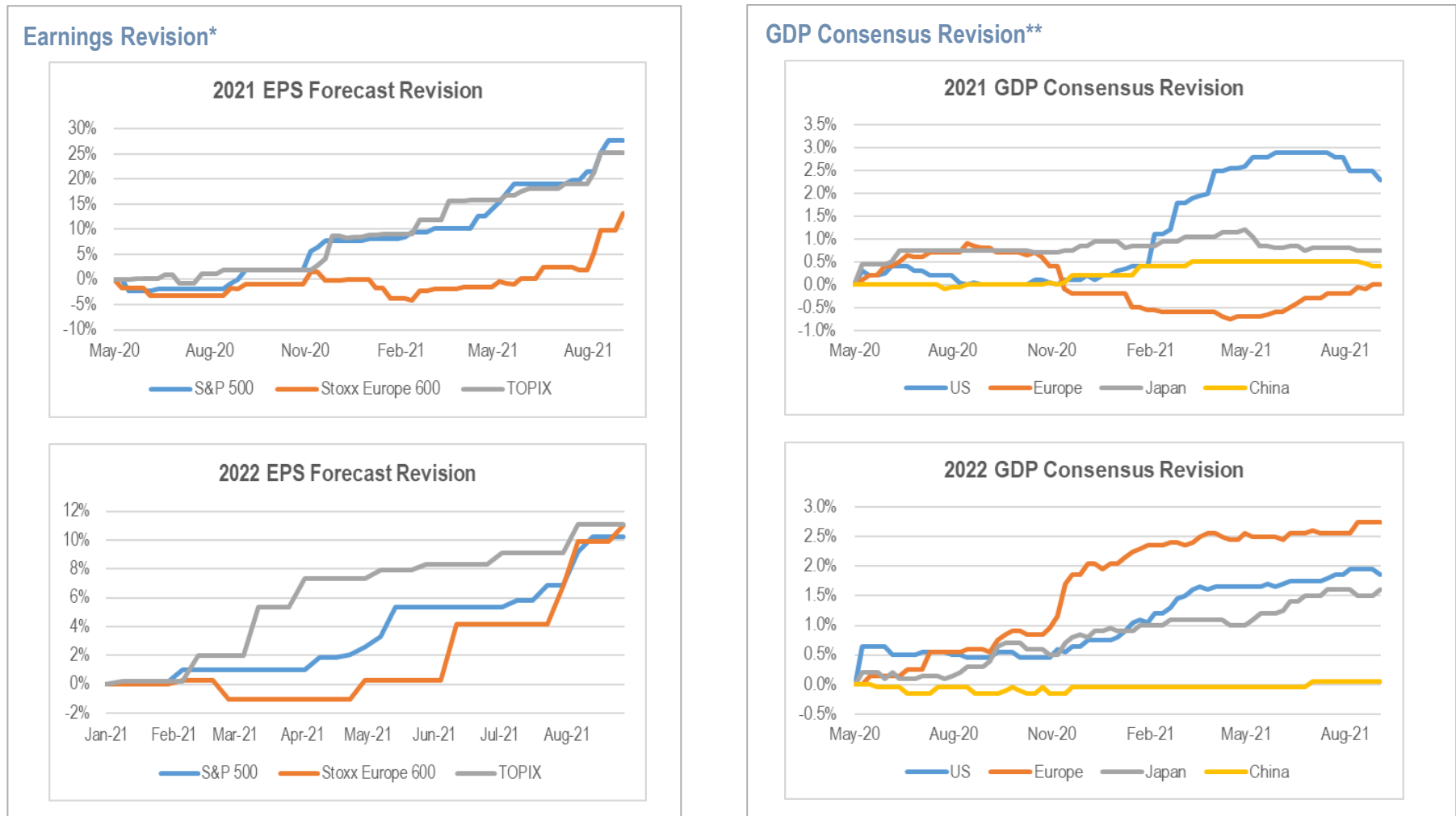
The U.S. vs. European equities allocation decision, from a macro perspective, is not much more than a dollar trade!



Source: BofA and Neuberger Berman. For illustrative and discussion purposes only. Nothing herein constitutes investment, legal, accounting or tax advice, or a recommendation to buy, sell or hold a security. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed. Investing entails risks, including possible loss of principal. Past performance is no guarantee of future results. See Additional Disclosures at the end of this presentation.

Earnings Trend

European earnings revision for 2022 catching up with GDP revisions outpacing the U.S.

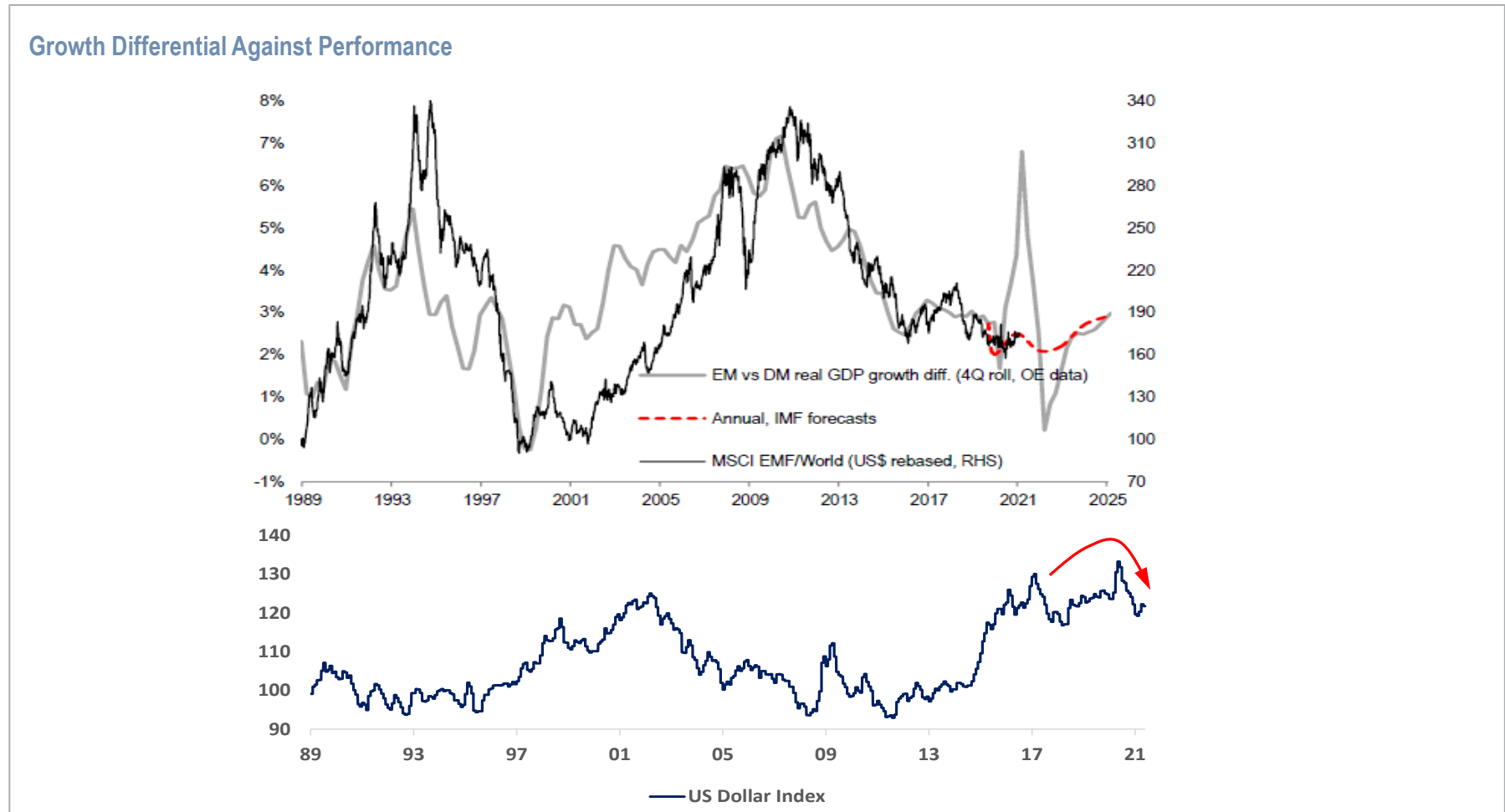


Source: Neuberger Berman. As of August 31, 2021.

*Forecasts are average of GS, MS, JPM, BAML, Citi top-down forecasts. ** Source: Bloomberg Nothing herein constitutes a prediction or projection of future events or future market behavior. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed. Indexes are unmanaged and are not available for direct investment. Investing entails risks, including possible loss of principal. Past performance is no guarantee of future results. See "Additional Disclosures" at the end of this piece, which are an important part of this presentation.

KEY DEBATES: EM vs. U.S.

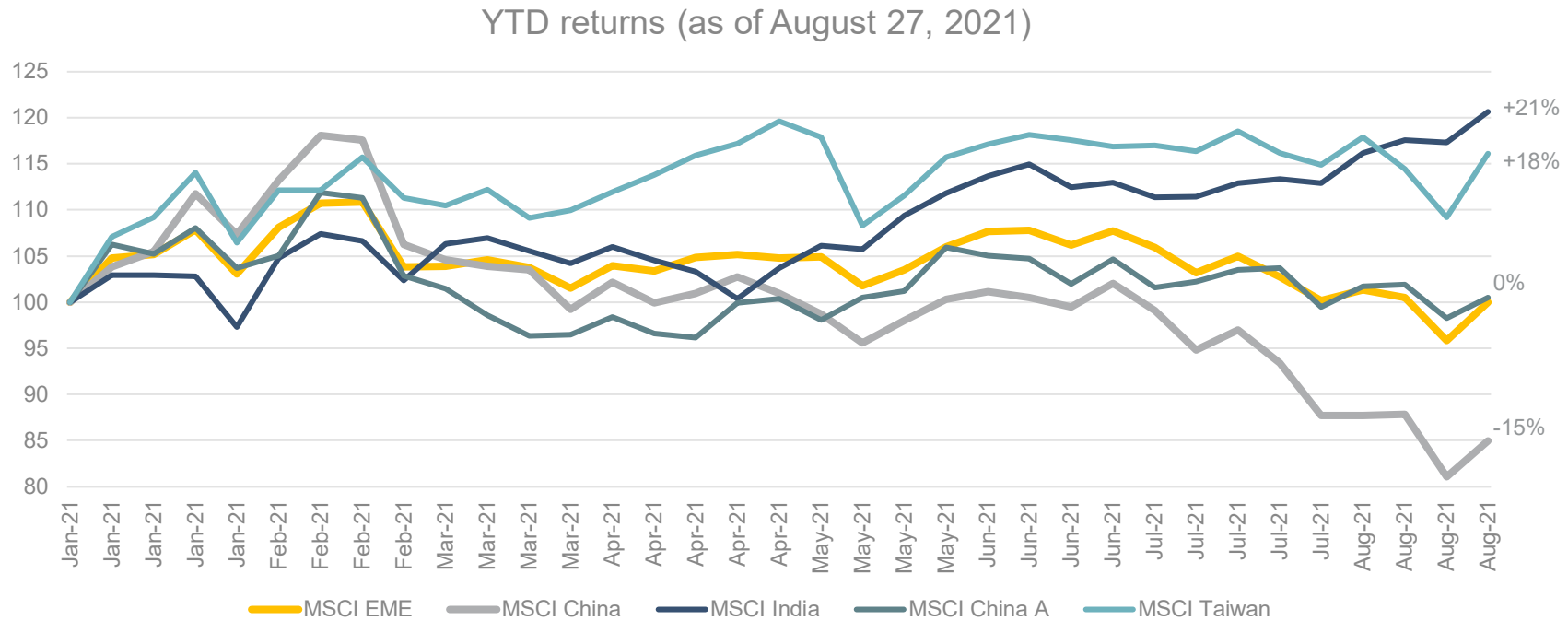
The U.S. vs. EM equities allocation decision, from a macro perspective, is also not much more than a dollar trade!



Source: Credit Suisse and Neuberger Berman. For illustrative and discussion purposes only. Nothing herein constitutes investment, legal, accounting or tax advice, or a recommendation to buy, sell or hold a security. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed. Investing entails risks, including possible loss of principal. Past performance is no guarantee of future results. See Additional Disclosures at the end of this presentation.

Emerging Market Equity Performance Divergence

Large Chinese index weight (particularly ADRs) offsets broader positive YTD returns



Index weight	MSCI China (incl. China A)	MSCI China A	MSCI India	MSCI Taiwan
August 31, 2021	35%	5%	12%	15%

Source: MSCI, Bloomberg Data date: August 31, 2021. For illustrative and discussion purposes only. Nothing herein constitutes a prediction or projection of future events or future market behavior. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed. Indexes are unmanaged and are not available for direct investment. Investing entails risks, including possible loss of principal. Past performance is no guarantee of future results. See Additional Disclosures at the end of this presentation.

Latest Set of Chinese Regulatory Policies Pivot to Focus On Domestic “Common Prosperity”

Impacts vary by subsector - and at the company level; Correction offers stock level opportunities

Industry	Recent Policy change	Outlook
Education	<ul style="list-style-type: none"> Chinese (local) government to set prices – limiting profitability 	<ul style="list-style-type: none"> Profitability structurally diminished
Health Care	<ul style="list-style-type: none"> Expand set price lists limiting profits Raise quality controls for equipment production Increase local pharmaceutical production capacity 	<ul style="list-style-type: none"> Innovators could maintain higher margins, while generics suffer
Internet	<ul style="list-style-type: none"> Keep data locally Greater labor rights for flexible employment Antimonopoly policies applied to largest intermediaries Online gaming limited for minors 	<ul style="list-style-type: none"> Aids H-share and A-share listing, as US-only-listed ADRs are subject to foreign regulators’ request for data access Marginally reduce profitability of online delivery services Retailers could be advantaged compared to intermediaries Slower domestic growth for game developers; global growth still in place for now
Fintech	<ul style="list-style-type: none"> Online financial providers forced to take risk (e.g., loan default risk) onto their balance sheet Digital Yuan policy in development 	<ul style="list-style-type: none"> Reduce profitability, but long-term growth still in place TBD
Property	<ul style="list-style-type: none"> Stricter regulation on property developers to reign in property prices 	<ul style="list-style-type: none"> Leveraged developers more at risk Fee-based property managers benefit

Source: Neuberger Berman; Sept 9, 2021. Nothing herein constitutes a prediction or projection of future events or future market behavior. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed. See “Additional Disclosures” at the end of this presentation, for additional information regarding the Neuberger Berman Multi-Asset Class team and Asset Allocation Committee and the views expressed.

Key Fixed Income Themes – 2H 2021

Credit Spreads

- Our view: credit spreads remain tight and unlikely to widen much
- Fundamentals – global growth, deleveraging trends, low default rates support credit markets
- Technicals also support credit – demand for yield globally

Interest Rates

- Our view: biased towards higher rates, led by the U.S... 2% is likely to peak.
- Growth and inflation pressures (supporting higher rates) offset by continued central bank support and global yield environment
- We plan to increase duration underweights <1.30%

Central Bank Policies

- Our view: Fed tapering, and reduced ECB bond purchases will likely occur in the 2H.
- 400k job gains sufficient to begin tapering
- Main impact should be higher volatility around real and nominal rates, rather than a significant impact on yield levels

Fixed Income Portfolios Positioned For:

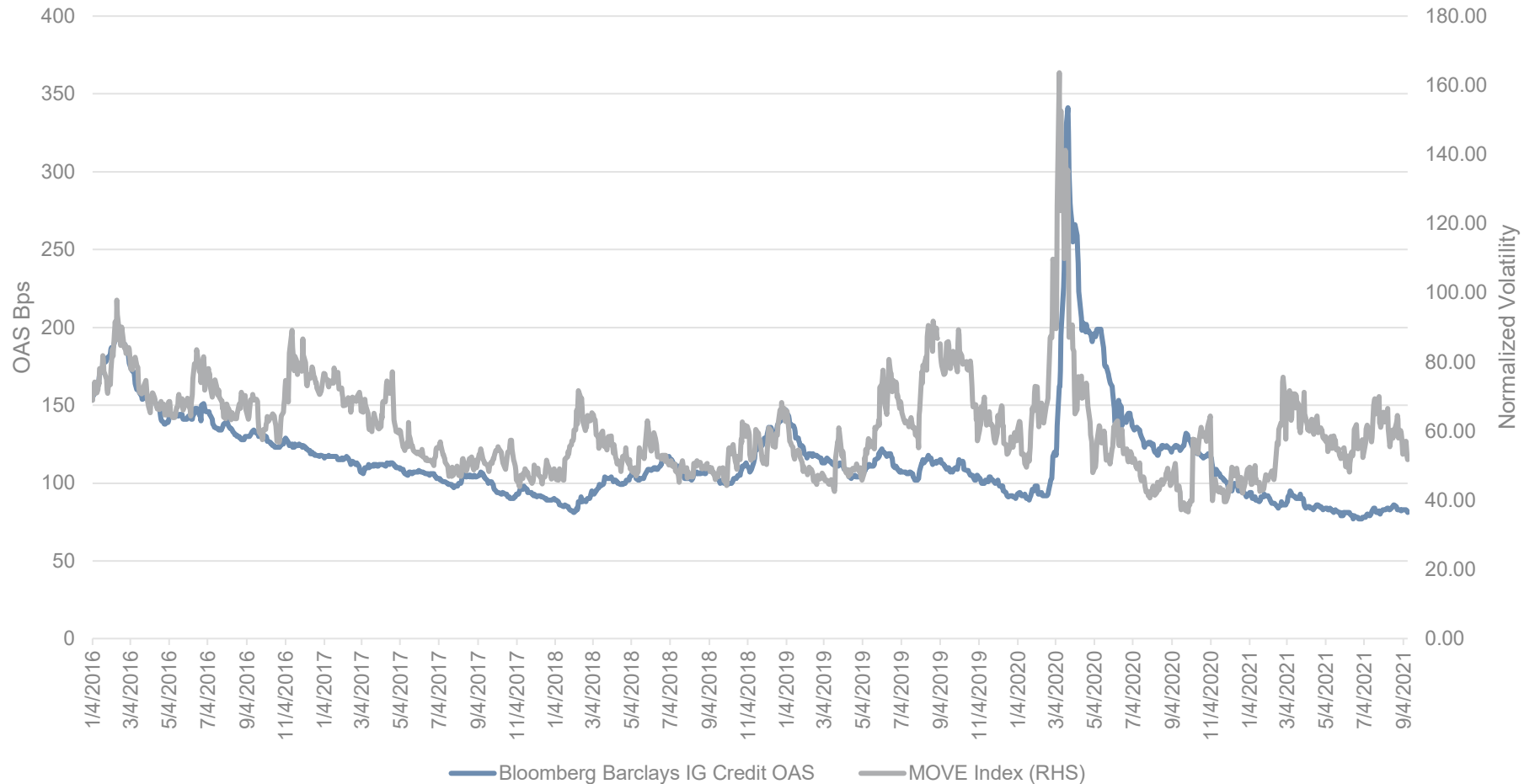
- Continued emphasis on higher yielding short duration securities
- Stable credit spreads within a range
- More volatile real and nominal rates

As of September 1, 2021. For illustrative and discussion purposes only. Investing entails risks, including possible loss of principal. See "Additional Disclosures" at the end of this presentation, for additional information regarding the Neuberger Berman Multi-Asset Class team and Asset Allocation Committee and the views expressed.

Credit Spread Volatility Should Remain Low

With constructive growth outlook, U.S. IG and HY credit spreads continue to perform—despite moves in rates and rate volatility—and are more correlated to fundamentals.

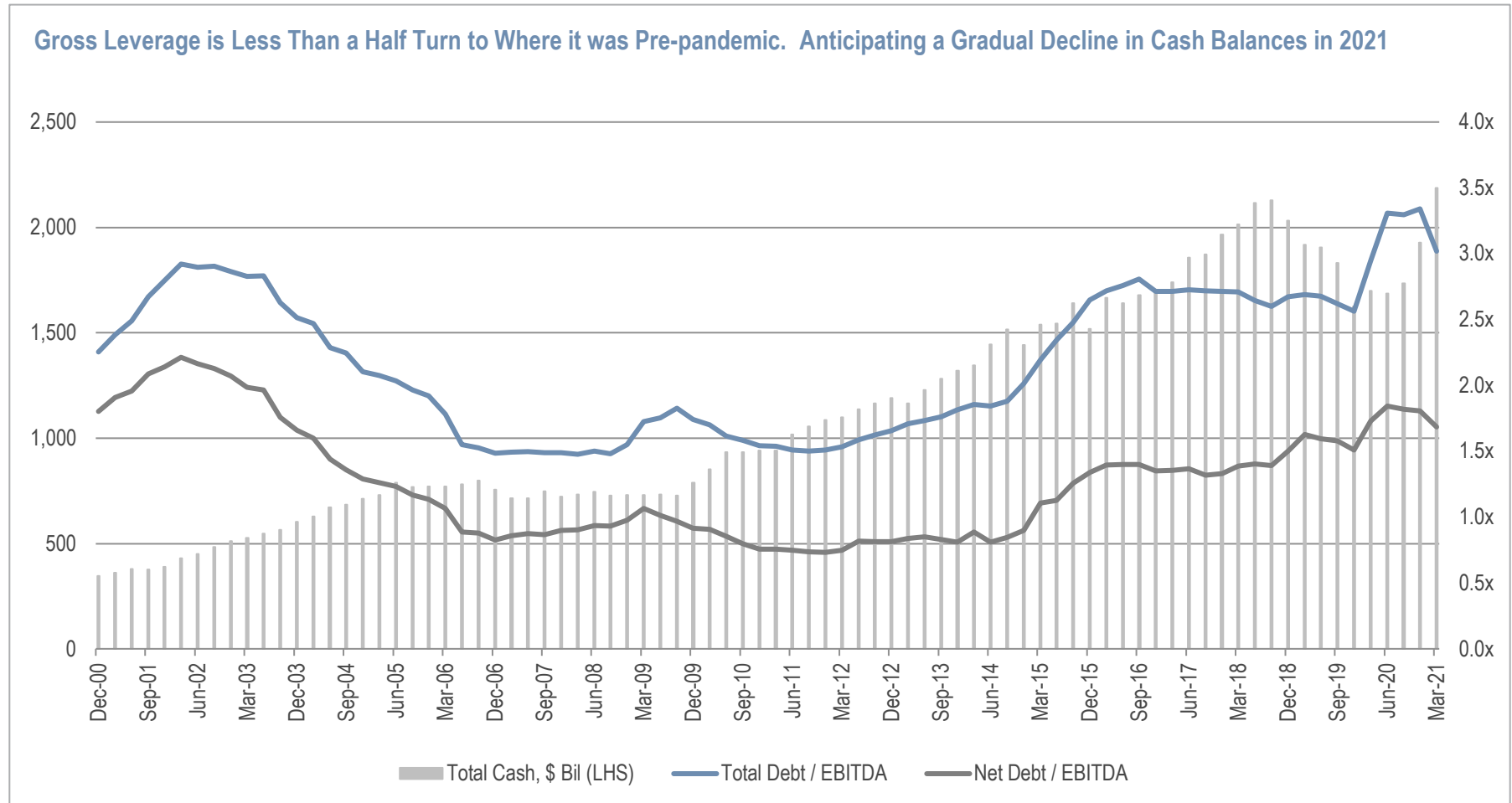
Despite Being at Multi-year Tights, U.S. IG Credit Spreads Have Not Responded Negatively to an Increase in Fixed Income Volatility



Source: Bloomberg. As of 09/13/2021. Nothing herein constitutes a prediction or projection of future events or future market behavior. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed. Investing entails risks, including possible loss of principal. Past performance is no guarantee of future results. See Additional Disclosures at the end of this piece, which are an important part of this presentation.

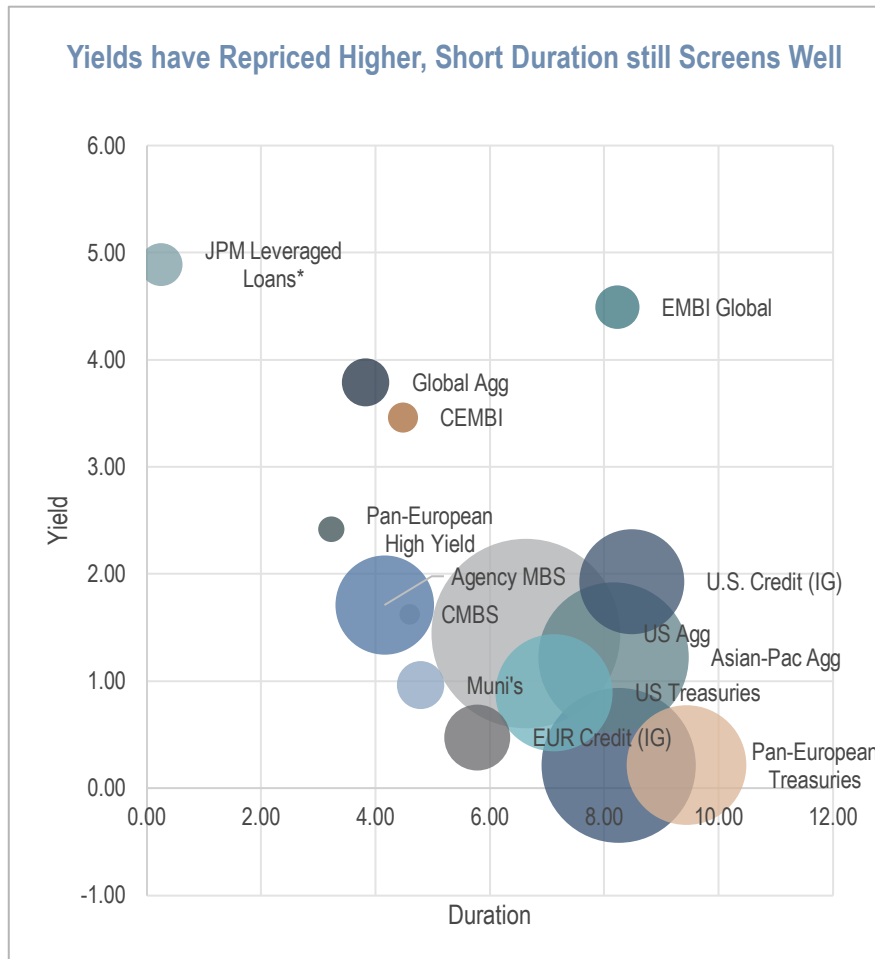
Balance Sheet Repair Has Begun in U.S. Investment Grade

We anticipate fundamentals to improve in 2021; capital allocation decisions will likely be key determinant of trajectory of that improvement



Source: Bloomberg, S&P500 ex-Financials. As of 1Q21. Nothing herein constitutes a prediction or projection of future events or future market behavior. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed or any historical results. Investing entails risks, including possible loss of principal. See Additional Disclosures at the end of this piece, which are an important part of this presentation.

Looking Forward, We Continue to Favor a Focus on Shorter Duration / Higher Income Sectors But we expect more interest in intermediate duration markets on a tactical basis



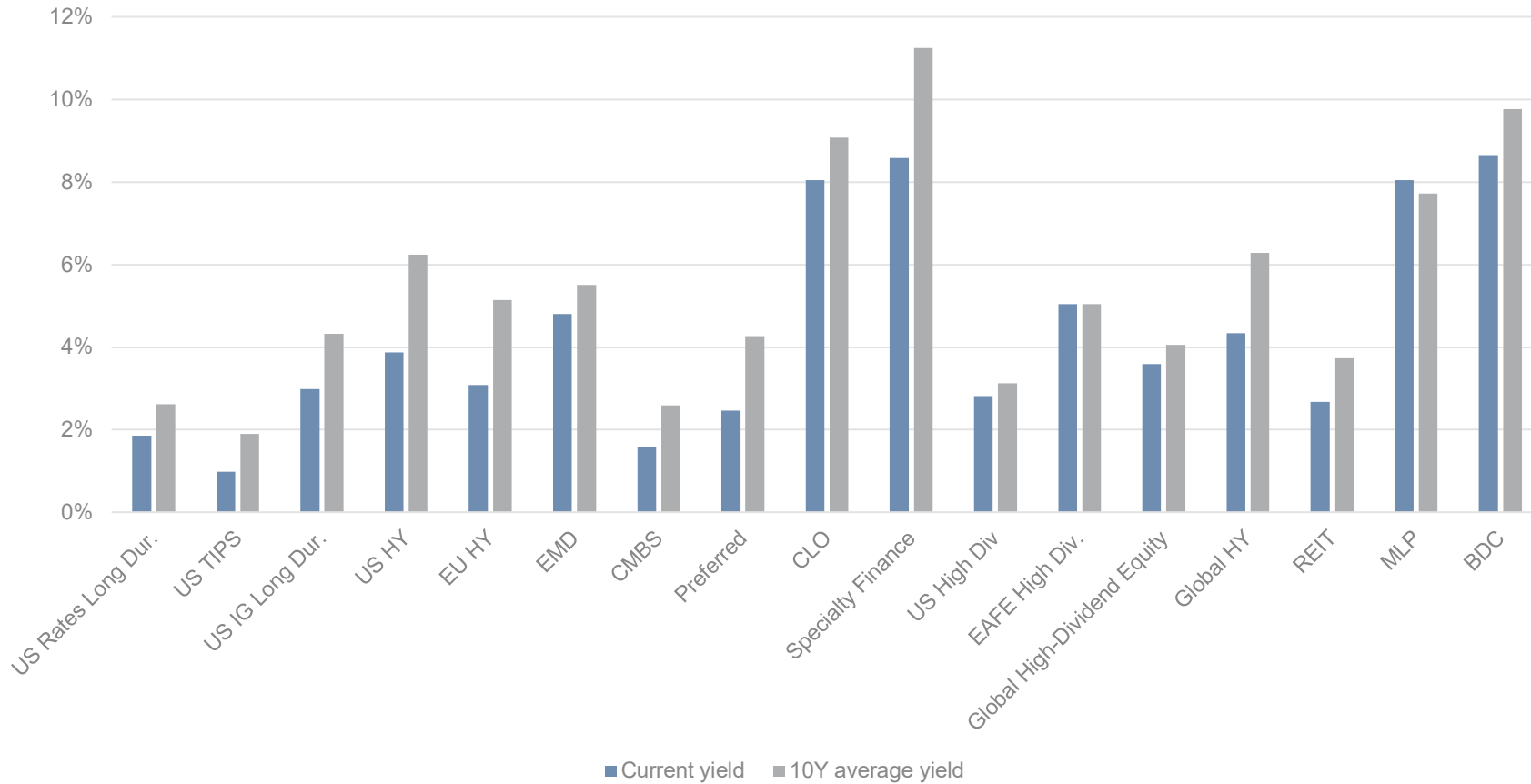
*Yield to Maturity. Assumed Duration of 0.25

Source: Bloomberg, Hedged Yields are Bloomberg Calculations. Chart on the Left as of 9/14/2021. Chart on the Right as of 9/14/2021.

Historical trends do not imply, forecast or guarantee future results. Information is as of the date indicated and subject to change without notice. Nothing herein constitutes a prediction or projection of future events or future market behavior. For illustrative and discussion purposes only. Nothing herein constitutes investment, legal, accounting or tax advice, or a recommendation to buy, sell or hold a security. This material is not intended as a formal research report and should not be relied upon as a basis for making an investment decision. Investing entails risks, including possible loss of principal. Past performance is no guarantee of future results. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed.

Asset Class Yields – Looking Beyond Core Fixed Income

Asset Class Yields

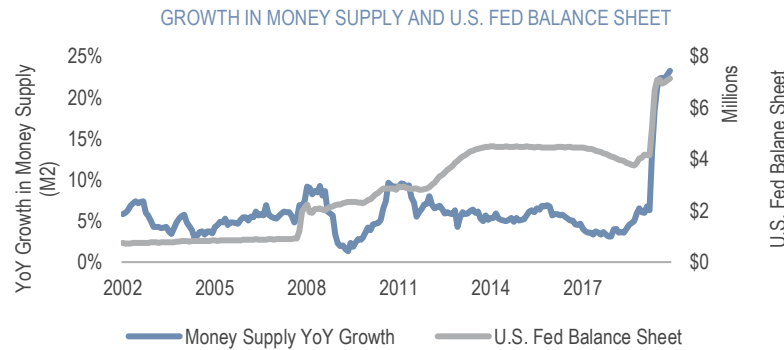


Source: Bloomberg. As of August 31, 2021. Nothing herein constitutes investment, legal, accounting or tax advice, or a recommendation to buy, sell or hold a security. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed. Indexes are unmanaged and are not available for direct investment. Investing entails risks, including possible loss of principal. Past performance is no guarantee of future results. See “Additional Disclosures” at the end of this material, which are an important part of this presentation.

Commodities Can Benefit From Reflationary Growth Environment

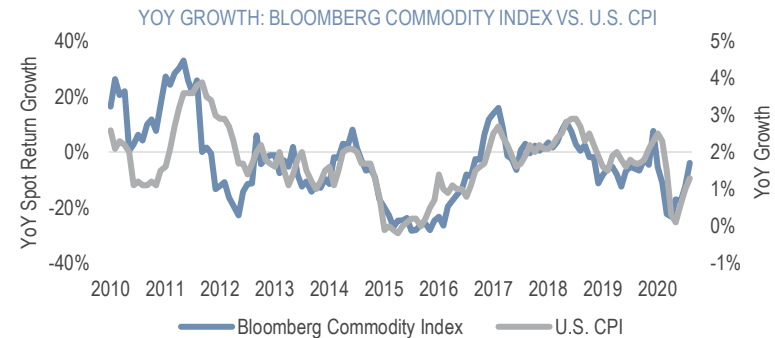
Commodities show positive correlation with inflation, and precious metals can help mitigate fiat currency devaluation risk

Exponential Growth in Money Supply



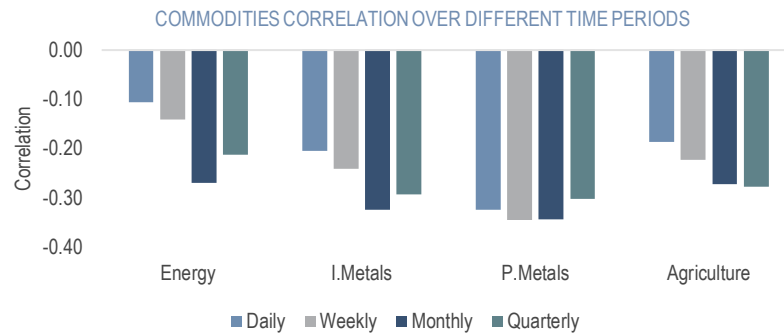
Commodities Act as an Inflation Hedge

Commodities are very strongly correlated with expected and unexpected changes in inflation.

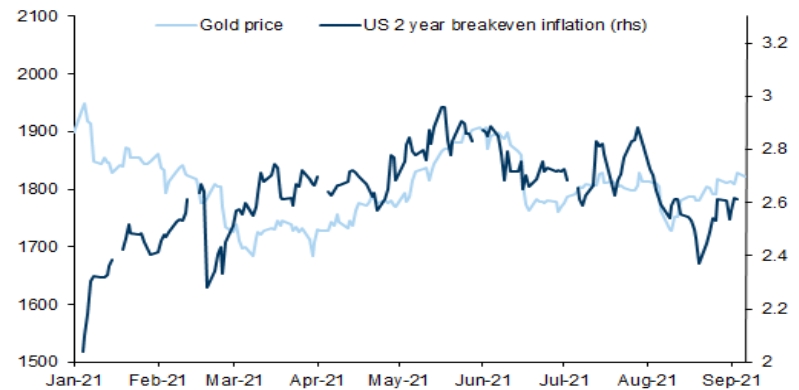


Commodities May Prosper When USD Weakens

Commodities are negatively correlated to trade weighted U.S. dollar Index at all frequencies



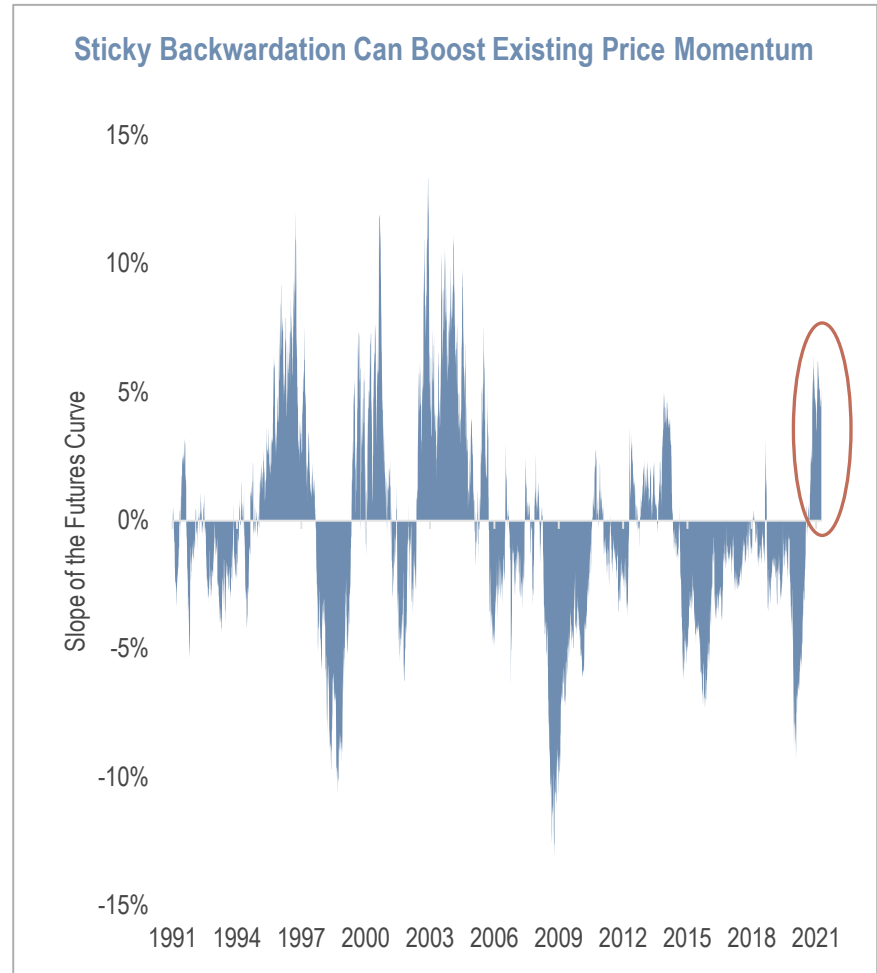
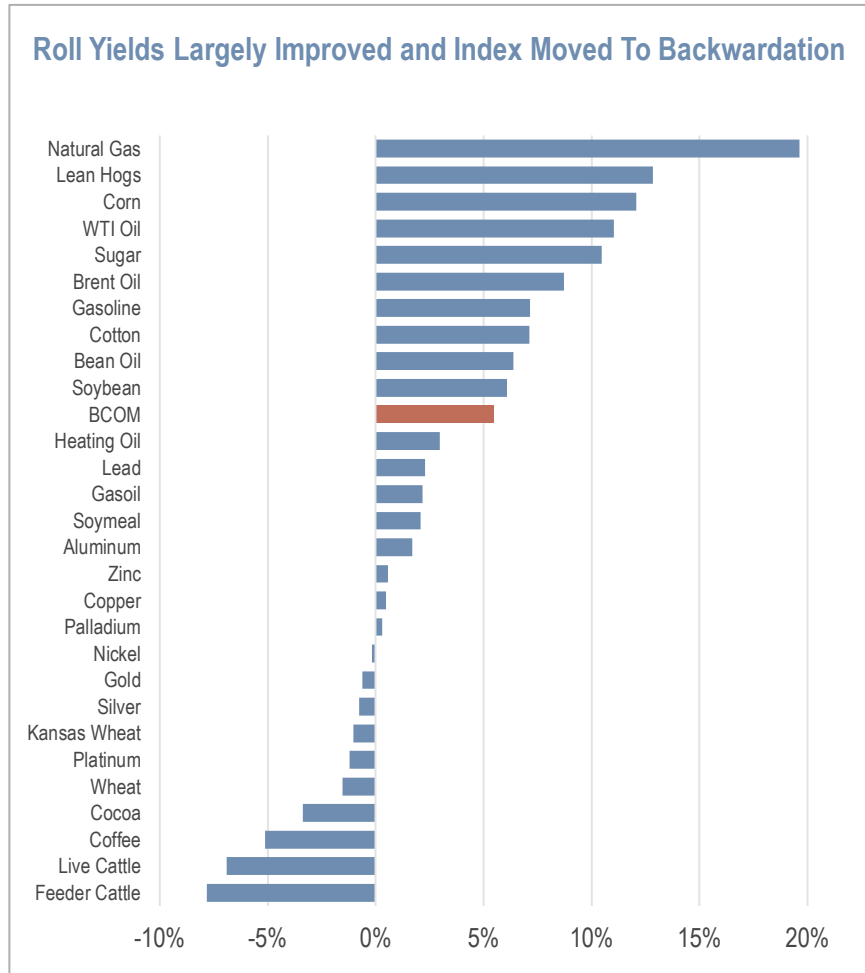
Gold remains range-bound on softening inflation expectations



Source: Neuberger Berman, Bloomberg, Goldman Sachs. Nothing herein constitutes a prediction or projection of future events or future market behavior. S&P 500 Index is backfilled by Ibbotson S&P 500 TR Index prior to 1988; Int. Govt. Bonds by the FTSE US GBI 7-10 Yr Index and backfilled by Ibbotson 1/2 IT Govt Index prior to 1985; LT Corp Bond is Barclays Long Term Corporate Bond Index backfilled by Ibbotson LT Corporate Bond returns data; Commodities by the Bloomberg Commodity Index. Nothing herein constitutes a prediction or projection of future events or future market behavior. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed Past performance is not indicative of future results.

Commodity Roll Yields

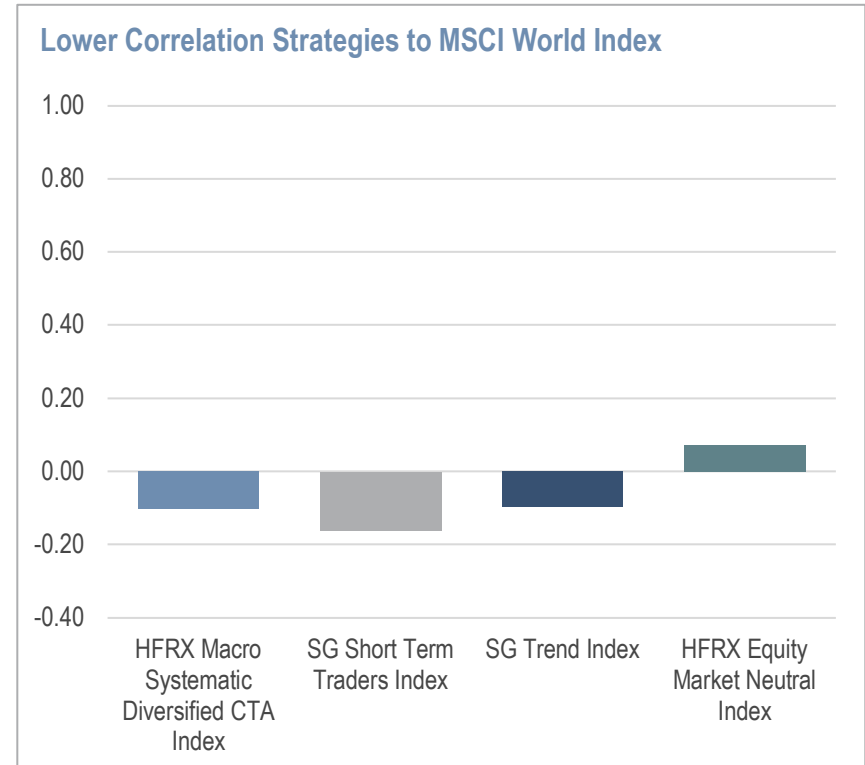
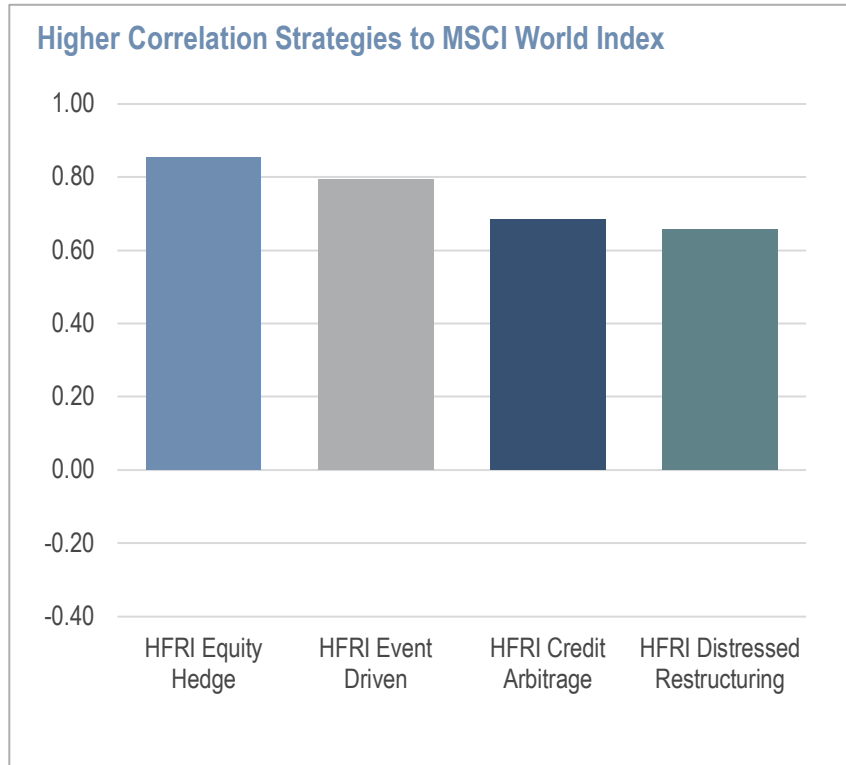
Inventory normalization is leading futures curves into backwardation; the BComm Index has positive roll yield



Source: Bloomberg. Data as of June 30, 2021. Slope is based on contracts one year apart with nearby being the most active contract. For illustrative and discussion purposes only. This material is intended as a broad overview of the Portfolio Managers' style, philosophy and process and is subject to change without notice. The use of tools cannot guarantee performance. Investing entails risks, including possible loss of principal. See Additional Disclosures at the end of this piece, which are an important part of this presentation. Past performance is not necessarily indicative of future results.

Volatility Could Mean Opportunity for Liquid Alternatives

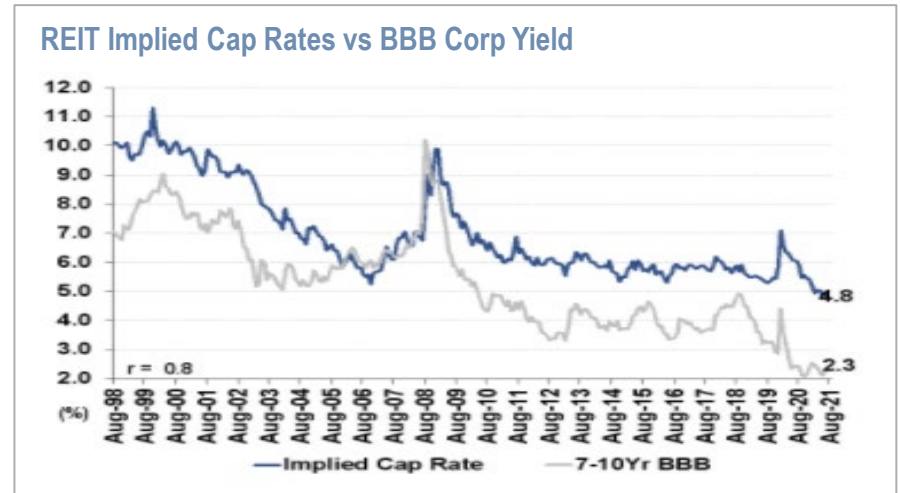
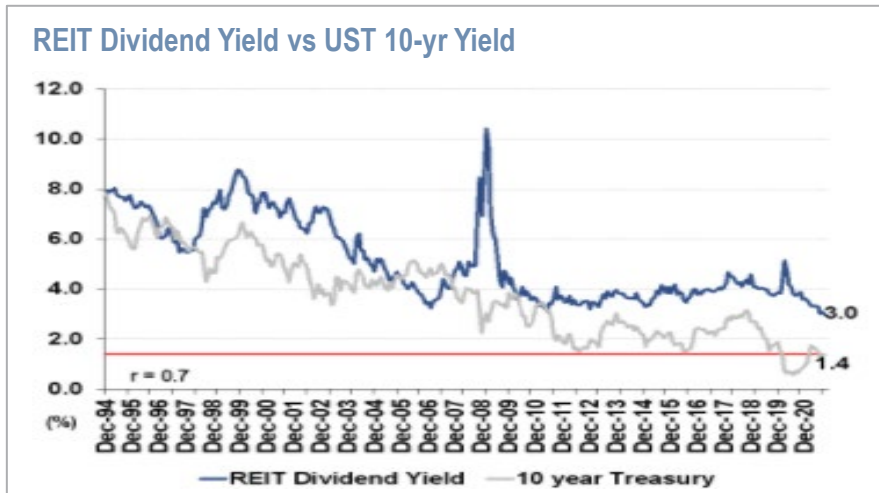
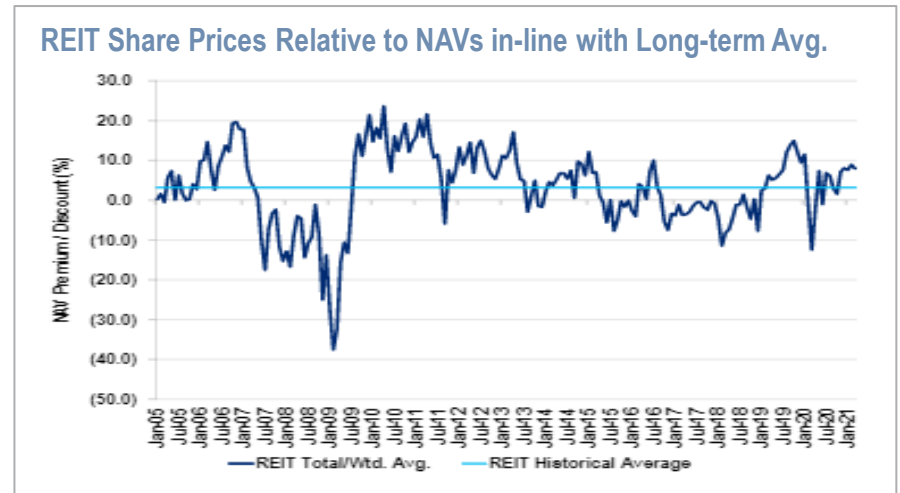
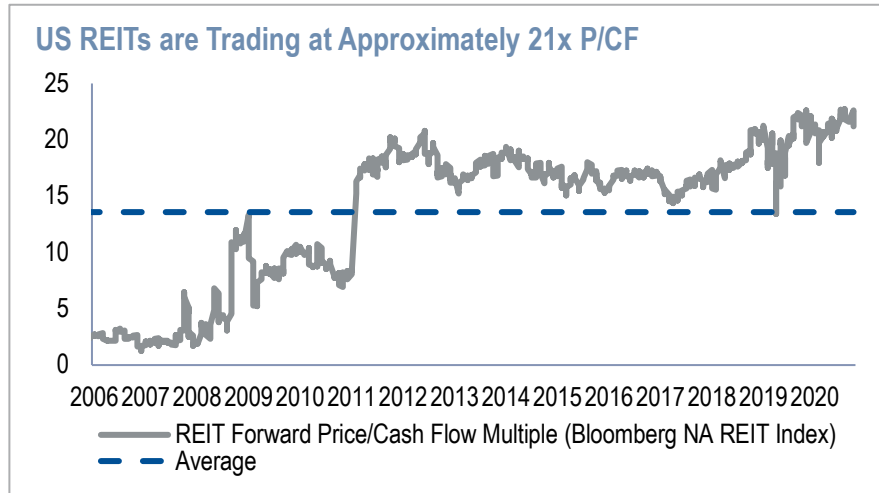
Certain hedge fund strategies could provide better diversification within portfolios



Source: Neuberger, Societe Generale, HFRI, Bloomberg. Correlation data is calculated using monthly returns from January 2000 to December 2020. See Additional Disclosures at the end of this piece, which are an important part of this presentation.

Real Estate Market

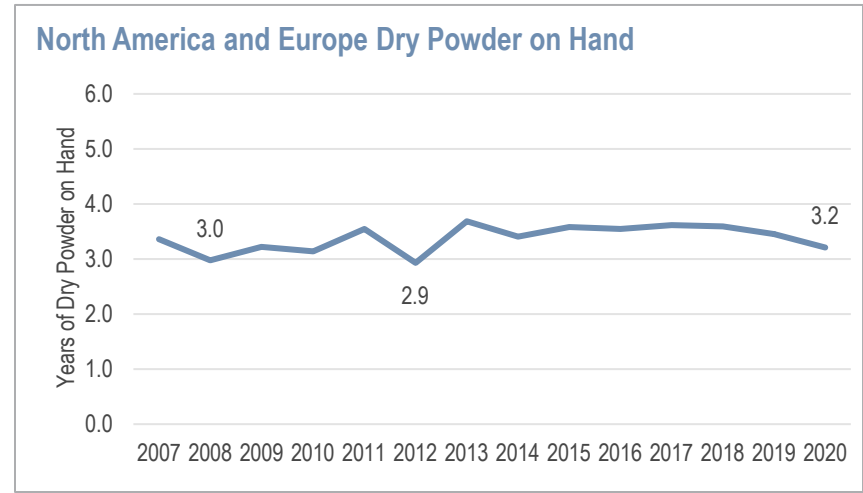
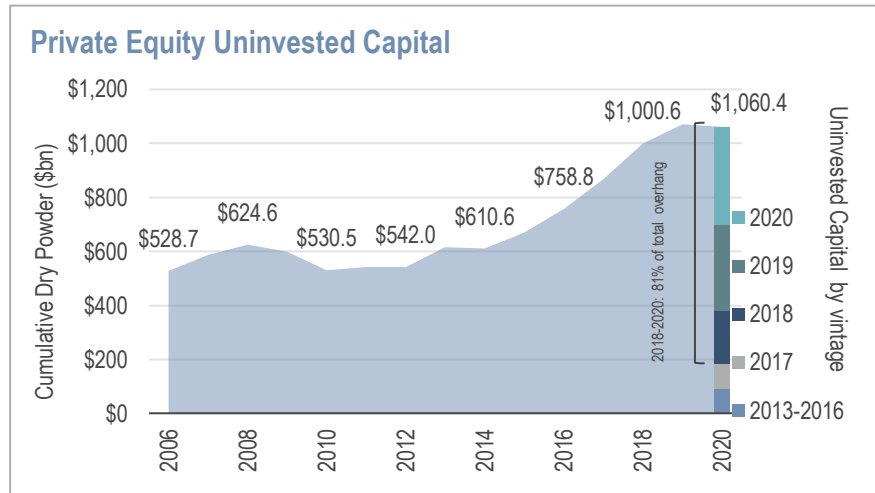
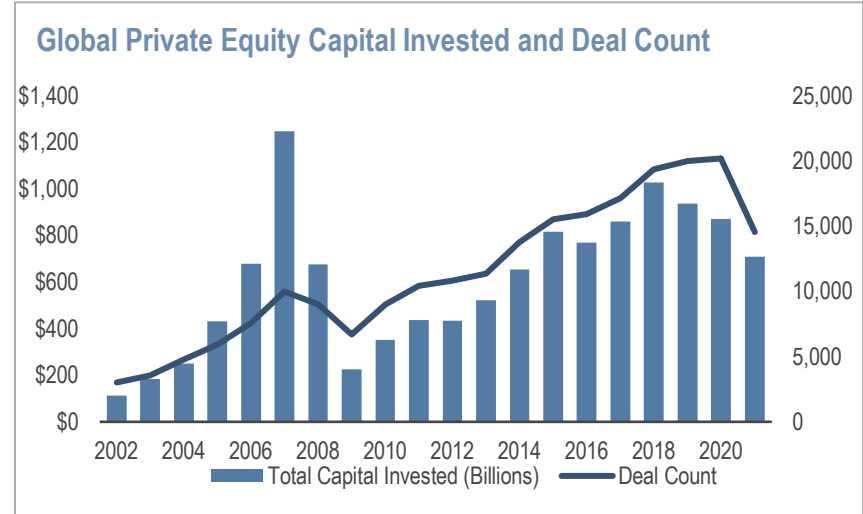
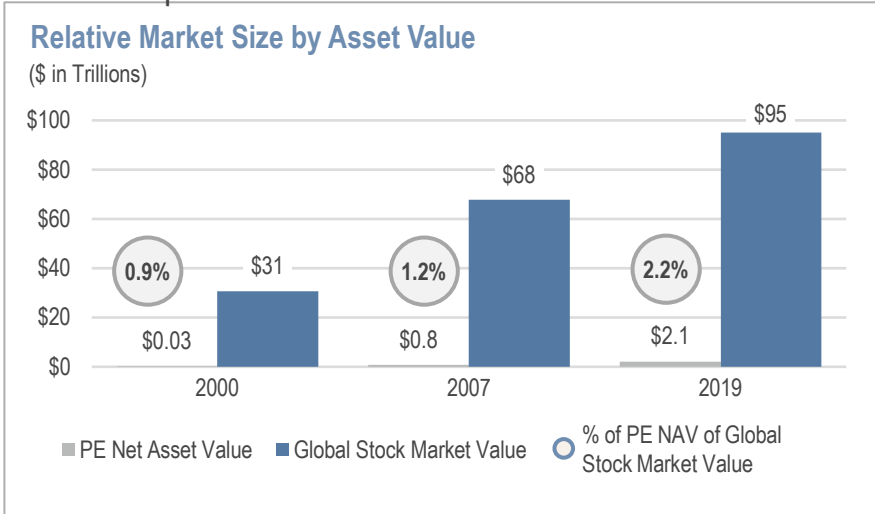
REIT metrics – attractive yields relative to fixed income markets



Source: Bloomberg, Citi. As of September 9, 2021. The data presented herein represents securities industry market data as of the dates specified. It does not represent the performance of any Neuberger Berman account or product nor does it reflect the fees and expenses associated with managing a portfolio. See Additional Disclosures at the end of this piece, which are an important part of this presentation. Green Street Advisors, Inc. Weighted average (weighted by NAV*shares outstanding) of all US-listed companies in Green Street's coverage universe, excluding Hotels and those without a published opinion. Equally-weighted average prior to January 1993.

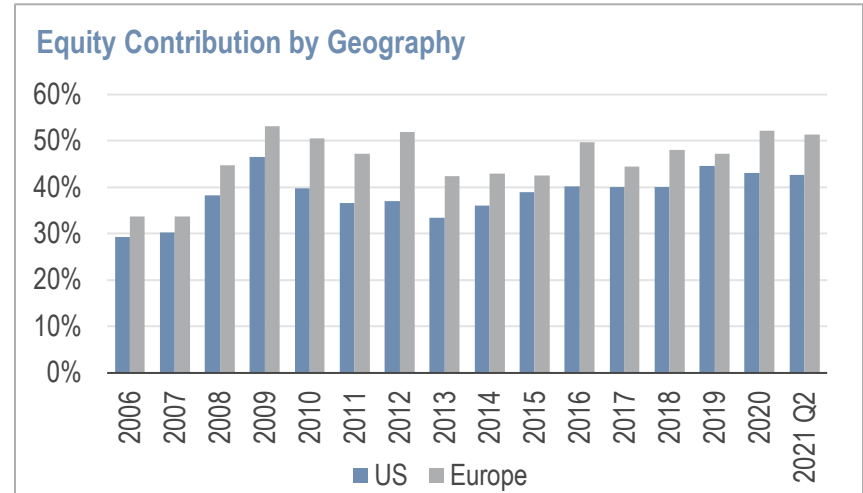
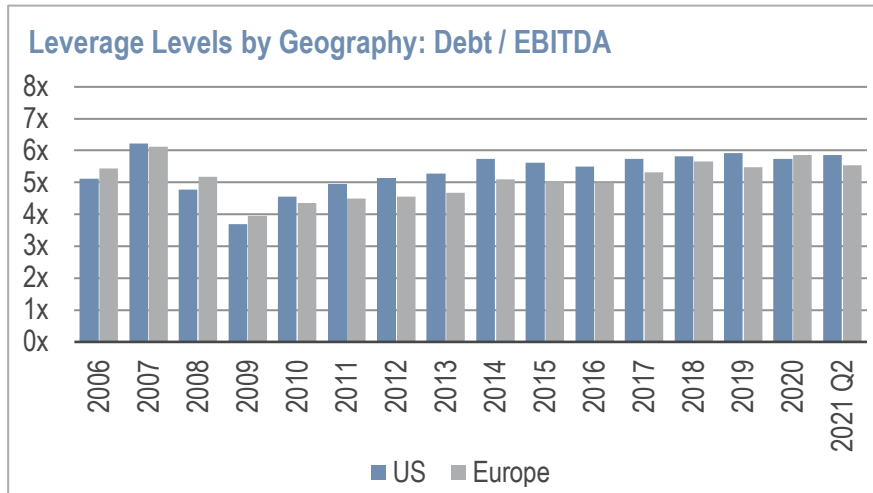
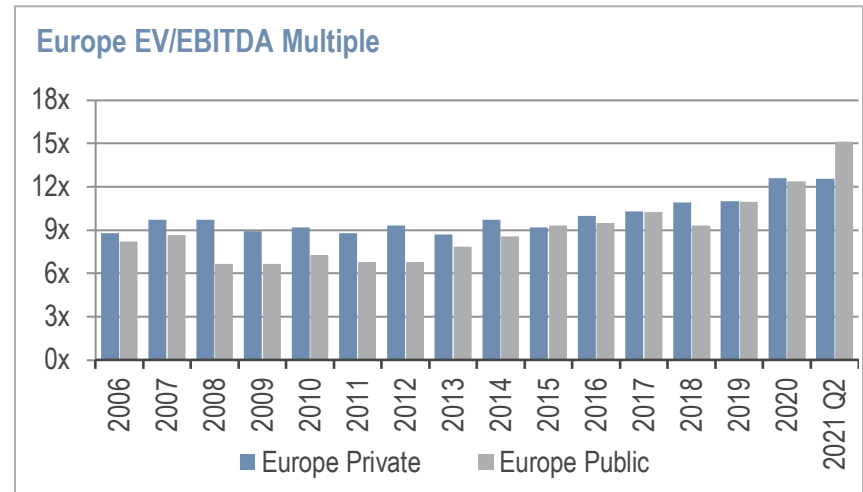
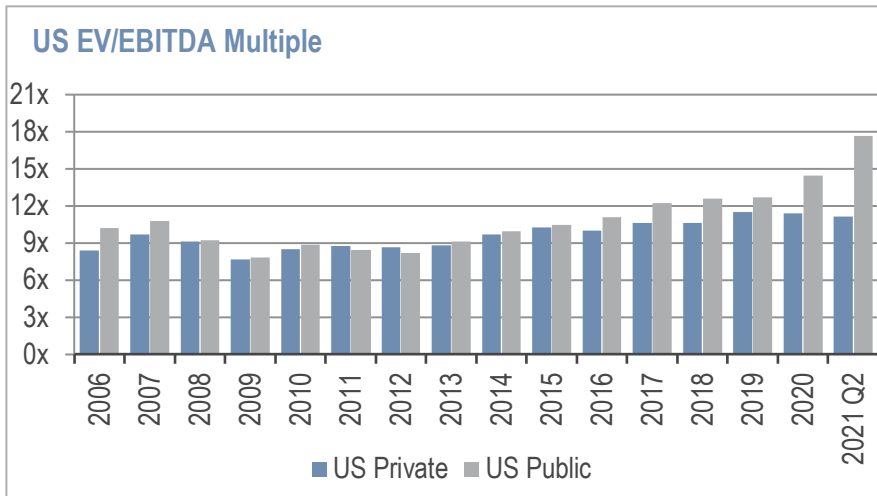
Private Markets Environment

Private equity assets have been growing, but remain small relative to public markets, and dry powder levels are in-line with historical experience



Source: Pitchbook, ThomsonOne, World Federation of Exchanges & World Bank. Top left: as of September 30, 2020. Bottom left: as of December 31, 2020. Top right: as of June 30, 2021. Bottom right: as of December 31, 2020. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed or any historical results. Past performance is not an indicator, guarantee or projection of future performance. See Additional Disclosures at the end of this piece, which are an important part of this presentation.

Private Equity Valuation and Leverage Levels

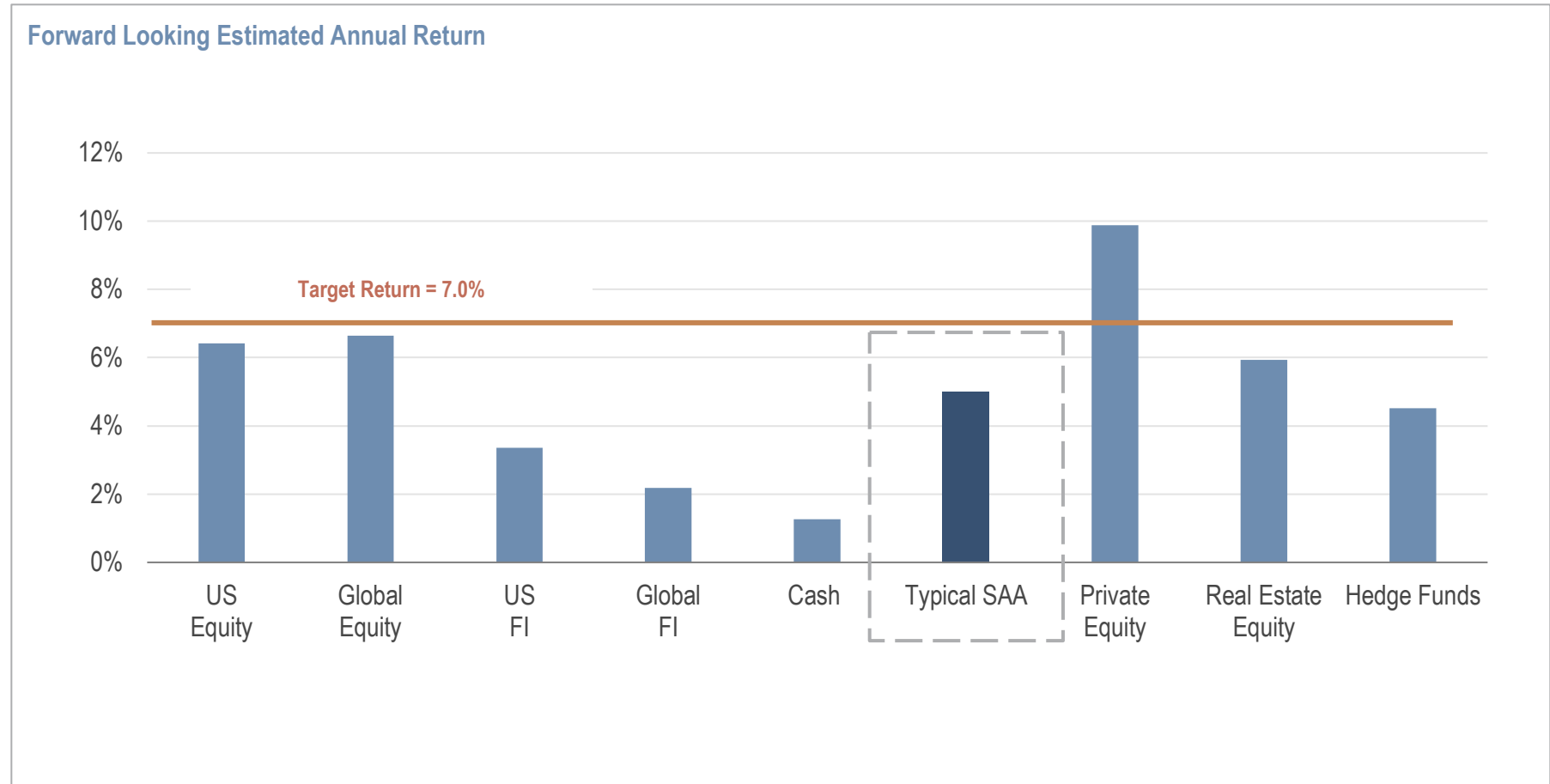


Source: Source: S&P Leveraged Buyout Quarterly Review and S&P Capital IQ. As of June 30, 2021.

Note: U.S. public multiples are based on the S&P 500 Index. Europe public multiples based on FTSE All World Developed Europe Index. Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed or any historical results. Investing entails risks, including possible loss of principal. See Additional Disclosures at the end of this piece, which are an important part of this presentation.

Long-Term Challenges

Low expected returns from traditional asset classes creates “return gap” for many investment programs...

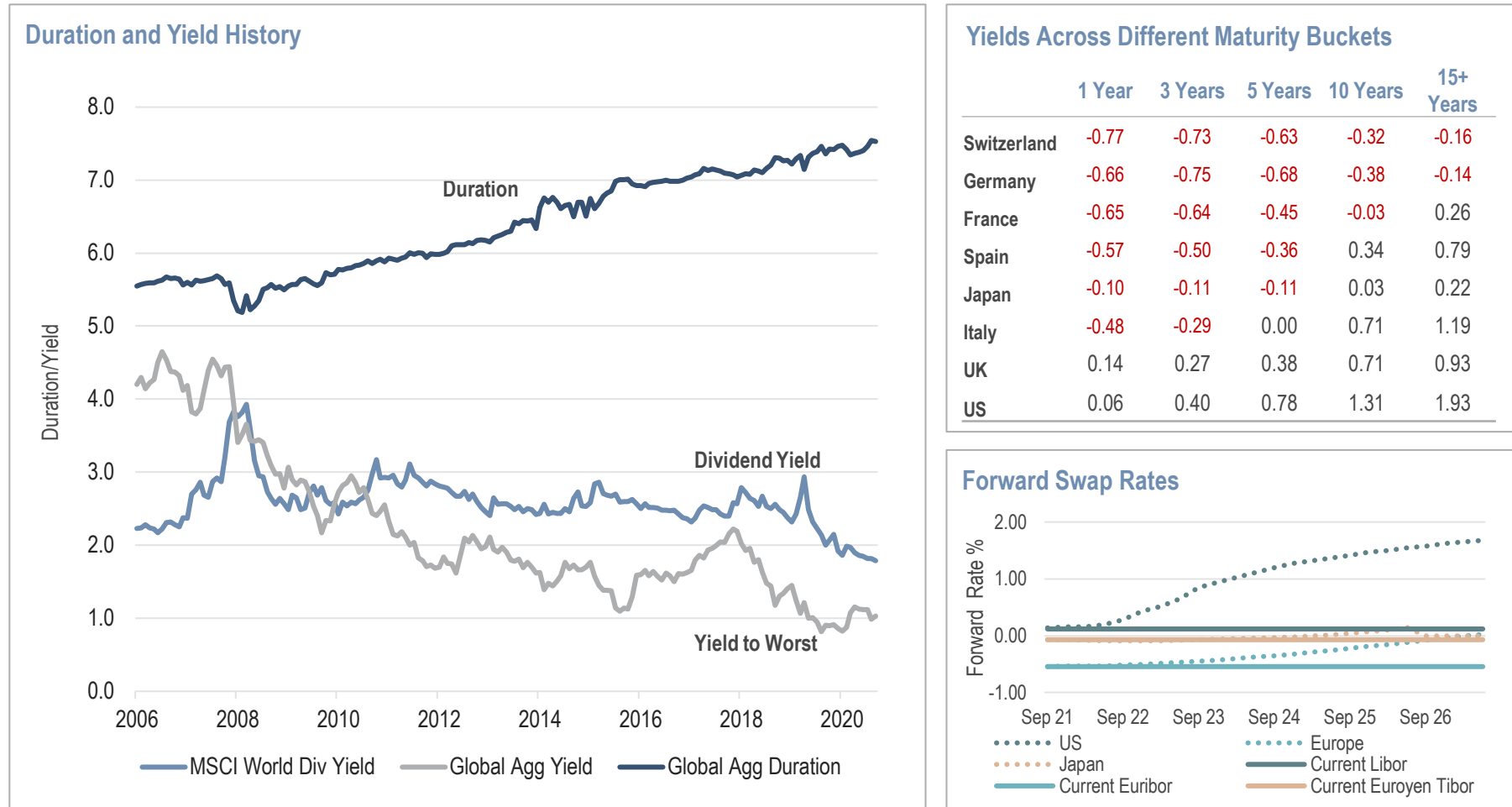


Source: Neuberger Berman, Bloomberg-Barclays, Cambridge Associates, FactSet; Analytics are as of August 31, 2021.

Estimated returns and estimated volatility (risk) shown are hypothetical and are for illustrative and discussion purposes only. They are not intended to represent, and should not be construed to represent, predictions of future rates of return or volatility. Actual returns and volatility may vary significantly. Unlike actual investment performance, hypothetical model results do not represent actual trading and accordingly they may not reflect the impact that material economic and market factors might have had on decision making if assets were actually managed during the relevant period. Investing entails risks, including possible loss of principal. Indexes are unmanaged and are not available for direct investment. Past performance is no guarantee of future results. See Additional Disclosures at the end of this presentation, which are an important part of this presentation.

Long-Term Challenges

...as low/negative rates, likely for years to come, increases risk and reduces government bond benefits of income and diversification



Source: Bloomberg. Left chart: As of August 31, 2021. Top right: as of August 31, 2021. Bottom right: as of September 14, 2021.

Long-Term Challenges and Key Themes

1. Closing the Return Gap

- Many investors believe that forward-looking return outlooks appear lower than in recent years
- A return gap of between 1% to 2% represents a significant challenge for investors
- The limited asset allocation options to bridge the gap should be explored

2. Low Yields and Flat Curves

- Low to negative interest rates for 2 to 3 years; little yield enhancement from duration extension
- Wider income/yield opportunities need to be explored
- Treasuries and developed market government bonds less likely to provide diversification

3. Higher Volatility Regime

- While VIX has fallen from 80% to high teens/low twenties since March 2020, volatility by historical standards appear high.
- Central banks appear less willing or able to manage market volatility in future
- Consider strategies which benefit from persistently high volatility, and/or manage capital in the face of sudden market volatility

4. Elevated Inflation Risks

- Central bank attitudes to inflation have softened
- Post-COVID environment likely to see high GDP growth, improved earnings
- Supply chain reconfigurations and labor force changes could cause inflation to be “sticky” rather than “transitory”

5. Changing Equity Market Allocations

- Narrow equity markets have seen high stock, country and sector concentration
- Cyclical growth upswing may expose limits of passive/market capitalization weights
- Seek factor diversification complemented by exposure to secular growth themes

6. Rethinking Emerging Markets

- China in strategic asset allocation – most investors under-allocated relative to GDP or capitalization weight
- China can provide secular growth drivers and diversification across equities and fixed income, paired with evolving risks
- Emerging markets can be rich source of market inefficiency and volatility monetization

7. Growing Shift From Public to Private

- Growing importance of private markets globally
- Wide number of distinct return sources across private equity, credit, and real assets
- Opportunities increasing to allocate dynamically across spectrum of liquidity

Source: Neuberger Berman, as of August 2021. See “Additional Disclosures” at the end of this presentation, for additional information regarding the Neuberger Berman Multi-Asset Class team and Asset Allocation Committee and the views expressed.

Additional Disclosures



Additional Disclosures

NEUBERGER BERMAN FIXED INCOME SECTOR VIEWS AND RETURN ESTIMATES

Return Estimates May Not Materialize. Neuberger Berman investment views and estimates are formulated by our specialty fixed income teams. For a variety of fixed income sectors we identify a range of outcomes that either may occur or alternatively be anticipated and then priced into the market. For each sector we formulate an investment view based on proprietary fundamental research and quantitative analysis which are used to project return estimates and a confidence level associated with the return outlook. Each sector team will establish an independent view based on internal research, and a level of confidence in the outlook. The sector view is formulated by identifying various states of the economy and market (i.e. outcomes) estimation typically over a 12-month horizon. Each state or outcome is probability weighted to determine the overall sector view. View Uncertainty quantifies the confidence of the return estimate by measuring return standard deviation across the “states of the world”. A wider dispersion of the states of the world, represented by a larger standard deviation, indicates a lower degree of confidence, or, a higher degree of uncertainty. The reassessment of sector views is ongoing and formally updated at least monthly. Sector views should not be construed as research or investment advice and do not constitute a recommendation to buy, sell or hold securities in any sector.

The return estimates contained herein are being shown to illustrate the investment decision-making process and are not intended to provide any predictions or guarantee about the future returns of any security, asset class or portfolio. Projections or other forward-looking statements regarding future events, targets or estimations/expectations are only current as of the date indicated. There is no assurance that such events or projections will occur, and may be significantly different than that shown here. The information in this presentation, including statements concerning financial market trends, is based on current market conditions, which will fluctuate and may be superseded by subsequent market events or for other reasons.

The return estimates presented represent approximate mid-points within a range of targeted yields, spreads and returns and are presented only as an example of how Neuberger Berman may construct a portfolio based on its views of the credit markets and sub-markets. The returns presented are an economic prediction and are the views of the portfolio manager as of the date hereof and are subject to change. Return estimates are based on qualitative and quantitative analysis of historical and current information. There is no assurance that the returns presented will be realized or that an investment strategy will be successful. Investors should keep in mind that markets are volatile and unpredictable. There are no guarantees that the historical performance of an investment, portfolio, or asset class will have a direct correlation with its future performance. Generally, our 12-month and 24-month views and estimates are an input in our asset allocation decisions.

Neuberger Berman believes the return estimates set forth herein is reasonable based on a combination of factors, including the investment team’s general experience and assessment of prevailing market conditions and investment opportunities. There are, however, numerous assumptions that factor into the return estimates that may not be consistent with future market conditions and that may significantly affect actual investment results. Such assumptions include, but are not limited to, 1) current monetary policy, inflation estimates and other fundamental and technical factors determine interest rate levels in the credit markets, 2) historical data and trends in the fixed income asset classes presented and 3) anticipated interest rate movements. Neuberger Berman does not make any representation as to the reasonableness of the assumptions or that all the assumptions used in calculating the return estimates have been stated or fully considered. Neuberger Berman’s ability to achieve investment results consistently, in the aggregate or with regard to any particular fixed income sector, with the returns set forth herein depends significantly on a number of factors in addition to the accuracy of its assumptions. These include Neuberger Berman’s ability to identify a sufficient number and mix of suitable investments. Changes in the assumptions may have a material impact on the targeted returns presented. All data is shown before fees, transaction costs and taxes and does not account for the effects of inflation. Management fees, transaction costs and potential expenses are not considered and would reduce returns. Actual results experienced by clients may vary significantly from the illustrations shown.

Additional Disclosures (continued)

RISK CONSIDERATIONS RELATING TO HEDGE FUNDS AND PRIVATE EQUITY FUNDS

While hedge funds offer you the potential for attractive returns and diversification for your portfolio, they also pose greater risks than more traditional investments. An investment in hedge funds is only intended for sophisticated investors. Investors may lose all or substantial portion of their investment. You should consider the risks inherent with investing in hedge funds:

Leveraged and Speculative Investments: An investment in hedge funds is speculative and involves a high degree of risk. Hedge funds commonly engage in swaps, futures, forwards, options and other derivative transactions that can result in volatile fund performance. Leveraging may increase risk.

Limited Liquidity: There are limited channels in the secondary market through which investors can attempt to sell and or purchase interests in hedge funds. An investor's ability to transact business in the secondary market is subject to restrictions on transferring interests in hedge funds, and hedge funds may suspend or limit the right of redemption under certain circumstances. Thus, an investment in hedge funds should be regarded as illiquid.

Absence of Regulatory Oversight: Hedge funds are not required to be registered under the U.S. Investment Company Act of 1940; therefore hedge funds are not subject to the same regulatory requirements as mutual funds.

Dependence upon Investment Manager: The General Partner or manager of a hedge fund normally has total trading authority over its respective fund. The use of a single advisor applying generally similar trading programs could mean the lack of diversification and consequently, higher risk.

Foreign Exchanges: Selective hedge funds may execute a portion of their trades on foreign exchanges. Material economic conditions and/or events involving those exchanges may affect future results.

Fees and Expenses: Hedge funds often charge high fees; such fees and expenses may offset trading profits.

Complex Tax Structures: Hedge funds may involve complex tax structures and delays in distributing important tax information.

Limited Reporting: While hedge funds generally may provide periodic performance reports and annual audited financial statements, they are not otherwise required to provide periodic pricing or valuation information to investors.

Business and Regulatory Risks of Hedge Funds: Legal, tax and regulatory changes could occur during the term of a hedge fund that may adversely affect the fund or its managers.

Prospective investors should be aware that an investment in any private equity fund is speculative and involves a high degree of risk that is suitable only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of such investment and for which the investment does not represent a complete investment program. An investment should only be considered by persons who can afford a loss of their entire investment. This material is not intended to replace any the materials that would be provided in connection with an investor's consideration to invest in an actual private equity fund, which would only be done pursuant to the terms of a confidential private placement memorandum and other related material. Prospective investors are urged to consult with their own tax and legal advisors about the implications of investing in a private equity strategy, including the risks and fees of such an investment. You should consider the risks inherent with investing in private equity funds:

Market Conditions: Private equity strategies are based, in part, upon the premise that investments will be available for purchase by at prices considered favorable. To the extent that current market conditions change or change more quickly anticipated investment opportunities may cease to be available. There can be no assurance or guarantee that investment objectives will be achieved, that the past, targeted or estimated results be achieved or that investors will receive any return on their investments. Performance may be volatile. An investment should only be considered by persons who can afford a loss of their entire investment.

Legal, Tax and Regulatory Risks: Legal, tax and regulatory changes (including changing enforcement priorities, changing interpretations of legal and regulatory precedents or varying applications of laws and regulations to particular facts and circumstances) could occur that may adversely affect a private equity strategy.

Default or Excuse: If an Investor defaults on or is excused from its obligation to contribute capital to a private equity fund, other Investors may be required to make additional contributions to replace such shortfall. In addition, an Investor may experience significant economic consequences should it fail to make required capital contributions.

Leverage: Investments in underlying portfolio companies whose capital structures may have significant leverage. These companies may be subject to restrictive financial and operating covenants. The leverage may impair these companies' ability to finance their future operations and capital needs. The leveraged capital structure of such investments will increase the exposure of the portfolio companies to adverse economic factors such as rising interest rates, downturns in the economy or deteriorations in the condition of the portfolio company or its industry.

Highly Competitive Market for Investment Opportunities: The activity of identifying, completing and realizing attractive investments is highly competitive, and involves a high degree of uncertainty. There can be no assurance or guarantee that a private equity strategy will be able to locate, consummate and exit investments that satisfy rate of return objectives or realize upon their values or that it will be able to invest fully its committed capital.

Reliance on Key Management Personnel. The success of a private equity strategy may depend, in large part, upon the skill and expertise of investment professionals that manage the strategy.

Limited Liquidity: There is no organized secondary market for investors in most private equity funds, and none is expected to develop. There are typically also restrictions on withdrawal and transfer of interests.

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IN ADDITION TO THESE RISK CONSIDERATIONS, THERE ARE SPECIFIC RISKS THAT MAY APPLY TO A PARTICULAR HEDGE FUND OR PRIVATE EQUITY FUND. ANY INVESTMENT DECISION WITH RESPECT TO AN INVESTMENT IN A HEDGE FUND OR PRIVATE EQUITY FUND SHOULD BE MADE BASED UPON THE INFORMATION CONTAINED IN THE CONFIDENTIAL PRIVATE PLACEMENT MEMORANDUM OF THAT FUND. THE INFORMATION CONTAINED HEREIN IS THEREFORE IS NOT INTENDED TO BE COMPLETE OR FINAL AND IS QUALIFIED IN ITS ENTIRETY BY THE CONFIDENTIAL PRIVATE PLACEMENT MEMORANDUM AND GOVERNING DOCUMENT FOR EACH FUND.

Additional Disclosures (continued)

ASSET CLASS ASSUMPTIONS & ESTIMATES

Capital market assumptions used herein generally reflect Neuberger Berman's Investment Strategy Group's (ISG) forward-looking estimates of the benchmark return or volatility associated with an asset class. Estimated returns and volatility are hypothetical return and risk estimates generated by ISG. Estimated returns and volatility do not reflect the alpha of any investment manager or investment strategy/vehicle within an asset class. Information is not intended to be representative of any investment product or strategy and does not reflect the fees and expenses associated with managing a portfolio or any other related charges, such as commissions and surrender charges. Estimated returns and volatility are hypothetical and generated by Neuberger Berman based on various assumptions and inputs, including current market conditions, historical market conditions and subjective views and estimates. Capital market assumptions shown reflect ISG's long-term (20+ years into the future) estimates, reflect both current and historical market conditions and are reviewed and revised at least annually. ISG also produces intermediate-term (5-7 years into the future) year capital market assumptions. If ISG's intermediate-term (5-7 years into the future) capital market assumptions were used the results of the analysis would be different. ISG's capital market assumptions are derived through a four step process which combines the weights of asset classes in the global market, historical returns of the asset class benchmarks, the relationship asset classes have to one another, and their returns in excess of the risk free rate. These hypothetical returns are used for discussion purposes only and are not intended to represent, and should not be construed to represent, predictions of future rates of return. Actual returns may vary significantly. Neuberger Berman makes no representations regarding the reasonableness or completeness of any such assumptions and inputs. Assumptions, inputs and estimates are periodically revised and subject to change without notice. Estimated returns and volatility should not be used, or relied upon, to make investment decisions.

Additional Disclosures (continued)

This material is provided for informational purposes only and nothing herein constitutes investment, legal, accounting or tax advice, or a recommendation to buy, sell or hold a security. This material is general in nature and is not directed to any category of investors and should not be regarded as individualized, a recommendation, investment advice or a suggestion to engage in or refrain from any investment-related course of action. Neuberger Berman is not providing this material in a fiduciary capacity and has a financial interest in the sale of its products and services. Investment decisions and the appropriateness of this material should be made based on an investor's individual objectives and circumstances and in consultation with his or her advisors. Information is obtained from sources deemed reliable, but there is no representation or warranty as to its accuracy, completeness or reliability. All information is current as of the date of this material and is subject to change without notice. Any views or opinions expressed may not reflect those of the firm as a whole. Third-party economic or market estimates discussed herein may or may not be realized and no opinion or representation is being given regarding such estimates. Neuberger Berman products and services may not be available in all jurisdictions or to all client types. Investing entails risks, including possible loss of principal. Diversification does not guarantee profit or protect against loss in declining markets. Investments in hedge funds and private equity are speculative and involve a higher degree of risk than more traditional investments. Investments in hedge funds and private equity are intended for sophisticated investors only. Indexes are unmanaged and are not available for direct investment. Past performance is no guarantee of future results.

The views expressed herein are generally those of the Neuberger Berman Multi-Asset Class (MAC) team or Neuberger Berman's Asset Allocation Committee. The Asset Allocation Committee is comprised of professionals across multiple disciplines, including equity and fixed income strategists and portfolio managers. The Asset Allocation Committee reviews and sets long-term asset allocation models, establishes preferred near-term tactical asset class allocations and, upon request, reviews asset allocations for large diversified mandates. Tactical asset allocation views are based on a hypothetical reference portfolio. Any currency outlooks are not against the U.S. dollar but stated against the other major currencies. As such, the currency outlooks should be seen as relative value forecasts and not directional U.S. dollar pair forecasts. Currency outlooks are shorter-term in nature, with a duration of 1–3 months. Regional equity and fixed income views reflect a 1-year outlook. Asset Allocation Committee members are polled on asset classes and the positional views are representative of an Asset Allocation Committee consensus. The views of the MAC team or the Asset Allocation Committee may not reflect the views of the firm as a whole and Neuberger Berman advisers and portfolio managers may take contrary positions to the views of the MAC team or the Asset Allocation Committee. The MAC team and the Asset Allocation Committee views do not constitute a prediction or projection of future events or future market behavior.

The information in this material may contain projections, market outlooks or other forward-looking statements regarding future events, including economic, asset class and market outlooks or expectations, and is only current as of the date indicated. There is no assurance that such events, outlook and expectations will be achieved, and actual results may be significantly different than that shown here. The duration and characteristics of past market/economic cycles and market behavior, including any bull/bear markets, is no indication of the duration and characteristics of any current or future market/economic cycles or behavior. Information on historical observations about asset or sub-asset classes is not intended to represent or predict future events. Historical trends do not imply, forecast or guarantee future results. Information is based on current views and market conditions, which will fluctuate and may be superseded by subsequent market events or for other reasons.

Discussions of any specific sectors and companies are for informational purposes only. This material is not intended as a formal research report and should not be relied upon as a basis for making an investment decision. The firm, its employees and advisory accounts may hold positions of any companies discussed. Nothing herein constitutes a recommendation to buy, sell or hold a security. Specific securities identified and described do not represent all of the securities purchased, sold or recommended for advisory clients. It should not be assumed that any investments in securities, companies, sectors or markets identified and described were or will be profitable.

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For more information on COVID-19, please refer to the Center for Disease Control and Prevention at [cdc.gov](https://www.cdc.gov).

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OCEAN AVENUE | CAPITAL PARTNERS

Private Equity Update

SJCERA Roundtable

October 7th, 2021

Current Private Equity Environment

- After a pause in mid-2020 due to the COVID-19 pandemic, U.S. PE dealmaking and exit performance rebounded strongly in Q4 2020 and has continued in 2021
- Monetary and enhanced fiscal stimulus and potential tax law changes, combined with significant levels of dry powder, contributed to the snap back in private equity M&A activity and put upward pressure on private company valuations
- Private equity fundraising is attracting significant capital with the potential for a record-level \$360bn run-rate raised through 2021⁽¹⁾
 - Historic levels of excess capital and depressed deal activity during Q2 and Q3 of 2020 have also put pressure on private equity firms to execute deals
 - Distributions to LPs, which have been supported by lofty returns, are providing additional tailwinds for fundraising as many LP's are recycling off elevated capital bases
- Navigating the frothy private equity deal making environment will continue to be challenging
 - Not all segments of the private equity market are equally competitive
 - Maintaining discipline on valuation will be increasingly important to capture strong returns
 - Middle-market and large transactions will increasingly rely on post-acquisition operational enhancements
 - Unique sourcing strategies are essential in periods of heightened competition
- Notable recent changes in the private equity industry include:
 - Independent sponsors are continuing to cement their position within the industry especially amongst the lower middle market as firms continue to move up-market with sequential funds
 - GP-led secondary deals and single-asset continuation vehicles have increased over the last twelve months
 - Inorganic growth strategy (i.e., add-on acquisitions) has become essential for PE firms to capture returns

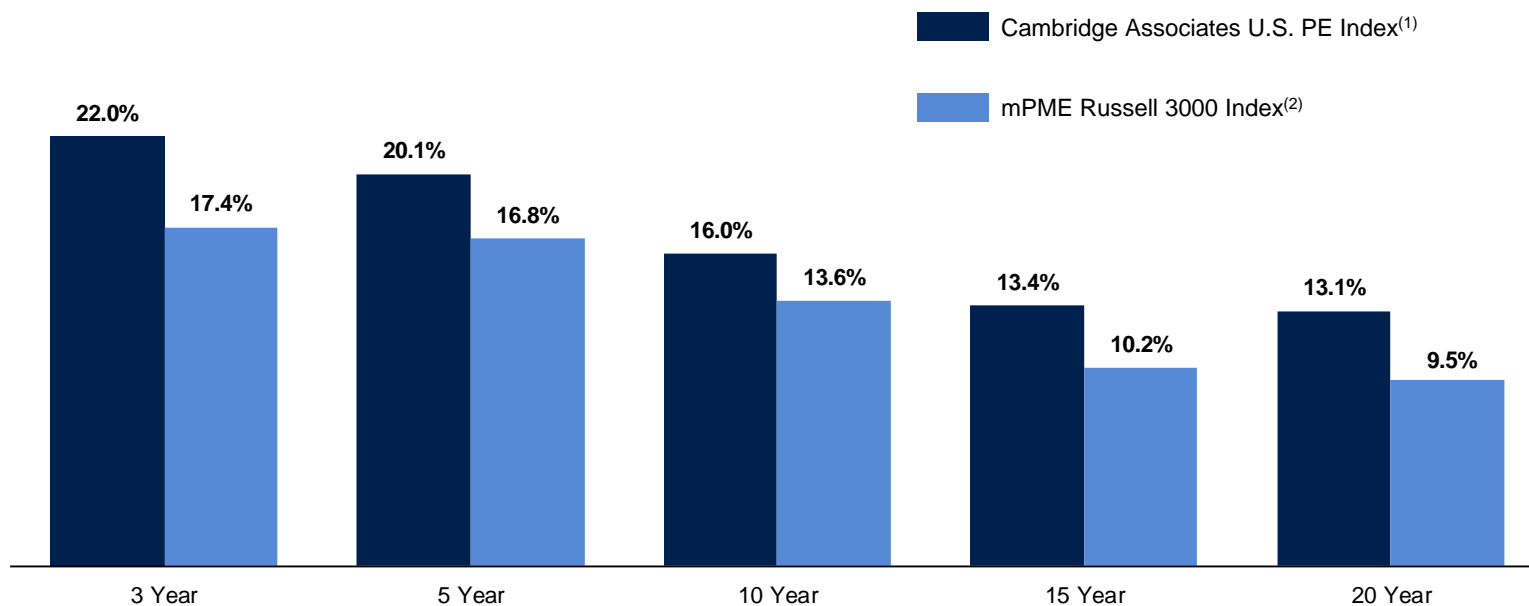


Private Equity Benchmarking

- The private equity asset class has delivered for investors over the near, medium, and long term
- In part, this has led investors to increased their allocations to the private equity asset class - generating all-time high fund commitment totals⁽¹⁾

U.S. PE Index and Benchmark⁽²⁾

Approximate end-to-end pooled IRR (%) as of March 31st, 2021



PE to Russell 3000 Value-Add (bps) ⁽³⁾	3 Year	5 Year	10 Year	15 Year	20 Year
	462	329	239	319	357

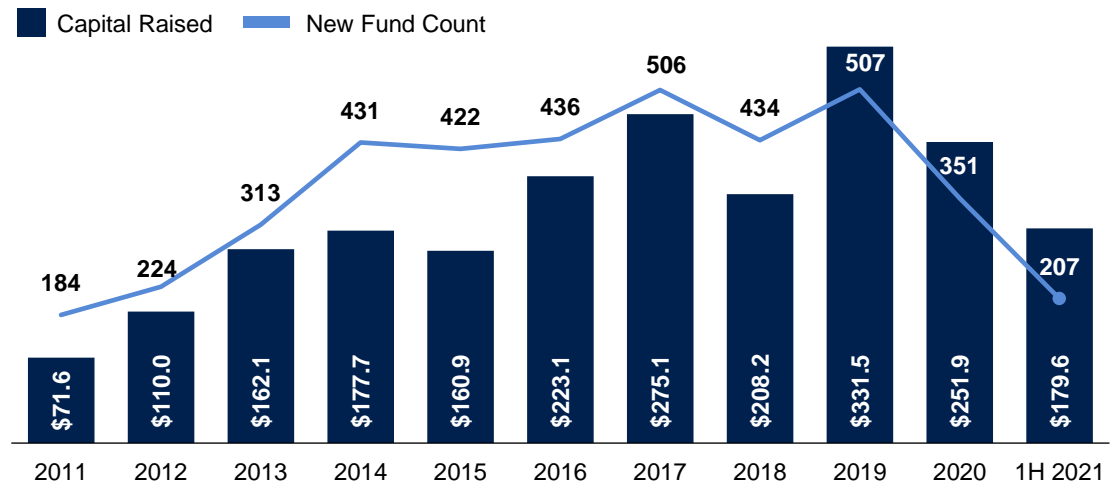
- (1) The U.S index is a horizon calculation based on data compiled from 1,248 U.S. private equity funds, including fully liquidated partnerships, formed between 1986 and 2020. Pooled horizon return, net of fees, expenses, and carried interest.
- (2) CA Modified Public Market Equivalent (mPME) replicates private investment performance under public market conditions. The public index's shares are purchased and sold according to the private fund cash flow schedule, with distributions calculated in the same proportion as the private fund, and mPME NAV is a function of mPME cash flows and public index returns.
- (3) "Value-Add" shows (in basis points) the difference between the actual private investment return and the mPME calculated return.



Private Equity Overhang and Fundraising

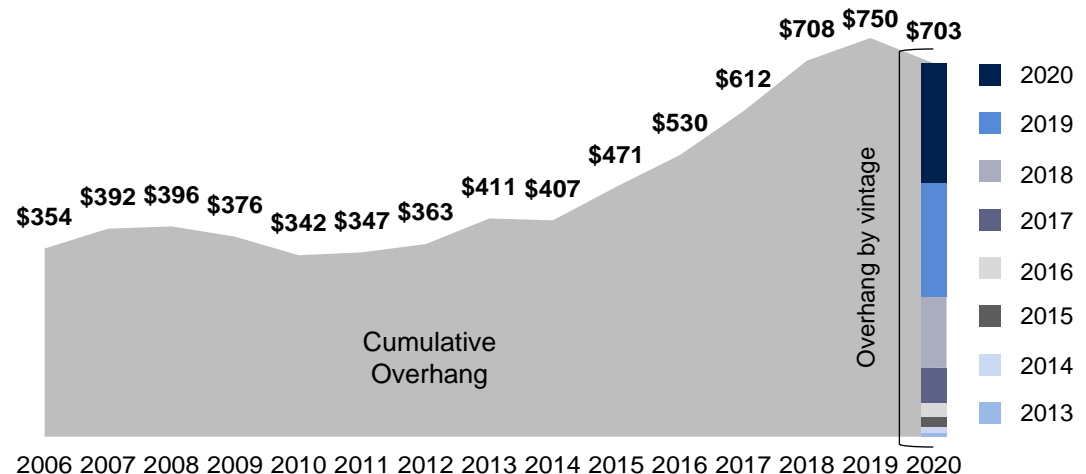
U.S. PE Fundraising Activity⁽¹⁾

- Fundraising is on track to amount to a run-rate ~\$360bn by the end of 2021⁽¹⁾
- Buyout funds alone raised \$300bn in 2020, and the vast majority of LP's plan to increase or maintain their commitments into the rest of 2021⁽²⁾
- Private equity funds have continued to grow its fund sizes, as over 70% of vehicles raised in 2021 achieved a step up in line with the 10-year trend



U.S. PE Capital Overhang⁽¹⁾

- There was an abundance of dry powder in 2019 and early 2020 before the pandemic hit and markets came to a halt – the amount of U.S. overhang declined from \$750bn in 2019 to \$703bn in 2020
- True buying power of PE firms with co-investments likely closer to \$1tn available to deploy
- The average age of dry powder held in funds increased in 2020 to 22 months, but remains well below levels seen in the last downturn in 2009⁽²⁾

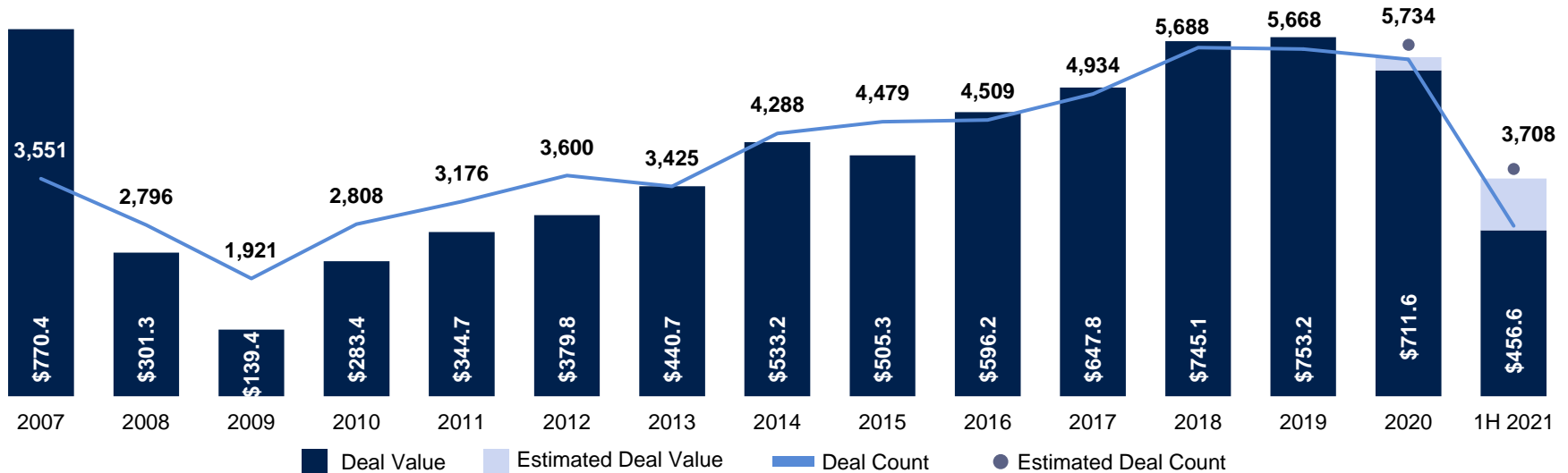


U.S. Private Equity Deal Activity

- The PE in industry in on trend for record setting deal flow after markets hunkered down when the Covid-19 pandemic hit in the spring. Exit value picked up after Q2 '20 as revived price multiples and the threat of a tax-law change in the U.S. gave sellers incentive to put companies on the market
- Strategic buyers provided the largest exit channel followed-by sponsor-to-sponsor deals. IPOs increased by 121% to \$81 billion as public equity markets soared⁽¹⁾
- Firms also leaned heavily on partial exits, as GPs sought to keep a stake in attractive assets rather than hunt down new prospects in a highly competitive deal market

U.S. PE Deal Activity⁽¹⁾

(\$ in billions)



6.2%

Total U.S. Deal Value
2015-2020 CAGR⁽¹⁾

4.2%

Total U.S. Deal Count
2015-2020 CAGR⁽¹⁾

28.3%

U.S. PE Deal Value
YoY Growth 2020-2021RR⁽¹⁾

4.5 years

Median Investment Hold
Period 2020⁽²⁾

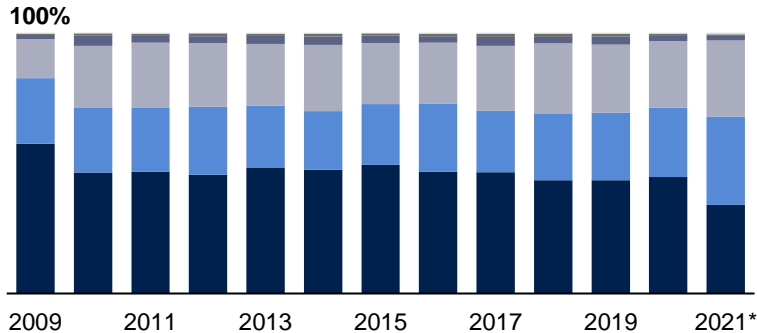
Source: (1) PitchBook, "2Q 2021 US PE Breakdown" (2) Bain & Company, "Global Private Equity Report 2021"



U.S. Private Equity Deal Distribution

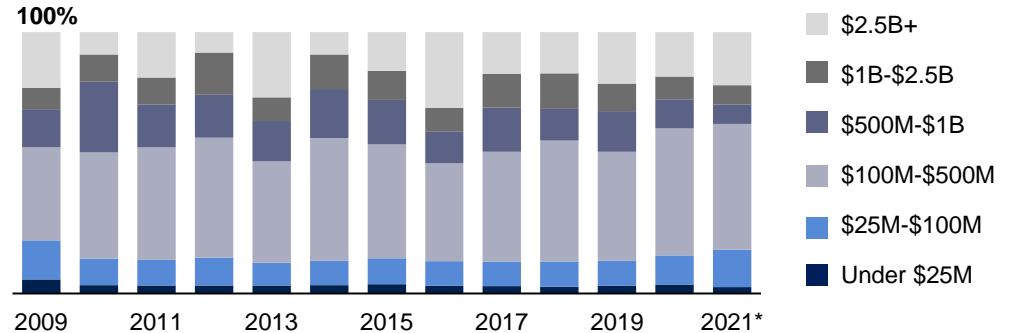
PE Deals by Size⁽¹⁾

% of Total – Volume (#)



- Deals between \$25mm and \$100mm as well as those between \$100mm and \$500mm have increased substantially from 2020 to 1H 2021 consistent with market conditions

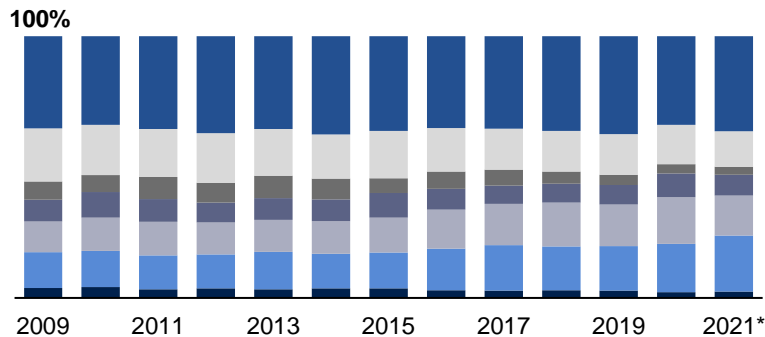
% of Total – Dollar (\$)



- 68% of deals by volume in 1H 2021 were less than \$100m; **however, those deals comprised only 9% of the capital deployed during that period**

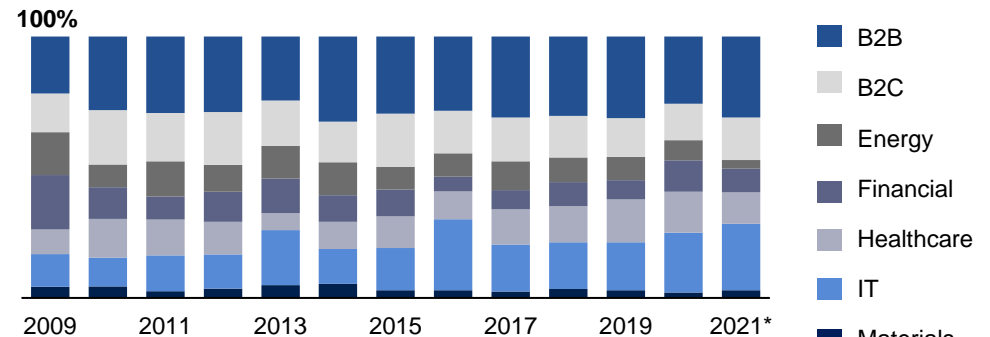
PE Deals by Sector⁽¹⁾

% of Total – Volume (#)



- The proportion of IT / tech related deals (\$) has grown steadily, from 14% in 2011 to 25% in 1H 2021

% of Total – Dollar (\$)



- Healthcare as a percentage of total deal value contracted from 16% in 2019 to 12% in 1H 2021; over the same period, the Energy segment has also contracted from 9% to 3%, respectively

* Represents data as of 6/30/2021

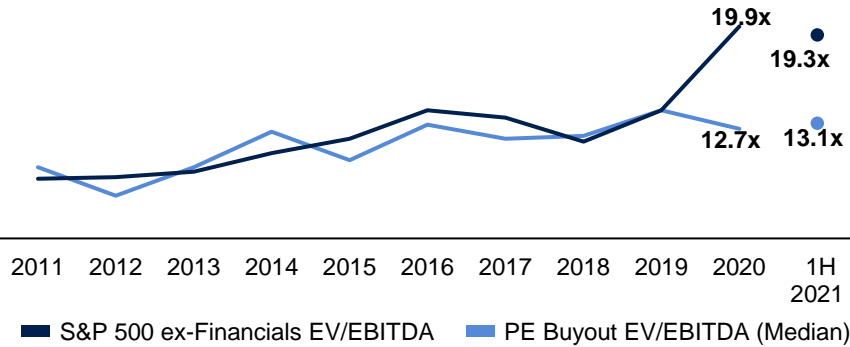
Source: (1) PitchBook, "2Q 2021 US PE Breakdown"



U.S. Private Equity Valuation Multiples

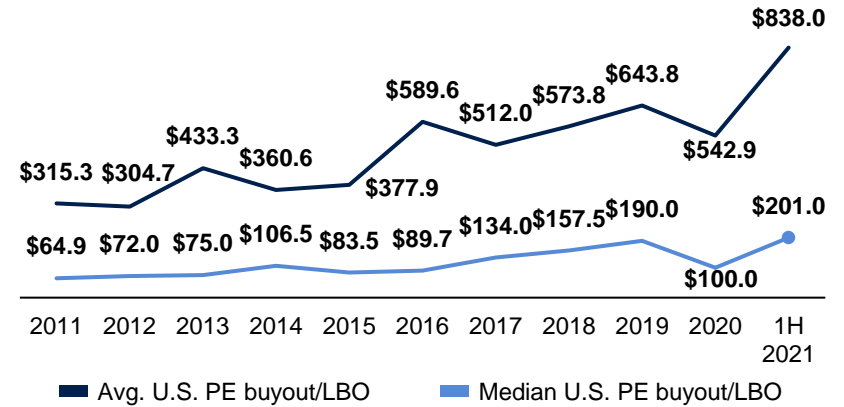
Median PE Buyout vs. S&P Multiples⁽¹⁾

1



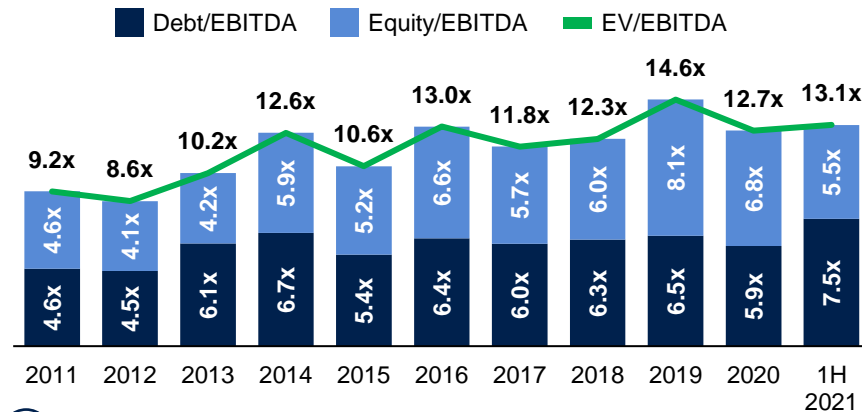
Median and Average U.S. PE Buyout/LBO Sizes⁽¹⁾

2



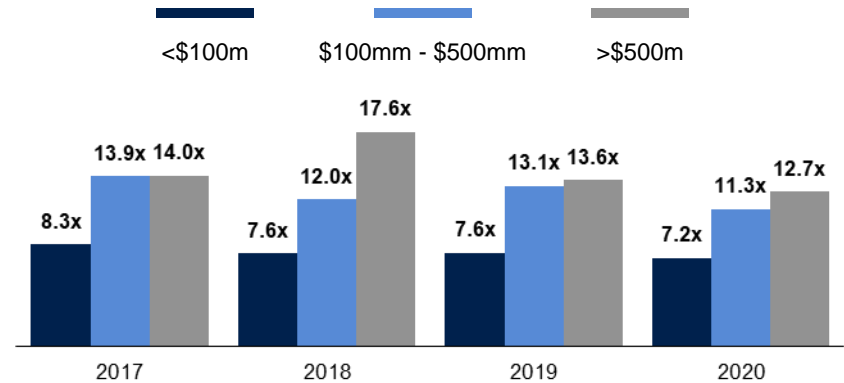
Median PE Buyout Multiples⁽¹⁾

3



Average Multiples by Deal Size⁽²⁾

4



- Exuberance in the public markets largely driven by technology stocks has resulted in a significant valuation differentiation compared to PE buyouts in the last 18 months
- Precipitous rise in both the median and average LBO buyout size as middle market and mega-cap private equity funds seek to deploy capital

- EV/EBITDA multiples are on the rise from a significant decline in 2020 now standing at 13.1x for H1 2021 combined with a significant increase in Debt / EBITDA leverage of 7.5x
- Mid-cap and large-cap transactions are consistently more variable and trade at significantly higher valuations versus small-cap transactions



Emergence of Independent Sponsors

By the numbers...

62.7%
Independent Sponsors as a
Portion of LMM & MM Firms⁽¹⁾

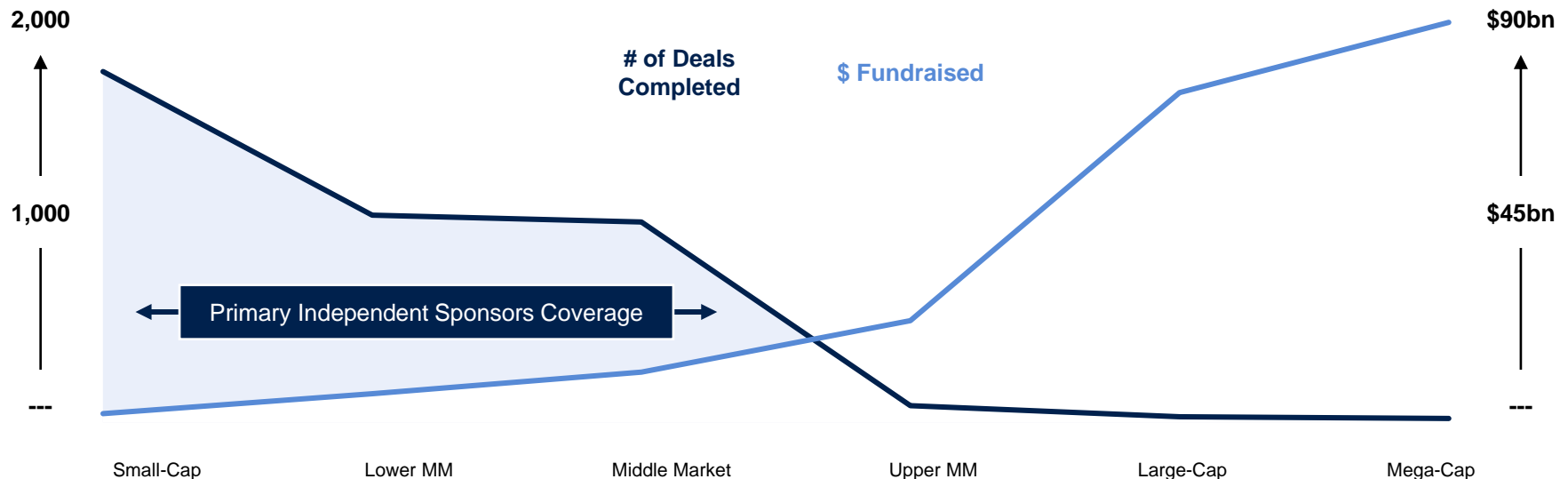
44.7%
Independent Sponsor Deals as
a Portion of LMM & MM⁽¹⁾

1000+
Independent Sponsor Count
in U.S.⁽¹⁾

- Without the pressure to invest a committed fund in a pre-determined time, independent sponsors are often able to pursue transactions for which they have high conviction, typically outside of a highly competitive sale process
- Independent sponsors tend to focus on industries in which they have the most experience, such as manufacturing & distribution, business services, and other industrial sectors
- Investing through independent sponsors offers investors and LPs alike a different fee and incentive structure verses traditional private equity

Target Market

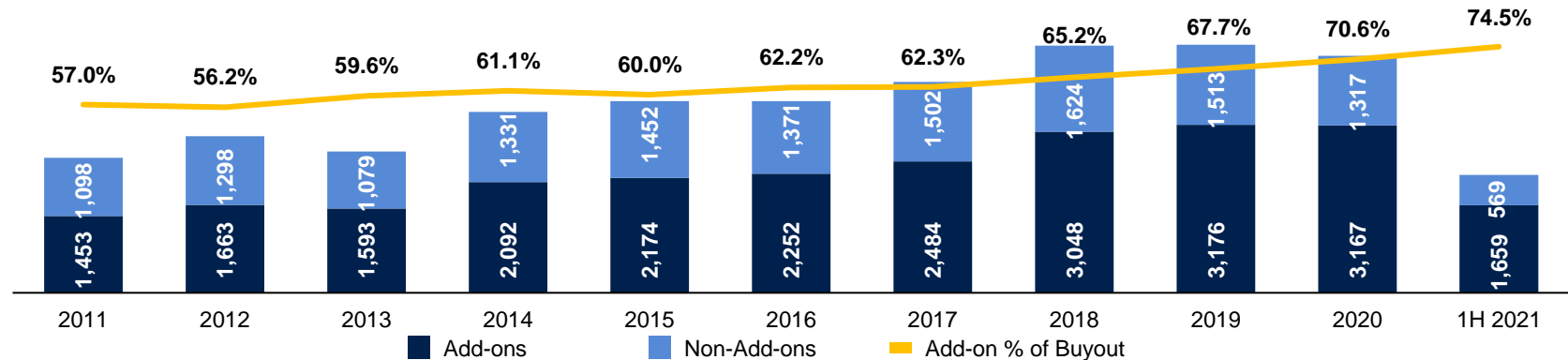
Defined by the highest opportunity set coupled with the lowest capital allocation⁽¹⁾



Other Notable Private Equity Trends

Add-On Acquisitions Fuel Growth⁽¹⁾

- GPs have recently expressed a willingness to pay up for companies and then pursue add-on acquisitions in order to average down their valuation basis
- A high inorganic growth strategy has become essential for private equity firms making aggressive bids to win competitive deals



Secondary Transactions and Continuation Vehicles⁽¹⁾⁽²⁾

- GP-led secondary transactions present an avenue for LPs to be involved in long-term compounding gains without committing to a traditional long-dated fund, but come at the expense of the original limited partners in the Fund
- The types of assets purchased by continuation funds vary, including companies with similar risk/return profiles to what a typical PE firm's core fund might target
- This trend is now prevalent amongst very high-quality "trophy assets" within portfolios and GP's want to continue to invest in assets that have performed very well and maintain a prospective outlook

Other Notable Trends⁽¹⁾

- **ESG:** Continued emphasis is being placed on ESG and social impact investing amongst PE firms with 88% of LPs globally using ESG performance indicators when making investment decisions
- **GP Investments:** Investments in management companies continue to see substantial activity, accelerating from historical investment levels in 2019



DavidsonKempner

Capital Management LP

October 7, 2021

SJCERA Annual Investment Roundtable



520 Madison Avenue New York, NY 10022	1 New Burlington Place London W1S 2HR	1501 15/F, LHT Tower 31 Queen's Road Central Central, Hong Kong	47-49 St. Stephen's Green Dublin 2, D02 W634	30 South 17th Street Suite 1301 Philadelphia, PA 19103	Suit 1403, Level 14, Taiping Finance Tower, No. 6001, Yitian Road Futian District, Shenzhen, China 518000
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Executive Summary

- Given the rally since last year's COVID dislocation, today we believe the most interesting opportunities are in less liquid and/or longer-duration distressed investments and situations resulting from capital dislocations.
- We continue to seek opportunities arising from motivated sellers in both private and public markets, diversified across investment types, industries and geographies.
- There are many companies, sectors, and geographies that are perceived to be challenged or out of favor where we believe we can acquire high-quality assets with intrinsic value that is overlooked or underappreciated by other investors.
- **Corporate Investments:**
 - We see opportunities to invest in sound businesses with weak balance sheets, stressed or distressed companies impacted by cyclical factors and market downturns (e.g., Covid-19) and companies involved in restructurings and recapitalizations.
 - We believe there are opportunities provide flexible or tailored capital solutions to companies with debt and/or structured equity.
- **Real Estate:**
 - We have been seeing interesting opportunities to assemble portfolios of what we believe to be high-quality assets at a discount to expected platform value, with potential equity upside in operating companies.
 - Despite the rally since last year's COVID dislocation, we have been seeing opportunities to invest in distressed or under-managed assets in sectors likely to benefit from post-pandemic growth, including commercial real-estate related companies in public markets.
 - We continue to see opportunities to recapitalize assets and/or companies by acquiring debt and converting to equity and optimizing capital structures.
- **Structured Products:**
 - We believe that primary opportunities exist to provide non-bank lending and alternative capital to corporate borrowers as banks de-lever due to regulatory pressures.
 - We are also investing in alternative asset lending and/or specialty asset loans (e.g., consumer loans, solar loans, trade receivables, point-of-sale loans, auto loans, student loans and bank SRT transactions), including purchasing loans on a forward-flow basis from platforms in search of stable capital.
 - Since it has been more cumbersome for certain corporations to access traditional forms of capital, we have seen opportunities to provide asset-backed structured credit solutions for corporations seeking structural solutions for financing on balance sheets.

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Corporates: Opportunity Set and Outlook⁽¹⁾

Given the recovery following the initial COVID dislocation, the opportunities we are seeing in corporates across the globe today rely on structuring tailored solutions to meet companies' needs.

Opportunity

Stressed & Distressed

- Investing in or providing capital to:
 - Sound businesses with weak balance sheets
 - Stressed or distressed businesses impacted by cyclical factors and/or market downturns, including Covid-19
 - Companies involved in restructurings, bankruptcy processes or out of court recapitalizations

Private Equity Special Situations & Capital Dislocation

- Providing flexible or tailored capital solutions to companies with debt and/or structured equity
- Funding acquisitions or financing development projects or growth companies, particularly in times of capital dislocation or deficiency

Litigations & Other Opportunities

- Litigation finance or other related transactions
- Liquidation and insolvency claims
- Acquiring assets or financing businesses from bankruptcy or insolvency processes

1. The Firm makes no guarantee that similar investment opportunities will become available to Davidson Kempner funds in the future. Even if similar investments do become available, the Firm makes no guarantee that Davidson Kempner funds will invest in some or all of such opportunities.

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Real Estate: Opportunity Set and Outlook⁽¹⁾

The opportunity set in real estate has been robust across regions and product types, with public market signals driving several key investment themes, providing what we anticipate will be a robust future pipeline of investments.



1. The Firm makes no guarantee that similar investment opportunities will become available to Davidson Kempner funds in the future. Even if similar investments do become available, the Firm makes no guarantee that Davidson Kempner funds will invest in some or all of such opportunities.

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Structured Products: Opportunity Set and Outlook⁽¹⁾

Given the rebound across secondary markets globally, we are currently finding attractive opportunities in the primary markets and alternative asset lending.

Opportunity

Primary Opportunities

- We expect that banks will continue to sell down assets across the globe as regulatory pressure remains
- We believe there will be substantial growth in lending by non-bank institutions across asset classes as traditional banks continue to de-lever and corporate borrowers look to alternative sources of capital to satisfy increasing funding needs and requirements

Secondary Opportunities

- Spreads in most of the tradable securitized product universe have stabilized after a volatile 2020 (trade wars, Brexit, U.S. elections, Covid-19), and many liquid markets are now trading below our target yields
- DK's involvement in the market continues to be opportunistic and tactical, looking at fringe markets, market dislocations and seeking to identify ways to use structural nuances to create attractive returns

Alternative Asset Lending

- In the specialty asset space, we see increasing opportunities to buy loans on a forward-flow basis from platforms in search of stable capital
- We believe compelling opportunities may be found in consumer loans, solar loans, trade receivables, point-of-sale loans, auto loans, student loans and bank SRT transactions

Leveraging the DK Platform

- We expect to continue to act as a sponsor, utilizing our resources to take advantage of a robust pipeline of opportunities across the globe
 - The investment team is supported by the Firm's comprehensive infrastructure that includes Risk Management, Quantitative Research, Investment Research, Finance, Operations, Treasury, Legal, Compliance, Asset Management, Information Technology, Human Resources and Client Service departments
- We expect that corporations will continue to seek structural solutions for financing on balance sheets through asset backed structured credit
- Since 2019, DK funds have completed 25 securitizations across the U.S. and Europe

1. The Firm makes no guarantee that similar investment opportunities will become available to Davidson Kempner funds in the future. Even if similar investments do become available, the Firm makes no guarantee that Davidson Kempner funds will invest in some or all of such opportunities.

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Appendix

Partnership Highlights

The senior management team's significant investment in the Firm's strategies, together with its compensation structure, promotes strong alignment of interests with the Firm's limited partners.

The Firm is
100%
privately owned by
its Managing Members with
no external shareholders.⁽¹⁾

Ownership is redistributed
every other year and,
combined, no two Managing
Members own more than
50%
of the Firm.

The 13 active Managing
Members, as a group, comprise
the Firm's largest investor and
together with retired partners
have over
\$2.9bn
invested.⁽²⁾

The combined experience of the
active Managing Members is
more than 200 years and their
average tenure at the Firm is
approximately 17 years.

The Firm has successfully
transitioned through the
retirement of eight Managing
Members, including its
founders, Marvin Davidson and
Tom Kempner.

Managing Directors and
Principals participate in the
Firm's profits, bringing total
profit participation to
approximately
27%
of personnel.

1. For purposes of this presentation, the Firm's active "Managing Members" refers to the 10 Managing Members of DKCM and 3 Partners of DKEP. In addition to the Managing Members, members of their immediate families, and trusts or other entities for their benefit and certain retired partners participating in the Firm's retirement plan also own a passive interest in the Firm.

2. As of January 1, 2021.

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Davidson Kempner Fund Offerings

2A

Multi-Strategy Funds

Davidson Kempner Partners

Davidson Kempner Institutional Partners, L.P.

Davidson Kempner International (BVI), Ltd.

Inception

April 1987

January 1991

September 1995

Approximate Assets

\$4.37 billion

\$9.31 billion

\$10.53 billion

Distressed Opportunities Funds

Davidson Kempner Distressed Opportunities Fund LP

Davidson Kempner Distressed Opportunities International (Cayman) Ltd.

Inception

April 2005

April 2005

Approximate Assets

\$1.57 billion

\$2.53 billion

Long-Term Distressed Opportunities Funds

Davidson Kempner Long-term Distressed Opportunities Funds

Davidson Kempner Long-term Distressed Opportunities Funds II

Davidson Kempner Long-term Distressed Opportunities Funds III

Davidson Kempner Long-term Distressed Opportunities Funds IV

Davidson Kempner Long-Term Distressed Opportunities Funds V

Inception

July 2011

February 2013

December 2014

August 2017

August 2019

Capital Commitments

\$462.4 million

\$805.4 million

\$1.30 billion

\$1.76 billion

\$3.11 billion

Special Opportunities Funds⁽¹⁾

Davidson Kempner Special Opportunities Funds II

Davidson Kempner Special Opportunities Funds III

Davidson Kempner Special Opportunities Funds IV

Inception

July 2014

August 2015

July 2017

Capital Commitments

\$800.0 million

\$1.04 billion

\$709.5 million

Income Funds

Davidson Kempner Income Funds

Inception

July 2021

Capital Commitments

\$643.2 million⁽²⁾

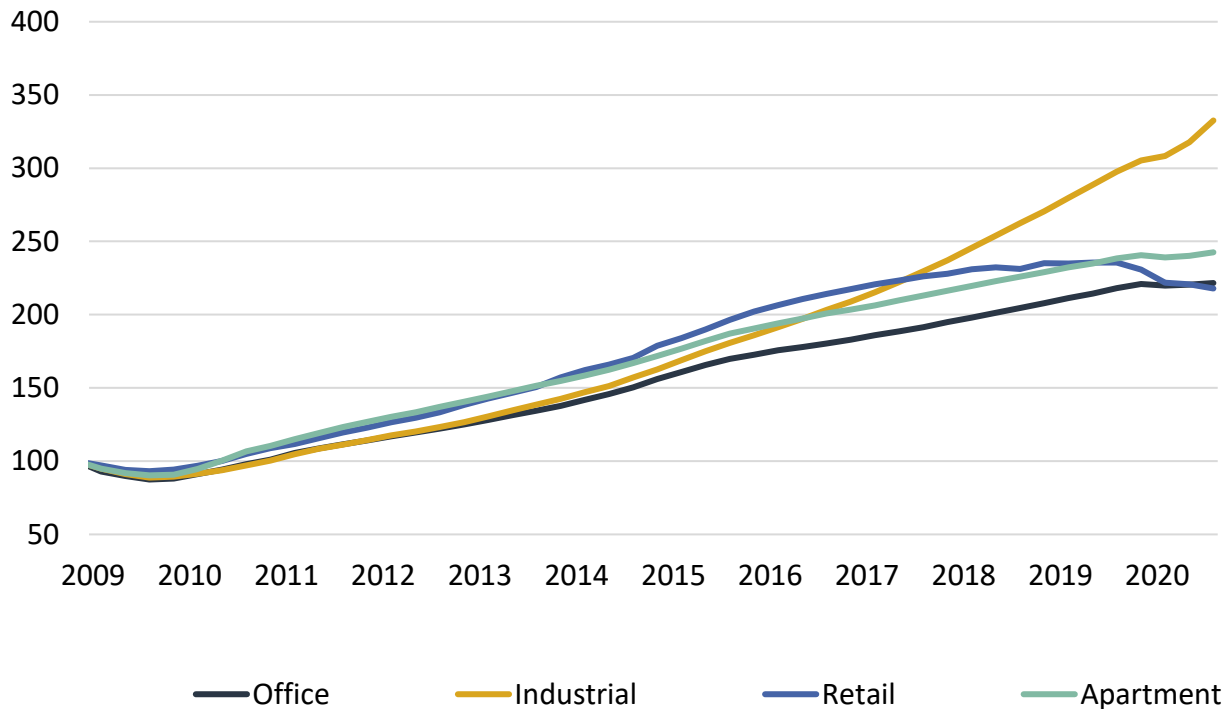
1. Davidson Kempner Special Opportunities Fund I launched in August 2013 with aggregate capital commitments of approximately \$150.6 million and was dissolved in 2019. Davidson Kempner Special Opportunities Funds III-A launched in July 2016 with aggregate capital commitments of approximately £109.3 million and was dissolved in 2020.

2. Reflects aggregate capital commitments as of September 24, 2021, the date of the third closing.

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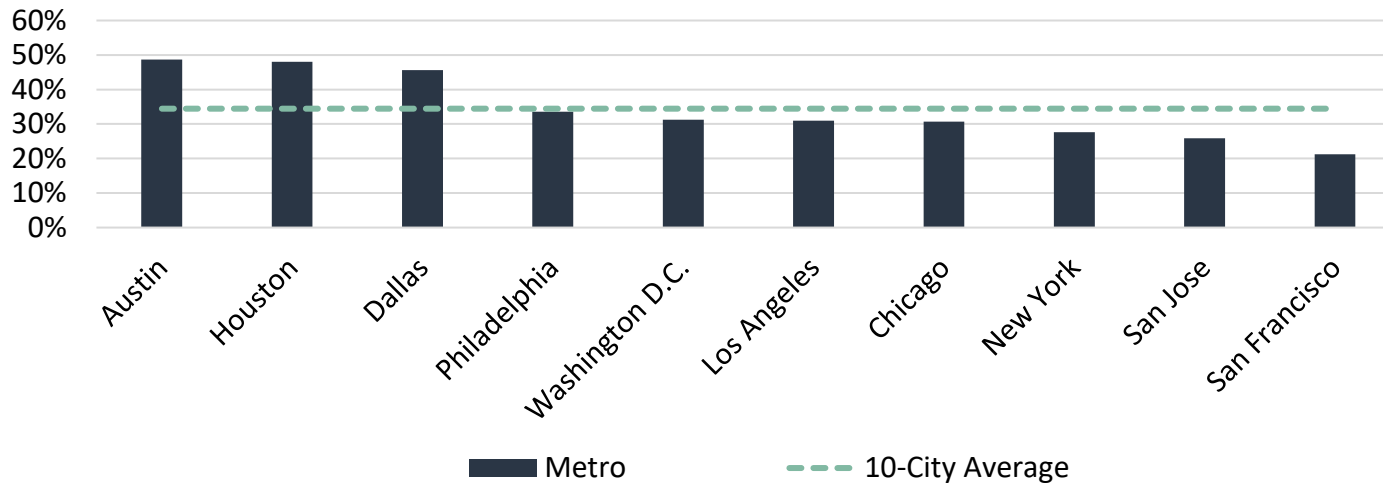
- **Velocity of capital**, consumption, and information materially impacting space utilization and valuations
- **Demographic shifts** affecting regions disproportionately, impacting inflationary forces such as workforce availability and thereby space utilization and inventory across asset types
- **Globalization** while under pressure from populism, as well as polarization between regional powers, globalization is not going away. However, desire to shorten and secure existing supply chains, changing trade flows, knowledge transfer and friction cost will be meaningful
- **Valuations** are up to stable to up with the exception of retail-Exhibit 1

NCREIF Total Return Indices (1Q 2009 = 100) - Exhibit 1



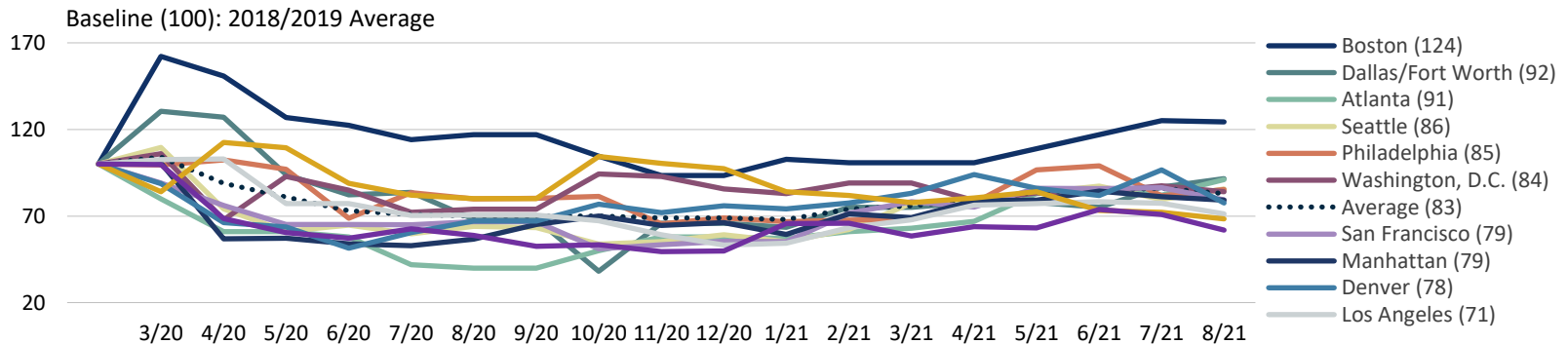
- In- spite of sub 40% occupancy across most offices markets, tenant inquiry anticipating higher stabilized occupancy

**Percent of Employees Back in the Office
Metro Comparison, as of September 22, 2021 - Exhibit 2**



Source: Kastle Access Control System data. Data from September 22, 2021

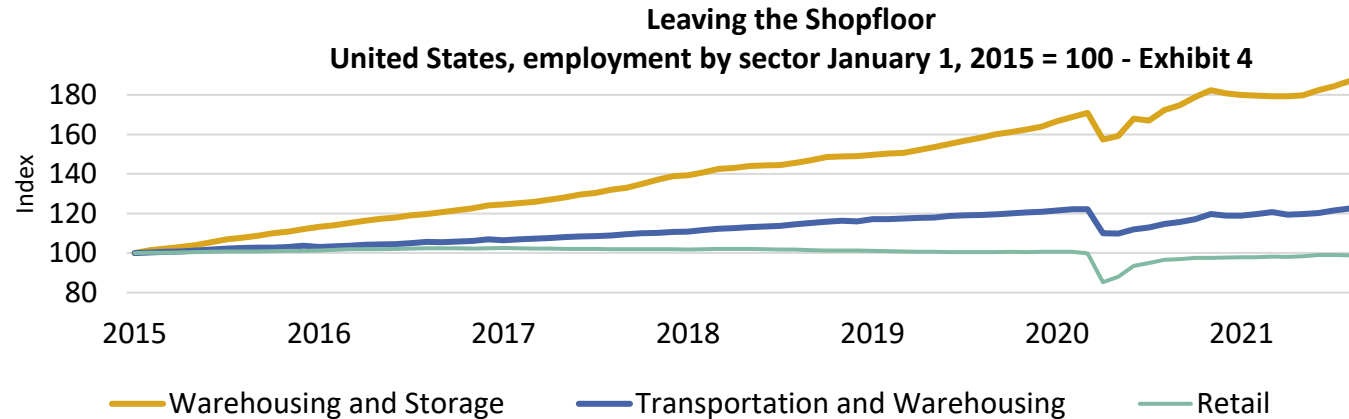
August Tenants in the Market Indexed SF of Tenant Requirements Compared to 2018/2019 Average – Exhibit 3



Source: CBRE Research, August 21

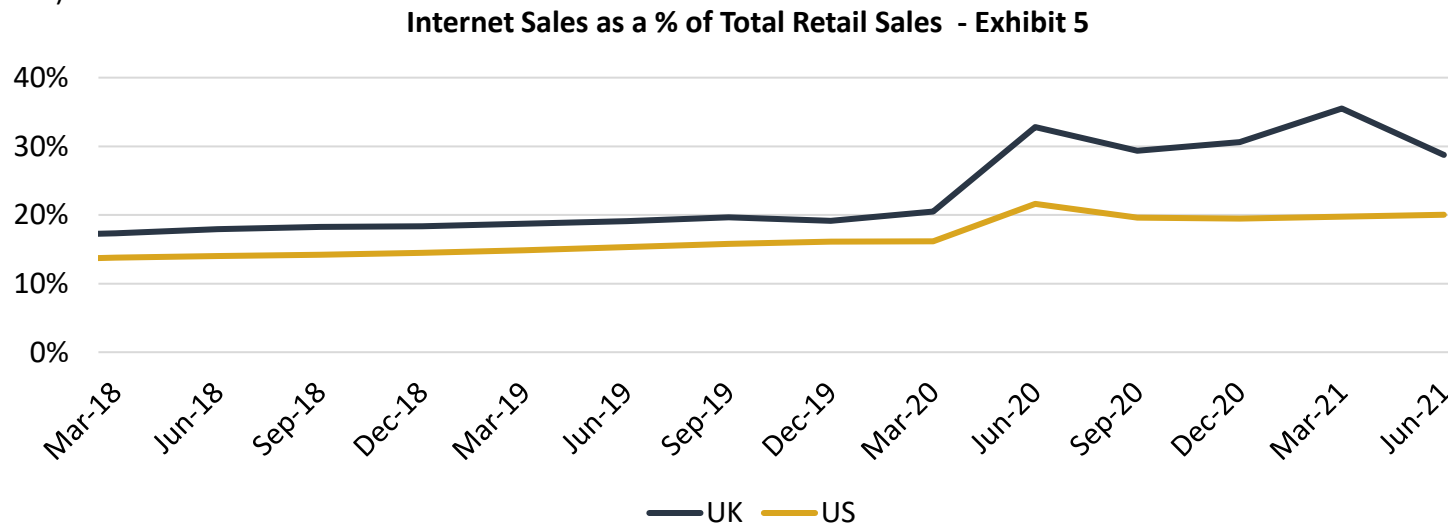


- Technological Revolution has impacted the entire employment spectrum but particularly acute in demise of brick-and-mortar retail and rise of online fulfilment (Exhibit 4)



Source: Federal Reserve

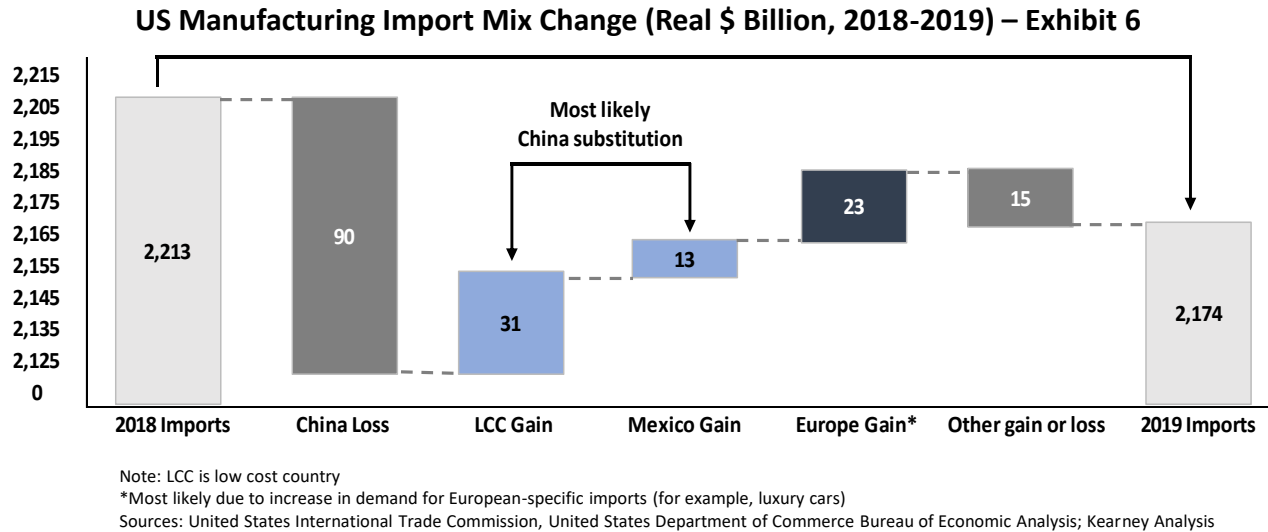
- While on-line sales receding from Covid high still meaningful and well below closest modern economy indicating room to grow (Exhibit 5)



Source: Macrobond, Eurostat, US Census, CBRE Research

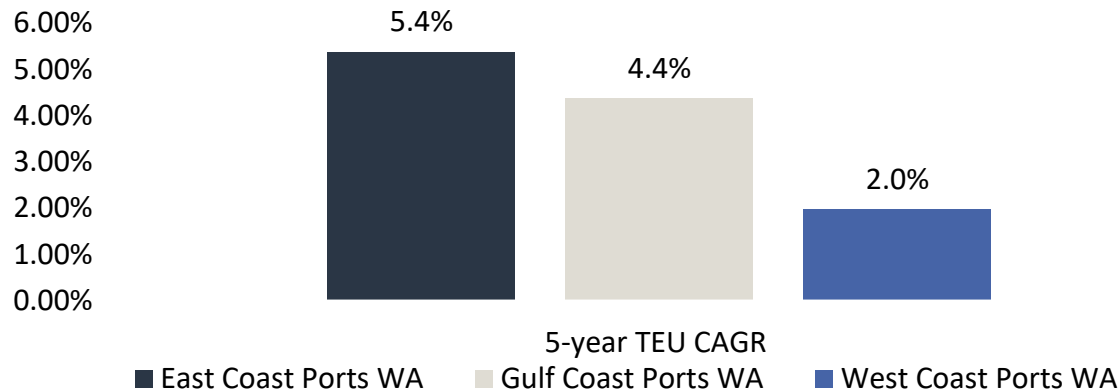


- COVID and Trade have exacerbated relations with China, but supply chains were adjusting pre-COVID to other alternatives (Exhibit 6)



- Resulting changes shifting ports of Import and Export and thereby associated Real Estate to process and breakdown goods (Exhibit 7)

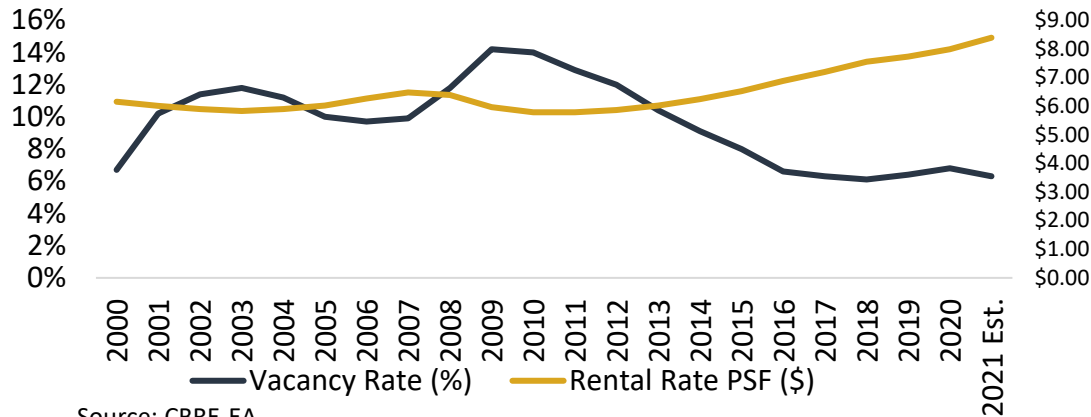
5-Year CAGR for Top 30 US Ports based on TEUs as of 2020 - Exhibit 7



Market Conditions: Industrial

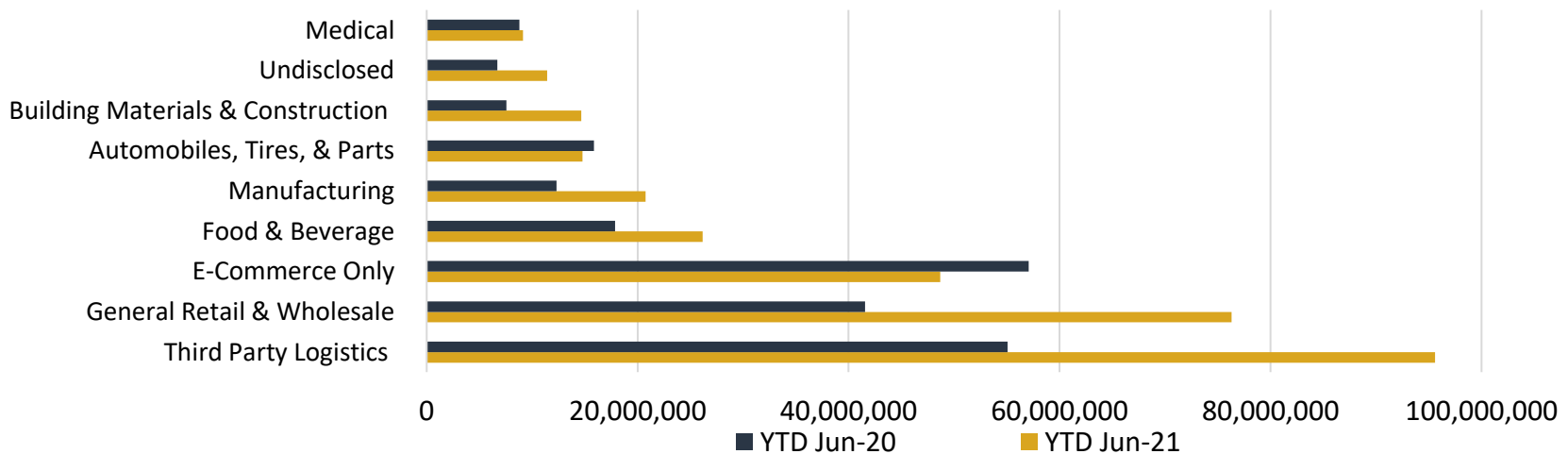
- Macro conditions have resulted in **record run on rents** and historically low vacancy (Exhibit 8)

Historical Industrial Statistics: Vacancy & Rental Rates – Exhibit 8



- While close to 200M SF under construction demand continues to be strong with **YTD 2Q 2021 Bulk Transaction activity at 318M SF which has already outstripped 2020 activity (223M SF) by 43%** with increases almost across the board (Exhibit 9)

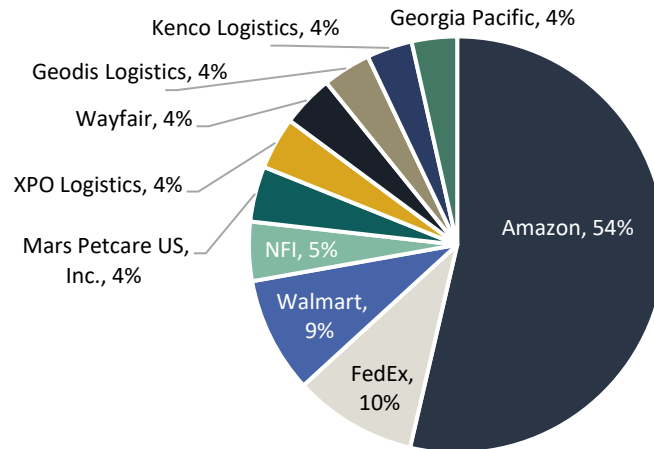
YTD Bulk Transactions by Occupier Type - Exhibit 9



Market Opportunity: Industrial

- Real Estate costs reflect 3%-6% of logistical spend, **while Labor is 15%-25%** therefore, far more impactful to a distributors margin at a time where labor is much harder to come by
- Largest occupiers will be looking for **modern and efficient space** (Exhibit 10)

Jun-21 YTD Top 10 Occupiers of Industrial Space - Exhibit 10

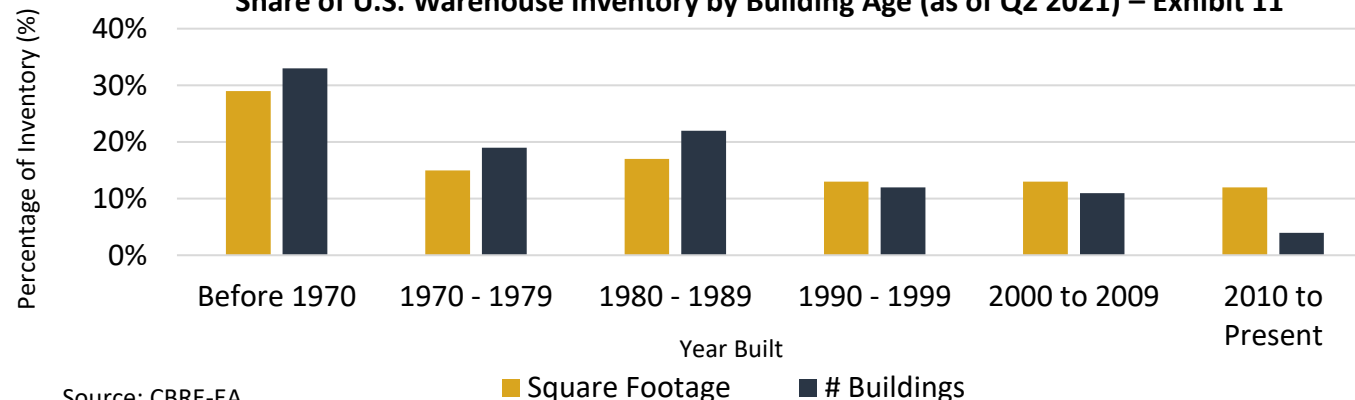


Note: Includes new leases and renewals for transactions 100,000 sq. ft. and above from 1/1 to 6/30

Source: CBRE Research

- Strong demand in the face of significant obsolescence in existing stock **where average age of warehouse in US is approximately 35 years** with much of it located outside of current distribution nodes and adequate labor base (Exhibit 11)

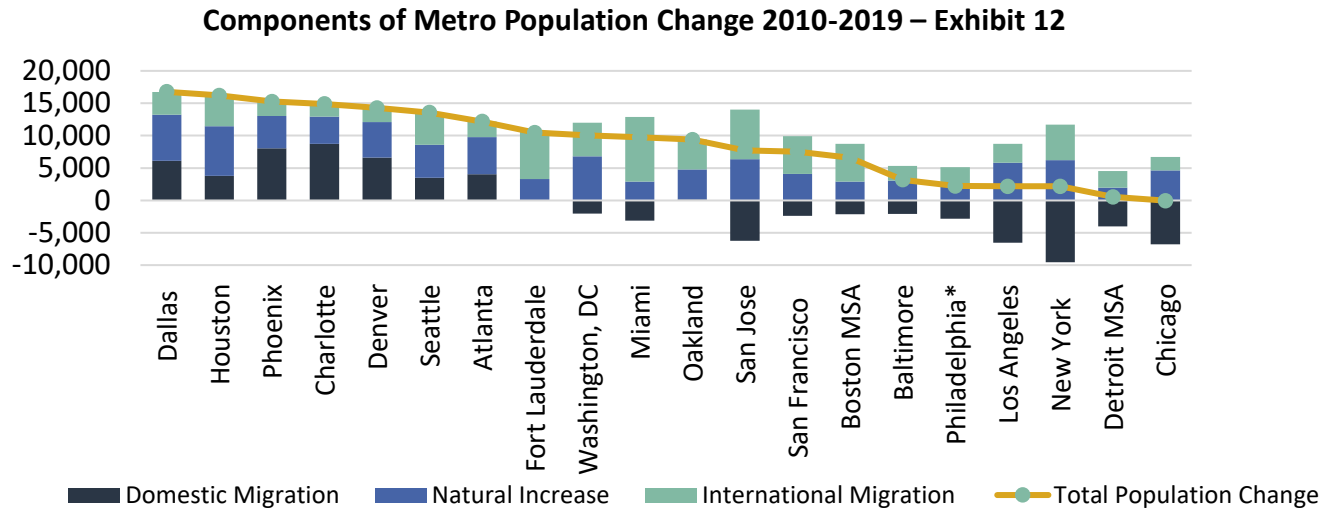
Share of U.S. Warehouse Inventory by Building Age (as of Q2 2021) – Exhibit 11



Source: CBRE-EA

Macro View: Residential

- Population changes in most Urban Metros over the last decade consist of higher-earning individuals, international migration with significant domestic out-migration for those who simply can't afford it. Well hyped demographic shift matters **but who is moving matters** (Exhibit 12) as each group has different purchasing power and space needs

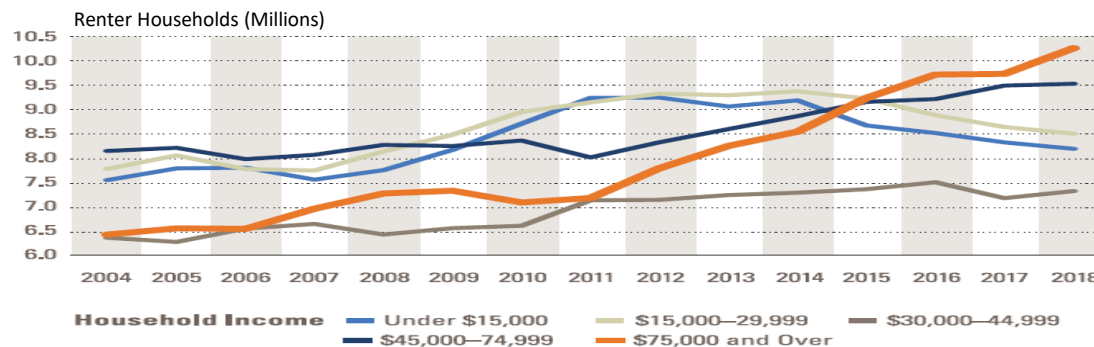


Source: US Census, CBRE-EA

Philadelphia* includes Philadelphia proper, Bucks/Montgomery Counties and Camden, NJ metro divisions

- Increased participation by **higher wage earners as renters** further pressuring affordability (Exhibit 13)

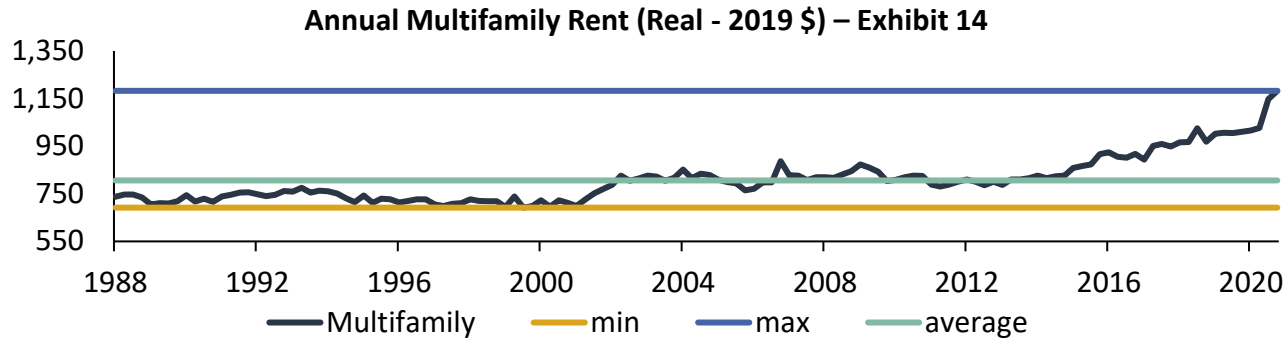
High-Income Households Have Become a Much Larger Segment of the Rental Market – Exhibit 13



Note: Household incomes are adjusted for inflation using the CPI-U for all items.

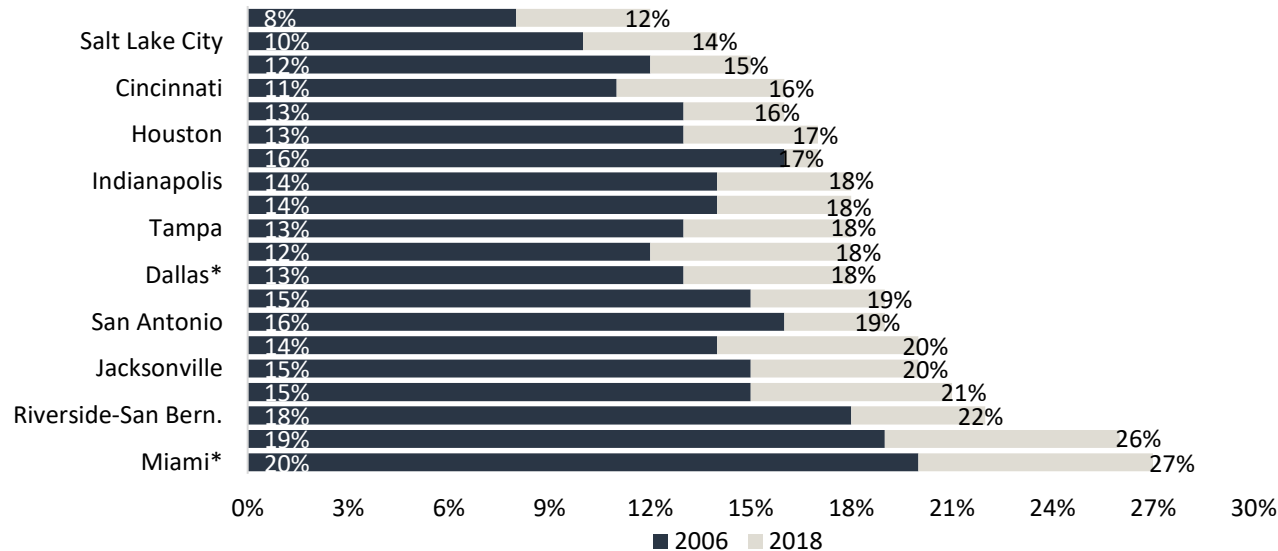
Source: JCHS tabulations of US Census Bureau, American Community Survey 1-Year Estimates, John Burns Real Estate Consulting, LLC smoothing of Moody's Analytics data.

- Even post-COVID **fourth quarter 2020 rents stood at \$1,182 which is 47% above the mean** and a record high (Exhibit 14)



- Difficult development environment in urban markets coupled with significant demand has increased **acceptance of Single-Family Rental** currently **~12% of housing stock but only 2% institutionally owned** (Exhibit 15)

Single-Family Rental Homes as a Percentage of All Occupied Single-Family Homes - Exhibit 15



Includes attached and detached homes

*Metropolitan division, **Combination of metropolitan divisions.

Source: U.S. Census Bureau, John Burns Real Estate Consulting, LLC.

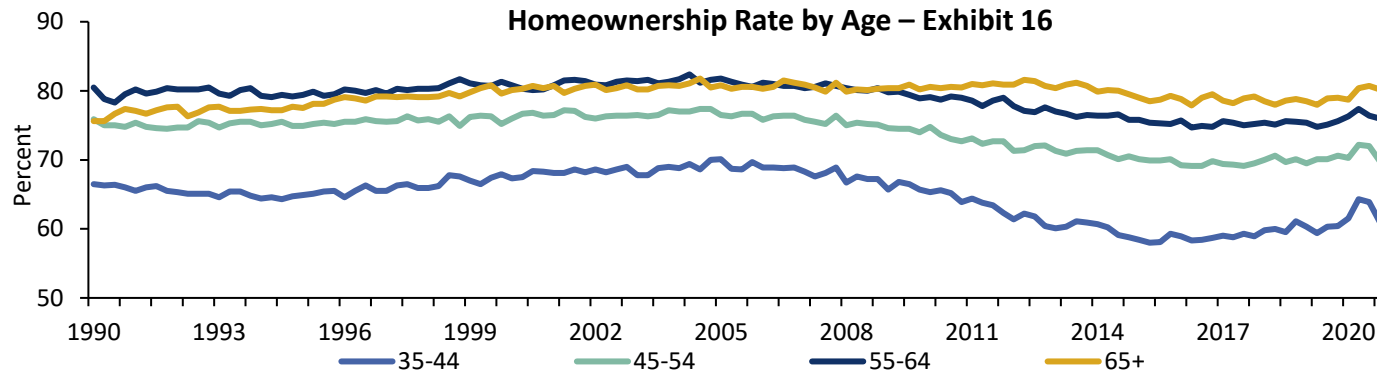
1. No data for Rockwall County (Dallas, TX MSA)

2. No data for Grundy County (Chicago, IL MSA)



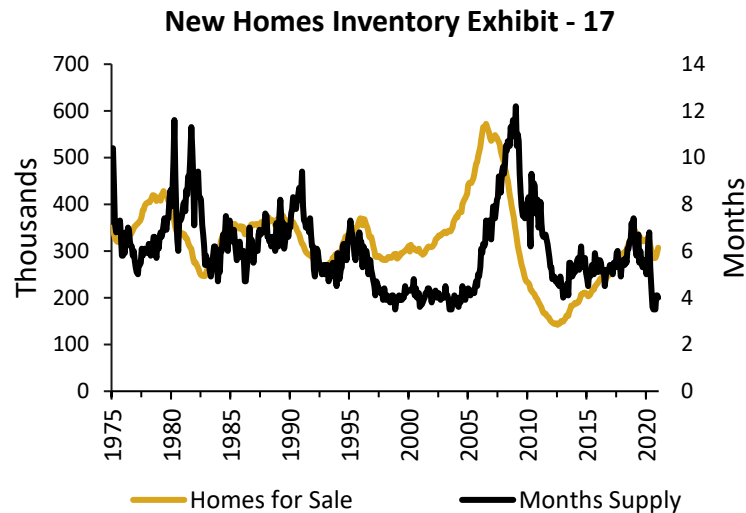
Market Opportunity: Residential

- COVID homebuying spike is abating, however, **homeownership has been trending upward to steady** across all age cohorts (Exhibit 16)

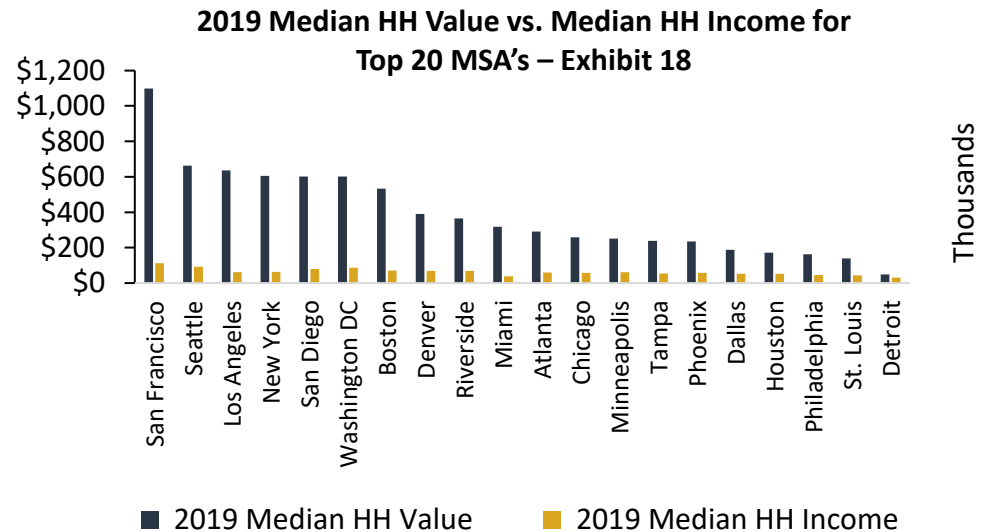


Source: The Linneman Letter

- New home inventory at a record low** (Exhibit 17)
- In a market where **home prices were already far outstripping income** in top 20 MSA's (Exhibit 18)



Source: The Linneman Letter



Source: US Census



Preparing your portfolio for inflation

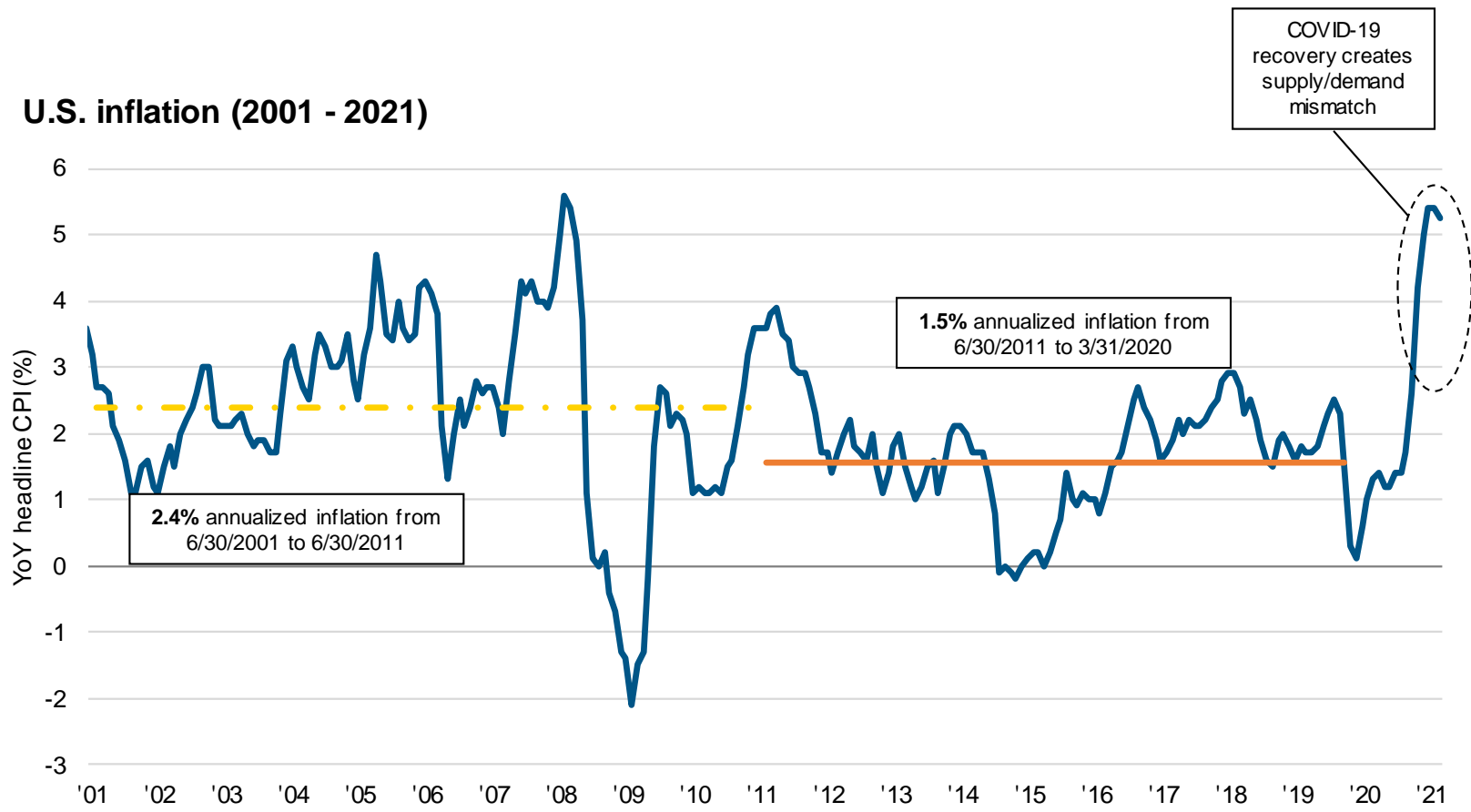
SJCERA

October 2021

IMPORTANT NOTICE

Please note that the following contains the opinions of the manager as of the date noted, and may not have been updated to reflect real time market developments. All opinions are subject to change without notice.

With the “transitory” COVID exception, inflation has been “dead” for 10-years

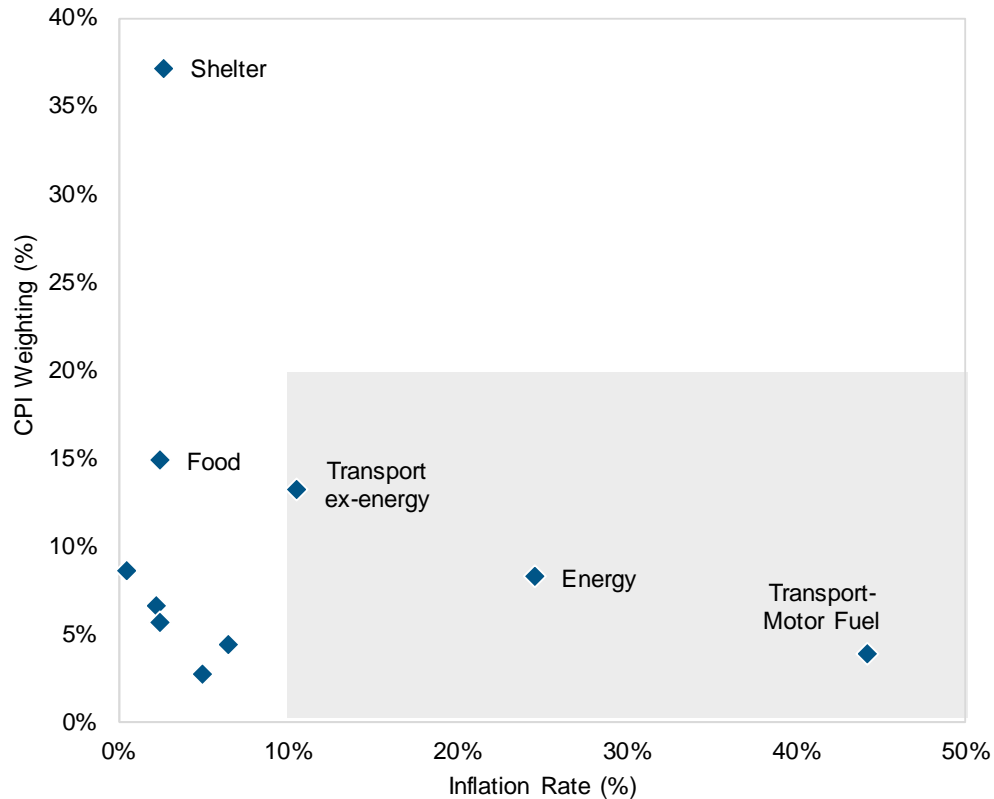


As of 31 August 2021.
SOURCE: PIMCO, Bloomberg.
Refer to Disclosures for additional outlook and risk information.

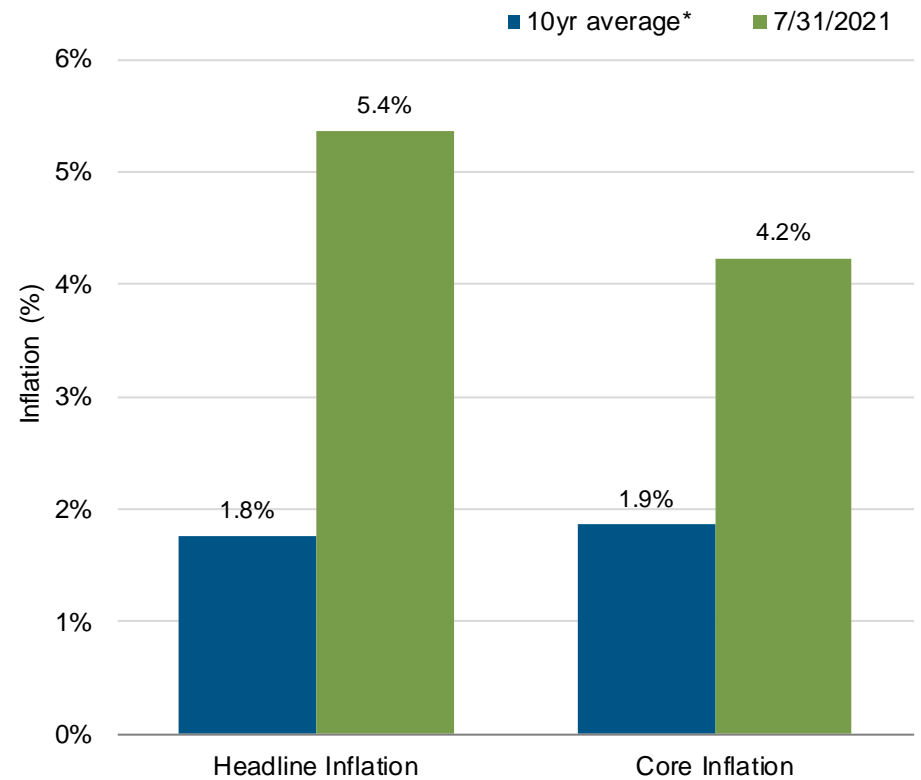
A closer look at recent price trends

U.S. inflation is not broad-based: price surges in select pockets of the economy are driving headline and core CPI higher

U.S. - June Inflation Reading by Category & Weighting, % YoY



Inflation in context: Now vs. the 10 years before Covid

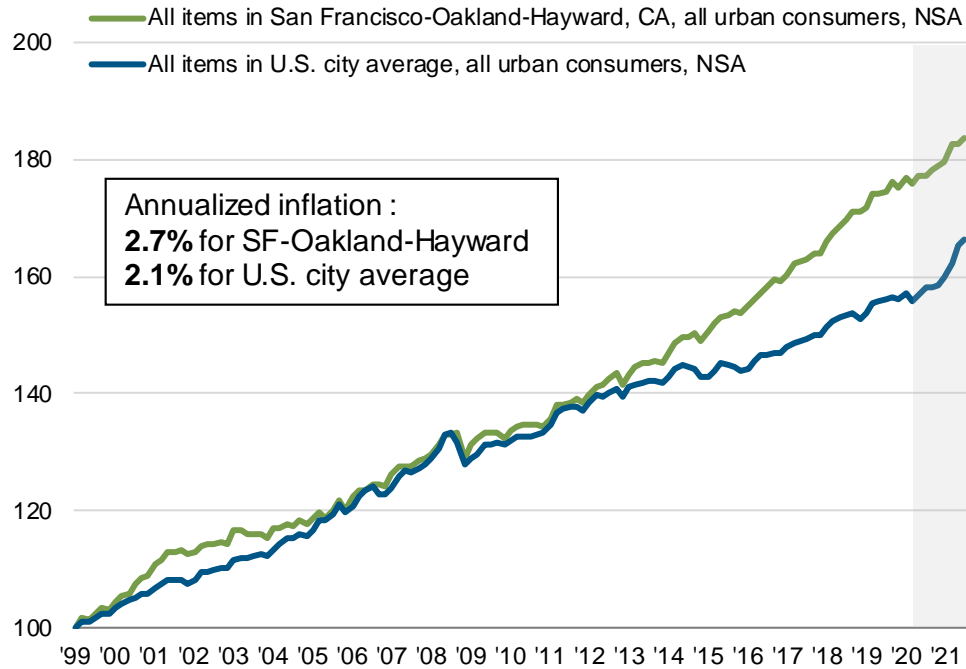


LHS as of 30 June 2021. RHS as of 31 July 2021. SOURCE: PIMCO.

* Calculated based on rolling annual CPI by month from 31 March 2010 to 31 March 2020.

A recent slowdown in SF housing price increases pressured regional headline inflation

Price growth of a \$100 consumption basket



CPI category relative weights	San Francisco-Oakland-Hayward	U.S. City Average
Food and beverages	14.2%	14.9%
Housing	53.2%	41.6%
Apparel	1.9%	2.7%
Transportation	10.4%	16.9%
Medical care	6.2%	8.6%
Recreation	4.4%	5.7%
Education and communication	7.1%	6.6%
Other	2.7%	3.1%

Takeaways:

- Prior to Covid, the San Francisco-Oakland-Hayward area has experienced much higher inflation than the national average
- The pandemic had a disproportionately bigger impact in depressing urban inflation in the San Francisco area
 - Annual housing inflation declined from 3.25% in December 2019 to 2.27% in December 2020

As of 31 August 2021. Source: BLS, Haver.

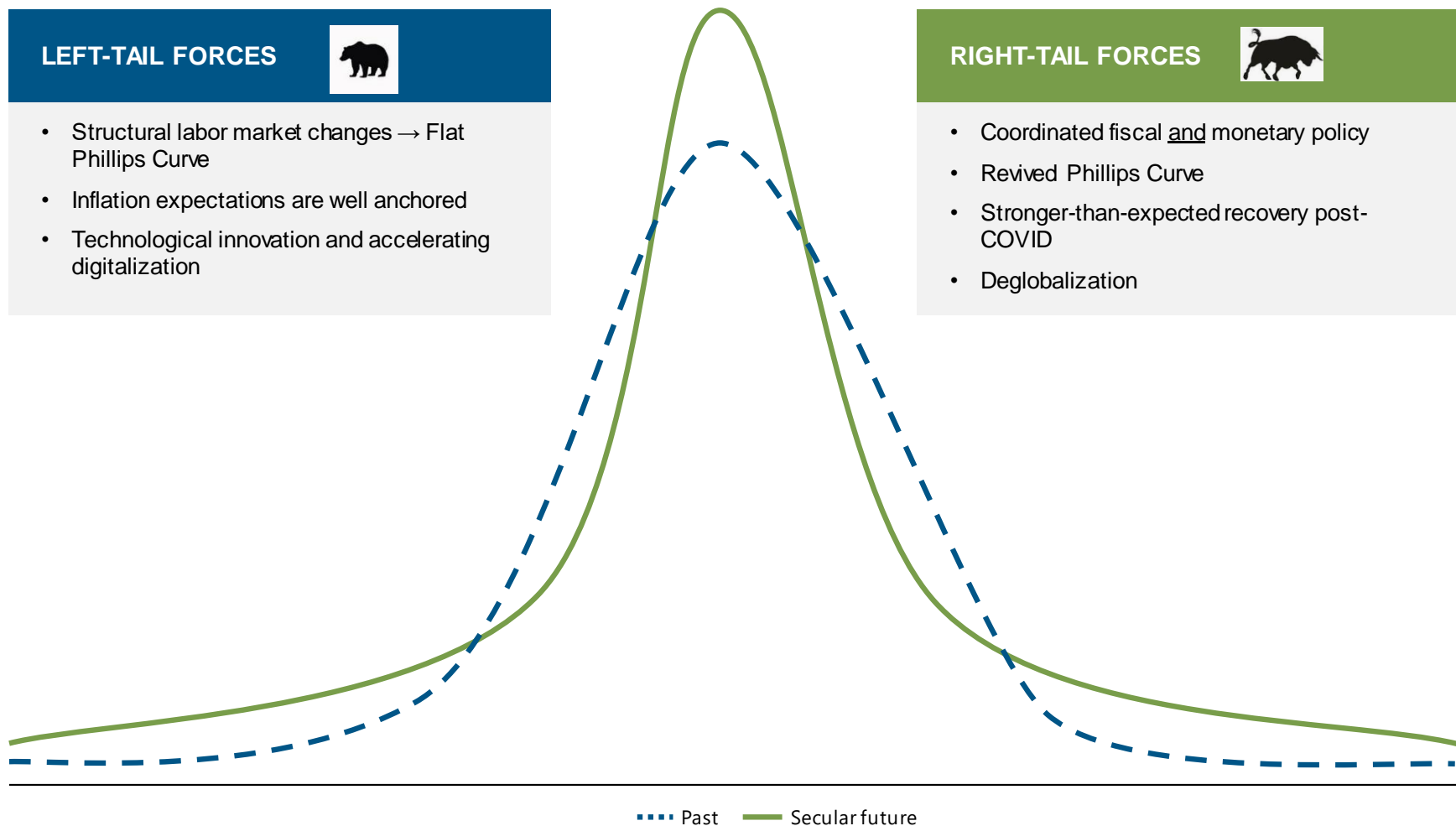
Secular inflation outlook: Fatter long-term left- and right-tail risks

LEFT-TAIL FORCES

- Structural labor market changes → Flat Phillips Curve
- Inflation expectations are well anchored
- Technological innovation and accelerating digitalization

RIGHT-TAIL FORCES

- Coordinated fiscal and monetary policy
- Revived Phillips Curve
- Stronger-than-expected recovery post-COVID
- Deglobalization



For illustrative purposes only.

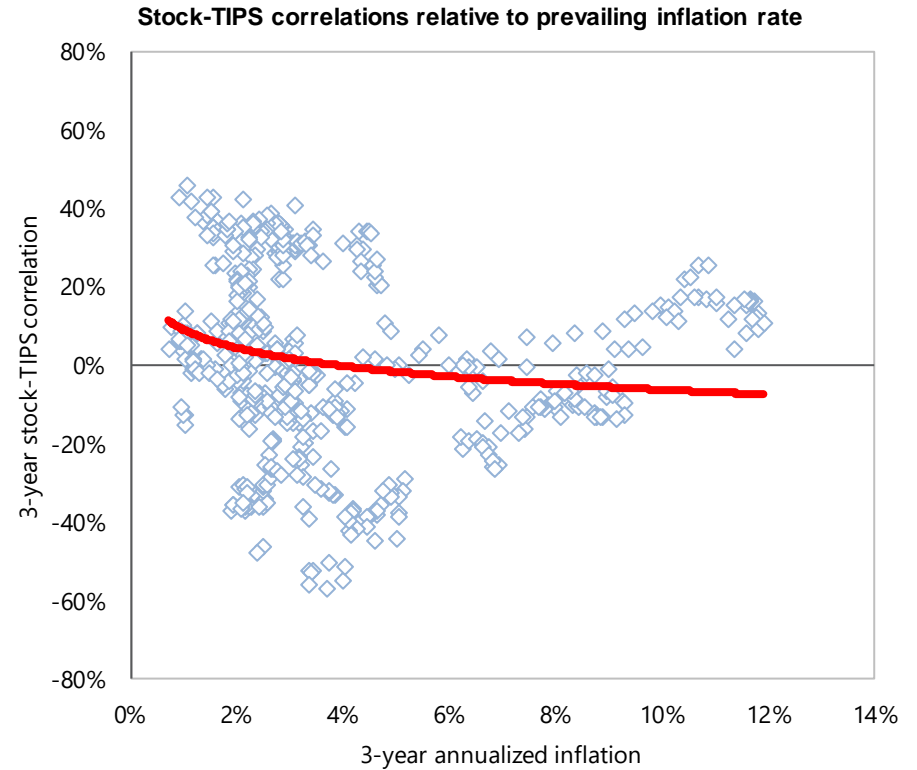
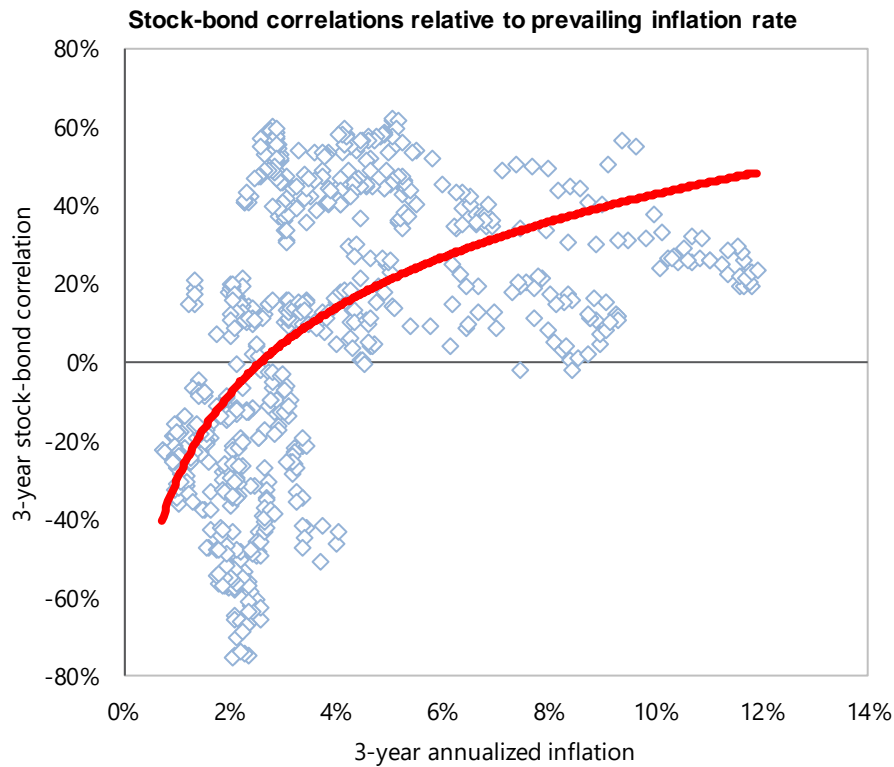
As of 30 June 2021.

SOURCE: PIMCO

Refer to Appendix for additional forecast, outlook and risk information.

Why real assets?

Strong diversification and inflation hedging benefits



As of 31 December 2020

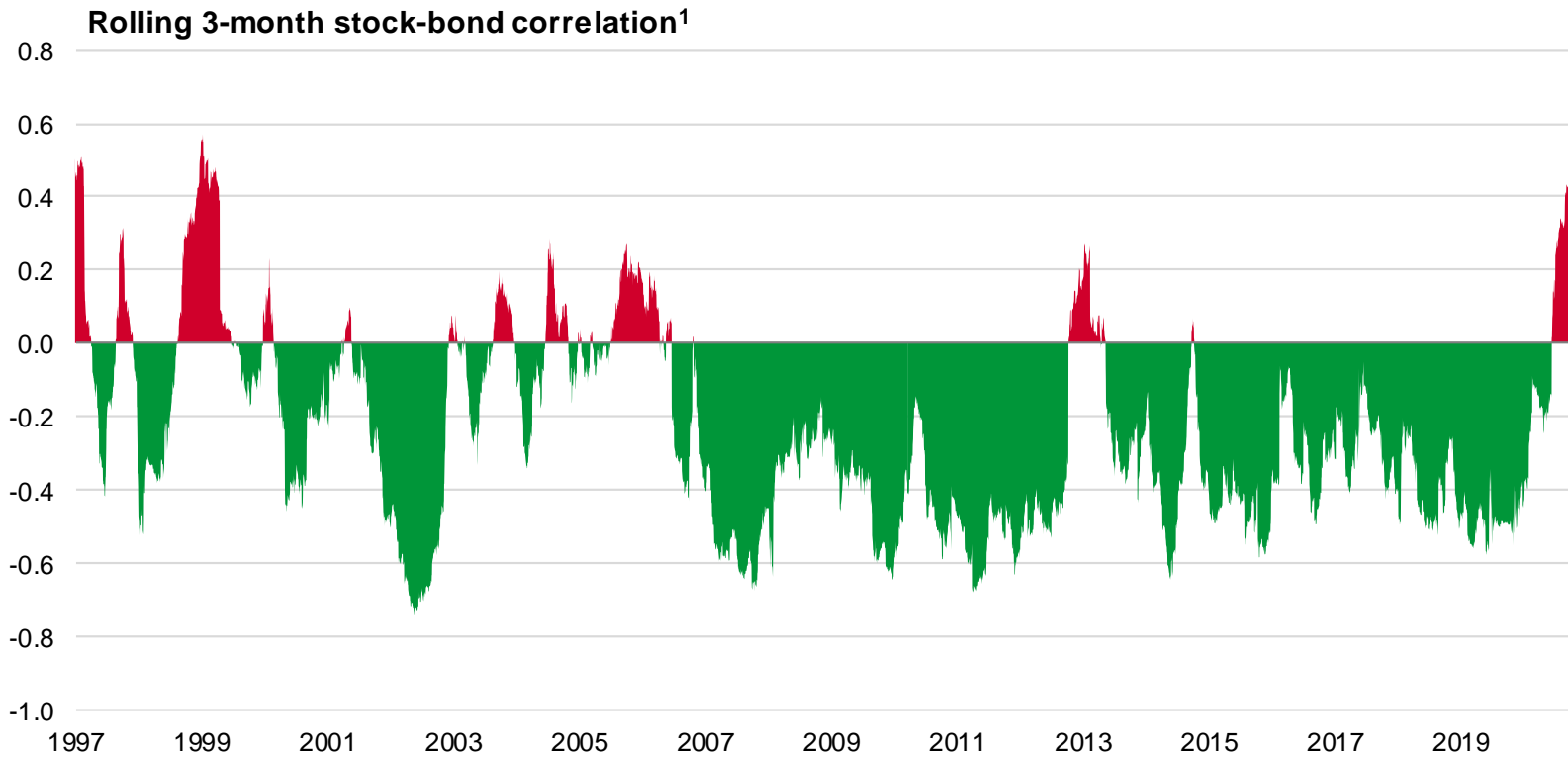
SOURCE: PIMCO, Haver, Federal Reserve Bank of New York, "Stocks, Bonds and Causality" (Baz, Sapra, Ramirez)

Stocks represented by the S&P 500 Index, bonds represented by 10-year U.S. Treasuries, TIPS represented by simulated 10-year U.S. TIPS, inflation represented by the U.S. Consumer Price Index

Refer to Appendix for additional correlation, index, and risk information.

Stock-bond correlation is at its highest level since late 90s

Treasuries' role as a hedge against risky assets has eroded amid inflation concerns



As of 30 June 2021. Source: PIMCO.

¹ Stocks are proxied by E-mini S&P 500 Futures. Bonds are proxied by 10-year US Treasury Note Futures. Refer to Appendix for additional correlation, index and risk information.

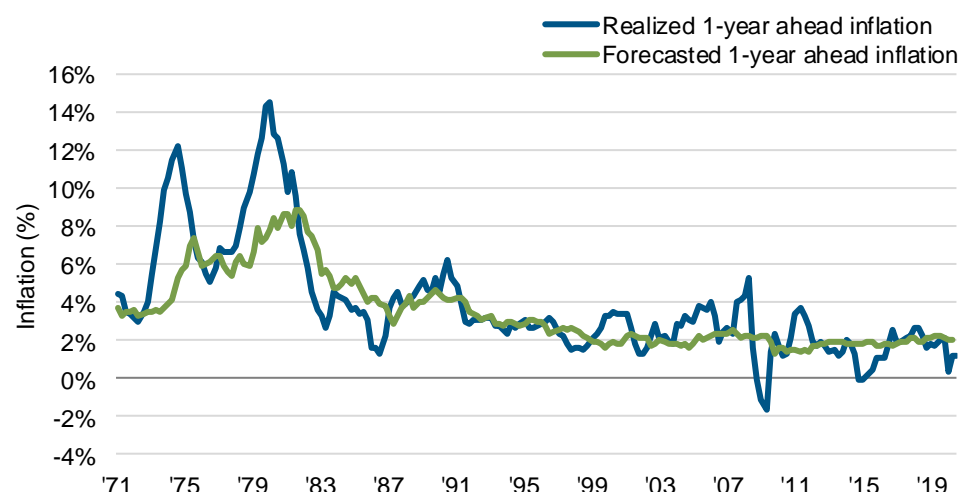
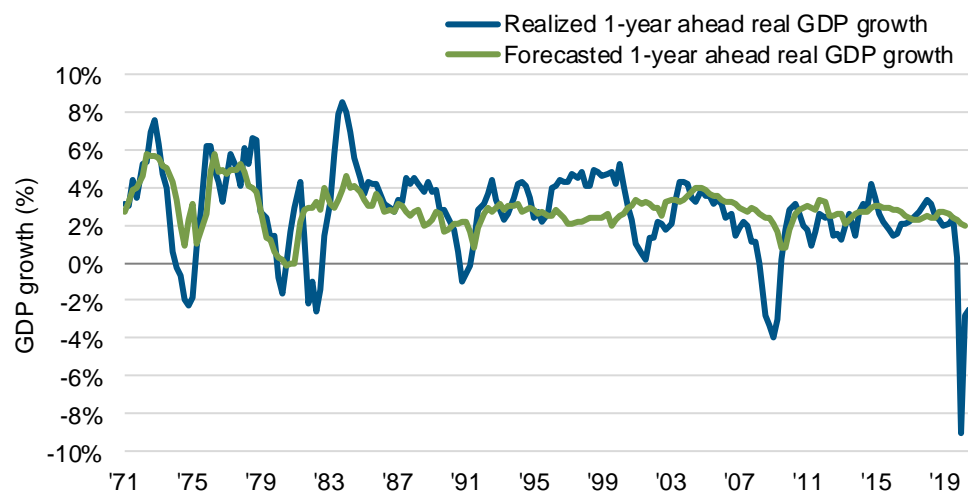
US Inflation Beta Framework

Using 50 years of history to analyze the impact of growth and inflation surprises

We compare various risk factors return against historical surprises vs. expectations for inflation and growth

- Analyzed nearly 50 years of historical inflation and GDP data
- Looked at impact of inflation surprises and growth surprises
 - Growth surprised equally on the up and down side
 - Inflation surprised more to the upside

% of sample	NEGATIVE growth surprises	POSITIVE growth surprises
POSITIVE inflation surprise	27%	26%
NEGATIVE inflation surprise	23%	25%

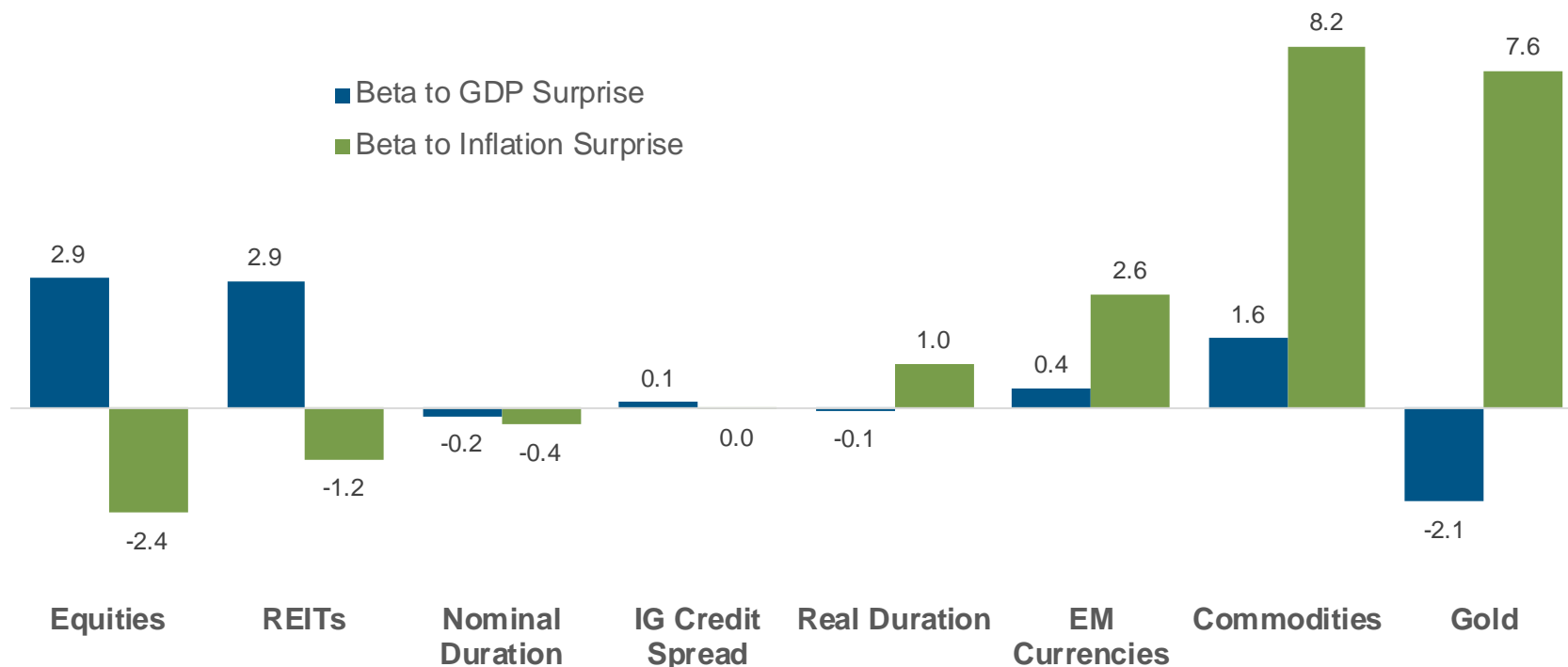


From 30 June 1970 to 30 June 2021. SOURCE: Haver Analytics, Survey of Professional Forecasters (conducted by Federal Reserve Bank of Philadelphia). **Hypothetical example for illustrative purposes only.** Expected GDP growth and inflation are measured using the forecasted values from the Survey of Professional Forecasters. Refer to Appendix for additional forecast, hypothetical example, and risk information.

US Inflation Beta Framework

Summary of inflation beta and GDP beta by risk factor

Inflation and GDP Betas across Key Risk Factors



Factor return composition for GDP and Inflation surprises

$$\text{Factor Return} = \alpha + \beta_{\text{GDP}} \cdot \text{GDP}_{\text{Surprise}} + \beta_{\text{INFL}} \cdot \text{INFL}_{\text{Surprise}} + \beta_{\text{INT}} \cdot \text{GDP}_{\text{Surprise}} \cdot \text{INFL}_{\text{Surprise}} + \varepsilon$$

From 30 June 1970 to 30 June 2021.

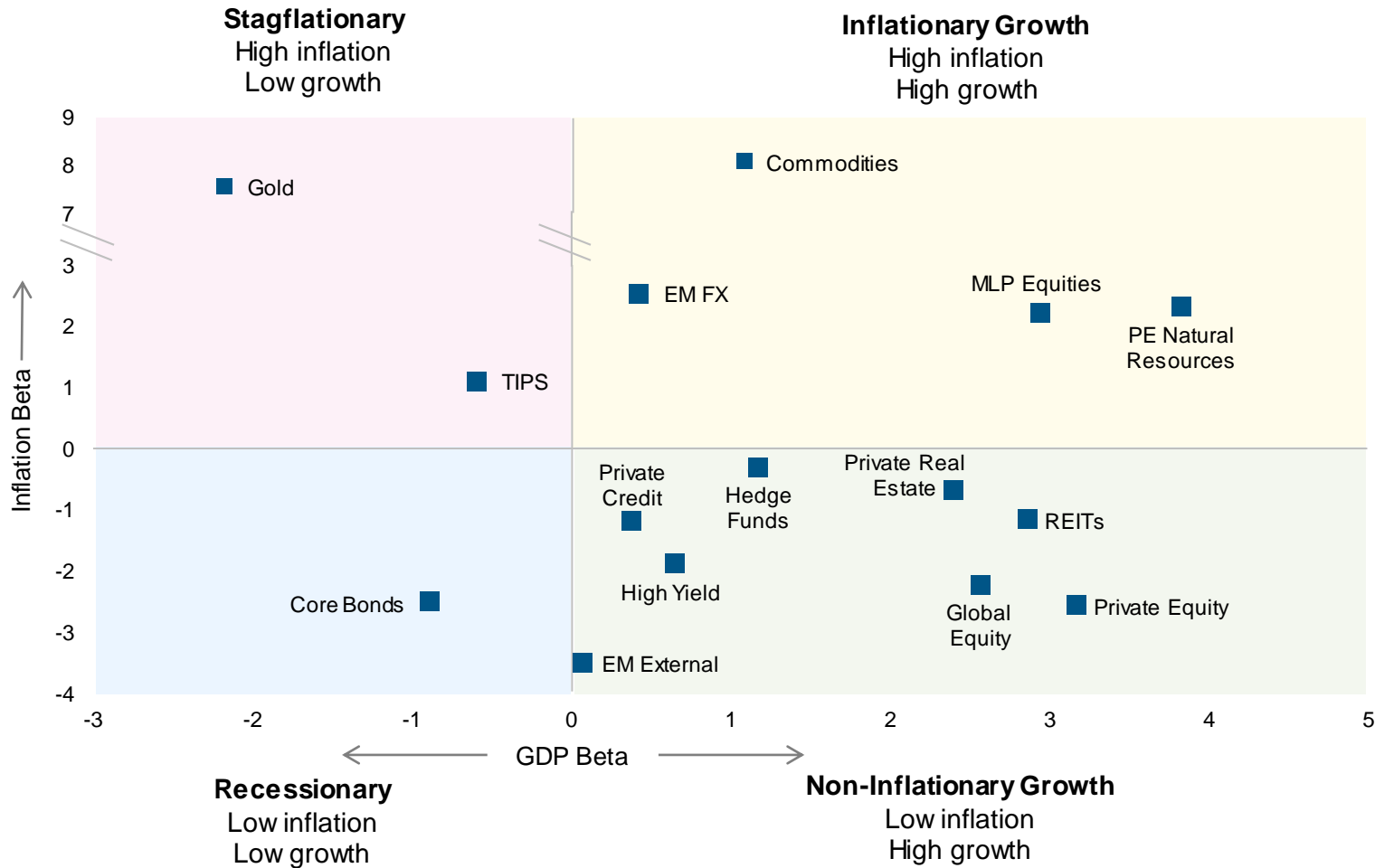
SOURCE: Haver Analytics, Survey of Professional Forecasters (conducted by Federal Reserve Bank of Philadelphia). **Hypothetical example for illustrative purposes only.**

*The inflation beta for TIPS is 1.0 due to the contractual CPI accrual. Unlike other factors higher levels of real duration for longer maturity TIPS do not translate into higher inflation beta.

Surprises are defined as Realized (GDP and Inflation) minus Expected (GDP and Inflation). Inflation Beta represents sensitivity of asset class excess returns (over the risk free rate) to inflation surprises (realized minus macro forecasts), e.g. when inflation surprises by +1%, an asset with an inflation beta of 1.5 is expected to have an excess return of 1.5% (all else equal); based on rolling quarterly 12-month return data from 30 June 1970 to 30 June 2021.

Refer to Appendix for additional hypothetical example and risk information.

Assets can be grouped into macroeconomic regimes by their sensitivity to inflation and GDP betas



Key Takeaways

- Real Assets historically have outperformed nominal assets when there is a positive inflation surprise
- Commodities and Gold can be notable potent inflation hedges, but respond differently to growth shocks
- Some assets (e.g. REITs) are better diversifier than broad equities, but they do not provide consistent hedging like outright hedges such as TIPS

As of 30 June 2021. SOURCE: PIMCO, Survey of Professional Forecasters (conducted by Federal Reserve Bank of Philadelphia). **Hypothetical example for illustrative purposes only.** Inflation beta represents sensitivity of asset class excess returns (over the risk free rate) to inflation surprises (realized inflation minus Philadelphia Fed Survey inflation forecast), i.e. when inflation surprises by +1%, an asset with an inflation beta of 1.5 is expected to have an excess return of 1.5% (all else equal); based on rolling quarterly 12-month return data from 30 June 1970 to 30 June 2021. Core Bonds: Bloomberg US Aggregate Index; Global Equity: MSCI ACWI Index; Private Equity: Private Equity Model; Private Credit: Diversified Private Credit Model; Private Real Estate: Private Value-Add Real Estate Model; PE Natural Resources: PE Natural Resource Model; TIPS: Bloomberg US TIPS Index; EM External: JPMorgan EMBI Global Index; Hedge Funds: HFRI Fund Weighted Composite Index; MLP Equities: Alerian MLP Infrastructure Index; REITs: Dow Jones US Select REIT Index; High Yield: Bloomberg US High Yield Index; EMFX: JPMorgan ELM+ Index Unhedged; Commodities: Bloomberg Commodity TR Index; Gold: Bloomberg Commodity Gold TR Index. Refer to Appendix for additional hypothetical example, index, model, and risk information.

Asset Allocation Perspective

Historically, traditional assets have benefitted from a dedicated real asset allocation

In about half of the 50-year sample, a real asset allocation was additive to a 60/40's risk-adjusted return

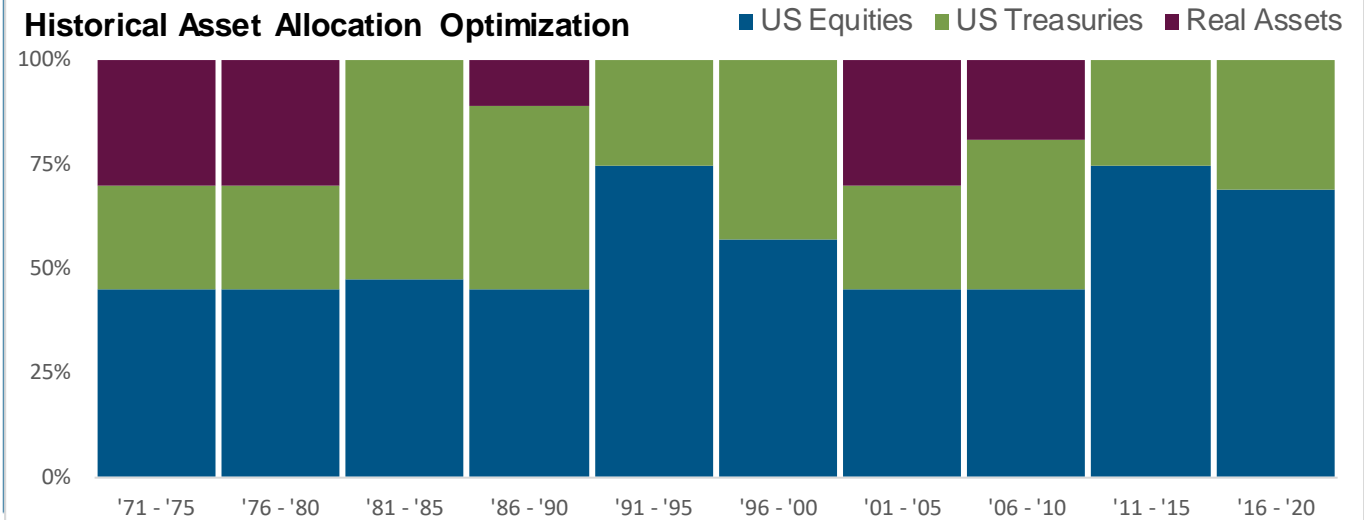
Optimal historical allocation to Real Assets*

- Review 5-year periods over 50 years; optimizing between US Equities, US Treasuries and a Real Asset Mix
- Max of 30% to Real Assets, with +/- 15% to Equity and Treasuries vs. 60/40
- Real Asset Mix is equal weight between TIPS, Gold, Commodity and REITs

Key Takeaways

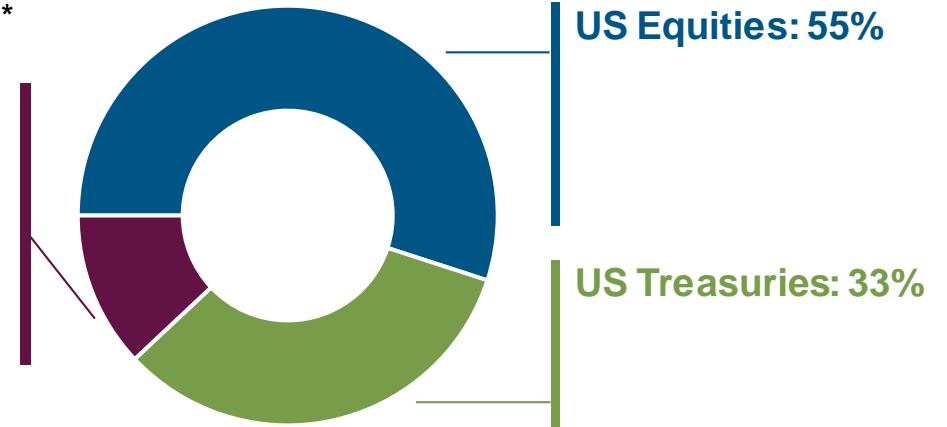
- The average weight over the full sample is ~12% to real assets

Historical Asset Allocation Optimization



Average Asset Allocation*

Real Assets: 12%



As of 31 December 2020. SOURCE: PIMCO, Bloomberg, GFD, Federal Reserve. **Hypothetical example for illustrative purposes.**

* Optimized based on realized 5 Year returns, volatility and correlation; selected full sample optimal portfolio is the one which matches the volatility level of a 60 US Equities / 40 US Treasuries portfolio over this time (~10% volatility). Average Allocation takes the resulting averages to each asset over the 10 five-year samples.

All statistics based on monthly total returns back to 1970. US Equities: S&P 500 Index; US Treasuries: 10-Year Treasury Index (Bloomberg and GFD pre-1980); Real Assets – TIPS: BBG BC US TIPS (Simulated 10 Year TIPS returns from the Fed Backcast Tool pre-1997); REITs: FTSE NAREIT Index (S&P pre-1972); Commodities: Bloomberg Commodity Index; Gold: Bloomberg Commodity Index (XAU pre-1975). Refer to Appendix for additional index, hypothetical example, and risk information.

Appendix

Past performance is not a guarantee or a reliable indicator of future results.

CORRELATION

The correlation of various indices or securities against one another or against inflation is based upon data over a long time period. These correlations may vary substantially in the future or over shorter time periods, resulting in greater volatility.

FORECAST

Forecasts, estimates, and certain information contained herein are based upon proprietary research and should not be considered as investment advice or a recommendation of any particular security, strategy or investment product. There is no guarantee that results will be achieved.

HYPOTHETICAL EXAMPLE

HYPOTHETICAL PERFORMANCE RESULTS HAVE MANY INHERENT LIMITATIONS, SOME OF WHICH ARE DESCRIBED BELOW. NO REPRESENTATION IS BEING MADE THAT ANY ACCOUNT WILL OR IS LIKELY TO ACHIEVE PROFITS OR LOSSES SIMILAR TO THOSE SHOWN. IN FACT, THERE ARE FREQUENTLY SHARP DIFFERENCES BETWEEN HYPOTHETICAL PERFORMANCE RESULTS AND THE ACTUAL RESULTS SUBSEQUENTLY ACHIEVED BY ANY PARTICULAR TRADING PROGRAM. ONE OF THE LIMITATIONS OF HYPOTHETICAL PERFORMANCE RESULTS IS THAT THEY ARE GENERALLY PREPARED WITH THE BENEFIT OF HINDSIGHT. IN ADDITION, HYPOTHETICAL TRADING DOES NOT INVOLVE FINANCIAL RISK, AND NO HYPOTHETICAL TRADING RECORD CAN COMPLETELY ACCOUNT FOR THE IMPACT OF FINANCIAL RISK IN ACTUAL TRADING. FOR EXAMPLE, THE ABILITY TO WITHSTAND LOSSES OR TO ADHERE TO A PARTICULAR TRADING PROGRAM IN SPITE OF TRADING LOSSES ARE MATERIAL POINTS WHICH CAN ALSO ADVERSELY AFFECT ACTUAL TRADING RESULTS. THERE ARE NUMEROUS OTHER FACTORS RELATED TO THE MARKETS IN GENERAL OR TO THE IMPLEMENTATION OF ANY SPECIFIC TRADING PROGRAM WHICH CANNOT BE FULLY ACCOUNTED FOR IN THE PREPARATION OF HYPOTHETICAL PERFORMANCE RESULTS AND ALL OF WHICH CAN ADVERSELY AFFECT ACTUAL TRADING RESULTS.

INDEX

It is not possible to invest directly in an unmanaged index.

INVESTMENT STRATEGY

There is no guarantee that these investment strategies will work under all market conditions or are appropriate for all investors and each investor should evaluate their ability to invest long-term, especially during periods of downturn in the market.

MODEL

Private Value-Add Real Estate Model: Model risk factor exposures are estimated through a regression on the NCREIF Value-add Real Estate Index. We unsmooth returns to remove the bias from accounting-based reporting.

PE Natural Resource Model: Model risk factor exposures are estimated through a regression on the Cambridge Private Equity Index. The industry exposures are mapped to the exposure of the S&P Energy index. We unsmooth returns to remove the bias from accounting-based reporting.

Diversified Private Credit Model: Model risk factor exposures are estimated using representative holdings across Residential Credit (levered), consumer finance, specialty accounts receivables financing and two PIMCO private credit models, the Private Commercial Real Estate Debt Model (levered) and the Private Corporate Lending Model (levered). Representative CUSIPs are adjusted for illiquidity, loan-specific risk and financing costs. Allocations are 30% Residential Credit (levered), 30% Specialty Finance, 20% Private Corporate Lending (levered) and 20% Private CRE Debt (levered).

Private Equity Model: Model risk factor exposures are estimated through a regression on the Cambridge Private Equity Index. We unsmooth returns to remove the bias from accounting-based reporting. We then make adjustments to equity risk and liquidity consistent with empirical research on private equity managers.

OUTLOOK

Statements concerning financial market trends or portfolio strategies are based on current market conditions, which will fluctuate. There is no guarantee that these investment strategies will work under all market conditions or are appropriate for all investors and each investor should evaluate their ability to invest for the long term, especially during periods of downturn in the market. Outlook and strategies are subject to change without notice.

Appendix

RISK

Investing in the **bond market** is subject to certain risks, including market, interest rate, issuer, credit and inflation risk; investments may be worth more or less than the original cost when redeemed. Currency rates may fluctuate significantly over short periods of time and may reduce the returns of a portfolio. **Equities** may decline in value due to both real and perceived general market, economic and industry conditions. **Inflation-linked bonds (ILBs)** issued by the various governments around the world are fixed-income securities whose principal value is periodically adjusted according to the rate of inflation. Repayment upon maturity of the original principal as adjusted for inflation is guaranteed by the government that issues them. Neither the current market value of inflation-indexed bonds nor the value a portfolio that invests in ILBs is guaranteed, and either or both may fluctuate. ILBs decline in value when real interest rates rise. In certain interest rate environments, such as when real interest rates are rising faster than nominal interest rates, ILBs may experience greater losses than other fixed income securities with similar durations. **Sovereign securities** are generally backed by the issuing government. Obligations of U.S. government agencies and authorities are supported by varying degrees, but are generally not backed by the full faith of the U.S. government. Portfolios that invest in such securities are not guaranteed and will fluctuate in value. **High yield, lower-rated securities** involve greater risk than higher-rated securities; portfolios that invest in them may be subject to greater levels of credit and liquidity risk than portfolios that do not. **Derivatives and commodity-linked derivatives** may involve certain costs and risks such as liquidity, interest rate, market, credit, management and the risk that a position could not be closed when most advantageous. Commodity-linked derivative instruments may involve additional costs and risks such as changes in commodity index volatility or factors affecting a particular industry or commodity, such as drought, floods, weather, livestock disease, embargoes, tariffs and international economic, political and regulatory developments. Investing in derivatives could lose more than the amount invested. Income from **municipal bonds** may be subject to state and local taxes and at times the alternative minimum tax; a strategy concentrating in a single or limited number of states is subject to greater risk of adverse economic conditions and regulatory changes. Investing in **foreign denominated and/or domiciled securities** may involve heightened risk due to currency fluctuations, and economic and political risks, which may be enhanced in emerging markets. Investments in **companies engaged in mergers, reorganizations, or liquidations** may involve special risks as pending deals may not be completed on time or on favorable terms. Entering into **short sales** includes the potential for loss of more money than the actual cost of the investment, and the risk that the third party to the short sale may fail to honor its contract terms, causing a loss to the portfolio. **Convertible securities** may be called before intended, which may have an adverse effect on investment objectives. **Commodities** contain heightened risk including market, political, regulatory, and natural conditions, and may not be suitable for all investors. **Mortgage and asset-backed securities** may be sensitive to changes in interest rates, subject to early repayment risk, and while generally supported by a government, government-agency or private guarantor there is no assurance that the guarantor will meet its obligations. **Infrastructure entities** are involved in the construction, operation, ownership or maintenance of physical structures, networks and other infrastructure assets that provide public services; infrastructure entities, projects and assets may be sensitive to adverse economic, regulatory, political or other developments and may be subject to a variety of events that adversely affect their business or operations. Investing in **securities of smaller companies** tends to be more volatile and less liquid than securities of larger companies. **Swaps** are a type of derivative; while some swaps trade through a clearinghouse there is generally no central exchange or market for swap transactions and therefore they tend to be less liquid than exchange-traded instruments. Investments in **value securities** involve the risk the market's value assessment may differ from the manager and the performance of the securities may decline. **Bank loans** are often less liquid than other types of debt instruments and general market and financial conditions may affect the prepayment of bank loans, as such the prepayments cannot be predicted with accuracy. There is no assurance that the liquidation of any collateral from a secured bank loan would satisfy the borrower's obligation, or that such collateral could be liquidated. Corporate debt securities are subject to the risk of the issuer's inability to meet principal and interest payments on the obligation and may also be subject to price volatility due to factors such as interest rate sensitivity, market perception of the creditworthiness of the issuer and general market liquidity. Investing in **distressed loans and bankrupt companies** are speculative and the repayment of default obligations contains significant uncertainties.

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Pacific Investment Management Company LLC, 650 Newport Center Drive, Newport Beach, CA 92660 | 800.387.4626

Appendix

INDEX DESCRIPTIONS

Bloomberg U.S. Aggregate Index represents securities that are SEC-registered, taxable, and dollar denominated. The index covers the U.S. investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis.

Bloomberg U.S. TIPS Index is an unmanaged market index comprised of all U.S. Treasury Inflation Protected Securities rated in investment grade (Baa3 or better), have at least one year to final maturity, and at least \$250 million par amount outstanding. Performance data for this index prior to 10/97 represents returns of the Barclays Inflation Notes Index.

The Bloomberg Commodity Total Return Index is an unmanaged index composed of futures contracts on 20 physical commodities. The index is designed to be a highly liquid and diversified benchmark for commodities as an asset class. Prior to 30 June 2014, this index was known as the Dow Jones UBS Commodity Total Return Index.

The Consumer Price Index (CPI) is an unmanaged index representing the rate of inflation of the U.S. consumer prices as determined by the U.S. Department of Labor Statistics. There can be no guarantee that the CPI or other indexes will reflect the exact level of inflation at any given time.

The Dow Jones U.S. Real Estate Investment Trust (REIT) Total Return IndexSM is an unmanaged index subset of the Dow Jones Americas U.S. Select Real Estate Securities (RESI) IndexSM. This index is a market capitalization weighted index of publicly traded Real Estate Investment Trusts (REITs) and only includes only REITs and REIT-like securities.

The Bloomberg Gold Subindex Total Return Index is a unmanaged subindex of the Bloomberg Commodity Total Return Index. The index reflects the return on fully collateralized positions in the underlying commodity futures.

JPMorgan Emerging Local Markets Index Plus (Unhedged) tracks total returns for local currency-denominated money market instruments in 24 emerging markets countries with at least U.S. \$10 billion of external trade.

The NCREIF (National Council of Real Estate Investment Fiduciaries) Property Index is a quarterly time series composite total rate of return measure of performance of a very large pool of individual commercial real estate properties acquired in the private market for investment purposes only.

The S&P 500 Index is an unmanaged market index generally considered representative of the stock market as a whole. The index focuses on the Large-Cap segment of the U.S. equities market.

It is not possible to invest directly in an unmanaged index.

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San Joaquin County Employees' Retirement Association

October 7, 2021

Representing Dodge & Cox:

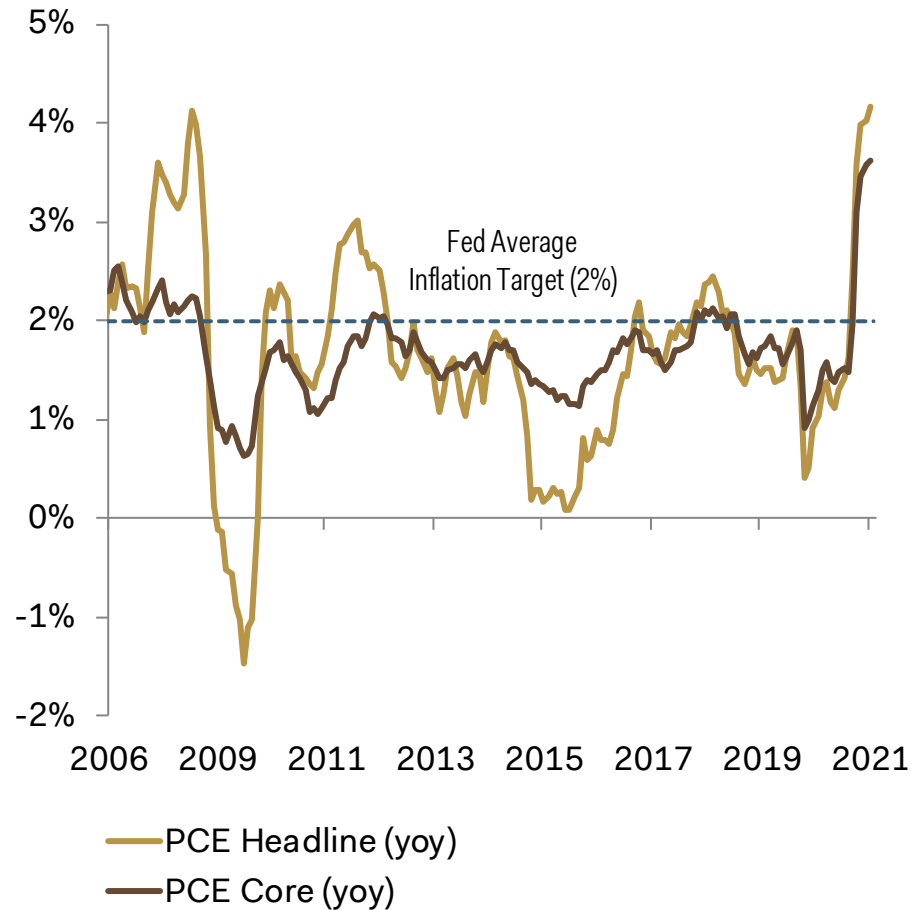
Mimi Yang, Vice President, Macro Analyst

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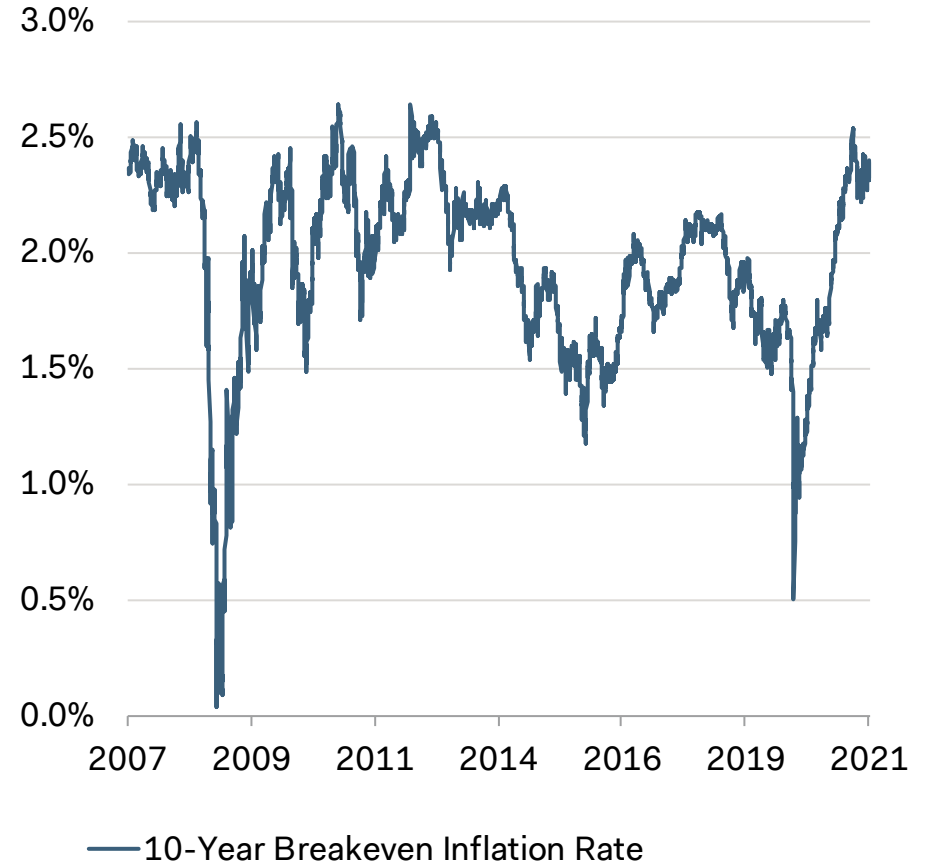
Inflation and Inflation Expectations Have Risen This Year

July 31, 2021

Headline and Core PCE Inflation



Implied 10-Year Inflation Expectations

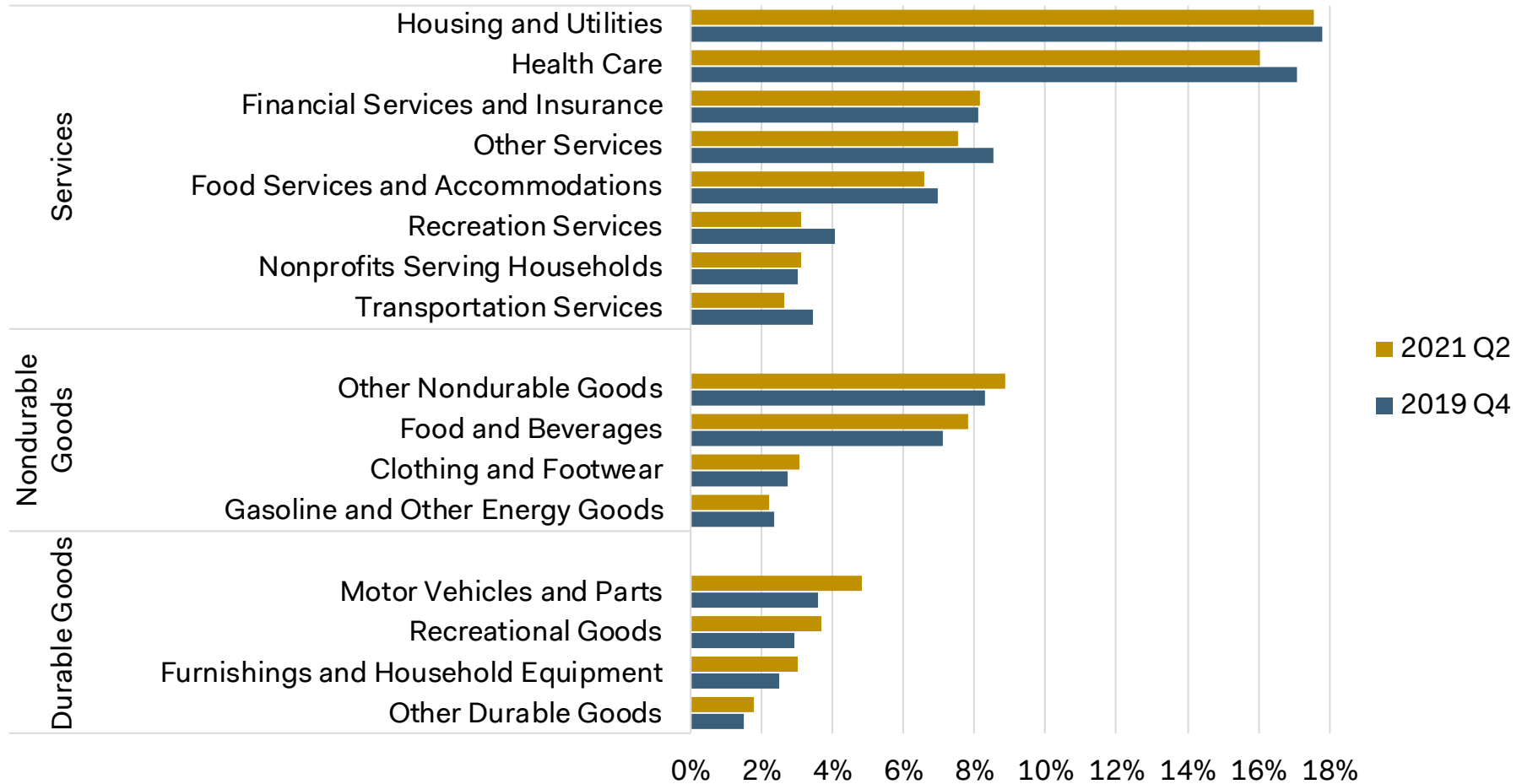


PCE and Breakeven Inflation Rate Source: The Federal Reserve. The above information is not a complete analysis of every material fact concerning any market, industry, or investment. Data has been obtained from sources considered reliable, but Dodge & Cox makes no representations as to the completeness or accuracy of such information. Opinions expressed are subject to change without notice. Before investing in any Dodge & Cox Fund, you should carefully consider the Fund's investment objectives, risks, and charges and expenses. To obtain a Fund's prospectus and summary prospectus, which contain this and other important information, visit dodgeandcox.com or call 800-621-3979. Please read the prospectus and summary prospectus carefully before investing.

The Composition of Consumer Spending Matters for Inflation

July 31, 2021

Personal Consumption Expenditures by Major Type of Product (%)



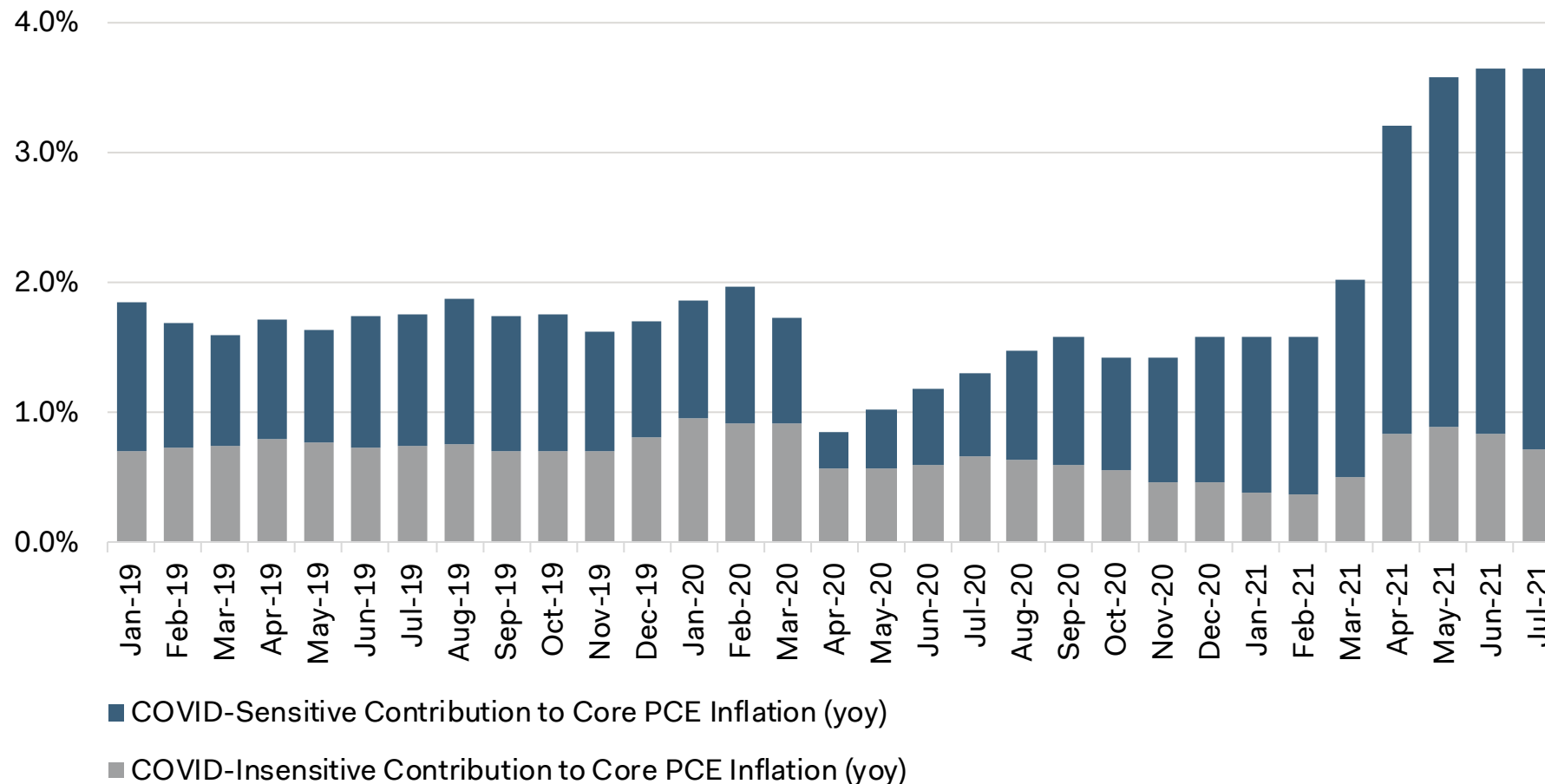
Source: Bureau of Economic Analysis.

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Current Inflation Is Concentrated in COVID-Sensitive Categories

July 31, 2021

Contribution to Core PCE Inflation from COVID-Sensitive Components^(a)



^(a)COVID-sensitive components include those categories of personal consumption expenditures where either prices or quantities moved in a statistically significant manner at the onset of the pandemic, between February and April 2020. COVID-insensitive components include all other core PCE categories.

Source: The Federal Reserve Bank of San Francisco. The above information is not a complete analysis of every material fact concerning any market, industry, or investment. Data has been obtained from sources considered reliable, but Dodge & Cox makes no representations as to the completeness or accuracy of such information. Opinions expressed are subject to change without notice. Before investing in any Dodge & Cox Fund, you should carefully consider the Fund's investment objectives, risks, and charges and expenses. To obtain a Fund's prospectus and summary prospectus, which contain this and other important information, visit dodgeandcox.com or call 800-621-3979. Please read the prospectus and summary prospectus carefully before investing.

In our baseline scenario, we expect higher inflation to continue over the short run, but not persist, with inflation ultimately ranging from approximately 2.0% to 2.5% over our investment horizon.

The Case for Higher Inflation on a Sustained Basis

- Persistent imbalance between aggregate supply and demand
- Potential for wage-price spiral due to tighter labor markets and associated wage demands
- The Federal Reserve's new *average* inflation targeting framework

The Case for More Contained Inflation

- Anchoring effects from policy credibility and lower macro volatility
- Diminished bargaining power on wages over time
- Globalization and technology driving lower costs and increased productivity

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Source Citations

Bloomberg

Bloomberg U.S. Aggregate Index: The Bloomberg U.S. Aggregate Bond Index is a widely recognized, unmanaged index of U.S. dollar-denominated, investment-grade, taxable fixed income securities.

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Russell

Russell 1000 Value Index: The Russell 1000 Value Index is a broad-based, unmanaged equity market index composed of those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values.

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Standard & Poor’s

S&P 500 Index: The S&P 500 Index is a market capitalization-weighted index of 500 large-capitalization stocks commonly used to represent the U.S. equity market.

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MSCI

MSCI EAFE Index: The MSCI EAFE (Europe, Australasia, Far East) Index is a broad-based, unmanaged equity market index aggregated from 21 developed market country indices, excluding the United States and Canada.

MSCI World Index: The MSCI World Index is a broad-based, unmanaged equity market index aggregated from 23 developed market country indices, including the United States.

MSCI ACWI Index: The MSCI ACWI (All Country World Index) Index is a broad-based, unmanaged equity market index aggregated from 50 developed and emerging market country indices.

MSCI ACWI ex USA Index: The MSCI ACWI (All Country World Index) ex USA Index is a broad-based, unmanaged equity market index aggregated from 49 developed and emerging market country indices, excluding the United States.

MSCI Emerging Markets Index: The MSCI Emerging Markets Index is a broad-based, unmanaged equity market index of large- and mid-cap securities aggregated from 27 emerging market country indices.

MSCI EAFE Value Index: The MSCI EAFE Value Index is a broad-based, unmanaged equity market index of large- and mid-cap securities exhibiting overall value style characteristics aggregated from 21 developed market country indices, excluding the United States and Canada.

MSCI ACWI ex USA Value Index: The MSCI ACWI ex USA Value Index is a broad-based, unmanaged equity market index of large- and mid-cap securities exhibiting overall value style characteristics aggregated from 49 developed and emerging market country indices, excluding the United States.

MSCI World Value Index: The MSCI World Value Index is a broad based, unmanaged equity market index of large- and mid-cap securities exhibiting overall value style characteristics aggregated from 23 developed market country indices, including the United States.

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San Joaquin County Employees' Retirement Association



2021 Roundtable – Stone Harbor Investment Partners

October 7, 2021

Dave Torchia, Portfolio Manager

Stone Harbor
INVESTMENT PARTNERS



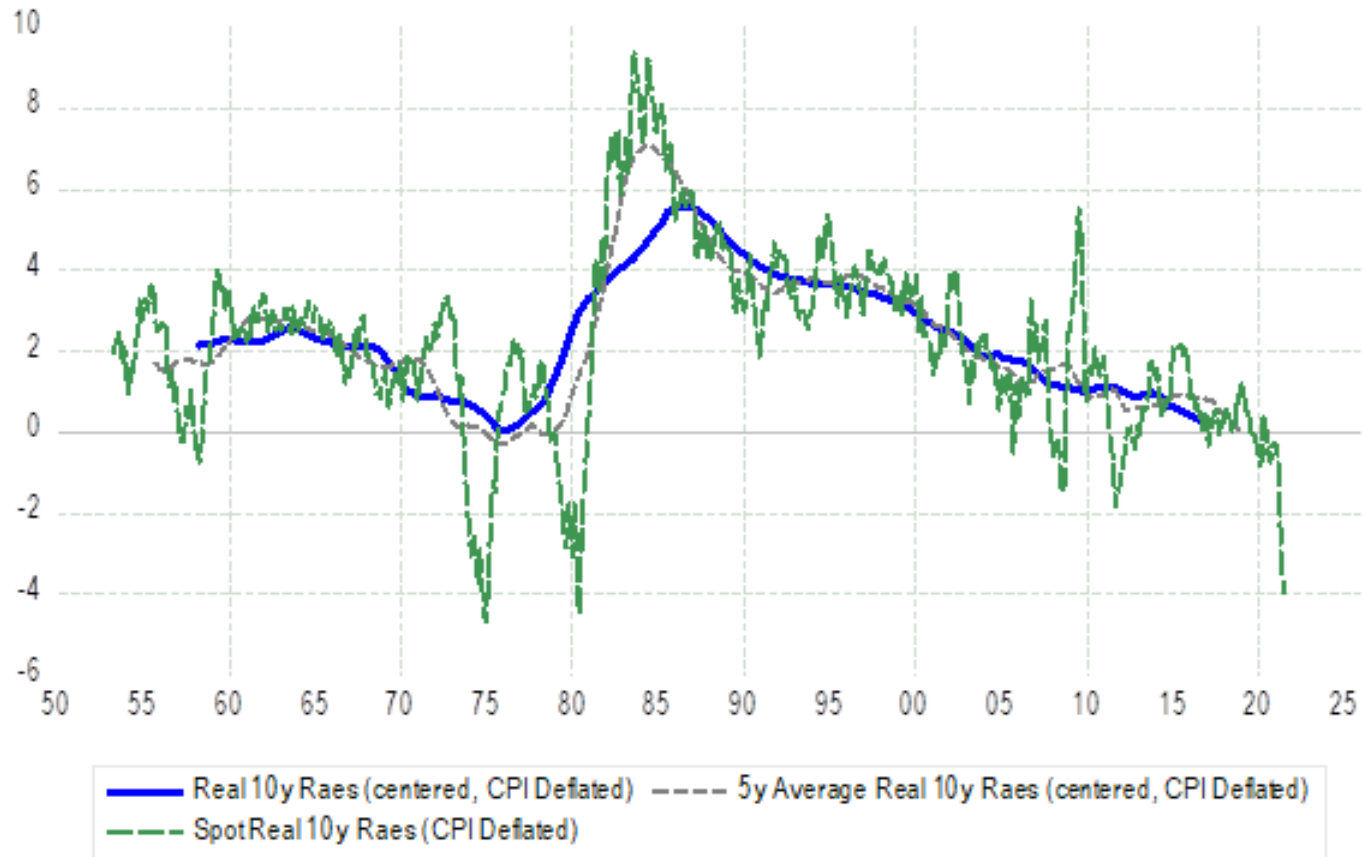
Fixed Income: Where are We?

- Macroeconomic Fundamentals
 - Growth
 - Inflation
- Rates / Yield Curves
- Credit
 - Fundamentals
 - Valuations
- Federal Reserve Policy
 - Taper
 - Rates



Real US Rates

It Was "Fun" for a While

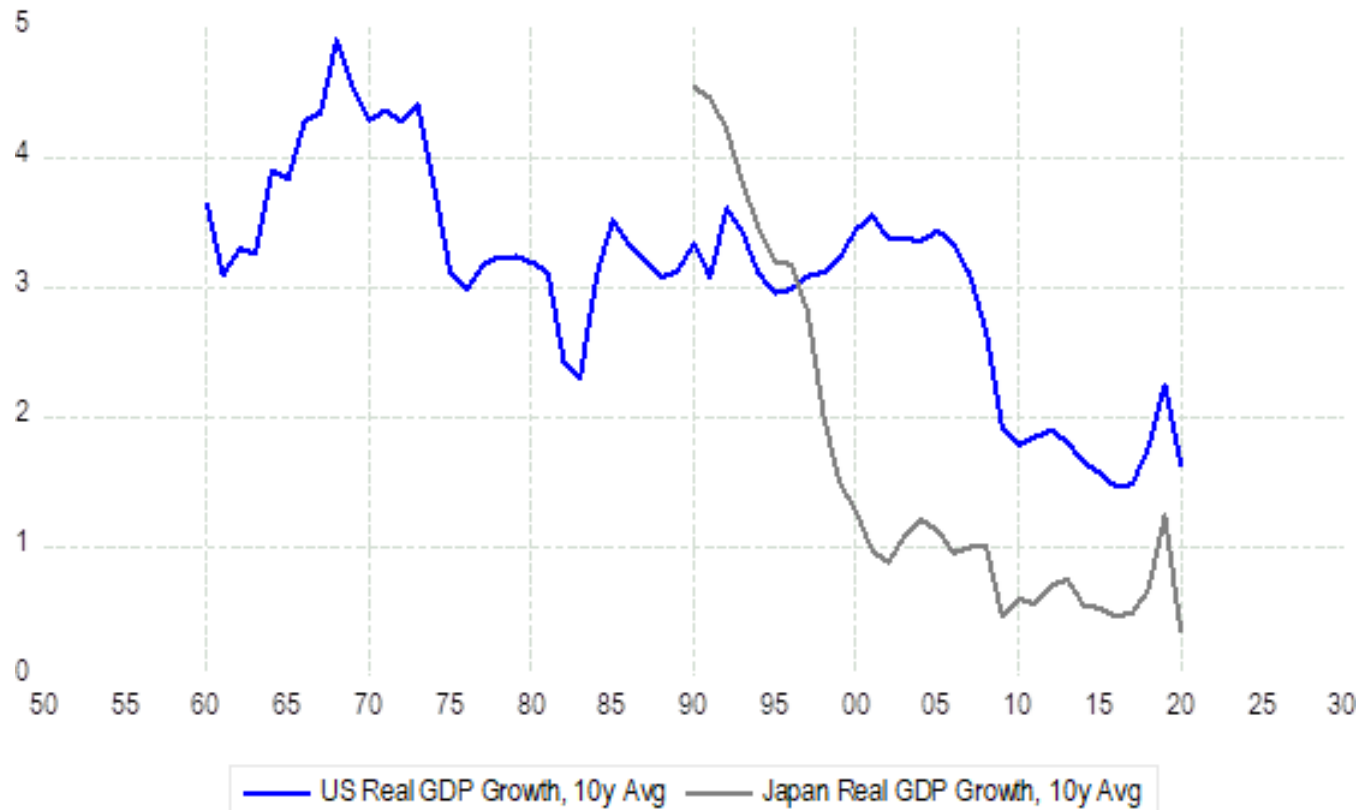


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Past performance is not a guarantee of future results.



Is the U.S. Following Japan?

Real GDP Growth – US & Japan

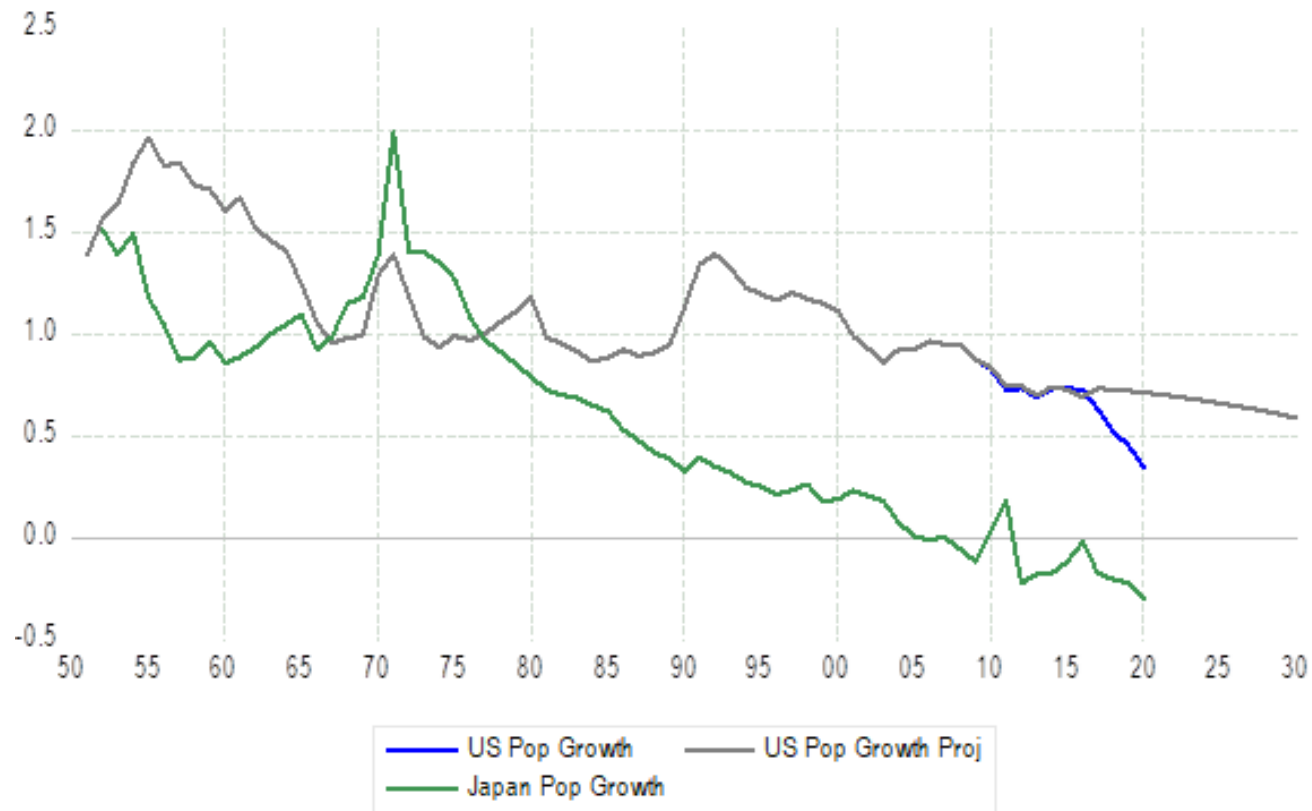


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Is the U.S. Following Japan?

Population Growth – US & Japan

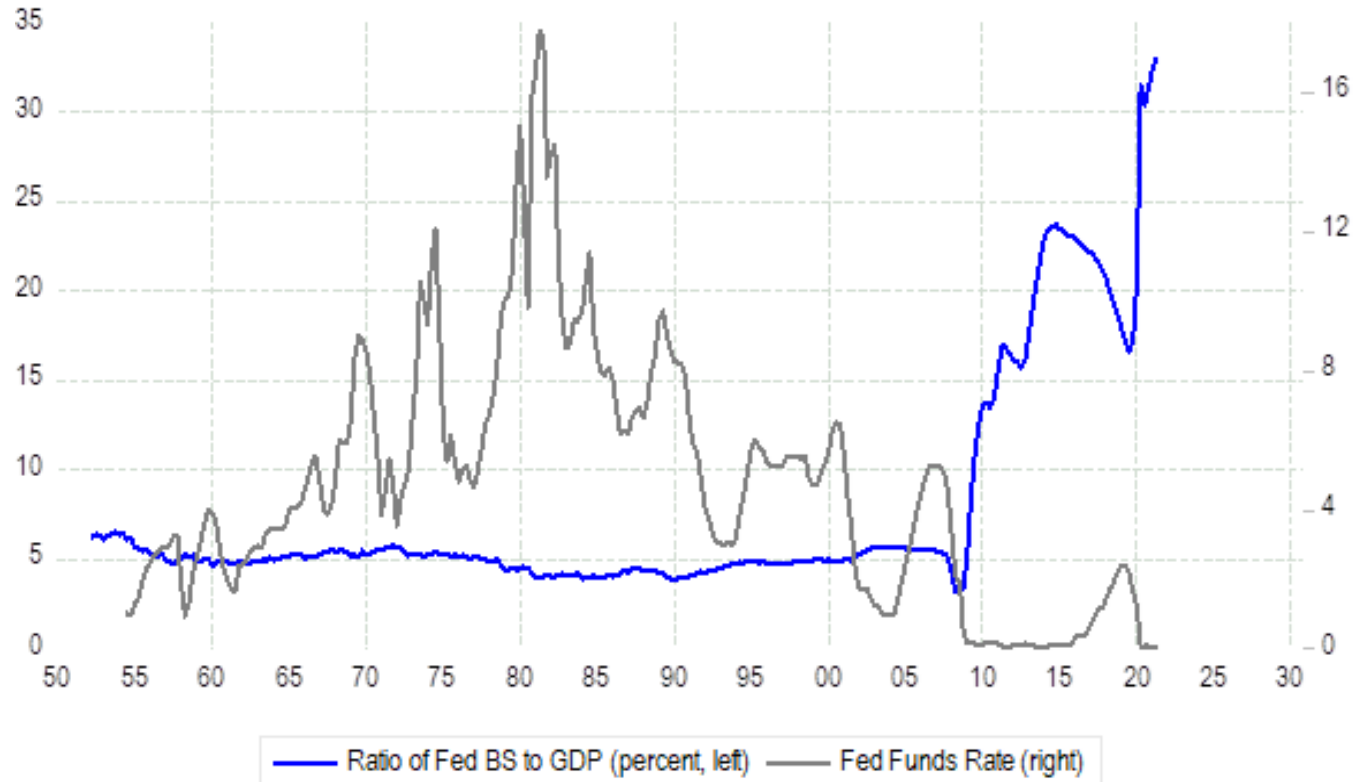


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Can The Federal Reserve Control Rates, Long or Short?

Interest on Excess Reserves (IOER) Allows Short-Term Rate Control Despite Large Balance Sheet



Portfolio Management

David Torchia, Portfolio Manager, Multi-Sector Strategies / Investment Grade

- 36 years of industry experience
- Stone Harbor Investment Partners LP
- Citigroup Asset Management – Managing Director, Senior Portfolio Manager – Investment Grade US Fixed Income Portfolios
- Salomon Brothers Asset Management - Investment Policy Committee Member
- Salomon Brothers Inc – Manager of Structured Portfolios
- MBA, Finance, College of Business and Economics, Lehigh University
- BS, Industrial Engineering, University of Pittsburgh

Relationship Management

John Madden, Client Relationship Manager

- 27 years of industry experience
- Stone Harbor Investment Partners LP
- Citigroup Asset Management – Director, Senior Product Specialist for HY and EMD investment Teams
- Salomon Brothers Asset Management Inc (New York) – Institutional Sales and Client Service, covering West Coast, US
- Salomon Brothers Asset Management Limited (London) – Institutional Sales and Client Service, European Market
- Bear Stearns Asset Management Inc – Marketing Associate, Institutional Plan Sponsors and Consultants
- Bank of New York – Corporate Trust – Asset Backed Securities Division
- BA (Hons), Business Studies, University of Glamorgan, Wales, UK and Portobello College Dublin, Ireland

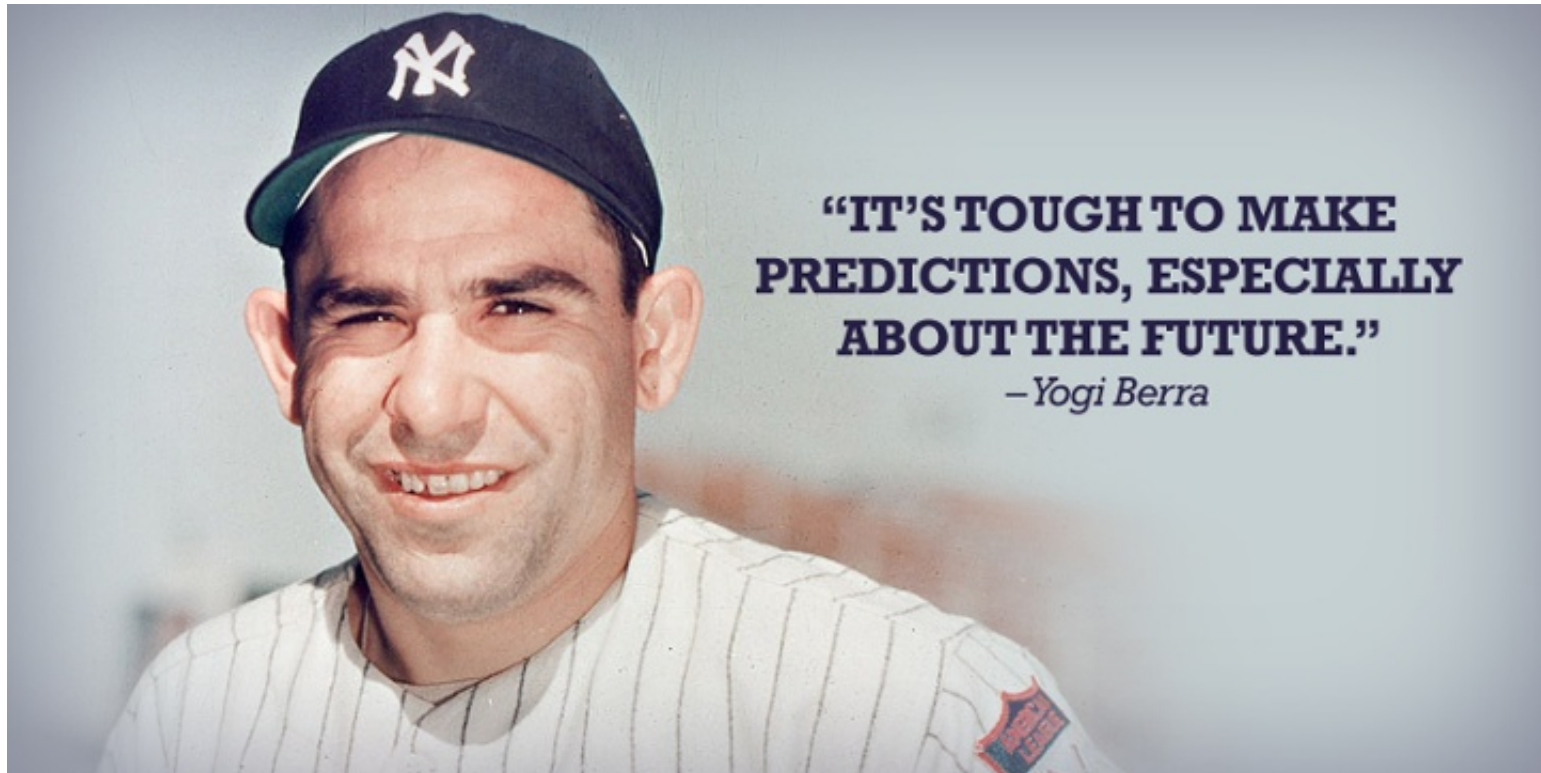




MT LUCAS

CAN THE FED CONTROL RATES

October 2021



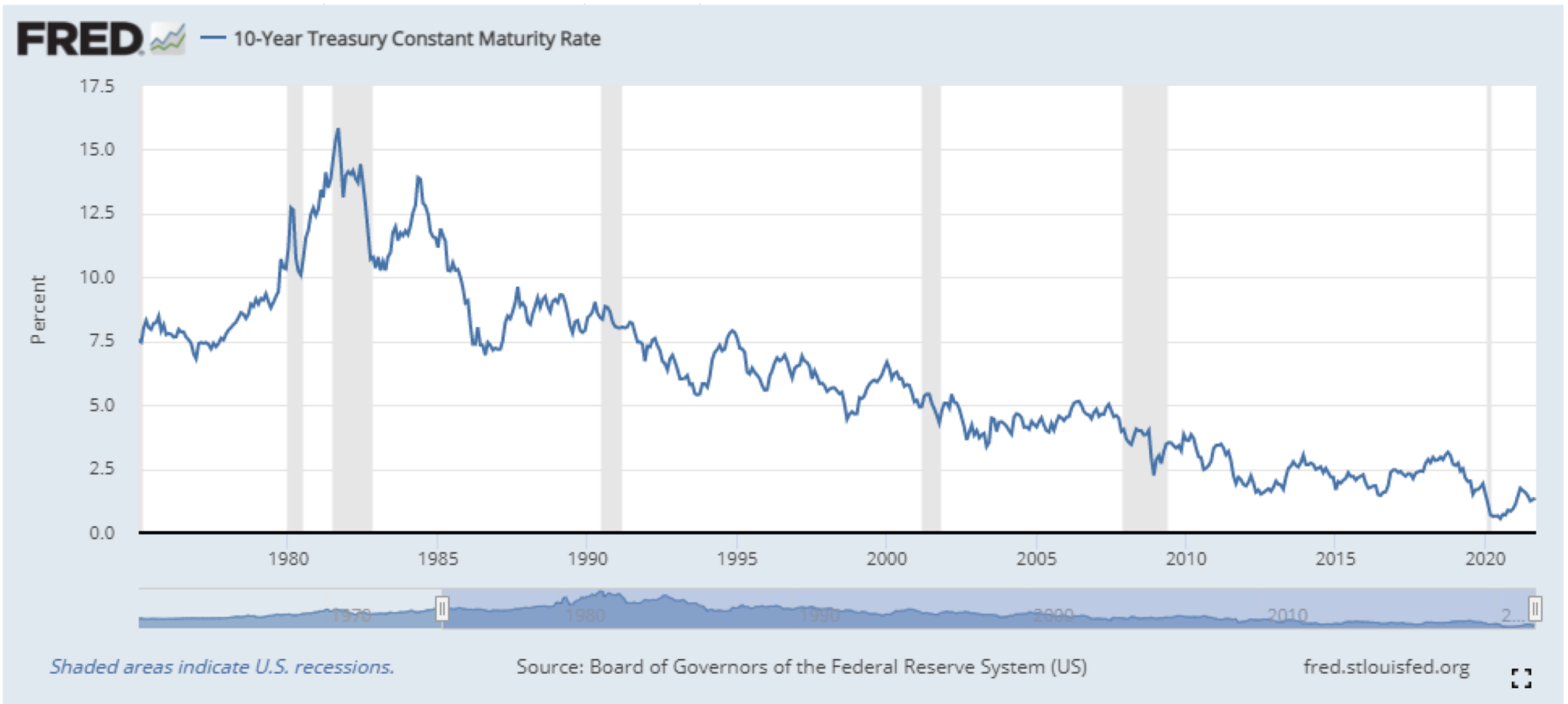
July 2005	"We've never had a decline in house prices on a nationwide basis. So, what I think what is more likely is that house prices will slow, maybe stabilize, might slow consumption spending a bit. I don't think it's gonna drive the economy too far from its full employment path, though."
March 2007	"...the impact on the broader economy and financial markets of the problems in the subprime market seems likely to be contained..."
May 2007	"...we do not expect significant spillovers from the subprime market to the rest of the economy or to the financial system."
January 2008	(Two months before Fannie Mae and Freddie Mac collapsed and were nationalized) "They will make it through the storm."
June 2008	"The risk that the economy has entered a substantial downturn appears to have diminished over the past month or so."
July 2008	"The GSEs are adequately capitalized. They are in no danger of failing."
August 2008	"...inflation risks are very real, and I believe that these are higher than growth risks."

Table 1. Economic projections of Federal Reserve Board members and Federal Reserve Bank presidents, under their individual assumptions of projected appropriate monetary policy, June 2020

Advance release of table 1 of the Summary of Economic Projections to be released with the FOMC minutes

Percent

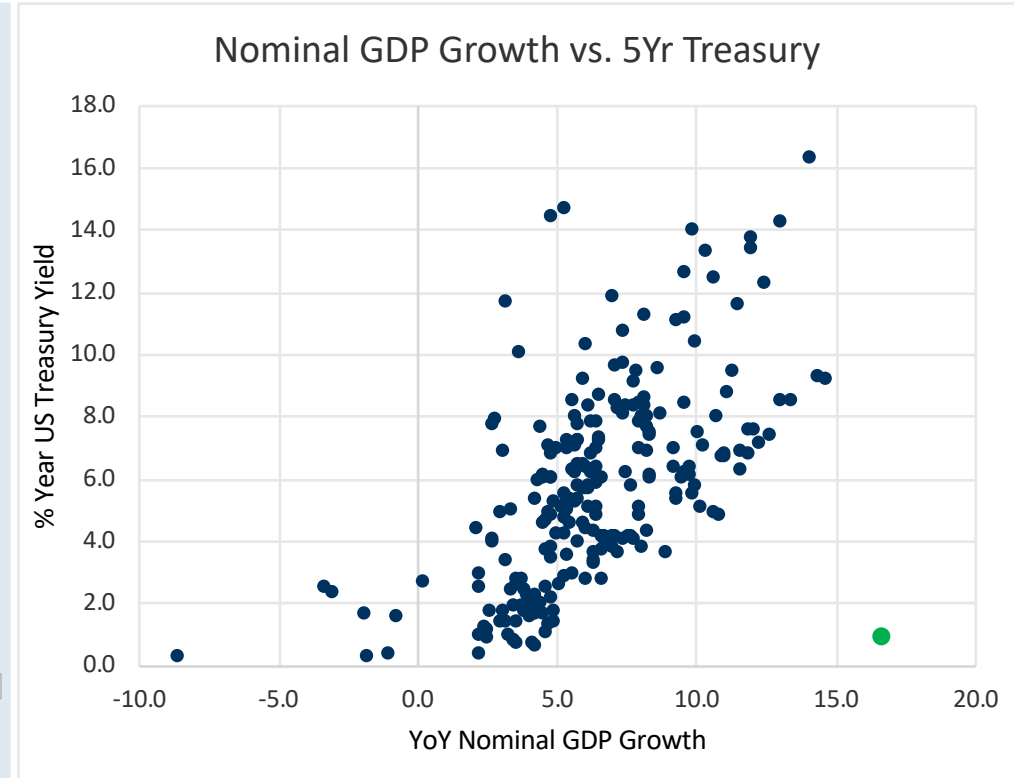
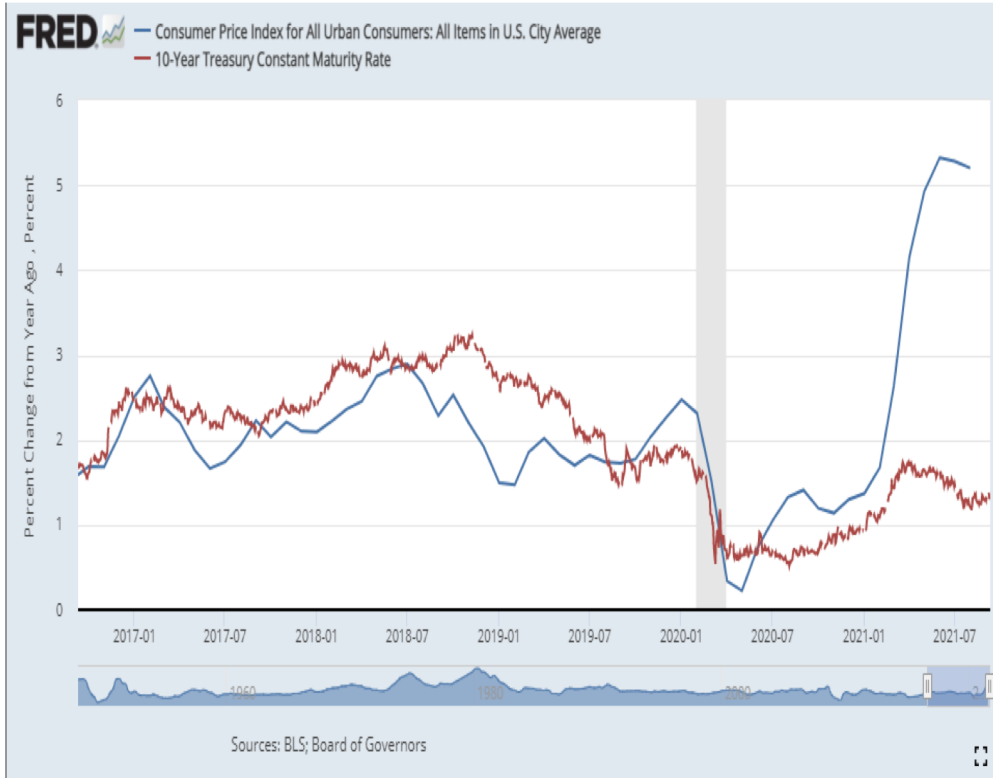
Variable	Median ¹				Central Tendency ²				Range ³			
	2020	2021	2022	Longer run	2020	2021	2022	Longer run	2020	2021	2022	Longer run
Change in real GDP	-6.5	5.0	3.5	1.8	-7.6-5.5	4.5-6.0	3.0-4.5	1.7-2.0	-10.0-4.2	-1.0-7.0	2.0-6.0	1.6-2.2
December projection	2.0	1.9	1.8	1.9	2.0-2.2	1.8-2.0	1.8-2.0	1.8-2.0	1.8-2.3	1.7-2.2	1.5-2.2	1.7-2.2
Unemployment rate	9.3	6.5	5.5	4.1	9.0-10.0	5.9-7.5	4.8-6.1	4.0-4.3	7.0-14.0	4.5-12.0	4.0-8.0	3.5-4.7
December projection	3.5	3.6	3.7	4.1	3.5-3.7	3.5-3.9	3.5-4.0	3.9-4.3	3.3-3.8	3.3-4.0	3.3-4.1	3.5-4.5
PCE inflation	0.8	1.6	1.7	2.0	0.6-1.0	1.4-1.7	1.6-1.8	2.0	0.5-1.2	1.1-2.0	1.4-2.2	2.0
December projection	1.9	2.0	2.0	2.0	1.8-1.9	2.0-2.1	2.0-2.2	2.0	1.7-2.1	1.8-2.3	1.8-2.2	2.0
Core PCE inflation ⁴	1.0	1.5	1.7		0.9-1.1	1.4-1.7	1.6-1.8		0.7-1.3	1.2-2.0	1.2-2.2	
December projection	1.9	2.0	2.0		1.9-2.0	2.0-2.1	2.0-2.2		1.7-2.1	1.8-2.3	1.8-2.2	
Memo: Projected appropriate policy path												
Federal funds rate	0.1	0.1	0.1	2.5	0.1	0.1	0.1	2.3-2.5	0.1	0.1	0.1-1.1	2.0-3.0
December projection	1.6	1.9	2.1	2.5	1.6-1.9	1.6-2.1	1.9-2.6	2.4-2.8	1.6-1.9	1.6-2.4	1.6-2.9	2.0-3.3



INFLATION

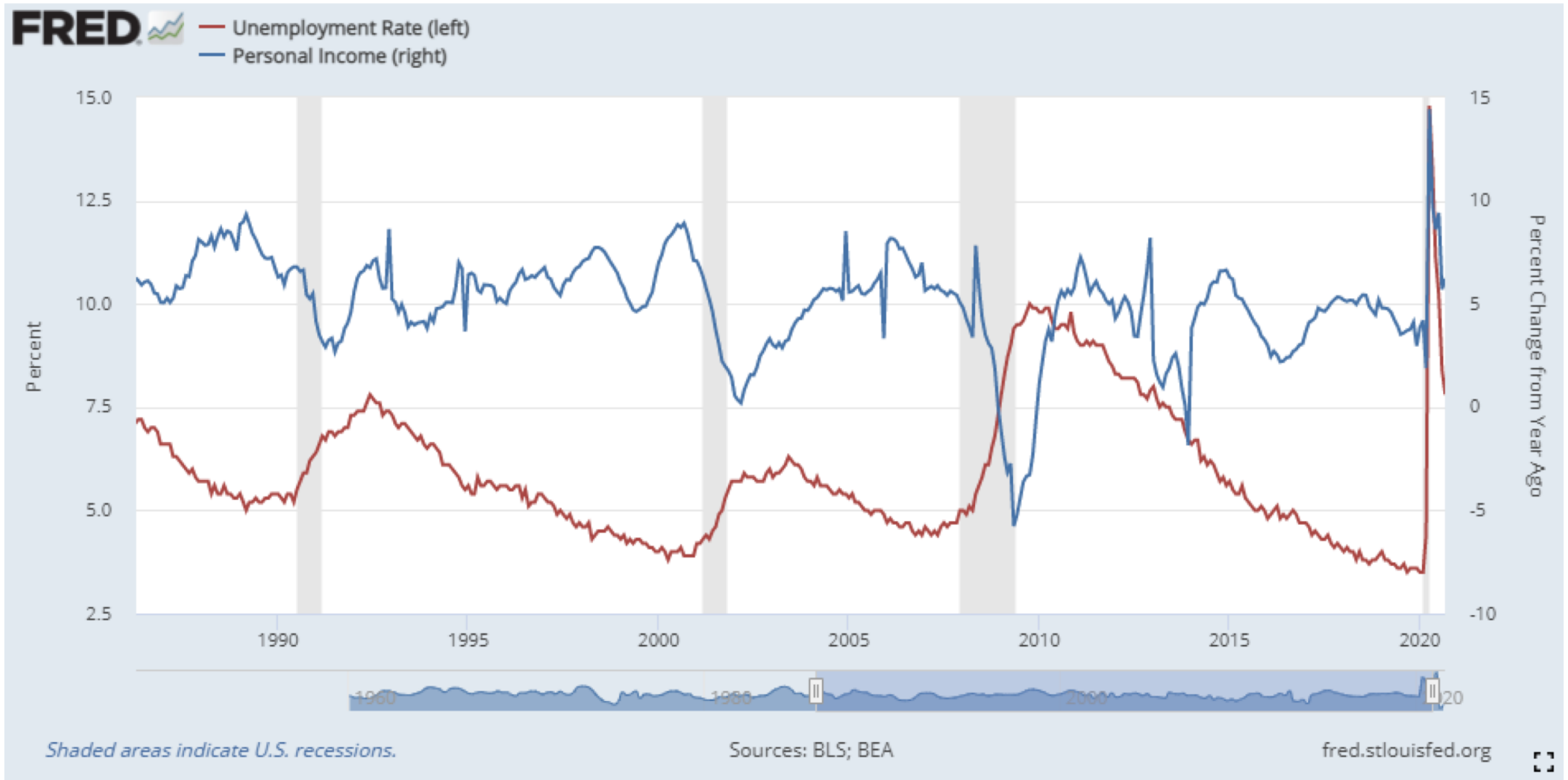
AND

GROWTH





It's amazing that in a huge economic shock – unemployment hit 15%, 5% higher than 2008/09 – Personal Incomes went UP.



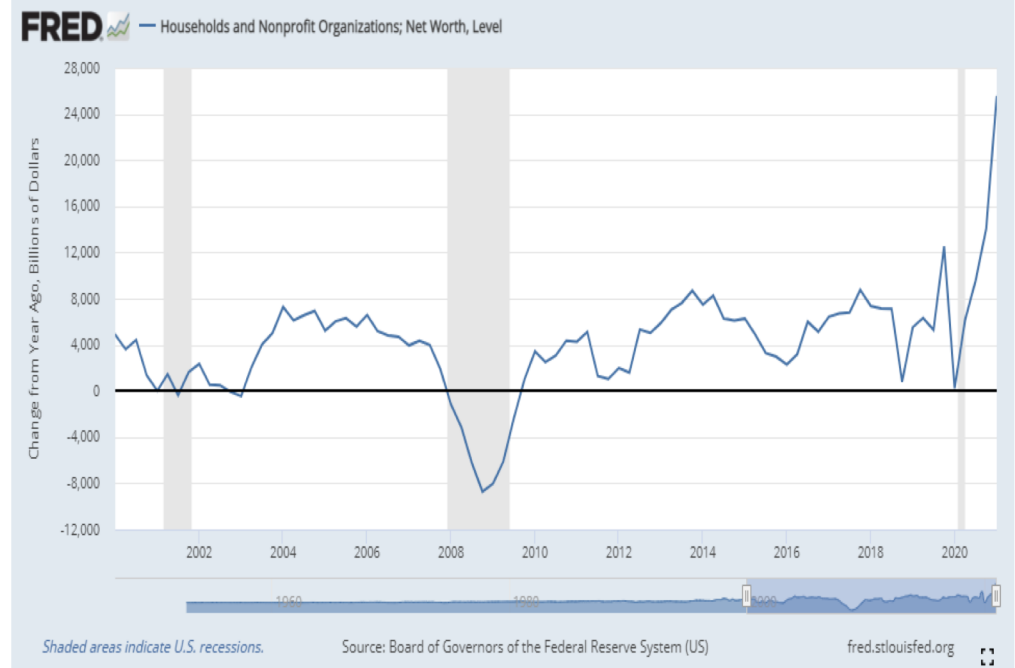
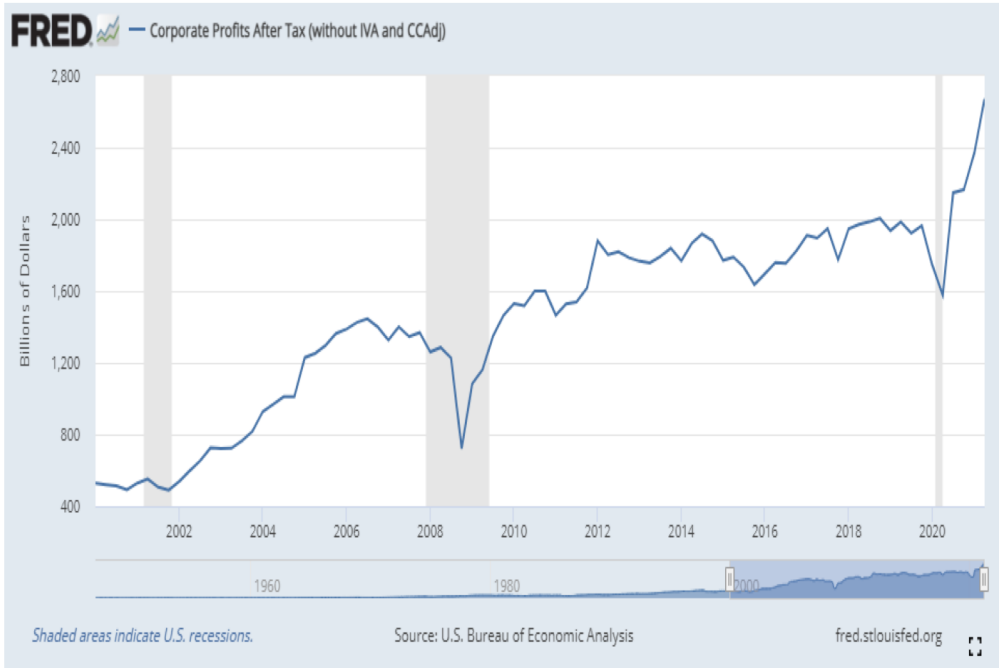


Table 1. Economic projections of Federal Reserve Board members and Federal Reserve Bank presidents, under their individual assumptions of projected appropriate monetary policy, June 2021

Percent

Variable	Median ¹				Central Tendency ²				Range ³			
	2021	2022	2023	Longer run	2021	2022	2023	Longer run	2021	2022	2023	Longer run
Change in real GDP	7.0	3.3	2.4	1.8	6.8-7.3	2.8-3.8	2.0-2.5	1.8-2.0	6.3-7.8	2.6-4.2	1.7-2.7	1.6-2.2
March projection	6.5	3.3	2.2	1.8	5.8-6.6	3.0-3.8	2.0-2.5	1.8-2.0	5.0-7.3	2.5-4.4	1.7-2.6	1.6-2.2
Unemployment rate	4.5	3.8	3.5	4.0	4.4-4.8	3.5-4.0	3.2-3.8	3.8-4.3	4.2-5.0	3.2-4.2	3.0-3.9	3.5-4.5
March projection	4.5	3.9	3.5	4.0	4.2-4.7	3.6-4.0	3.2-3.8	3.8-4.3	4.0-5.5	3.2-4.2	3.0-4.0	3.5-4.5
PCE inflation	3.4	2.1	2.2	2.0	3.1-3.5	1.9-2.3	2.0-2.2	2.0	3.0-3.9	1.6-2.5	1.9-2.3	2.0
March projection	2.4	2.0	2.1	2.0	2.2-2.4	1.8-2.1	2.0-2.2	2.0	2.1-2.6	1.8-2.3	1.9-2.3	2.0
Core PCE inflation ⁴	3.0	2.1	2.1		2.9-3.1	1.9-2.3	2.0-2.2		2.7-3.3	1.7-2.5	2.0-2.3	
March projection	2.2	2.0	2.1		2.0-2.3	1.9-2.1	2.0-2.2		1.9-2.5	1.8-2.3	1.9-2.3	
Memo: Projected appropriate policy path												
Federal funds rate	0.1	0.1	0.6	2.5	0.1	0.1-0.4	0.1-1.1	2.3-2.5	0.1	0.1-0.6	0.1-1.6	2.0-3.0
March projection	0.1	0.1	0.1	2.5	0.1	0.1-0.4	0.1-0.9	2.3-2.5	0.1	0.1-0.6	0.1-1.1	2.0-3.0

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