



Market Dashboard

9/30/22

SUMMARY

GROWTH, INFLATION & POLICY

	Current	1-Mo Chg.
■ Global PMI (GDP-Wtd):	49.8	▼ -0.8
■ US Inflation (CPI), Y/Y %:	8.30	▲ 6.80
■ Jobless Claims ('000):	219	▼ -9.0
■ US Fed Fds, %:	3.08	▲ 0.75

REAL ASSETS & INFRA

	Current	1-Mo Chg.
■ WTI Crude, \$/bbl:	79.49	▼ -17.52
■ US Crude Invent, Mil/bbl:	207	▼ -7.01
■ Gold Spot, \$/oz:	1,661	▼ -76.48
■ Equity REIT Div Yld, %:	3.89	▲ 0.87

EQUITY

	Current	1-Mo Chg.
■ S&P 500 Index:	3,586	▼ -444.99
■ S&P 500 P/E (Operating)*:	18.0	▼ -1.96
■ S&P 500 P/E (CAPE):	27.3	▼ -2.33
■ S&P 500 12-Mo Div Yld, %:	1.77	▲ 0.24
■ US Equity Sentiment Comp:	0.19	▼ -37.5

OPPORTUNISTIC

	Current	1-Mo Chg.
■ Median CEF Disc., %:	-9.6	▼ -3.1
■ SPX Call IV, 6M 5% OTM, %:	24.81	▲ 2.3
■ SPX Put IV, 12M -10% OTM, %:	29.03	▲ 1.4
■ Bitcoin, \$:	19,425	▼ -752

FIXED INCOME & CREDIT

	Current	1-Mo Chg.
■ 10 Year UST, %:	3.83	▲ 0.71
■ 10-2 UST Spread, %:	-0.40	▼ -0.23
■ US HYB Spreads, %:	5.52	▲ 0.91
■ 10Y TIPS Brkven, %:	2.15	▼ -0.42
■ 5-Year Muni/T Ratio, %:	76.6	▲ 5.44

ASSET ALLOCATION

	Current	1-Mo Chg.
■ US Dollar Index, DXY:	112.1	▲ 3.28
■ SPX Futs Spec, 3 Yr Z-Score:	1.79	▼ -0.04
■ Gold Futs Spec, 3 Yr Z-Score:	-3.05	▼ -1.05
■ Copper/Gold Ratio, \$:	0.205	▼ 0.00

Source: SpringTide, Bloomberg. Change represents one month change.

SUMMARY

Monday	Tuesday	Wednesday	Thursday	Friday
10/3 IT S&P Global Italy Manufacturing PMI (Sep) FR S&P Global France Manuf PMI (Sep F) GE S&P Global Germany Manufact PMI (Sep F) EC S&P Global Eurozone Manufact PMI (Sep F) UK S&P Global UK Manufacturing PMI (Sep F) CA S&P Global Canada Manufact PMI (Sep) US S&P Global US Manufacturing PMI (Sep F) US ISM Manufacturing (Sep)	10/4 US Factory Orders (Aug) US Durable Goods Orders (Aug F)	10/5 FR Industrial Production MoM (Aug) FR Industrial Production YoY (Aug) FR S&P Global France Services PMI (Sep F) US MBA Mortgage Applications (30 Sep) US ADP Employment Change (Sep) US Trade Balance (Aug)	10/6 GE Factory Orders MoM (Aug) US Initial Jobless Claims (1 Oct) RU Gold and Forex Reserve (30 Sep)	10/7 GE Industrial Production SA MoM (Aug) CA Net Change in Employment (Sep) US Change in Nonfarm Payrolls (Sep) CA Unemployment Rate (Sep) US Unemployment Rate (Sep) RU CPI YoY (Sep)
10/10 JN BoP Current Account Balance (Aug)	10/11 UK Claimant Count Rate (Sep) UK Jobless Claims Change (Sep) UK ILO Unemployment Rate 3Mths (Aug) IT Industrial Production MoM (Aug) JN Core Machine Orders MoM (Aug)	10/12 UK Industrial Production MoM (Aug) UK Manufacturing Production MoM (Aug) US MBA Mortgage Applications (7 Oct) US PPI Final Demand MoM (Sep) JN PPI YoY (Sep)	10/13 GE CPI MoM (Sep F) GE CPI YoY (Sep F) US CPI MoM (Sep) US CPI YoY (Sep) US Initial Jobless Claims (8 Oct) RU Gold and Forex Reserve (7 Oct)	10/14 FR CPI YoY (Sep F) US Retail Sales Advance MoM (Sep) US U. of Mich. Sentiment (Oct P)
10/17 IT CPI EU Harmonized YoY (Sep F) US Empire Manufacturing (Oct)	10/18 GE ZEW Survey Expectations (Oct) GE ZEW Survey Current Situation (Oct) CA Housing Starts (Sep) US Industrial Production MoM (Sep)	10/19 UK CPI YoY (Sep) UK CPI Core YoY (Sep) EC CPI YoY (Sep F) EC CPI MoM (Sep F) US MBA Mortgage Applications (14 Oct) US Housing Starts (Sep) CA CPI NSA MoM (Sep) CA CPI YoY (Sep)	10/20 US Initial Jobless Claims (15 Oct) RU Gold and Forex Reserve (14 Oct) US Existing Home Sales (Sep) US Leading Index (Sep) JN Natl CPI YoY (Sep)	10/21 UK Retail Sales Inc Auto Fuel MoM (Sep) UK Retail Sales Inc Auto Fuel YoY (Sep)
10/24 FR S&P Global France Manufact PMI (Oct P) FR S&P Global France Services PMI (Oct P) GE S&P Global Germany Manufact PMI (Oct P) EC S&P Global Eurozone Manufact PMI (Oct P) UK S&P Global UK Manufacturing PMI (Oct P) US S&P Global US Manufacturing PMI (Oct P)	10/25 GE IFO Business Climate (Oct) GE IFO Expectations (Oct) US Conf. Board Consumer Confidence (Oct)	10/26 EC M3 Money Supply YoY (Sep) US MBA Mortgage Applications (21 Oct) CA Bank of Canada Rate Decision (26 Oct) RU Industrial Production YoY (Sep)	10/27 IT Manufacturing Confidence (Oct) EC ECB Main Refinancing Rate (27 Oct) EC ECB Deposit Facility Rate (27 Oct) US GDP Annualized QoQ (3Q A) US Durable Goods Orders (Sep P) US Initial Jobless Claims (22 Oct) RU Gold and Forex Reserve (21 Oct) JN Tokyo CPI Ex-Fresh Food YoY (Oct)	10/28 UK Nationwide House PX MoM (Oct) UK Nationwide House Px NSA YoY (Oct) GE CPI MoM (Oct P) GE CPI YoY (Oct P) CA GDP MoM (Aug) US Personal Income (Sep) US Personal Spending (Sep) US U. of Mich. Sentiment (Oct F)
10/31 IT GDP WDA YoY (3Q P) IT GDP WDA QoQ (3Q P) UK Mortgage Approvals (Sep) EC CPI MoM (Oct P) EC GDP SA QoQ (3Q A) EC GDP SA YoY (3Q A) US MNI Chicago PMI (Oct) JN Jibun Bank Japan PMI Mfg (Oct F)	11/1	11/2	11/3	11/4

US: United States, EC: Eurozone, CN: China, CA: Canada, UK: United Kingdom, JN: Japan, GE: Germany, IT: Italy, FR: France

Source: SpringTide, Bloomberg

SUMMARY

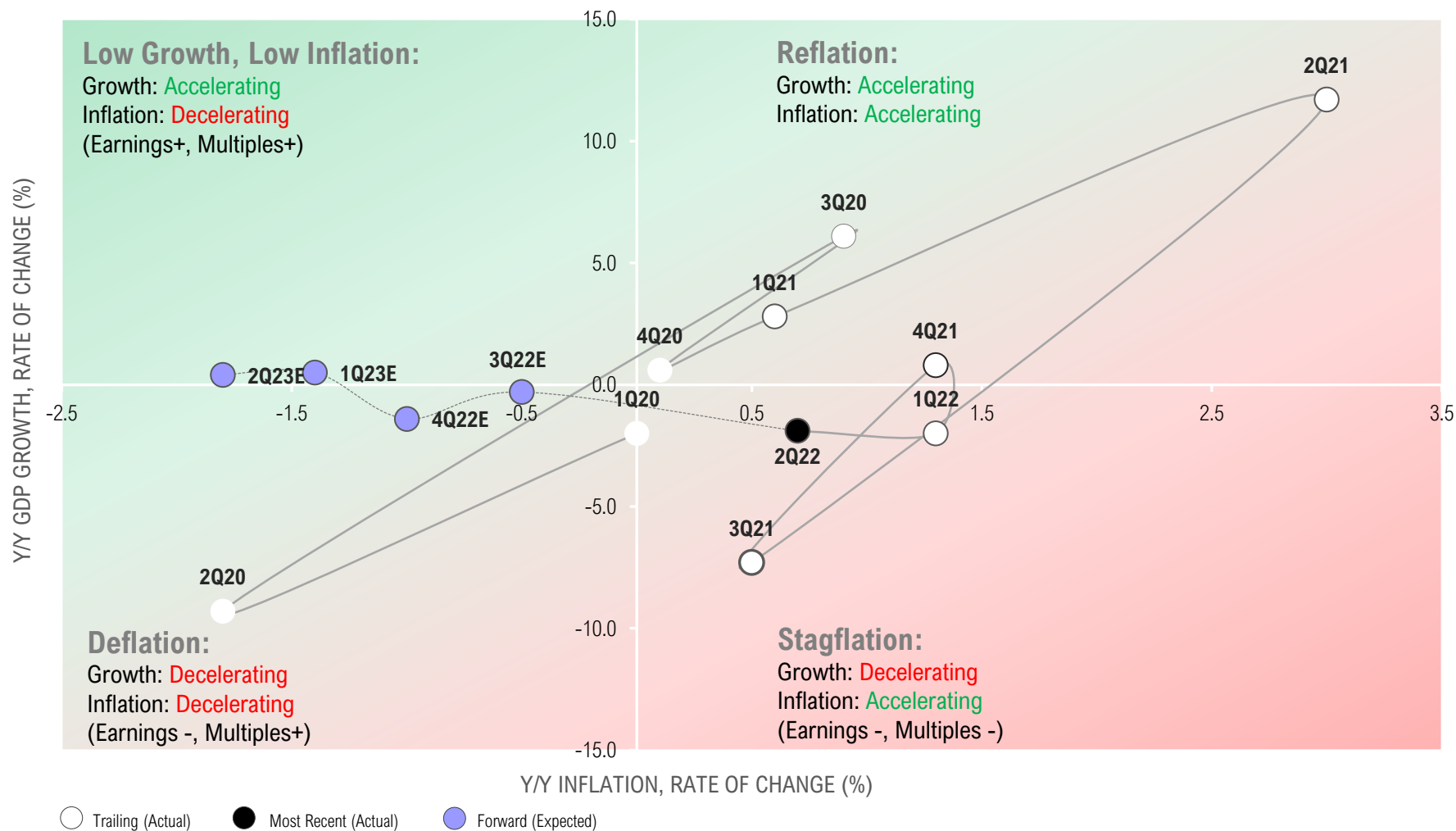
TOTAL RETURNS BY CALENDAR WEEK

	4/15	4/22	4/29	5/6	5/13	5/20	5/27	6/3	6/10	6/17	6/24	7/1	7/8	7/15	7/22	7/29	8/5	8/12	8/19	8/26	9/2	9/9	9/16	9/23	9/30
Global Equity																									
U.S. Large Cap Stocks	-2.8	6.2	1.8	0.1	-1.2	-2.1	-2.7	-3.3	-0.2	-2.4	-3.0	6.6	-1.2	-5.0	-5.8	6.5	-2.2	2.0	-0.9	2.6	4.3	0.4	3.3	-1.2	-2.9
U.S. Small & Micro Cap	-1.0	5.4	-0.4	0.7	-4.6	0.5	-3.2	-3.9	-1.3	-2.5	-1.1	6.5	-0.2	-4.4	-7.4	6.0	-2.1	2.4	-1.4	3.6	4.4	2.0	5.0	-2.9	-0.8
Intl Dev Large Cap Stocks	0.6	5.6	0.2	0.8	-1.4	-1.1	-1.5	-2.2	-2.8	-1.4	1.5	3.5	-0.3	-4.7	-5.7	2.8	-2.2	1.0	-1.8	4.4	2.1	-0.7	2.2	-2.2	-1.4
Intl Dev Small & Micro Cap	0.9	4.7	-0.1	0.4	-2.1	-0.6	-1.3	-2.6	-3.7	-2.0	2.1	2.6	-0.1	-4.8	-5.9	1.8	-2.6	1.6	-2.4	6.1	2.1	-0.5	3.0	-3.6	-2.4
Emerging & Frontier Stocks	-5.1	3.5	0.2	1.9	-1.5	-1.2	-3.3	0.1	-4.1	-2.6	3.1	0.9	1.8	-0.5	-4.7	0.8	-1.6	0.9	-3.7	3.0	0.4	1.0	1.7	-1.5	-3.3
Global Stocks	-2.3	5.8	1.2	0.5	-1.4	-1.7	-2.7	-2.6	-1.5	-2.2	-1.1	5.0	-0.5	-4.4	-5.7	4.8	-2.2	1.6	-1.6	3.2	3.3	0.3	2.9	-1.6	-2.5
Fixed Income & Credit																									
U.S. Municipal Bonds†	-0.8	-0.4	-1.1	-0.1	-0.6	-0.3	-0.8	-0.1	-0.4	-0.3	0.2	1.7	0.4	-0.2	-1.3	0.5	0.4	0.6	0.3	0.2	0.6	-0.1	0.0	-1.0	-0.6
U.S. Taxable Bonds	-1.8	-0.4	-1.8	0.8	-1.8	-0.7	-1.0	0.0	-1.1	0.9	0.6	0.8	-0.9	-1.5	-0.9	0.6	1.3	-0.9	0.9	1.2	0.6	-1.0	0.2	-0.9	-1.0
U.S. High Yield Bonds	-1.5	0.5	-0.6	0.7	-1.3	-0.3	-0.9	-0.9	-1.2	-1.2	-0.7	3.3	-0.4	-2.3	-2.9	0.6	-1.6	1.3	0.3	2.5	1.5	0.7	0.9	-1.2	-1.4
U.S. Bank Loans	-1.0	0.2	0.5	0.7	0.4	0.0	0.0	-0.3	-0.6	-1.8	-0.4	-0.1	0.8	-0.1	-1.4	-0.3	-1.1	0.0	0.4	1.6	0.2	0.8	1.2	-0.1	-1.1
Intl Dev Bonds	-2.3	-0.1	-2.0	-0.1	-2.3	-1.4	-1.5	-1.7	-1.5	0.0	1.2	1.2	-2.2	-3.4	-2.0	1.8	0.2	-1.7	-0.2	2.0	1.8	-0.8	0.4	-3.2	-0.6
Emerging & Frontier Bonds	-0.3	1.9	-1.4	0.9	-1.7	-1.0	-1.4	-1.3	-1.5	-0.4	-0.3	2.6	-0.7	-2.4	-2.4	0.3	-0.6	-1.0	-2.4	3.0	2.4	0.9	1.5	-1.7	-3.1
Real Assets																									
U.S. REITs	-1.5	2.5	0.5	3.9	-1.2	-0.7	1.0	-5.5	-4.5	-3.1	-3.0	5.5	-1.9	-5.6	-4.8	6.0	-0.3	-0.9	-0.4	3.3	4.9	-2.0	5.0	-2.2	-3.7
Ex U.S. Real Estate Securities	-0.1	3.5	-0.3	1.4	-1.0	-0.9	-2.2	-1.9	-4.0	-2.2	2.4	1.4	-0.8	-4.0	-5.3	2.5	-1.5	0.6	-2.4	4.2	2.4	-1.7	2.4	-2.8	-3.8
Commodity Futures	-0.5	-2.4	5.3	-4.6	2.1	4.8	-2.6	0.4	0.7	-1.5	1.8	2.6	0.0	1.2	-6.4	-4.3	-3.4	-1.0	-2.1	2.7	4.6	-3.2	4.6	-0.7	-0.7
Energy Partnerships	-2.7	-3.1	6.8	-0.4	1.2	2.7	-1.4	-3.1	4.7	-3.8	1.0	6.2	1.9	-2.3	-15.3	0.9	2.0	0.1	-0.1	2.7	8.1	-2.7	5.5	1.9	2.2
Gold	1.7	-2.2	0.9	-1.3	0.6	1.1	-1.1	-1.6	-1.5	-3.8	1.3	1.0	-0.4	-0.8	0.6	-0.9	-1.5	-3.3	-1.8	1.8	1.0	1.1	1.1	-2.3	1.7
Tactical & Opportunistic																									
Tactical Allocation	-1.6	2.0	0.5	0.0	-1.1	-0.7	-1.8	-1.7	-0.4	-1.0	-0.6	2.8	-0.6	-2.4	-3.6	1.9	-0.6	0.0	-0.6	1.4	2.2	-0.2	2.0	-1.1	-1.2
Long-Short Equity	-1.1	2.4	0.7	-0.4	-0.6	-0.5	-1.3	-1.3	0.1	-0.8	-0.8	2.6	-0.5	-2.2	-3.1	1.7	-0.6	0.1	-0.5	1.2	1.8	-0.3	1.8	-0.7	-0.8
Closed-End Funds	-2.9	2.9	-0.4	2.7	-2.3	-1.7	-0.9	-1.8	-1.4	-3.1	0.0	4.6	-0.6	-1.9	-7.0	2.9	0.7	0.2	-0.3	2.2	3.9	0.8	2.5	-2.4	-2.6
Managed Futures	1.8	-1.1	3.7	-1.5	2.0	1.6	0.5	0.5	1.5	-0.6	-1.2	-0.4	1.3	2.2	-0.3	-2.1	-0.6	0.2	0.5	-1.7	-1.4	0.1	-0.2	2.0	0.2
Digital Assets	-3.2	10.0	5.7	10.2	-11.0	-5.1	-1.2	-10.3	-5.5	-32.1	1.0	-6.7	1.1	-9.8	-26.5	21.0	-9.3	12.5	2.5	6.0	14.4	-3.2	8.5	-16.6	-1.9
Insurance-Linked Securities	0.1	0.1	-0.1	0.0	0.0	0.0	0.1	-0.1	-0.1	0.0	0.0	-0.1	0.1	-0.2	0.0	0.0	-0.7	0.1	0.1	0.2	0.1	0.1	0.2	0.1	-9.7
S-Term Bonds & Cash																									
Cash	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S-Term Bonds (Tax-Exempt)	-0.4	-0.2	-0.6	-0.1	-0.2	-0.2	-0.3	0.0	-0.1	0.0	0.2	0.7	0.2	0.1	-0.5	0.2	0.2	0.3	0.1	0.1	0.2	-0.2	-0.1	-0.6	-0.2
S-Term Bonds (Taxable)	-0.5	-0.3	-0.6	-0.1	-0.1	0.1	-0.4	0.1	0.0	0.3	0.1	0.3	-0.3	-0.7	-0.3	0.3	0.4	-0.4	0.0	0.4	0.3	-0.6	0.1	0.0	0.0

LOWER  HIGHER

Source: Bloomberg, Morningstar

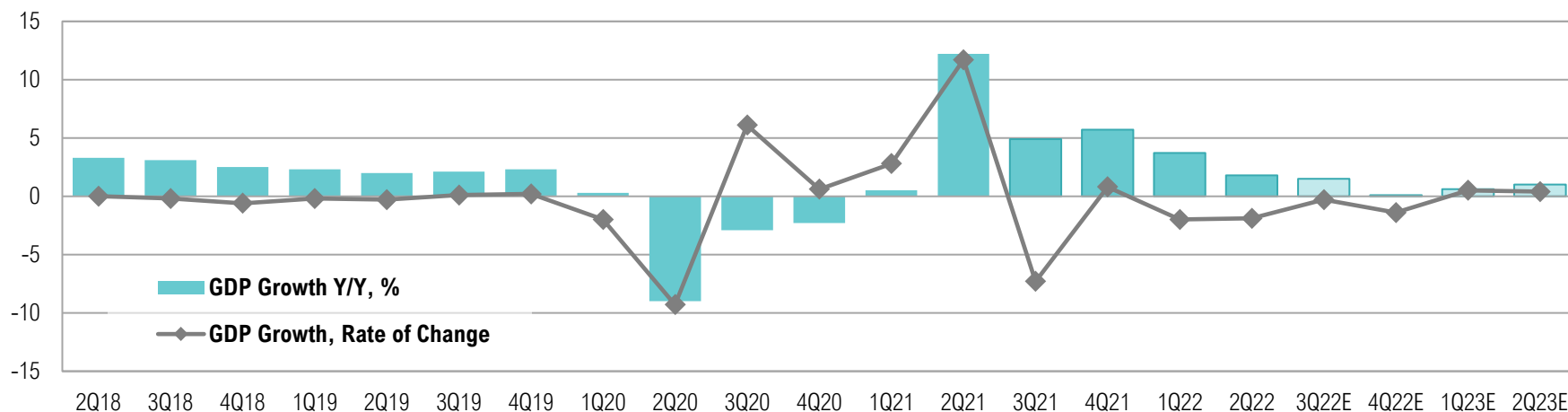
➤ **Stubbornly persistent inflation has eroded recent nominal growth; focus now shifts to when, and by how much, inflation will ease and if stagflation can be avoided**



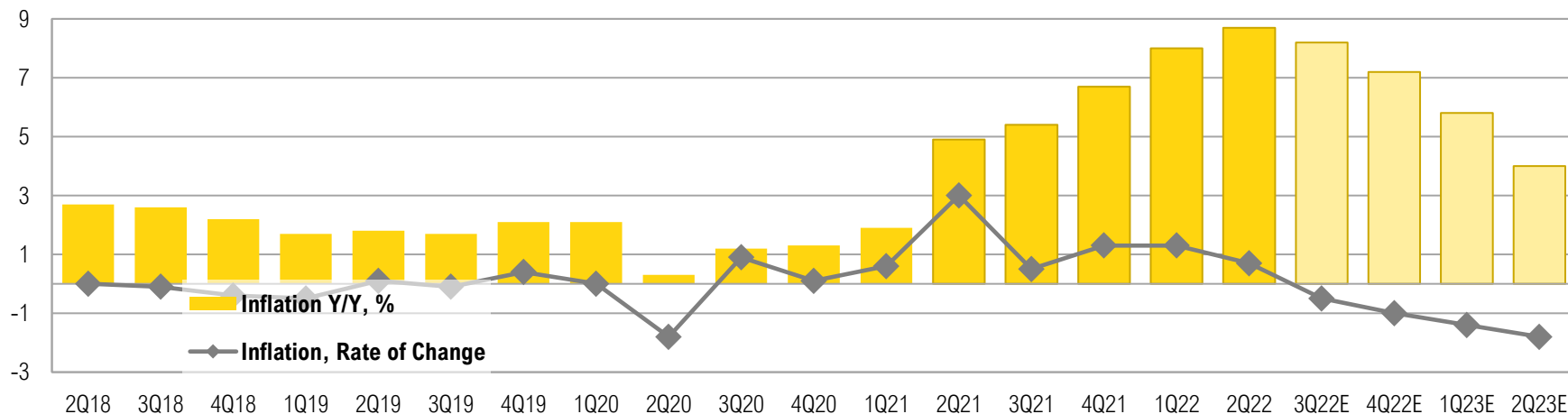
Source: Bloomberg

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GDP GROWTH & RATE OF CHANGE, Y/Y%



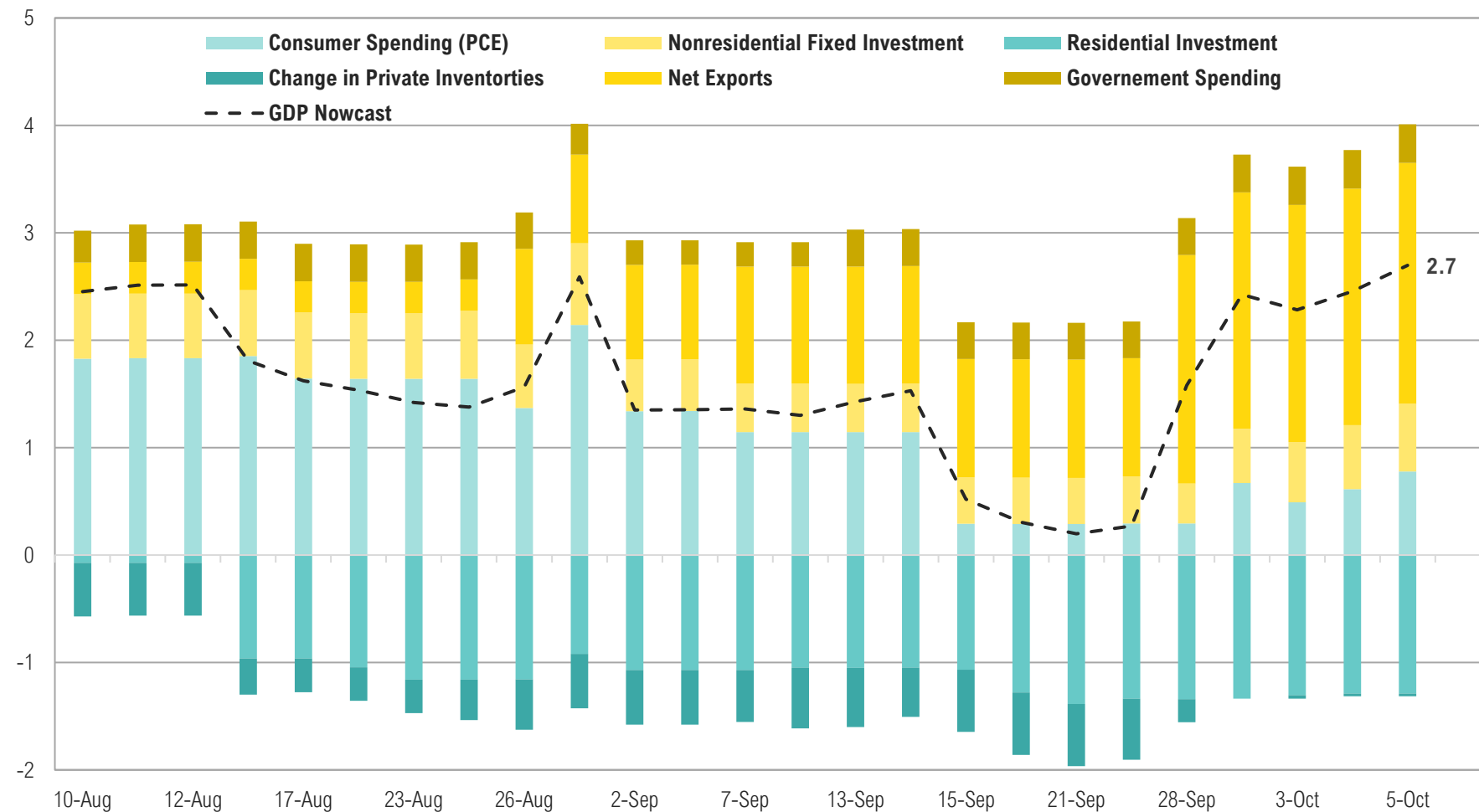
INFLATION LEVELS & RATE OF CHANGE, Y/Y%



Source: SpringTide calculations, Bloomberg estimates

Atlanta Fed expectations for 3Q22 GDP rose sharply toward the end of the September, largely driven by improvements in net export and consumer spending estimates


ATLANTA FED GDPNOW REAL GDP ESTIMATE FOR 3Q 2022



Source: Atlanta Fed

Global manufacturing activity dropped in September as emerging market activity contracted while developed market activity stalled further

MANUFACTURING PMIs BY COUNTRY* & REGION, 2017 - CURRENT

	2019				2020												2021												2022											
	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S				
Global	49.8	50.3	50.1	50.3	47.1	47.3	38.6	42.4	48.0	50.6	51.8	52.4	53.1	53.8	53.8	53.6	54.0	55.0	55.8	56.0	55.5	55.4	54.1	54.1	54.2	54.2	54.3	53.2	53.7	52.9	52.3	52.3	52.2	51.1	50.3	49.8				
Developed	48.6	49.5	49.1	49.8	49.6	45.9	38.8	39.5	46.4	49.8	51.2	52.1	52.8	53.8	54.8	55.2	56.5	58.5	59.3	59.8	59.5	59.8	58.3	57.1	56.6	56.9	56.6	56.3	56.6	56.5	56.3	55.0	52.5	51.3	50.3	50.1				
Emerging	51.0	51.0	51.0	51.0	44.8	49.1	42.7	45.4	49.6	51.4	52.5	52.8	53.4	53.9	52.8	52.1	51.6	51.3	52.2	52.0	51.2	50.6	49.6	50.8	51.6	51.2	51.7	50.0	50.9	49.2	48.1	49.5	51.7	50.8	50.2	49.4				
Developed																																								
U.S.	51.3	52.6	52.4	51.9	50.7	48.5	36.1	39.8	49.8	50.9	53.1	53.2	53.4	56.7	57.1	59.2	58.6	59.1	60.5	62.1	62.1	63.4	61.1	60.7	58.4	58.3	57.7	55.5	57.3	58.8	59.2	57.0	52.7	52.2	51.5	52.0				
Canada	51.2	51.4	50.4	50.6	51.8	46.1	33.0	40.6	47.8	52.9	55.1	56.0	55.5	55.8	57.9	54.4	54.8	58.5	57.2	57.0	56.5	56.2	57.2	57.0	57.7	57.2	56.5	56.2	56.6	58.9	56.2	56.8	54.6	52.5	48.7	49.8				
Japan	48.4	48.9	48.4	48.8	47.8	44.8	41.9	38.4	40.1	45.2	47.2	47.7	48.7	49.0	50.0	49.8	51.4	52.7	53.6	53.0	52.4	53.0	52.7	51.5	53.2	54.5	54.3	55.4	52.7	54.1	53.5	53.3	52.7	52.1	51.5	50.8				
UK	49.6	48.9	47.5	50.0	51.7	47.8	32.6	40.7	50.1	53.3	55.2	54.1	53.7	55.6	57.5	54.1	55.1	58.9	60.9	65.6	63.9	60.4	60.3	57.1	57.8	58.1	57.9	57.3	58.0	55.2	55.8	54.6	52.8	52.1	47.3	48.4				
Eurozone	45.9	46.9	46.3	47.9	49.2	44.5	33.4	39.4	47.4	51.8	51.7	53.7	54.8	53.8	55.2	54.8	57.9	62.5	62.9	63.1	63.4	62.8	61.4	58.6	58.3	58.4	58.0	58.7	58.2	56.5	55.5	54.6	52.1	49.8	49.6	48.4				
Germany	42.1	44.1	43.7	45.3	48.0	45.4	34.5	36.6	45.2	51.0	52.2	56.4	58.2	57.8	58.3	57.1	60.7	66.6	66.2	64.4	65.1	65.9	62.6	58.4	57.8	57.4	57.4	59.8	58.4	56.9	54.6	54.8	52.0	49.3	49.1	47.8				
France	50.7	51.7	50.4	51.1	49.8	43.2	31.5	40.6	52.3	52.4	49.8	51.2	51.3	49.6	51.1	51.6	56.1	59.3	58.9	59.4	59.0	58.0	57.5	55.0	53.6	55.9	55.6	55.5	57.2	54.7	55.7	54.6	51.4	49.5	50.6	47.7				
Italy	47.7	47.6	46.2	48.9	48.7	40.3	31.1	45.4	47.5	51.9	53.1	53.2	53.8	51.5	52.8	55.1	56.9	59.8	60.7	62.3	62.2	60.3	60.9	59.7	61.1	62.8	62.0	58.3	58.3	55.8	54.5	51.9	50.9	48.5	48.0	48.3				
Spain	46.8	47.5	47.4	48.5	50.4	45.7	30.8	38.3	49.0	53.5	49.9	50.8	52.5	49.8	51.0	49.3	52.9	56.9	57.7	59.4	60.4	59.0	59.5	58.1	57.4	57.1	56.2	56.2	56.9	54.2	53.3	53.8	52.6	48.7	49.9	49.0				
Netherlands	50.3	49.6	48.3	49.9	52.9	50.5	41.3	40.5	45.2	47.9	52.3	52.5	50.4	54.4	58.2	58.8	59.6	64.7	67.2	69.4	68.8	67.4	65.8	62.0	62.5	60.7	58.7	60.1	60.6	58.4	59.9	57.8	55.9	54.5	52.6	49.0				
Australia	50.0	49.9	49.2	49.6	50.2	49.7	44.1	44.0	51.2	54.0	53.6	55.4	54.2	55.8	55.7	57.2	56.9	56.8	59.7	60.4	58.6	56.9	52.0	56.8	58.2	59.2	57.7	55.1	57.0	57.7	58.8	55.7	56.2	55.7	53.8	53.5				
Greece	53.5	54.1	53.9	54.4	56.2	42.5	29.0	41.1	49.4	48.6	49.4	50.0	48.7	42.3	46.9	50.0	49.4	51.8	54.4	58.0	58.6	57.4	59.3	58.4	58.9	58.8	59.0	57.9	57.8	54.6	54.8	53.8	51.1	49.1	48.8	49.7				
Emerging																																								
China	51.7	51.8	51.5	51.1	40.3	50.1	49.4	50.7	51.2	52.8	53.1	53.0	53.6	54.9	53.0	51.5	50.9	50.6	51.9	52.0	51.3	50.3	49.2	50.0	50.6	49.9	50.9	49.1	50.4	48.1	46.0	48.1	51.7	50.4	49.5	48.1				
Indonesia	47.7	48.2	49.5	49.3	51.9	45.3	37.6	38.6	39.1	46.9	50.8	47.2	47.8	50.6	51.3	52.2	50.9	53.2	54.6	55.3	53.5	40.1	43.7	52.2	57.2	53.9	53.5	53.7	51.2	51.3	51.9	50.8	50.2	51.3	51.7	53.7				
Korea	48.4	49.4	50.1	49.8	48.7	44.2	41.6	41.3	43.4	46.9	48.5	49.8	51.2	52.9	52.9	53.2	55.3	55.3	54.6	53.7	53.9	53.0	51.2	52.4	50.2	50.9	51.9	52.8	53.8	51.2	52.1	51.8	51.3	49.8	47.6	47.3				
Taiwan	49.8	49.8	50.8	51.8	49.9	50.4	42.2	41.9	46.2	50.6	52.2	55.2	55.1	56.9	59.4	60.2	60.4	60.8	62.4	62.0	57.6	59.7	58.5	54.7	55.2	54.9	55.5	55.1	54.3	54.1	51.7	50.0	49.8	44.6	42.7	42.2				
Brazil	52.2	52.9	50.2	51.0	52.3	48.4	36.0	38.3	51.6	58.2	64.7	64.9	66.7	64.0	61.5	56.5	58.4	52.8	52.3	53.7	56.4	56.7	53.6	54.4	51.7	49.8	49.8	47.8	49.6	52.3	51.8	54.2	54.1	54.0	51.9	51.1				
Mexico	50.4	48.0	47.1	49.0	50.0	47.9	35.0	38.3	38.6	40.4	41.3	42.1	43.6	43.7	42.4	43.0	44.2	45.6	48.4	47.6	48.8	49.6	47.1	48.6	49.3	49.4	49.4	46.1	48.0	49.2	49.3	50.6	52.2	48.5	48.5	50.3				
Russia	47.2	45.6	47.5	47.9	48.2	47.5	31.3	36.2	49.4	48.4	51.1	48.9	46.9	46.3	49.7	50.9	51.5	51.1	50.4	51.9	49.2	47.5	46.5	49.8	51.6	51.7	51.6	51.8	48.6	44.1	48.2	50.8	50.9	50.3	51.7	52.0				
South Africa	49.4	48.6	47.6	48.3	48.4	44.5	35.1	32.5	42.5	44.9	45.3	49.4	51.0	50.3	50.2	50.8	50.2	50.3	53.7	53.2	51.0	46.1	49.9	50.7	48.6	51.7	48.4	50.9	50.9	51.4	50.3	50.7	52.5	52.7	51.7	49.2				
India	50.6	51.2	52.7	55.3	54.5	51.8	37.4	30.8	47.2	46.0	52.0	56.8	58.9	56.3	56.4	57.7	57.5	55.4	55.5	50.8	48.1	55.3	52.3	53.7	55.9	57.6	55.5	54.0	54.9	54.0	54.7	54.6	53.9	56.4	56.2	55.1				
LOWER																																								

LOWER  HIGHER

Source: Bloomberg, Markit

*Some countries might have delayed reporting's.

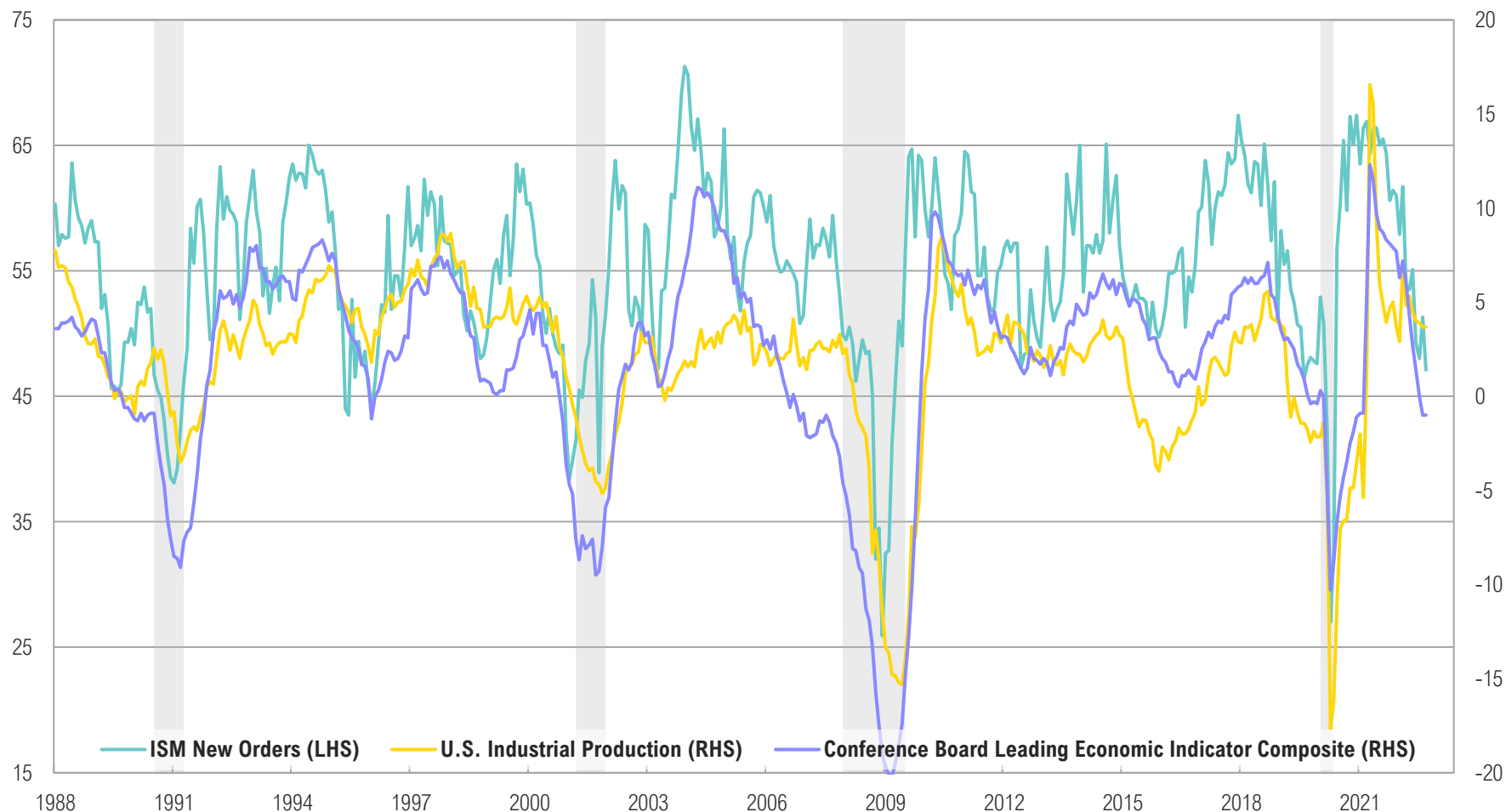
Monthly Dashboard

SEE IMPORTANT DISCLOSURES AT THE END OF THIS PRESENTATION

Industrial production and leading indicator growth peaked a year ago, have been slowing since; forward-looking indicators continue to trend lower

U.S. ISM NEW ORDERS, Y/Y%

INDUSTRIAL PRODUCTION & LEADING ECONOMIC INDICATOR, Y/Y%

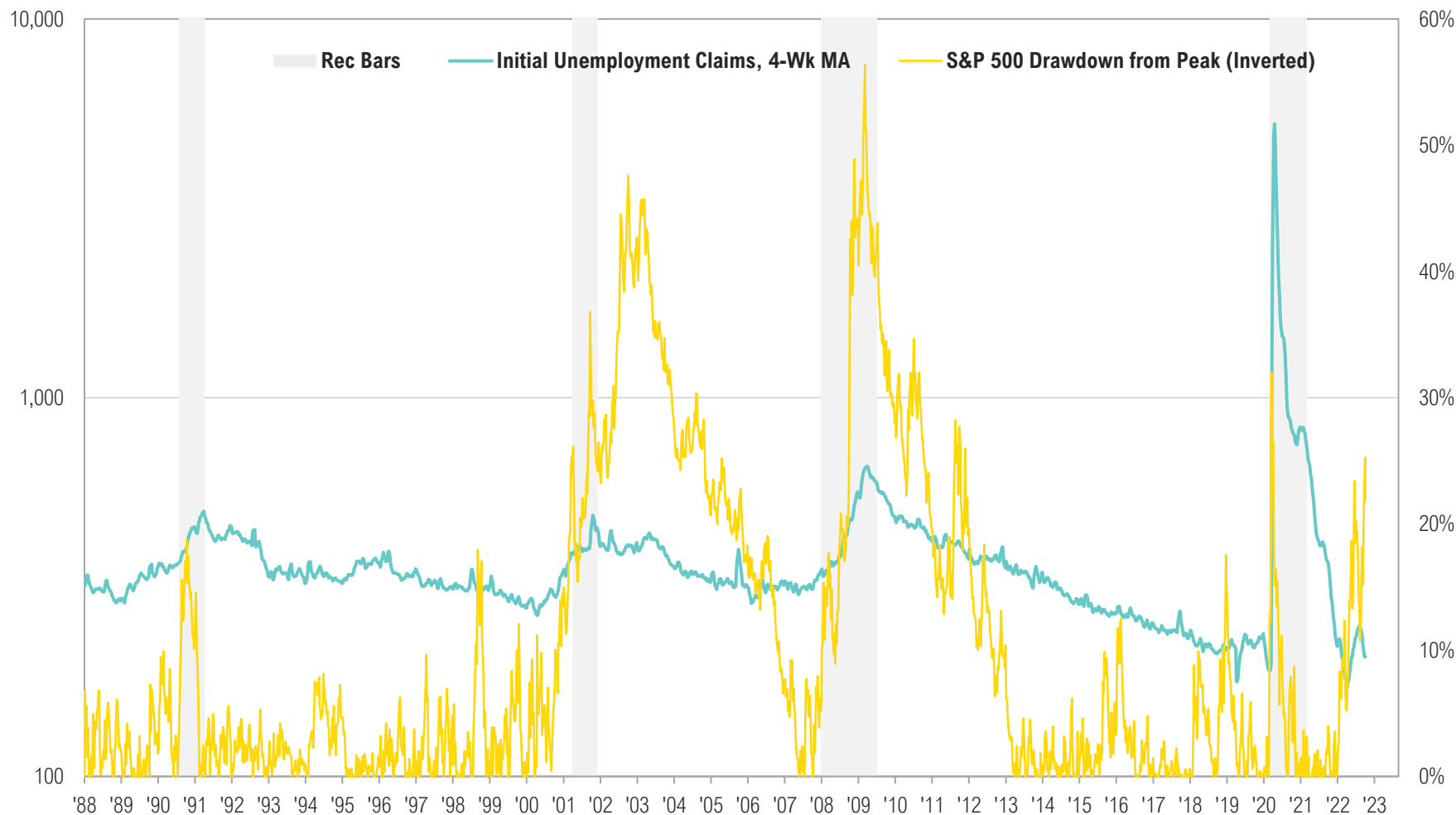


Source: Bloomberg

➤ Stocks sold off sharply in September and are once again down over 20% from all-time highs; unemployment, which is a lagging indicator, remains low

WEEKLY UNEMPLOYMENT CLAIMS, 000s

S&P 500 DRAWDOWN FROM PEAK



Source: SpringTide, Bloomberg, FRED

Pre-Russian invasion, global inflation was already at a decade-high due to lack of investment in commodity supply, labor tightness, rising housing prices, supply chain bottlenecks, etc.

COUNTRY & GDP-WEIGHTED REGIONAL INFLATION

	2012		2013				2014				2015				2016				2017				2018				2019				2020				2021				2022	
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2				
Global	2.2	2.2	3.0	3.2	3.2	3.1	2.9	3.0	2.5	2.0	1.9	1.9	1.8	2.1	2.0	2.0	2.2	2.2	1.7	2.2	2.4	2.4	2.7	2.5	1.9	2.1	2.1	2.1	3.1	2.5	1.8	2.0	1.3	2.3	3.6	3.7	4.8	6.2	6.6	
DM	1.8	1.6	1.3	1.6	1.3	1.4	1.3	1.9	1.6	0.8	0.3	0.3	0.1	0.5	0.5	0.6	0.9	1.5	1.8	1.4	1.8	1.8	2.0	2.3	2.1	1.6	1.6	1.4	1.3	1.8	1.2	0.4	0.7	0.6	1.7	3.4	3.9	5.3	6.9	7.4
EM	5.1	5.5	5.2	5.4	5.9	5.3	5.0	4.5	3.8	3.6	4.1	4.1	3.9	4.2	3.9	4.0	3.5	3.1	2.7	2.1	2.6	3.3	3.0	3.2	3.2	2.4	2.8	3.0	3.2	4.9	4.3	3.5	3.7	2.4	3.0	3.9	3.3	4.2	5.2	5.7
Developed																																								
U.S.	2.0	1.7	1.5	1.8	1.2	1.5	1.5	2.1	1.7	0.8	-0.1	0.1	0.0	0.7	0.9	1.0	1.5	2.1	2.4	1.6	2.2	2.1	2.4	2.9	2.3	1.9	1.9	1.6	1.7	2.3	1.5	0.6	1.4	1.4	2.6	5.4	5.4	7.0	8.5	8.6
Canada	1.2	0.8	1.0	1.2	1.1	1.2	1.5	2.4	2.0	1.5	1.2	1.0	1.0	1.6	1.3	1.5	1.3	1.5	1.6	1.0	1.6	1.9	2.3	2.5	2.2	2.0	1.9	2.0	1.9	2.2	0.9	0.7	0.5	0.7	2.2	3.1	4.4	4.8	6.7	7.7
Japan	-0.3	-0.1	-0.9	0.2	1.1	1.6	1.6	3.6	3.2	2.4	2.3	0.4	0.0	0.2	0.0	-0.4	-0.5	0.3	0.2	0.4	0.7	1.0	1.1	0.7	1.2	0.3	0.5	0.7	0.2	0.8	0.4	0.1	0.0	-1.2	-0.4	-0.5	0.2	0.8	1.2	2.5
UK	2.4	2.7	2.8	2.7	2.7	2.1	1.7	1.7	1.5	0.9	0.1	0.0	0.0	0.1	0.3	0.4	0.7	1.2	2.1	2.7	2.8	3.0	2.7	2.4	2.5	2.3	1.9	2.0	1.8	1.4	1.7	0.6	0.6	0.5	0.6	2.1	2.8	4.9	6.2	9.1
Eurozone	2.6	2.2	1.7	1.6	1.1	0.8	0.5	0.5	0.3	-0.2	-0.1	0.5	0.2	0.3	0.0	0.0	0.4	1.1	1.5	1.3	1.6	1.3	1.4	2.0	2.1	1.5	1.4	1.3	0.8	1.3	0.7	0.3	-0.3	-0.3	1.3	1.9	3.4	5.0	7.4	8.6
Germany	2.0	2.0	1.3	1.9	1.4	1.4	1.1	1.0	0.9	0.2	0.2	0.9	0.6	0.2	0.3	0.3	0.6	1.5	1.4	1.4	1.7	1.4	1.5	1.9	1.9	1.6	1.3	1.6	1.2	1.5	1.4	0.9	-0.2	-0.3	1.7	2.3	4.1	5.3	7.3	7.6
France	1.9	1.3	1.0	0.9	0.9	0.7	0.6	0.5	0.3	0.1	-0.1	0.3	0.0	0.2	-0.1	0.2	0.4	0.6	1.1	0.7	1.0	1.2	1.6	2.0	2.2	1.6	1.1	1.2	0.9	1.5	0.7	0.2	0.0	0.0	1.1	1.5	2.2	2.8	4.5	5.8
Italy	3.4	2.6	1.8	1.2	0.9	0.6	0.3	0.3	-0.1	0.0	0.0	0.2	0.2	0.1	-0.2	-0.2	0.1	0.5	1.4	1.2	1.3	1.0	0.9	1.4	1.5	1.2	1.1	0.8	0.2	0.5	0.1	-0.4	-1.0	-0.3	0.6	1.3	2.9	4.2	6.8	8.5
Spain	3.4	2.9	2.4	2.1	0.3	0.3	-0.1	0.1	-0.2	-1.0	-0.7	0.1	-0.9	0.0	-0.8	-0.8	0.2	1.6	2.3	1.5	1.8	1.1	1.2	2.3	2.3	1.2	1.3	0.4	0.1	0.8	0.0	-0.3	-0.4	-0.5	1.3	2.7	4.0	6.5	9.8	10.2
Netherlands	2.3	2.9	2.9	2.9	2.4	1.7	0.8	0.9	0.9	0.7	0.4	1.0	0.5	0.7	0.6	0.0	0.1	1.0	1.1	1.1	1.5	1.3	1.0	1.7	1.9	2.0	2.8	2.7	2.6	2.7	1.4	1.6	1.1	1.0	1.9	2.0	2.7	5.7	9.7	8.8
Australia	2.0	2.2	2.5	2.4	2.2	2.7	2.9	3.0	2.3	1.7	1.3	1.5	1.5	1.7	1.3	1.0	1.3	1.5	2.1	1.9	1.8	1.9	1.9	2.1	1.9	1.8	1.3	1.6	1.7	1.8	2.2	-0.3	0.7	0.9	1.1	3.8	3.0	3.5	5.1	6.1
Greece	0.3	0.3	-0.2	-0.3	-1.0	-1.8	-1.5	-1.5	-1.1	-2.5	-1.9	-1.1	-0.8	0.4	-0.7	0.2	-0.1	0.3	1.7	0.9	1.0	1.0	0.2	1.0	1.1	0.6	1.0	0.2	0.2	1.1	0.2	-1.9	-2.3	-2.4	-2.0	0.6	1.9	4.4	8.0	10.5
Emerging																																								
China	1.9	2.5	2.1	2.7	3.1	2.5	2.4	2.3	1.6	1.5	1.4	1.4	1.6	1.6	2.3	1.9	1.9	2.1	0.9	1.5	1.6	1.8	2.1	1.9	2.5	1.9	2.3	2.7	3.0	4.5	4.3	2.5	1.7	0.2	0.4	1.1	0.7	1.5	1.5	2.1
Indonesia	3.8	3.7	5.0	5.4	7.9	8.1	7.3	6.7	4.5	8.4	6.4	7.3	6.8	3.4	4.5	3.5	3.1	3.0	3.6	4.4	3.7	3.6	3.4	3.1	2.9	3.1	2.5	2.8	3.1	2.6	3.0	2.0	1.4	1.7	1.4	1.3	1.6	1.9	2.6	4.4
Korea	2.1	1.4	1.5	1.2	1.0	1.1	1.3	1.7	1.1	0.8	0.5	0.7	0.5	1.1	0.8	0.7	1.3	1.3	2.3	1.8	2.0	1.4	1.2	1.5	2.1	1.3	0.4	0.7	-0.4	0.7	0.8	0.2	0.9	0.6	1.9	2.4	2.4	3.7	4.1	6.0
Taiwan	3.0	1.6	1.4	0.6	0.9	0.3	1.6	1.6	0.7	0.6	-0.6	-0.6	0.3	0.1	2.0	0.9	0.3	1.7	0.2	1.0	0.5	1.2	1.6	1.4	1.7	-0.1	0.6	0.9	0.4	1.1	0.0	-0.8	-0.6	0.1	1.2	1.8	2.6	2.6	3.3	3.4
Brazil	5.3	5.8	6.6	6.7	5.9	5.9	6.2	6.5	6.8	6.4	8.1	8.9	9.5	10.7	9.4	8.8	8.5	6.3	4.6	3.0	2.5	3.0	2.7	4.4	4.5	3.8	4.6	3.4	2.9	4.3	3.3	2.1	3.1	4.5	6.1	8.4	10.3	10.1	11.3	11.7
Mexico	4.8	3.6	4.3	4.1	3.4	4.0	3.8	3.8	4.2	4.1	3.1	2.9	2.5	2.1	2.6	2.5	3.0	3.4	5.4	6.3	6.4	6.8	5.0	4.7	5.0	4.8	4.0	4.0	3.0	2.8	3.3	3.3	4.0	3.2	4.7	5.9	6.0	7.4	7.5	7.7
Russia	6.5	6.6	7.0	6.9	6.1	6.5	7.0	7.8	8.1	11.3	16.9	15.3	15.7	13.0	7.2	7.5	6.4	5.4	4.2	4.3	3.0	2.5	2.4	2.3	3.4	4.3	5.2	4.7	4.0	3.1	2.6	3.2	3.7	4.9	5.8	6.5	7.4	8.4	16.7	17.1
South Africa	5.5	5.7	5.9	5.5	6.0	5.4	6.0	6.6	5.9	5.3	4.0	4.7	4.6	5.2	6.3	6.3	6.1	6.8	6.1	5.1	5.1	4.7	3.8	4.6	4.9	4.5	4.5	4.5	4.1	4.0	4.1	2.2	3.0	3.1	3.2	4.9	5.0	5.9	5.9	6.5
India	9.7	10.5	9.4	9.5	10.5	9.5	8.3	6.8	5.6	4.3	5.3	5.4	4.4	5.6	4.8	5.8	4.4	3.4	3.9	1.5	3.3	5.2	4.3	4.9	3.7	2.1	2.9	3.2	4.0	7.4	5.8	6.2	7.3	4.6	5.5	6.3	4.4	5.7	7.0	7.0

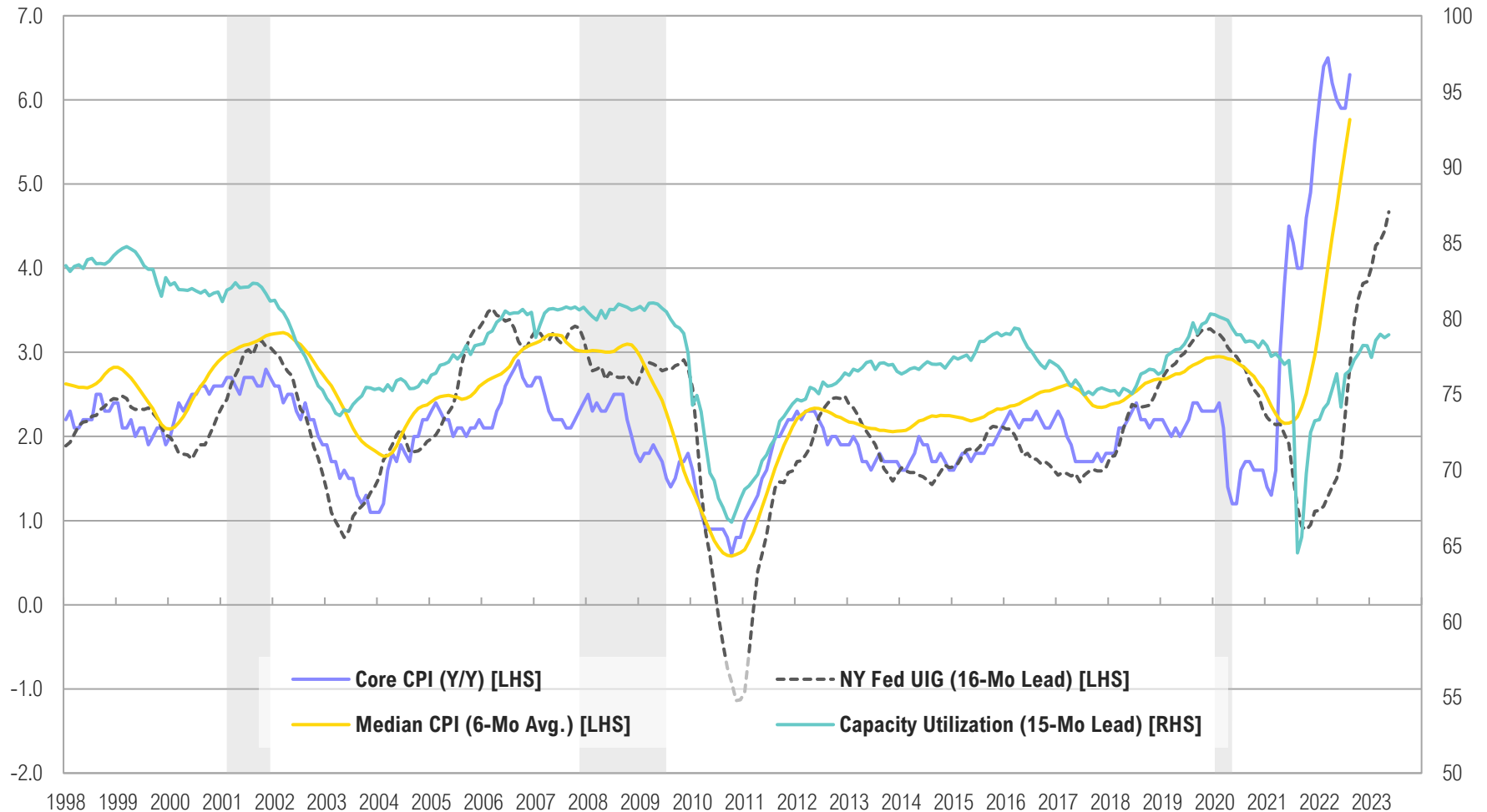
LOWER   HIGHER

Source: Bloomberg, SpringTide calculations. Global, Developed (DM) and Emerging (EM) inflation numbers are GDP-weighted

➤ Inflation appeared to be peaking on a Y/Y basis, but the August surprise places doubt on the level and speed of moderation towards the end of the year; we are likely not headed back to 2% any time soon

U.S. CORE CPI, UIG, Y/Y%

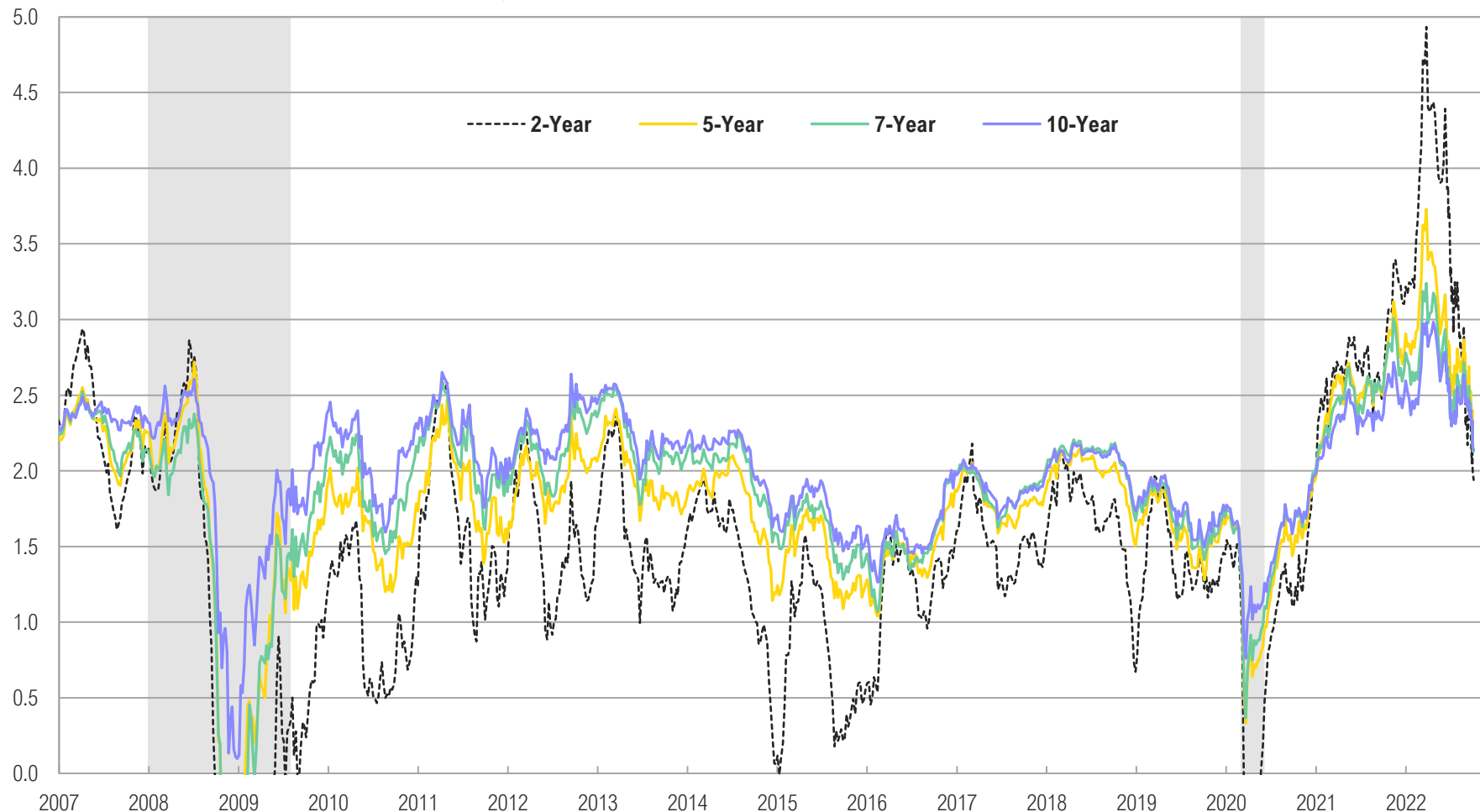
CAPACITY UTILIZATION, %



Source: Bloomberg

Intermediate-term inflation expectations have eased after breaking out to multi-decade highs; 2-year inflation breakeven is below 2% for the first time since 2020

TREASURY IMPLIED INFLATION BREAKEVEN RATES, 2007 - CURRENT

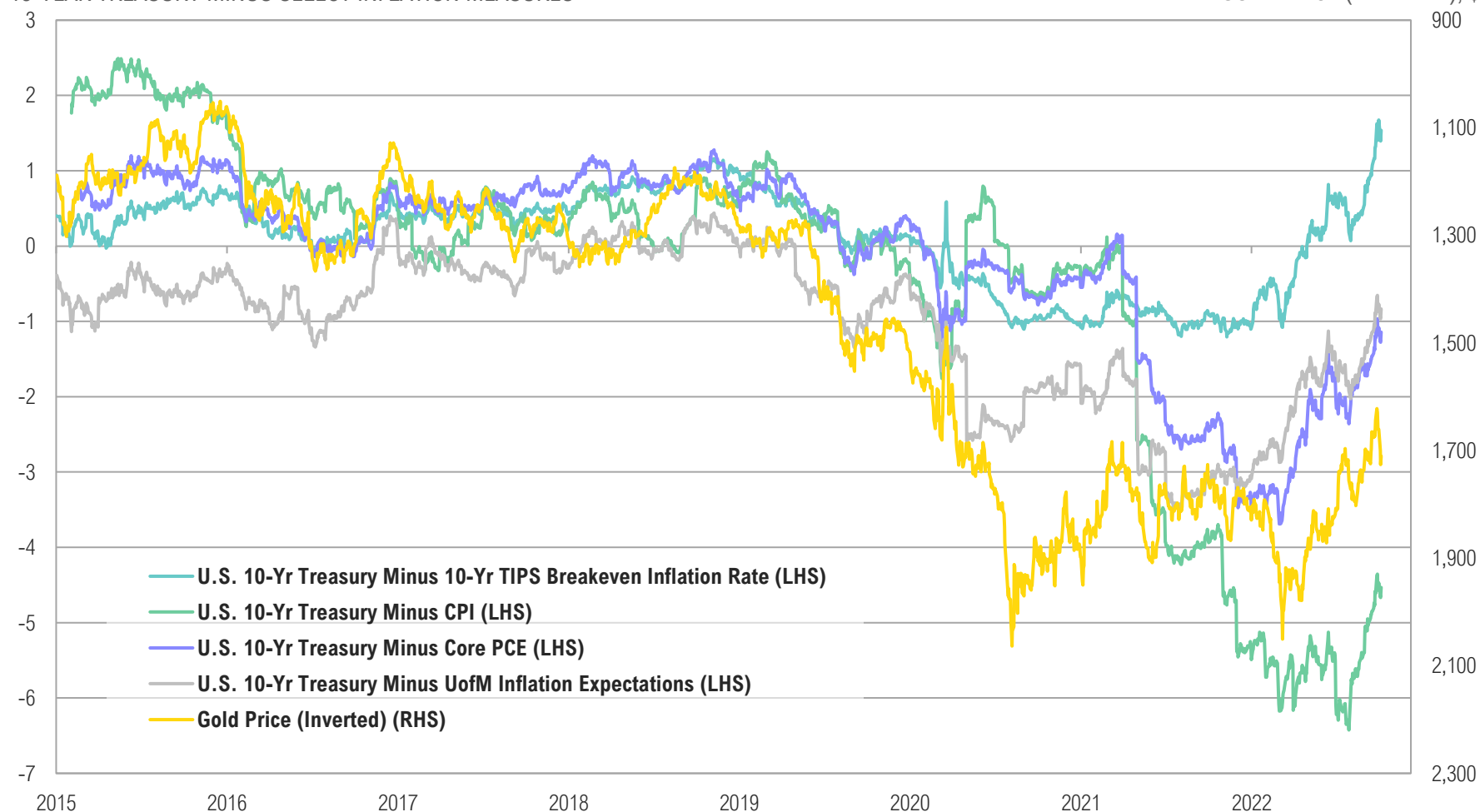


Source: Fred, Bloomberg

Real yields have remained deeply negative except for TIPS-implied; gold declined in September with most of the weakness driven by dollar strength

10-YEAR TREASURY MINUS SELECT INFLATION MEASURES

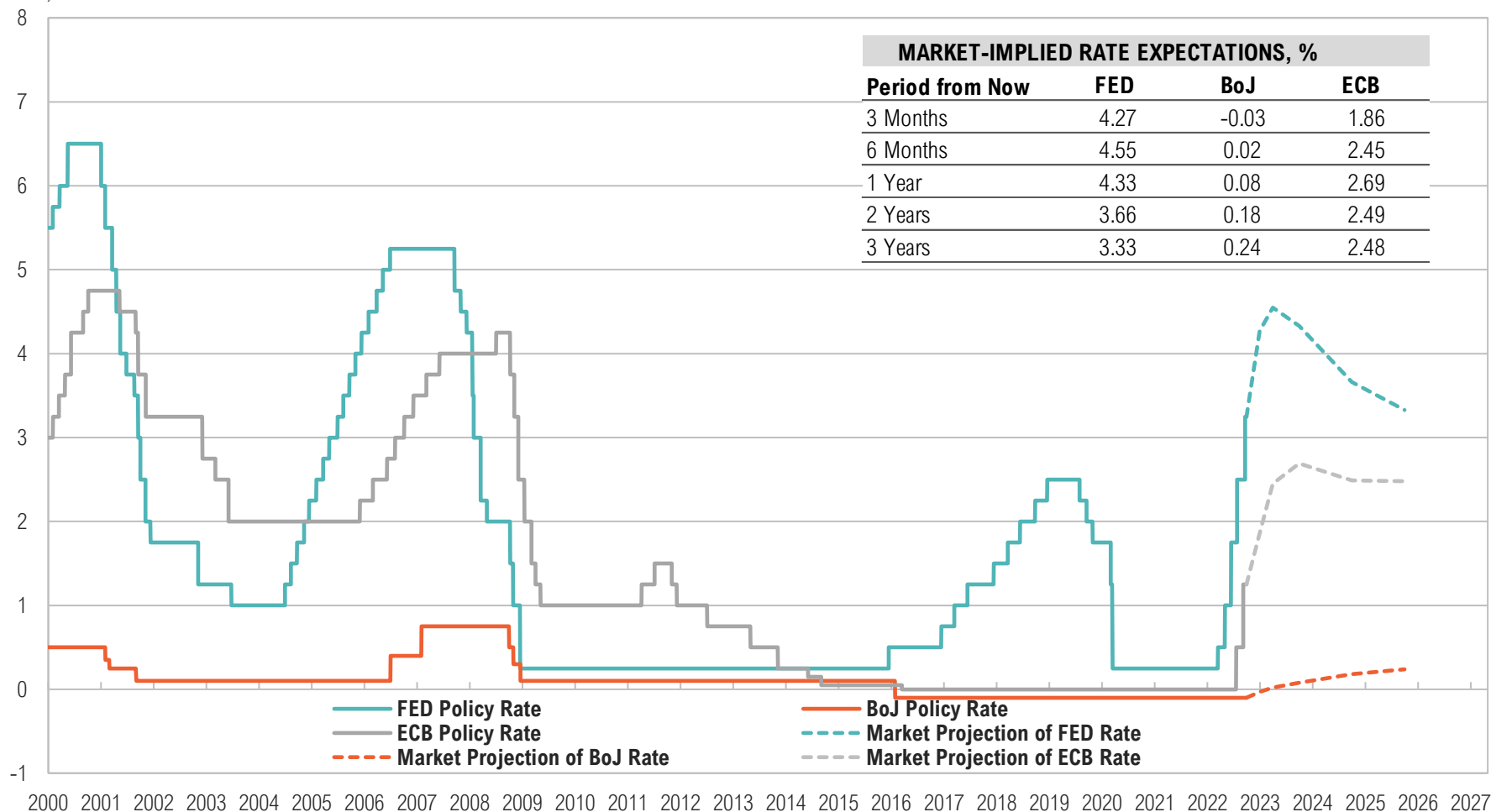
GOLD PRICE (INVERTED), \$



Source: Bloomberg

Relative rate expectation differences of U.S. vs. Europe and Japan are still dramatic, supporting the U.S. dollar; 1H23 U.S. rate cuts no longer priced in

FED, BOJ & ECB POLICY RATES & IMPLIED POLICY RATE EXPECTATIONS



Source: Bloomberg

Dramatic U.S. dollar strength has been driven by safe-haven bid, and attractive relative yields

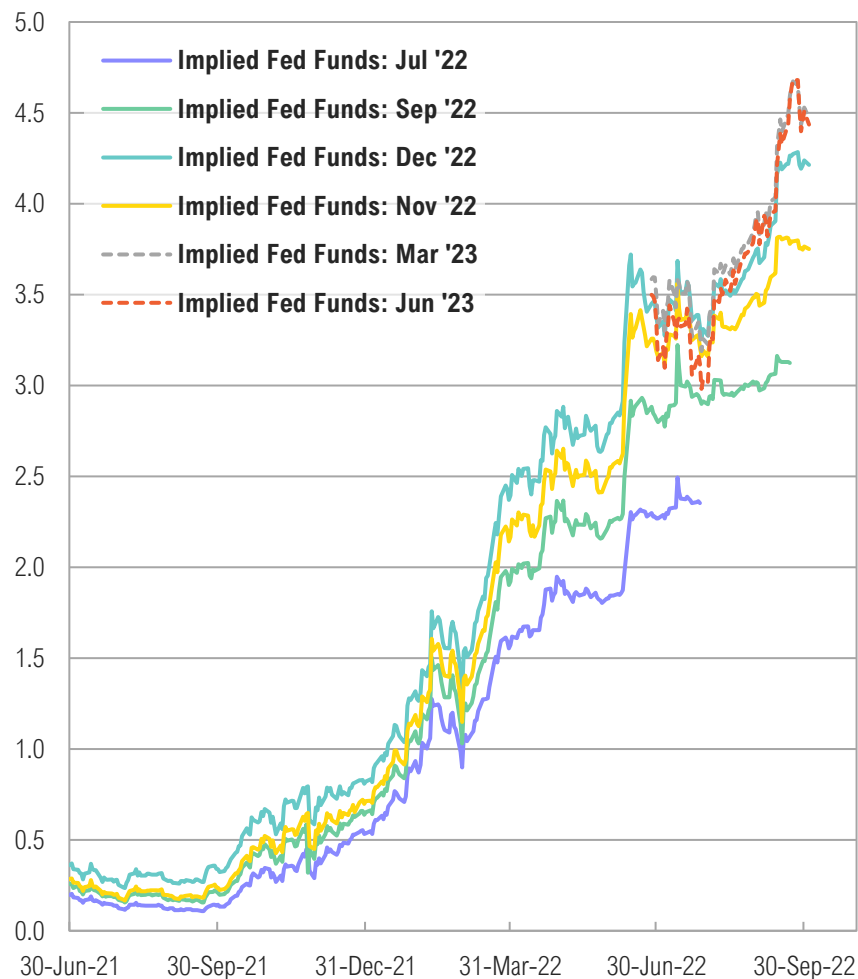
CENTRAL BANK POLICY RATE & GOVERNMENT BOND YIELDS

	Central Bank Rate (%)	3 Month (%)	1 Year (%)	2 Year (%)	3 Year (%)	4 Year (%)	5 Year (%)	6 Year (%)	7 Year (%)	10 Year (%)	20 Year (%)	30 Year (%)
Czech Republic	7.00	-	6.83	5.89	5.58	5.44	5.40	5.30	5.29	5.22	5.11	-
Singapore	3.89	3.42	3.29	3.32	-	-	3.51	-	-	3.43	3.25	3.14
Hong Kong	3.50	2.87	3.85	4.03	4.01	-	3.81	-	3.71	3.65	-	-
New Zealand	3.50	3.92	-	4.21	-	-	4.24	-	4.23	4.30	4.75	-
Canada	3.25	3.68	4.17	4.08	4.02	3.94	3.57	-	3.47	3.40	3.44	3.27
United States	3.25	3.38	4.18	4.31	4.33	-	4.13	-	4.02	3.88	4.13	3.82
Israel	2.75	1.63	2.96	3.02	3.15	-	3.24	-	-	3.28	-	3.83
Australia	2.60	-	3.12	3.33	3.47	3.55	3.62	3.70	3.78	3.90	4.20	4.14
South Korea	2.50	-	3.40	4.18	4.28	4.31	4.22	-	-	4.22	4.06	3.95
United Kingdom	2.25	2.87	3.78	4.13	4.31	4.44	4.42	4.37	4.41	4.25	4.55	4.38
Italy	1.25	0.92	2.33	2.99	3.41	3.64	3.79	4.00	4.15	4.63	4.62	4.36
Spain	1.25	0.57	2.17	2.15	2.31	2.47	2.70	2.81	2.97	3.36	3.54	3.75
Portugal	1.25	0.33	1.96	2.02	2.19	2.34	2.59	2.71	2.78	3.25	3.54	3.67
France	1.25	0.77	1.83	1.82	2.06	2.14	2.27	2.39	2.49	2.77	3.08	2.99
Belgium	1.25	0.88	1.87	1.88	1.97	2.12	2.29	2.40	2.49	2.83	3.20	-
Germany	1.25	0.75	1.68	1.85	1.80	1.86	2.04	2.00	2.04	2.18	2.23	2.12
Austria	1.25	-	1.64	1.91	2.08	2.30	2.37	2.62	2.58	2.84	2.99	2.86
Netherlands	1.25	0.62	-	1.83	1.94	2.05	2.17	2.24	2.30	2.50	2.57	2.37
Ireland	1.25	0.70	1.26	-	1.91	2.03	2.23	2.36	2.40	2.72	3.03	3.00
Thailand	1.00	-	1.61	1.82	-	-	2.62	-	2.87	2.95	3.83	-
Switzerland	0.50	0.40	1.10	0.57	0.74	0.84	1.00	1.12	1.15	1.28	1.19	1.17
Japan	(0.10)	(0.27)	(0.12)	(0.07)	(0.05)	0.01	0.05	0.12	0.19	0.24	0.97	1.36

Source: Bloomberg

The implied year-end Fed funds rate is back near local highs as the market has repriced the Fed pivot following September FOMC

IMPLIED FED FUNDS RATE, %



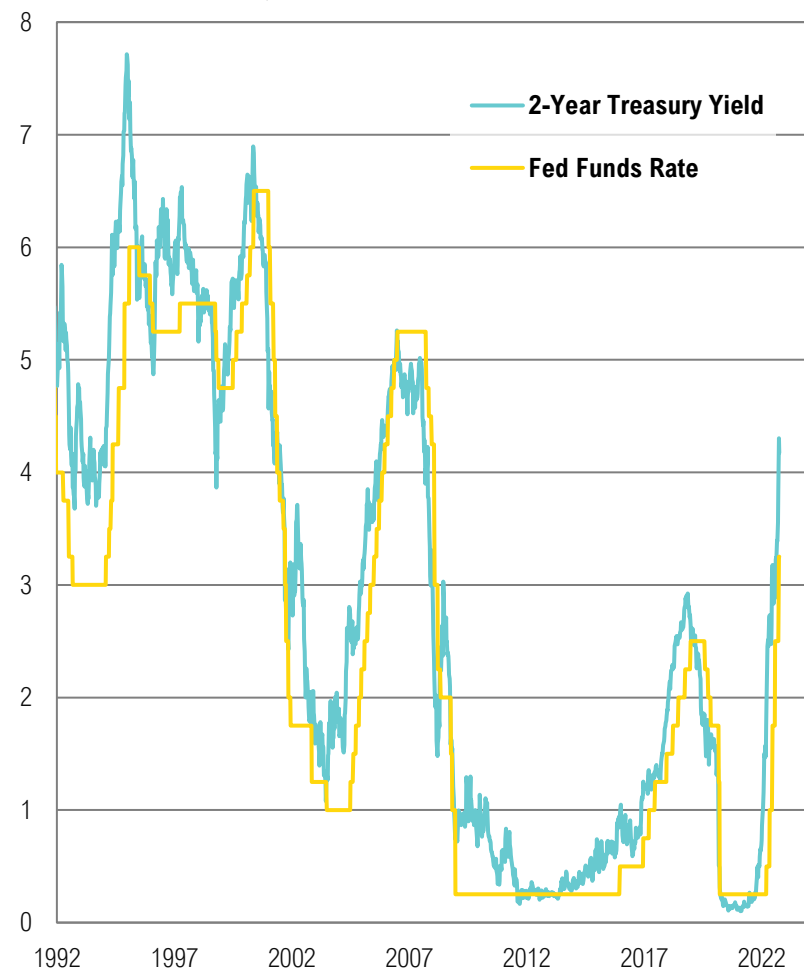
Source: Bloomberg

IMPLIED FED FUNDS RATE, %

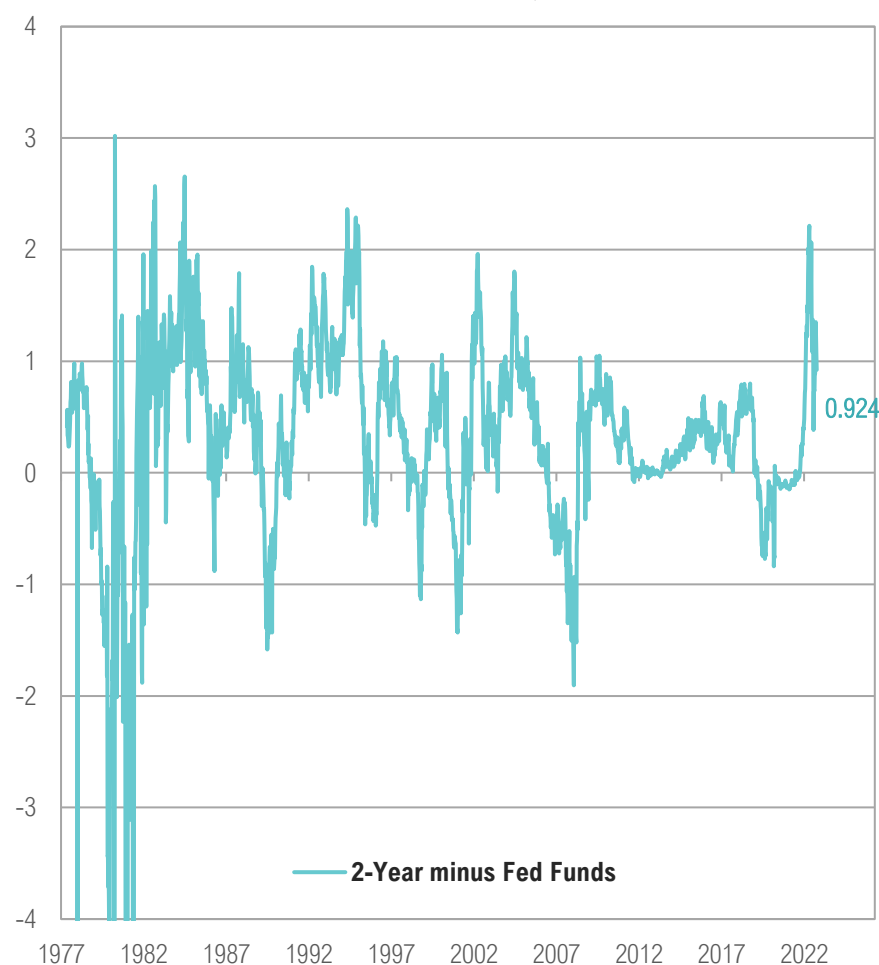


Fed funds rate is currently 0.92% below the 2-year yield, but the 4.5% expected terminal Fed funds rate suggest 2-year yield may continue to move higher

U.S. TREASURY YIELD, %



2-YEAR TO FED FUNDS TREASURY SPREAD, %

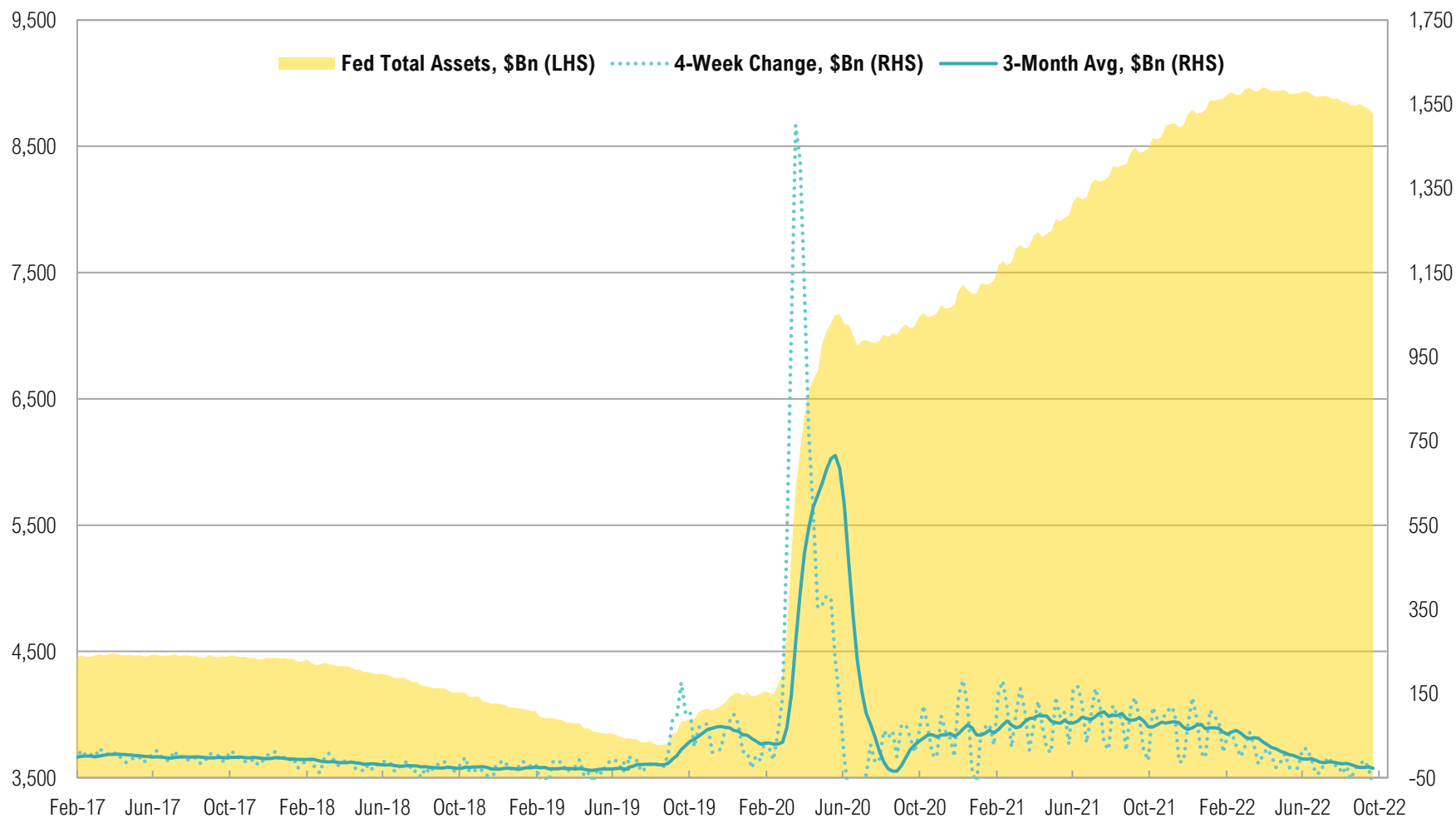


Source: FRED

Fed's planned asset sales (\$47.5 bn/month from June-August and \$95bn from September) has started to take shape but have come in well below these levels

FED TOTAL ASSETS, \$Bn

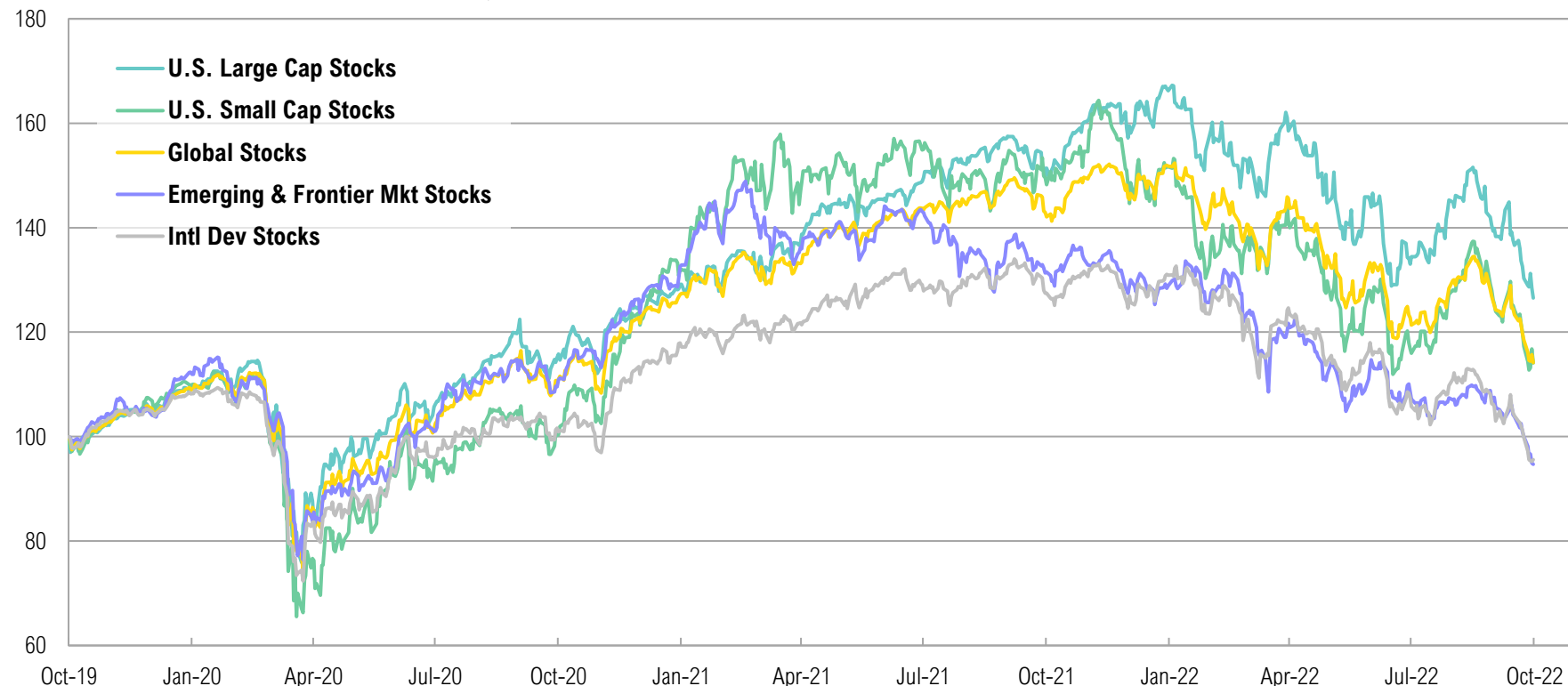
4-WEEK CHANGE & 3-MONTH MOVING AVERAGE, \$Bn



Source: Bloomberg

Despite dropping back into bear market territory, U.S. stocks have outperformed their international peers this year; EMs underperformed over the quarter

CALENDAR YEAR & TRAILING TOTAL RETURNS, GROWTH INDEX



Asset Class	Benchmark	MTD	QTD	YTD	1-Yr	3-Yr	5-Yr	10-Yr	2021	2020	2019	2018	2017
U.S. Large Cap Stocks	S&P 500 TR	-9.2	-4.9	-23.9	-15.5	8.2	9.2	11.7	28.7	18.4	31.5	-4.4	21.8
U.S. Small Cap Stocks	Russell 2000 TR	-9.7	-2.1	-25.1	-23.6	4.2	3.5	8.5	14.5	20.0	25.4	-11.1	14.6
Intl Dev Stocks	MSCI EAFE GR	-9.4	-9.4	-27.1	-25.1	-1.8	-0.8	3.7	11.3	7.8	22.0	-13.8	25.0
Emerging & Frontier Mkt Stocks	MSCI EM GR	-11.7	-11.6	-27.2	-28.1	-2.1	-1.8	1.0	-2.5	18.3	18.4	-14.6	37.3
Global Stocks	MSCI ACWI GR	-9.6	-6.8	-25.6	-20.7	3.7	4.4	7.3	18.5	16.3	26.6	-9.4	24.0

Source: Bloomberg

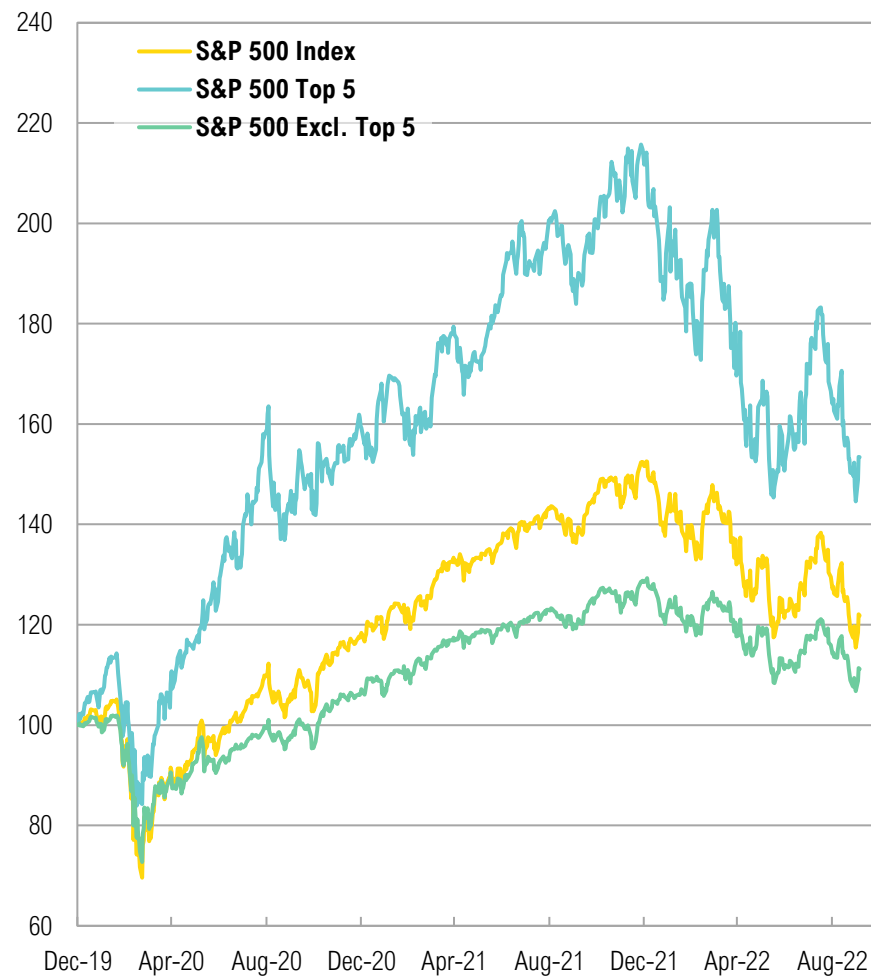
Returns for periods greater than 1 year are annualized.

Monday	Tuesday	Wednesday	Thursday	Friday
10/3	10/4 Acuity Brands Inc (AYI), Q4 22	10/5 Lamb Weston Holdings Inc (LW), Q1 23	10/6 McCormick & Co Inc/MD (MKC), Q3 22 Conagra Brands Inc (CAG), Q1 23 Constellation Brands Inc (STZ), Q2 23 Levi Strauss & Co (LEVI), Q3 22	10/7 Aditxt Inc (ADTX), Q2 22
10/10	10/11	10/12 PepsiCo Inc (PEP), Q3 22	10/13 Domino's Pizza Inc (DPZ), Q3 22 Walgreens Boots Alliance Inc (WBA), Q4 22 Progressive Corp/The (PGR), Q3 22 Delta Air Lines Inc (DAL), Q3 22 BlackRock Inc (BLK), Q3 22 Fastenal Co (FAST), Q3 22	10/14 PNC Financial Services Group I (PNC), Q3 22 Wells Fargo & Co (WFC), Q3 22 UnitedHealth Group Inc (UNH), Q3 22 JPMorgan Chase & Co (JPM), Q3 22 US Bancorp (USB), Q3 22 First Republic Bank/CA (FRC), Q3 22 Morgan Stanley (MS), Q3 22 Citigroup Inc (C), Q3 22
10/17 Bank of New York Mellon Corp/T (BK), Q3 22 Bank of America Corp (BAC), Q3 22 Charles Schwab Corp/The (SCHW), Q3 22	10/18 Johnson & Johnson (JNJ), Q3 22 Hasbro Inc (HAS), Q3 22 Biogen Inc (BIIB), Q3 22 Lockheed Martin Corp (LMT), Q3 22 Goldman Sachs Group Inc/The (GS), Q3 22 Interactive Brokers Group Inc (IBKR), Q3 22 Netflix Inc (NFLX), Q3 22 United Airlines Holdings Inc (UAL), Q3 22	10/19 Omnicom Group Inc (OMC), Q3 22 Citizens Financial Group Inc (CFG), Q3 22 Procter & Gamble Co/The (PG), Q1 23 Baker Hughes Co (BKR), Q3 22 Nasdaq Inc (NDAQ), Q3 22 International Business Machine (IBM), Q3 22 Alcoa Corp (AA), Q3 22 Tesla Inc (TSLA), Q3 22	10/20 NextEra Energy Inc (NEE), Q3 22 Philip Morris International In (PM), Q3 22 Dow Inc (DOW), Q3 22 Blackstone Inc (BX), Q3 22 AT&T Inc (T), Q3 22 American Airlines Group Inc (AAL), Q3 22 Whirlpool Corp (WHR), Q3 22 Snap Inc (SNAP), Q3 22	10/21 Croc's Inc (CROX), Q3 22 Nucor Corp (NUE), Q3 22 Celanese Corp (CE), Q3 22 Regions Financial Corp (RF), Q3 22 Schlumberger NV (SLB), Q3 22 American Express Co (AXP), Q3 22 HCA Healthcare Inc (HCA), Q3 22 Verizon Communications Inc (VZ), Q3 22
10/24 Alexandria Real Estate Equitie (ARE), Q3 22 Packaging Corp of America (PKG), Q3 22 Medpace Holdings Inc (MEDP), Q3 22 Crown Holdings Inc (CCK), Q3 22 Qualtrics International Inc (XM), Q3 22 AGNC Investment Corp (AGNC), Q3 22	10/25 General Motors Co (GM), Q3 22 General Electric Co (GE), Q3 22 TransUnion (TRU), Q3 22 Coca-Cola Co/The (KO), Q3 22 Ares Capital Corp (ARCC), Q3 22 3M Co (MMM), Q3 22 MSCI Inc (MSCI), Q3 22 Alphabet Inc (GOOGL), Q3 22	10/26 Visa Inc (V), Q4 22 CME Group Inc (CME), Q3 22 Twitter Inc (TWTR), Q3 22 Texas Instruments Inc (TXN), Q3 22 Microsoft Corp (MSFT), Q1 23 Boeing Co/The (BA), Q3 22 Ford Motor Co (F), Q3 22 Meta Platforms Inc (META), Q3 22	10/27 Harley-Davidson Inc (HOG), Q3 22 Southwest Airlines Co (LUV), Q3 22 eBay Inc (EBAY), Q3 22 Caterpillar Inc (CAT), Q3 22 McDonald's Corp (MCD), Q3 22 Keurig Dr Pepper Inc (KDP), Q3 22 Apple Inc (AAPL), Q4 22 Intel Corp (INTC), Q3 22	10/28 Exxon Mobil Corp (XOM), Q3 22 Aon PLC (AON), Q3 22 Arthur J Gallagher & Co (AJG), Q3 22 Amazon.com Inc (AMZN), Q3 22 Newmont Corp (NEM), Q3 22 American Electric Power Co Inc (AEP), Q3 22 Mastercard Inc (MA), Q3 22 Colgate-Palmolive Co (CL), Q3 22
10/31 Mind Medicine MindMed Inc (MMED CN), Q XPO Logistics Inc (XPO), Q3 22 Stryker Corp (SYK), Q3 22 Vornado Realty Trust (VNO), Q3 22 American Water Works Co Inc (AWK), Q3 22 Hologic Inc (HOLX), Q4 22 Marriott International Inc/MD (MAR), Q3 22 Arista Networks Inc (ANET), Q3 22	11/1	11/2	11/3	11/4

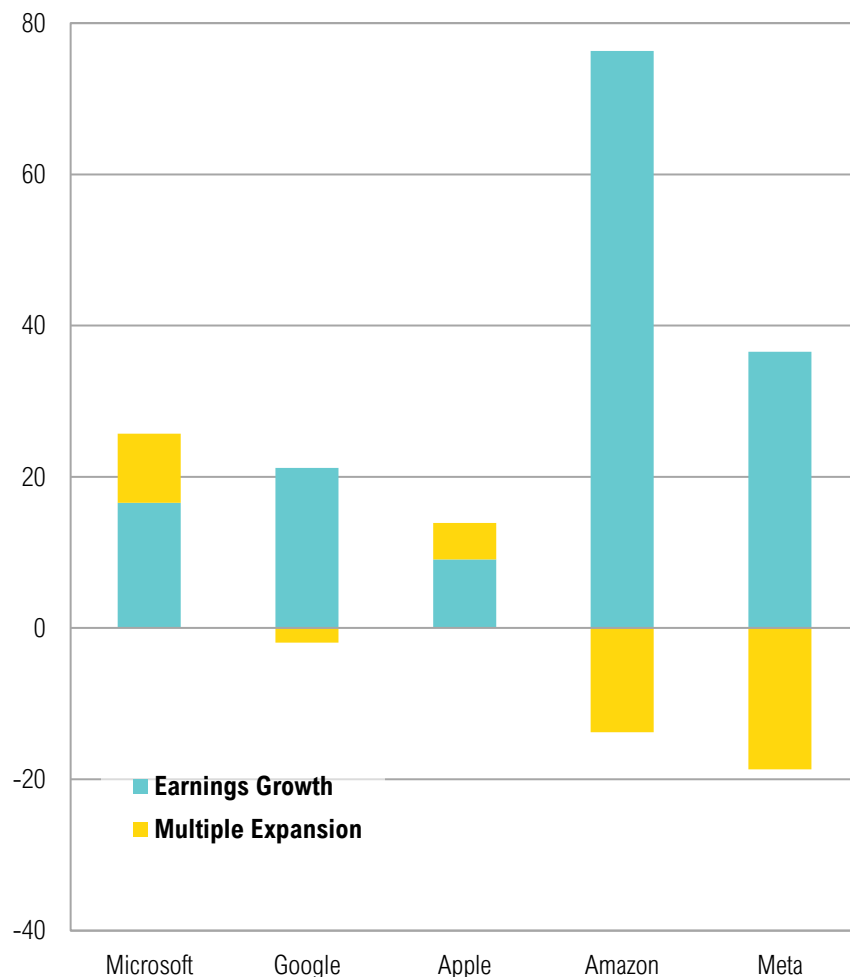
Source: Bloomberg

➤ GAMMA (formerly FAAMG) underperformed the S&P 500 ex-GAMMA by 5.3% in September, trailing by just under 15% year-to-date

GROWTH OF 100 PERFORMANCE



10-YEAR CHANGE (ANNUALIZED), %

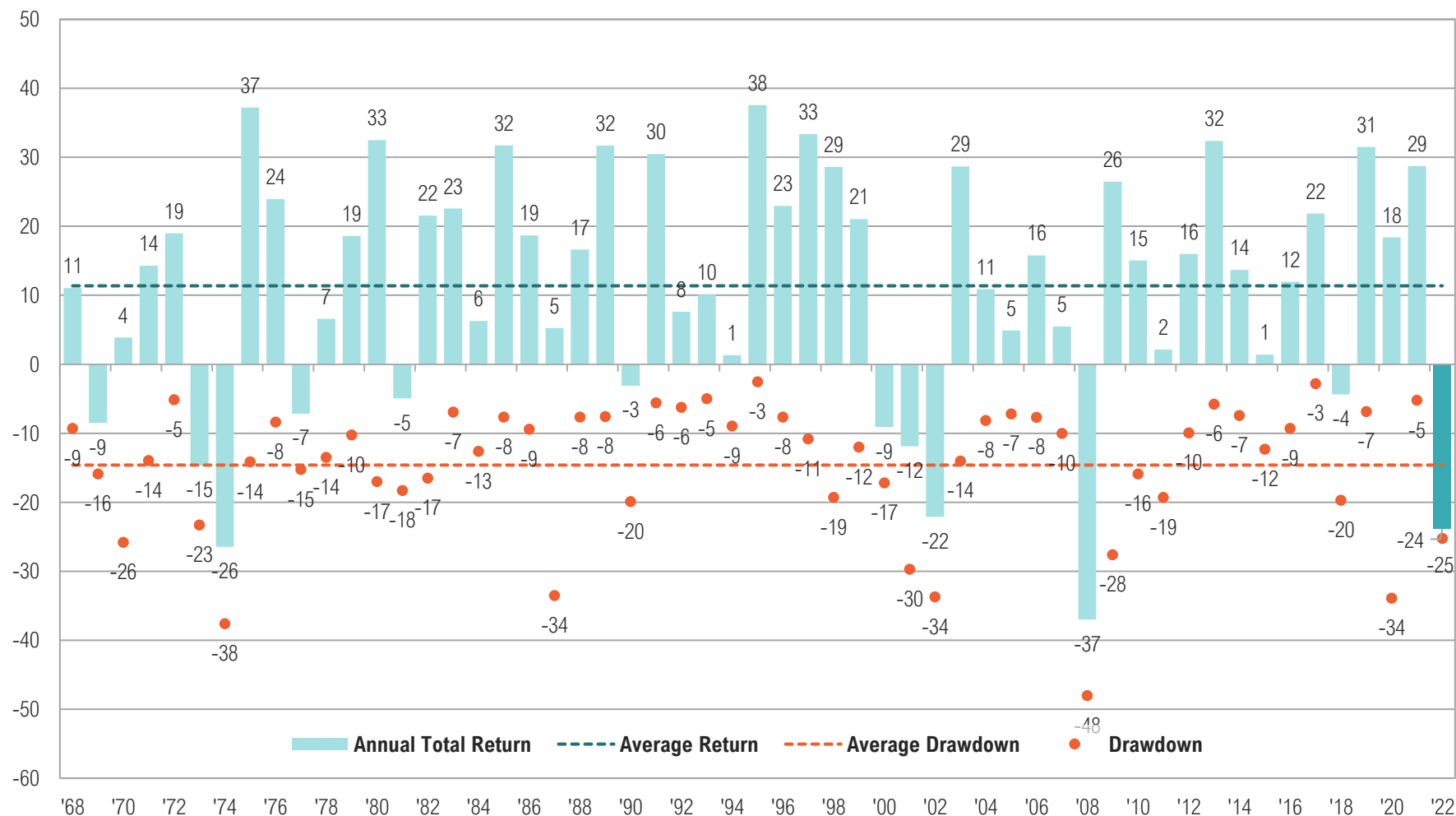


Source: Bloomberg

Top 5 include Apple, Amazon, Google, Meta (Facebook) and Microsoft. Weights for the S&P 500 Top 5 are current. Facebook data as of 2013 (first full year as a public company).

The S&P 500 made new bear market lows and is currently 24% from its all-time high

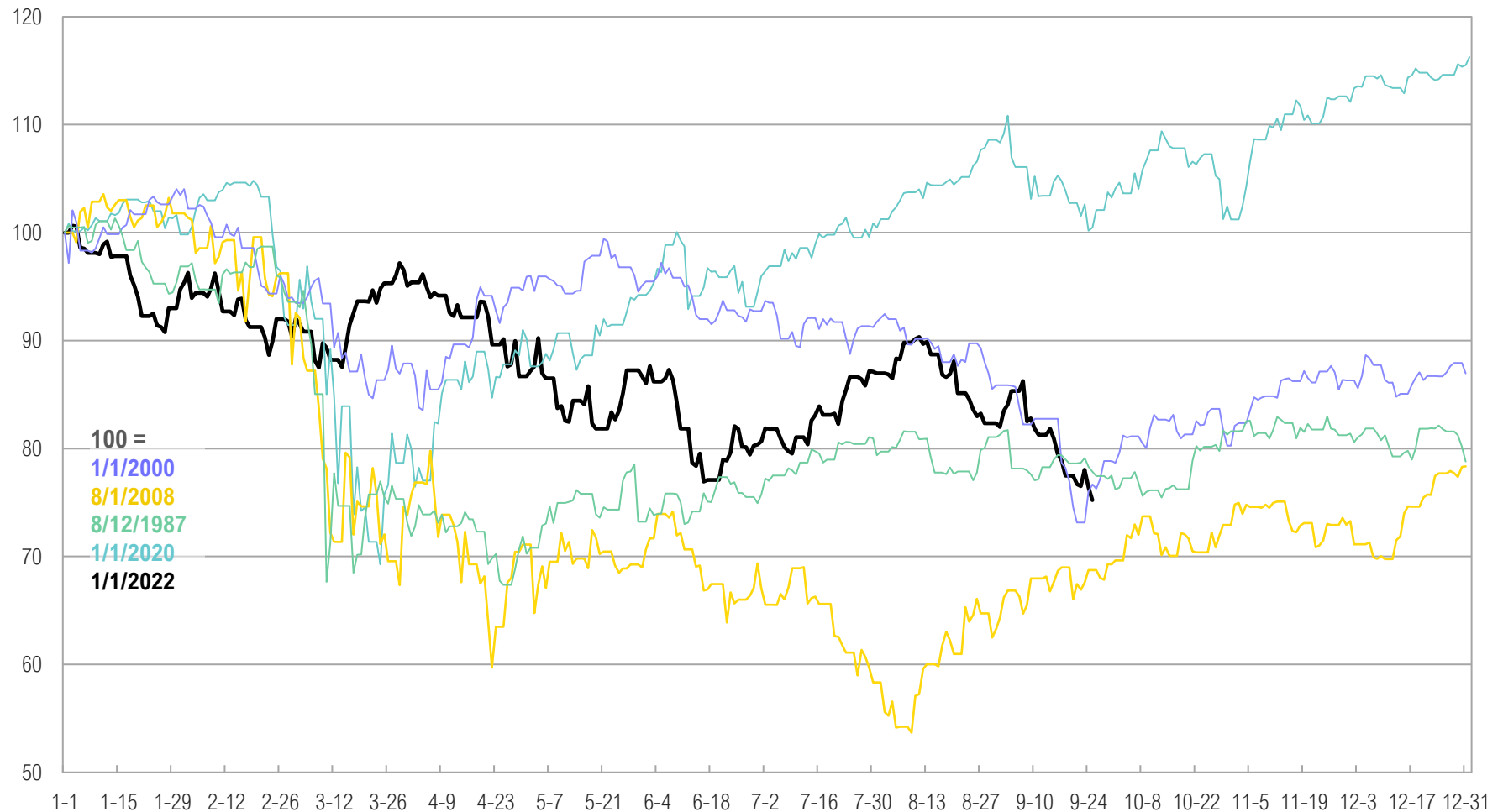
S&P 500 ANNUAL TOTAL RETURNS & DRAWDOWNS*



Source: Bloomberg, Ibbotson Associates. Annual Returns are total returns represented by the S&P 500 TR Index 1971-Current; Annual Returns 1970-1968 are represented by the Ibbotson Associates U.S. Large Cap Stock TR Index. *Drawdowns are based on performance of the S&P 500 Index (Price Return).

Current drawdown vs. historic bear markets

GROWTH OF 100

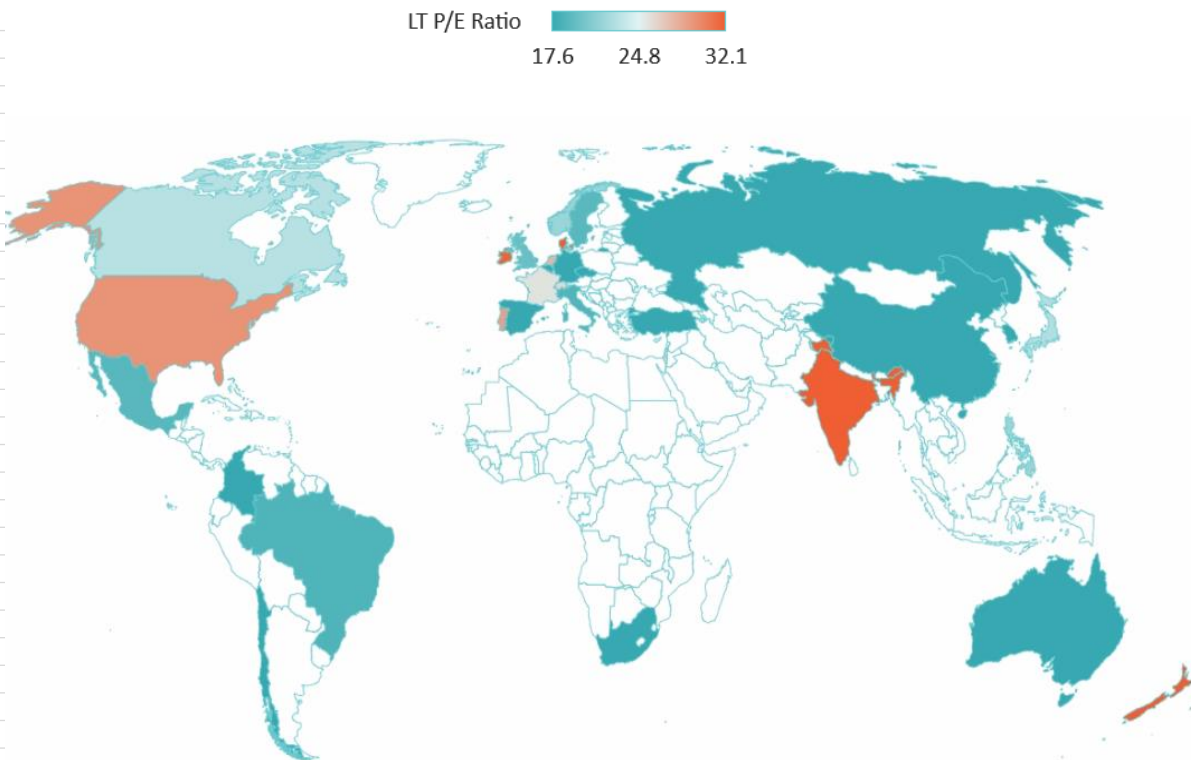


Source: Bloomberg

Cyclically-adjusted P/E (CAPE) multiples by country; >5% yields in Colombia, Brazil, Chile, Norway, Australia and Italy; Russian markets remain effectively closed for offshore investors

COUNTRY CAPE RATIO, DIVIDEND YIELDS & TRAILING TOTAL RETURNS

	LT P/E Ratio	Div. Yld. (%)	Total Return		
			1-Year (%)	3-Year (%)	5-Year (%)
Colombia	10.9	10.4	-15.9	-11.6	-6.3
Hong Kong	11.5	3.7	-17.3	-2.4	-1.7
Korea (South)	12.3	2.4	-22.2	4.6	0.7
China	12.4	2.7	-29.9	-5.7	-5.3
South Africa	13.2	4.5	0.2	4.2	2.0
Spain	13.5	4.2	-7.8	-1.0	-1.3
Belgium	13.8	3.9	-9.5	-7.2	-5.9
Czech	13.8	6.5	5.0	15.9	10.8
Singapore	14.1	3.6	-16.5	-3.3	-1.0
Germany	14.5	4.1	-21.0	-0.9	-2.0
Chile	14.6	8.6	13.7	-4.5	-7.4
Turkey	14.8	3.1	146.0	41.7	24.8
Australia	15.1	5.2	2.3	6.5	9.4
Brazil	16.6	9.2	17.1	-1.8	0.2
Italy	16.6	6.0	-16.0	-2.1	-2.3
Mexico	16.8	3.9	-3.3	3.9	-0.9
Sweden	16.9	4.3	-14.3	8.3	6.0
United Kingdom	17.6	4.1	7.4	3.5	2.7
Norway	19.6	5.4	4.2	9.1	7.8
Philippines	19.6	2.2	-12.2	-6.2	-4.6
Japan	20.6	2.5	0.7	9.6	5.6
Canada	20.8	3.3	-1.7	8.3	7.0
France	23.3	3.1	-5.6	5.3	5.0
Switzerland	23.8	3.1	-9.0	3.7	5.0
Israel	23.9	4.3	-19.1	2.0	1.7
Netherlands	25.4	2.3	-22.1	6.9	7.0
Portugal	26.5	3.5	6.9	8.0	7.1
United States	27.1	1.7	-13.6	10.4	10.1
Ireland	29.4	1.9	-24.3	2.0	0.6
New Zealand	30.2	2.7	-15.0	-2.0	4.8
India	33.3	1.3	-0.3	18.3	12.7
Denmark	36.6	2.2	-4.5	18.3	11.6

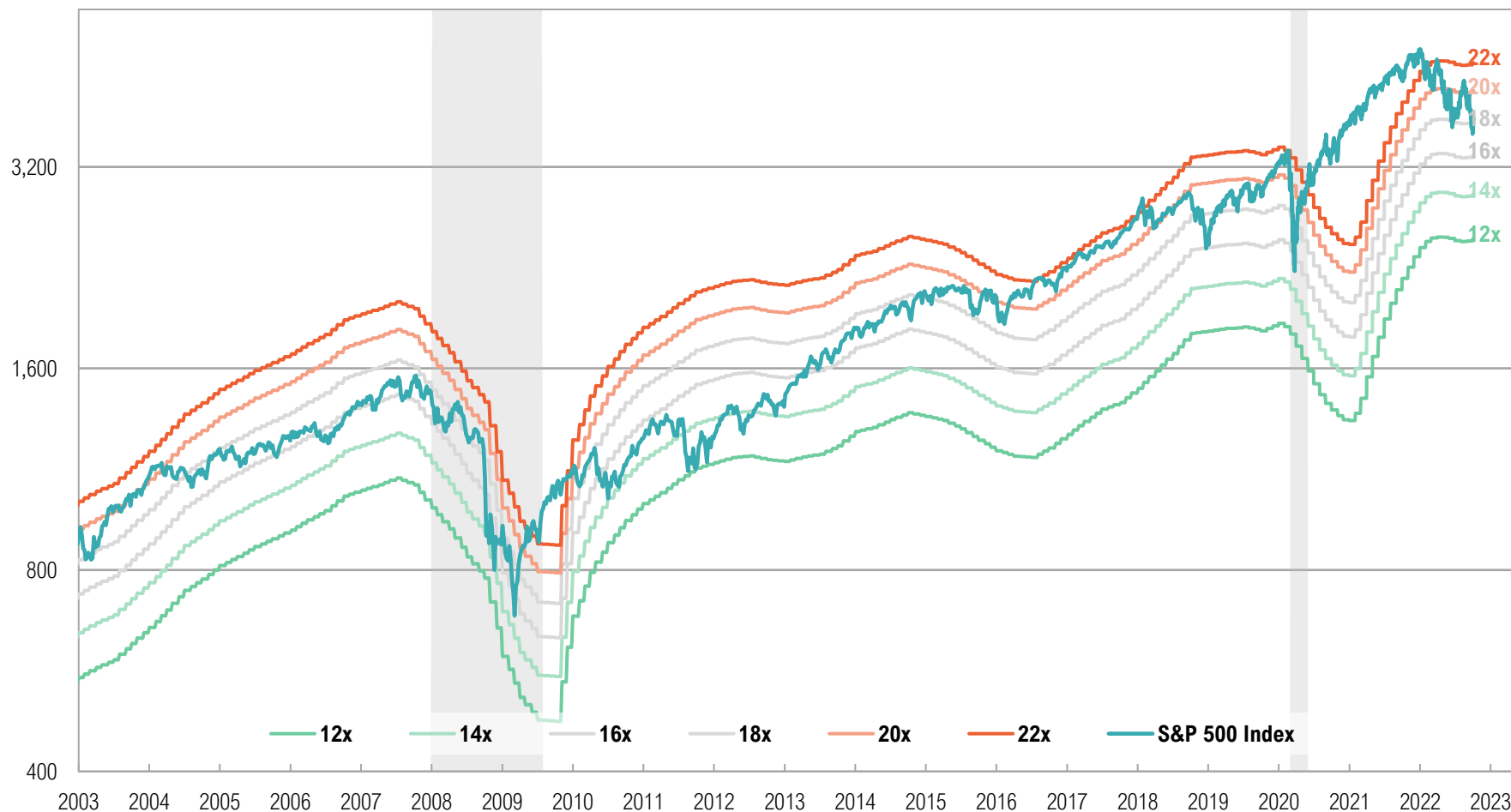


Source: Bloomberg

Long-Term P/E Ratio (LT P/E Ratio) takes the price of each index divided by the trailing 10-yr average inflation adjusted EPS. Russian exchange halted since start of war

➤ July's rally took U.S. equity valuations back into overvalued territory, recent decline has eased valuation pressure somewhat but still don't appear cheap

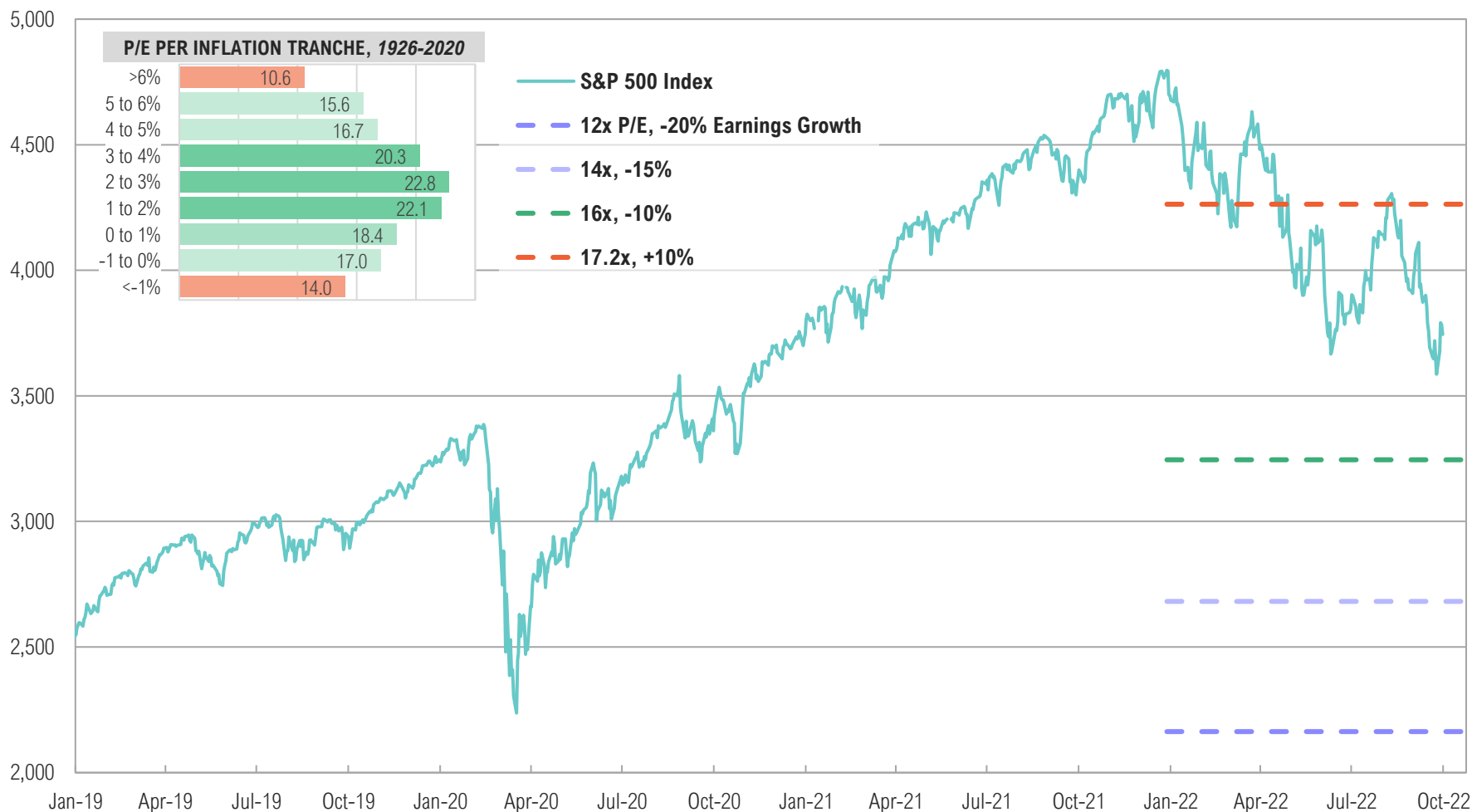
S&P 500 INDEX VS. S&P 500 IMPLIED AT VARIOUS P/E's



Source: Standard & Poor's. Earnings are smoothed, trailing 12-month, Operating.

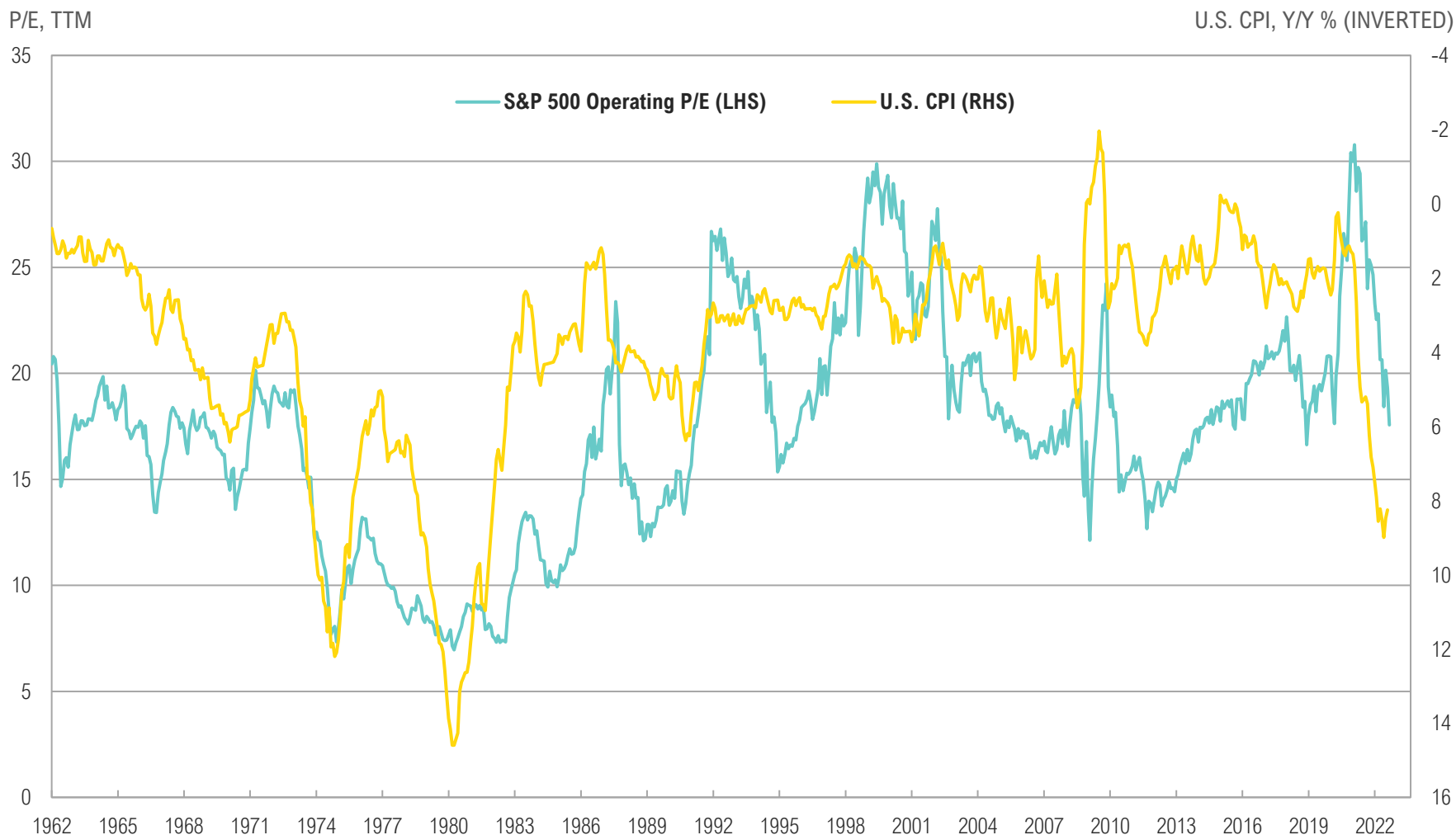
What if inflation doesn't roll and stay lower? How low can we go? P/Es to consider are 16x, 14x, and 12x, applied to various levels of earnings decline

S&P 500 INDEX



Source: SpringTide, Bloomberg

➤ The last time inflation was as elevated as it is now, P/E multiples were in the high single digits to low teens



Source: SpringTide, Bloomberg

Nominal sales and earnings growth expected to decelerate but remain healthy in 2022; impact of inflation and potential recession remain wild cards

S&P 500 SECTOR SALES GROWTH Y/Y, %																												
	2016				2017				2018				2019				2020				2021				2022			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4E
S&P 500	1.5	1.8	3.1	1.9	7.7	6.3	4.1	6.8	10.1	6.8	11.0	12.1	5.4	5.6	5.8	9.0	-3.6	-8.1	-2.9	0.9	8.4	18.3	15.1	11.3	15.3	17.2	9.5	5.4
Communication Services	2.2	1.2	-1.4	-4.3	-5.8	-4.0	-4.8	0.0	10.3	0.7	-20.7	-47.4	-49.5	-40.1	11.3	8.5	-2.3	-2.6	0.3	5.1	12.5	26.1	17.7	11.3	8.8	4.4	4.6	1.4
Consumer Discretionary	9.6	10.6	9.6	4.7	6.3	2.6	-0.9	1.0	10.0	7.5	18.5	24.2	14.9	10.6	7.3	3.1	-4.2	-17.4	0.2	-6.0	-6.4	22.2	-1.1	11.1	11.2	11.8	7.5	9.0
Consumer Staples	1.9	3.1	3.3	2.9	4.0	5.7	8.2	9.3	12.4	-2.7	-3.4	-4.4	-7.6	3.8	3.8	4.3	2.7	2.7	3.2	5.6	5.3	10.0	10.9	9.7	10.2	7.7	8.2	5.3
Energy	-32.1	-25.3	-10.2	-5.0	33.4	16.4	16.8	19.2	18.0	13.5	25.2	19.4	8.6	-4.1	-7.1	-4.3	-19.7	-48.0	-33.8	-32.4	0.4	192.1	85.6	80.8	58.7	78.5	56.4	23.1
Financials	-1.3	1.9	23.1	22.6	27.5	24.1	2.9	8.5	5.7	5.5	13.5	2.7	1.8	17.1	11.1	23.9	-3.8	0.4	-1.2	-3.1	23.3	7.2	3.6	8.9	0.4	-13.6	-11.4	-7.3
Health Care	12.6	9.7	5.9	2.7	1.9	2.3	2.3	2.6	7.0	12.1	16.0	21.4	15.5	10.3	13.0	11.2	12.0	4.3	7.4	9.3	8.3	18.9	12.6	11.4	14.5	10.7	7.8	5.1
Industrials	6.1	7.1	5.3	8.9	7.6	8.1	5.8	4.8	10.7	3.7	11.4	13.0	10.9	4.1	-0.3	-3.1	-14.1	-21.1	-14.8	-8.5	1.4	27.7	18.4	16.0	15.2	18.5	15.3	12.6
Information Technology	5.4	5.7	7.4	-8.9	16.8	14.6	11.0	14.9	19.3	12.0	21.9	32.8	11.3	10.1	10.7	9.2	-2.8	7.3	4.5	9.9	17.4	21.0	19.1	14.6	15.3	11.6	5.1	3.8
Materials	-3.8	-1.0	3.3	-1.3	-1.5	-2.2	0.1	6.7	10.9	10.9	23.3	18.4	12.3	11.5	-11.4	-9.8	-13.3	-20.0	-4.8	3.5	10.8	32.7	31.1	29.2	28.6	22.2	18.6	3.7
Real Estate	n/a	n/a	n/a	n/a	n/a	n/a	4.1	4.5	7.3	1.3	7.2	12.0	7.1	4.1	5.5	3.0	-2.9	-7.2	-8.8	-5.7	-0.5	16.8	14.4	14.6	17.2	10.9	7.9	1.9
Utilities	-10.5	-4.3	1.7	21.1	2.0	3.6	-15.8	-6.5	-4.0	10.8	0.4	-5.9	-6.1	-6.6	3.4	-9.3	-3.1	-18.5	-4.8	0.7	14.7	9.4	8.5	13.1	7.8	22.9	4.3	-5.5

S&P 500 SECTOR EARNINGS GROWTH Y/Y, %																												
	2016				2017				2018				2019				2020				2021				2022			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4E
S&P 500	-6.1	-4.5	3.5	5.7	14.8	14.5	4.7	8.4	16.5	18.0	27.1	21.6	10.7	1.4	3.4	1.8	-15.8	-33.3	-9.9	-0.3	38.6	88.6	38.7	33.5	16.6	14.0	7.7	5.4
Communication Services	8.9	-2.9	-3.4	12.6	-4.4	5.7	1.6	1.3	-2.0	14.5	-25.0	-29.4	-24.1	-42.1	-1.3	7.6	-9.3	-15.7	-6.0	-0.4	31.8	87.8	35.8	25.1	7.0	-13.5	-13.2	1.5
Consumer Discretionary	19.4	13.7	7.2	8.5	6.2	1.6	-0.9	3.3	10.4	7.0	17.5	10.3	6.7	3.9	10.2	-5.3	-35.2	-43.0	-3.5	-3.7	48.9	1480.6	-0.5	8.1	-2.1	-3.5	-5.3	23.5
Consumer Staples	-1.8	-0.8	5.4	15.0	6.1	8.6	0.1	5.8	19.6	7.3	12.5	3.6	-1.7	0.7	5.9	4.5	-2.0	-0.8	6.9	7.0	8.6	17.2	7.7	6.4	7.5	3.9	-1.9	-0.5
Energy	-108.2	-82.7	-54.6	-30.1	n/a	-35.7	77.1	130.5	34.1	98.7	120.3	100.0	88.6	-28.1	-23.6	-41.6	-63.7	-196.5	-109.8	-89.0	26.7	n/a	n/a	n/a	277.5	305.5	109.4	40.4
Financials	-8.1	-8.1	28.1	29.9	27.0	29.3	4.2	-8.1	3.6	25.4	25.4	30.5	14.9	6.0	6.7	11.9	-20.0	-40.5	-8.1	17.3	134.4	178.5	35.9	13.0	-20.1	-21.1	-10.1	0.1
Health Care	3.1	6.2	7.4	8.5	4.6	6.9	6.1	7.6	6.9	9.2	15.8	9.4	12.9	8.4	8.9	9.6	18.3	9.0	5.0	9.4	14.9	22.9	29.6	28.1	17.5	11.2	5.1	3.0
Industrials	-2.4	4.7	3.4	7.6	0.7	8.9	0.1	0.0	24.7	1.1	19.5	17.9	19.6	6.0	2.5	-10.7	-34.7	-41.9	-50.0	-34.2	-9.3	435.7	80.9	49.5	38.6	38.2	28.0	23.1
Information Technology	-1.5	-7.9	5.9	-15.0	32.2	33.8	15.1	28.2	40.5	28.0	37.3	40.9	1.5	-1.8	3.6	5.5	-15.0	1.5	7.7	18.2	45.2	53.8	40.0	24.9	23.0	15.8	-1.3	-6.7
Materials	-12.0	-5.0	13.9	19.4	15.6	8.3	8.9	4.1	13.3	5.8	58.9	29.5	1.5	-6.5	-11.0	-20.8	-30.1	-19.3	-2.2	26.8	83.4	116.1	85.5	60.4	52.4	23.1	26.4	-6.5
Real Estate	n/a	n/a	n/a	n/a	n/a	n/a	23.8	22.2	11.2	-9.6	-15.4	-18.6	5.0	9.7	6.8	19.2	-12.8	-34.7	-55.3	-8.1	20.2	121.0	82.8	45.3	53.4	11.7	24.5	-15.1
Utilities	-2.4	9.1	12.3	-24.2	0.8	3.4	-21.1	-4.7	-21.0	28.4	10.2	-42.2	-8.9	-4.2	-41.3	27.0	60.4	-13.1	1.5	-1.8	0.7	5.9	0.2	-1.5	11.0	3.4	-26.3	-48.2

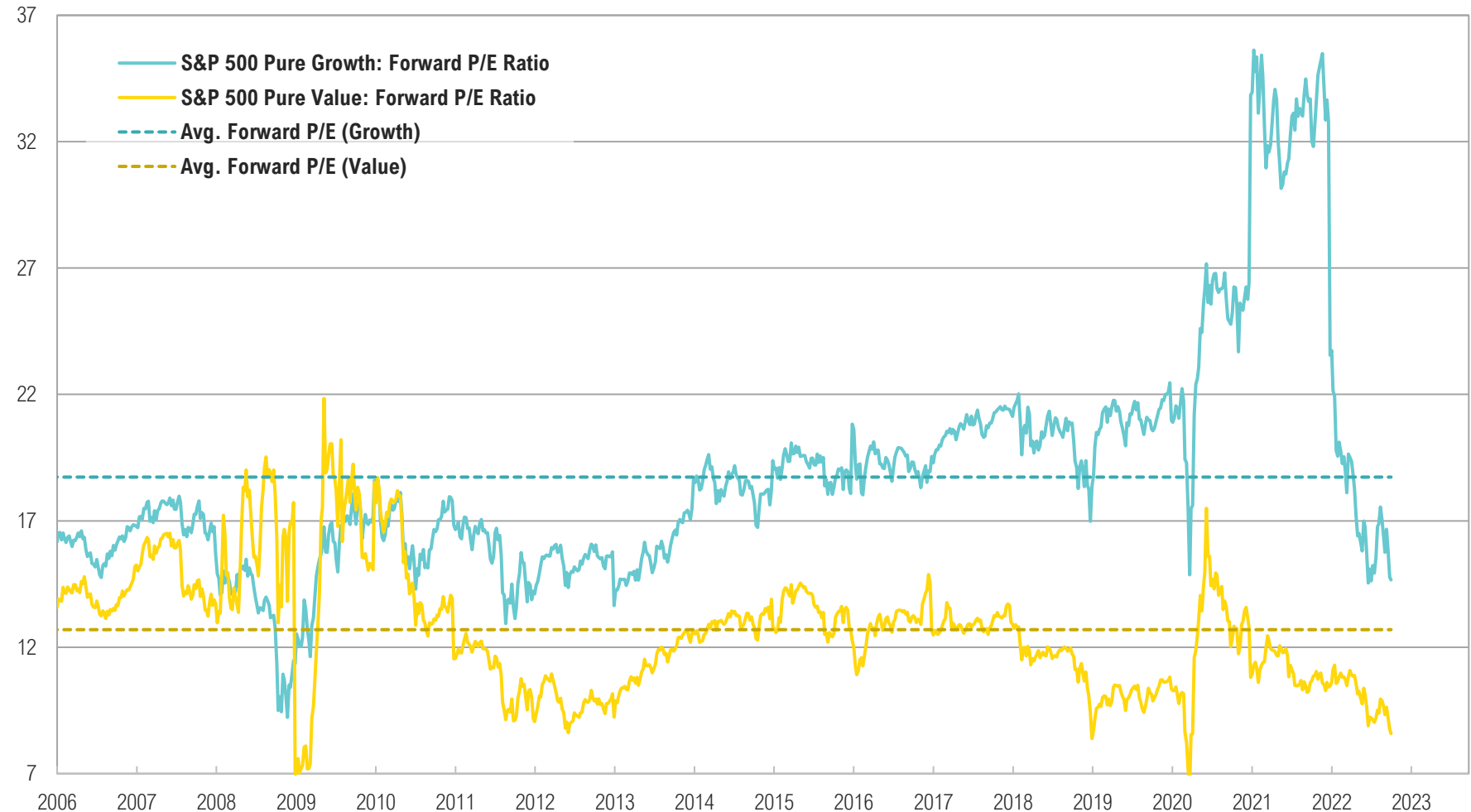
LOWER  HIGHER

Source: Bloomberg

Real Estate included in Financials sector until 8/31/2016; other "n/a" represents a value of <100% due to earnings fluctuations between positive and negative values.

➤ **Forward-looking valuations have improved dramatically, but earnings estimates will now come into question given potential margin pressure; value still looks relatively cheaper**

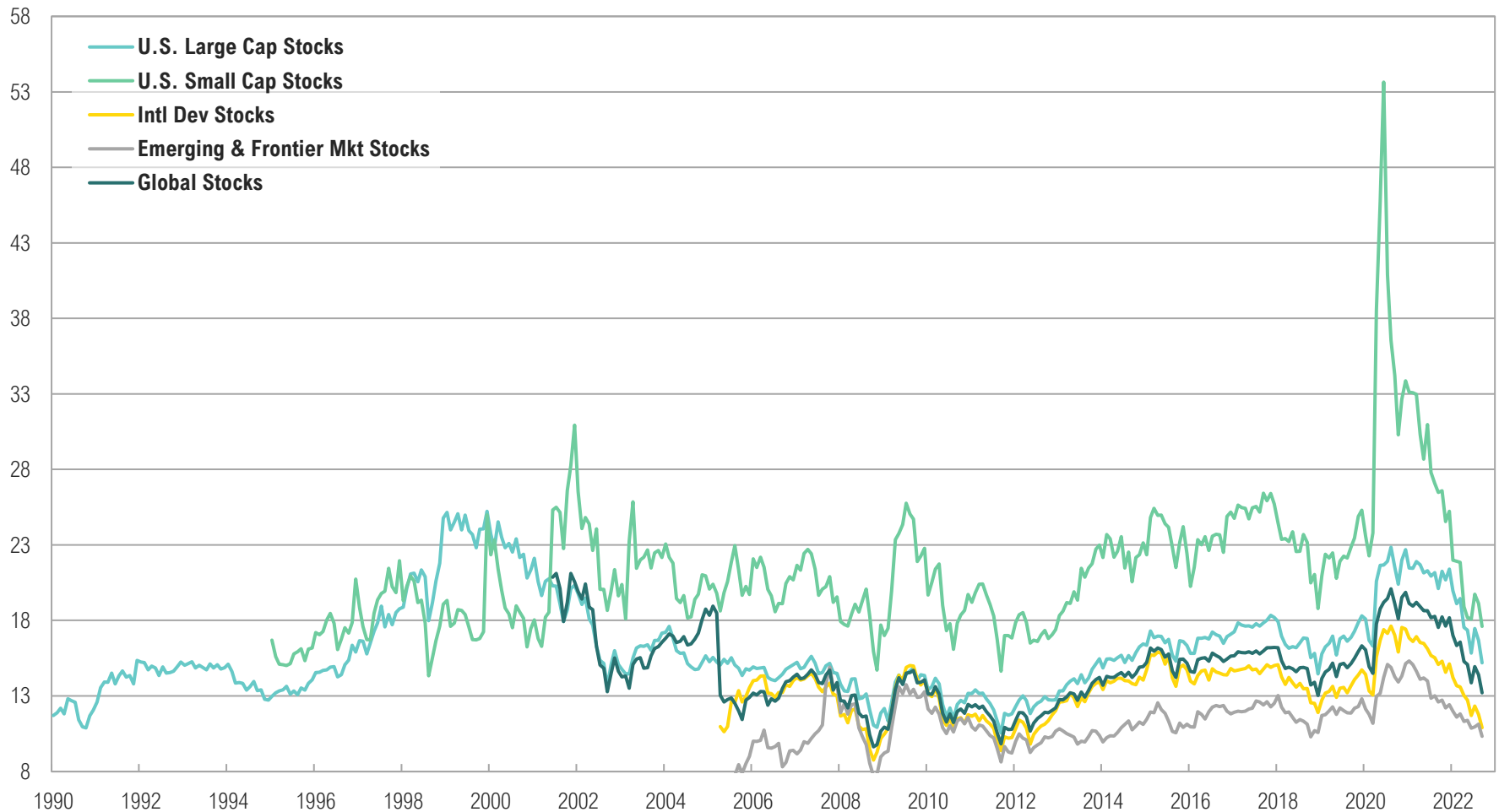
S&P 500 PURE GROWTH INDEX VS. S&P PURE VALUE INDEX FORWARD P/E RATIOS



Source: Bloomberg

EM stocks remain relatively cheap vs. developed markets, but “value trap” risk remains due to geopolitics, global food and energy crisis

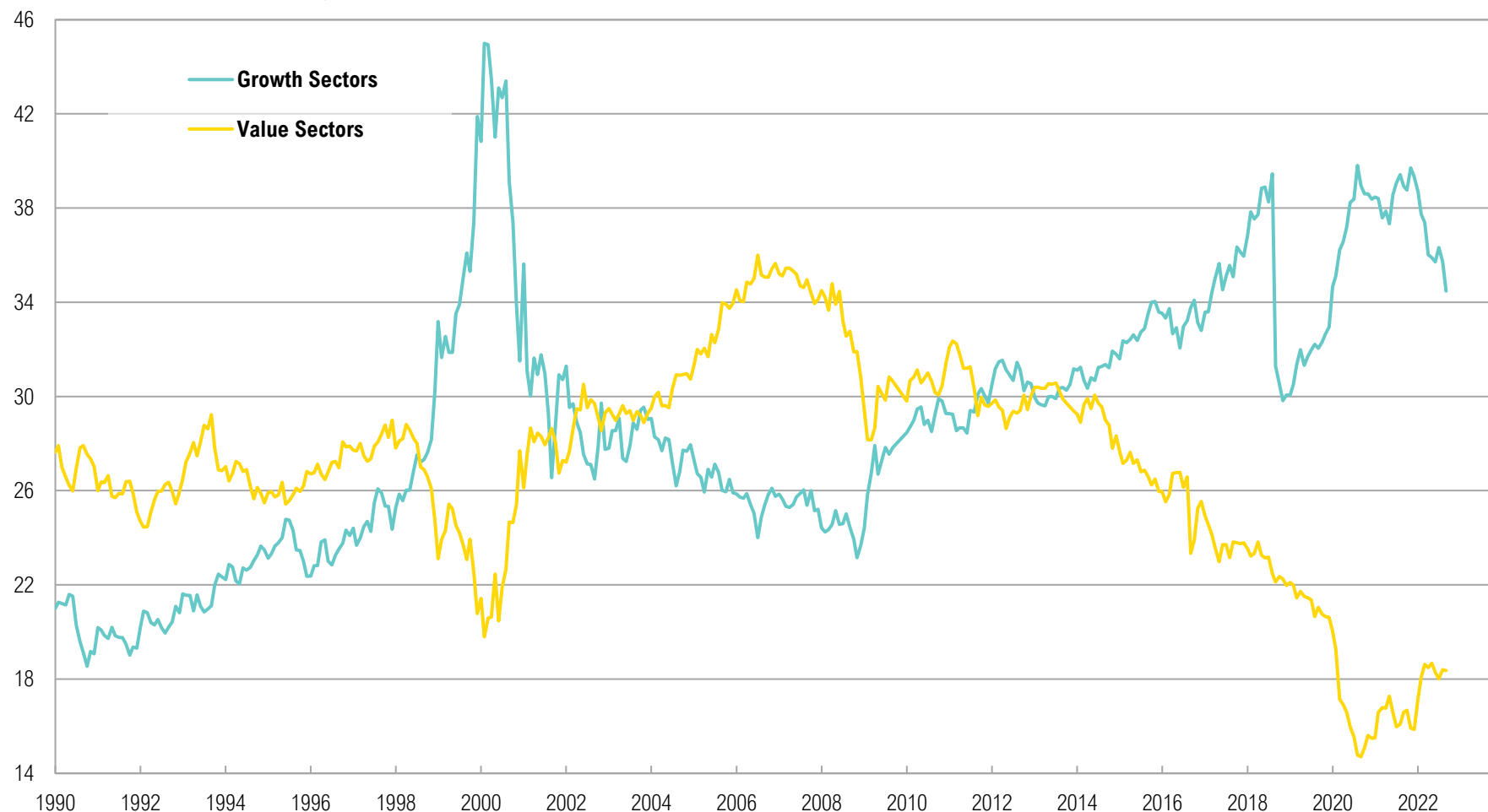
FORWARD P/E RATIOS FOR SELECT EQUITY INDICES



Source: Bloomberg

➤ Still a long way to go? The weight of technology and consumer discretionary stocks in the S&P 500 has dropped to 34.5% but still near historic highs

S&P 500 SECTOR COMPOSITION, %

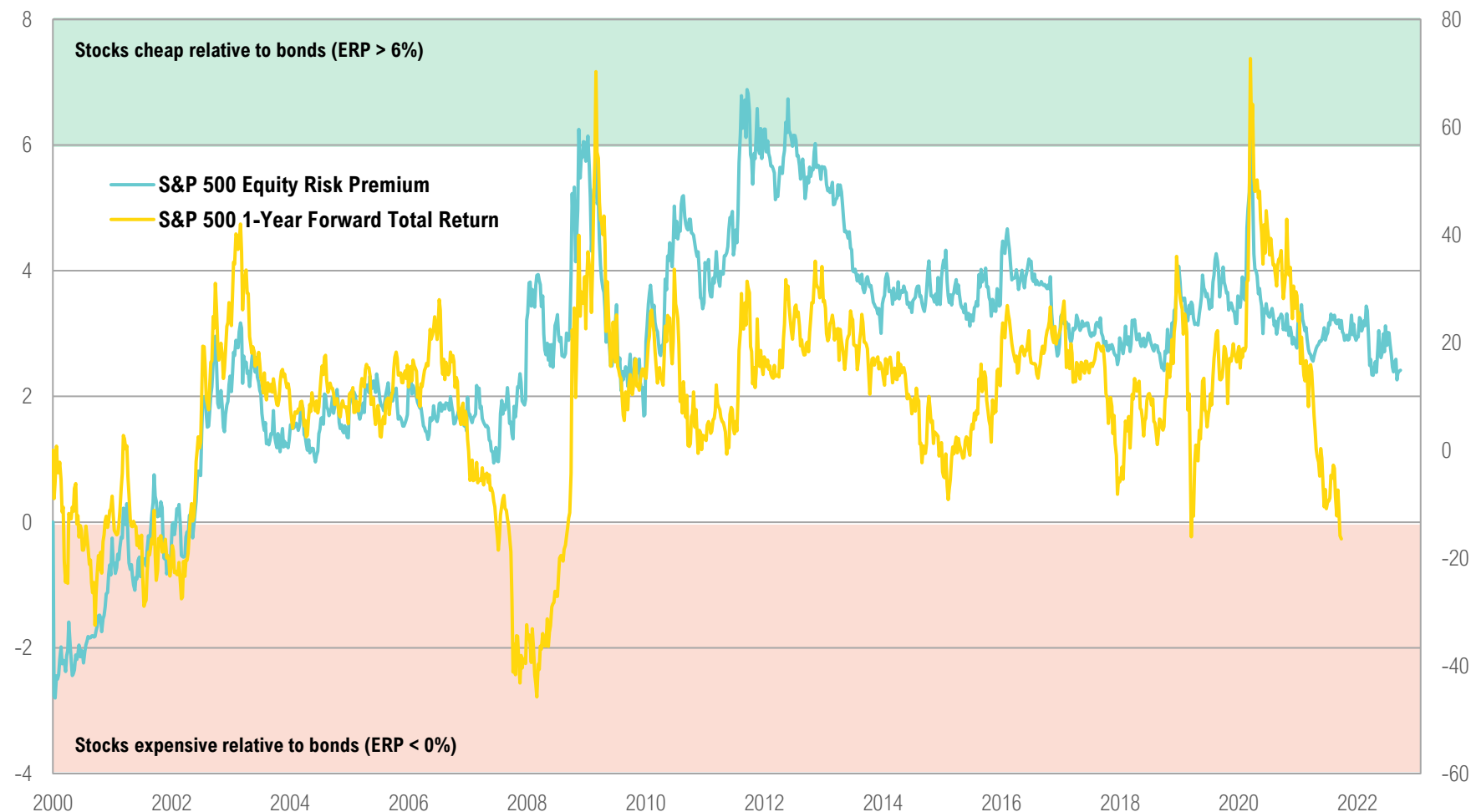


Source: Bloomberg. Value sectors: energy, utilities, and financials; growth sectors: information technology and consumer discretionary.

Despite being in a bear market, stocks are arguably less attractively priced vis-à-vis bonds than they were coming into the year

S&P 500 FORWARD EARNINGS YIELD MINUS 10-YR US TREASURY, %

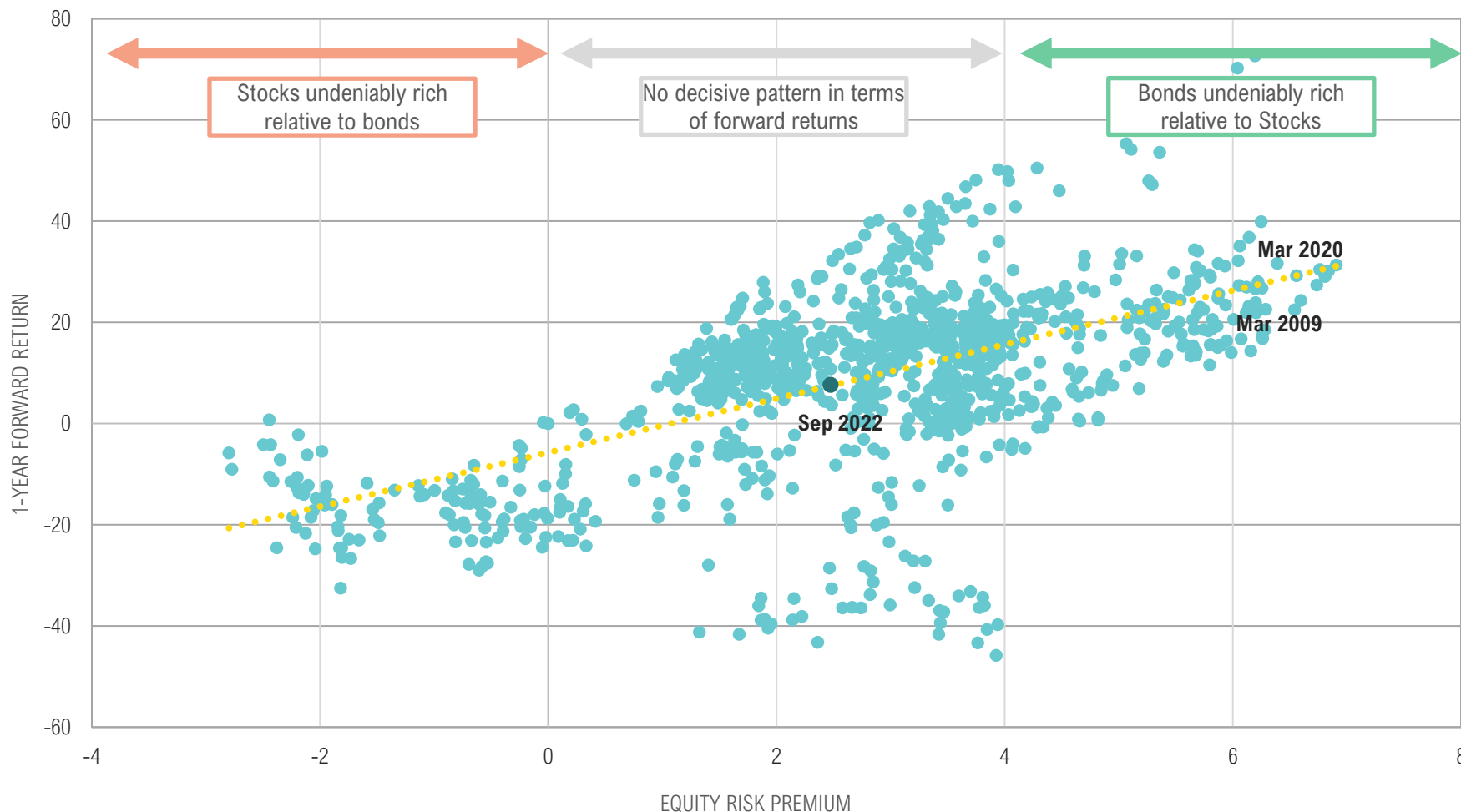
S&P 500 1-YR FORWARD RETURN



Equity risk premium calculated as S&P 500 earnings yield minus 10-year Treasury yield.

➤ A loose correlation exists between the S&P 500 equity risk premium (ERP) and 1-year forward returns; ERP currently at a middling 2.4%

EQUITY RISK PREMIUM VS 1-YEAR FORWARD S&P 500 RETURN



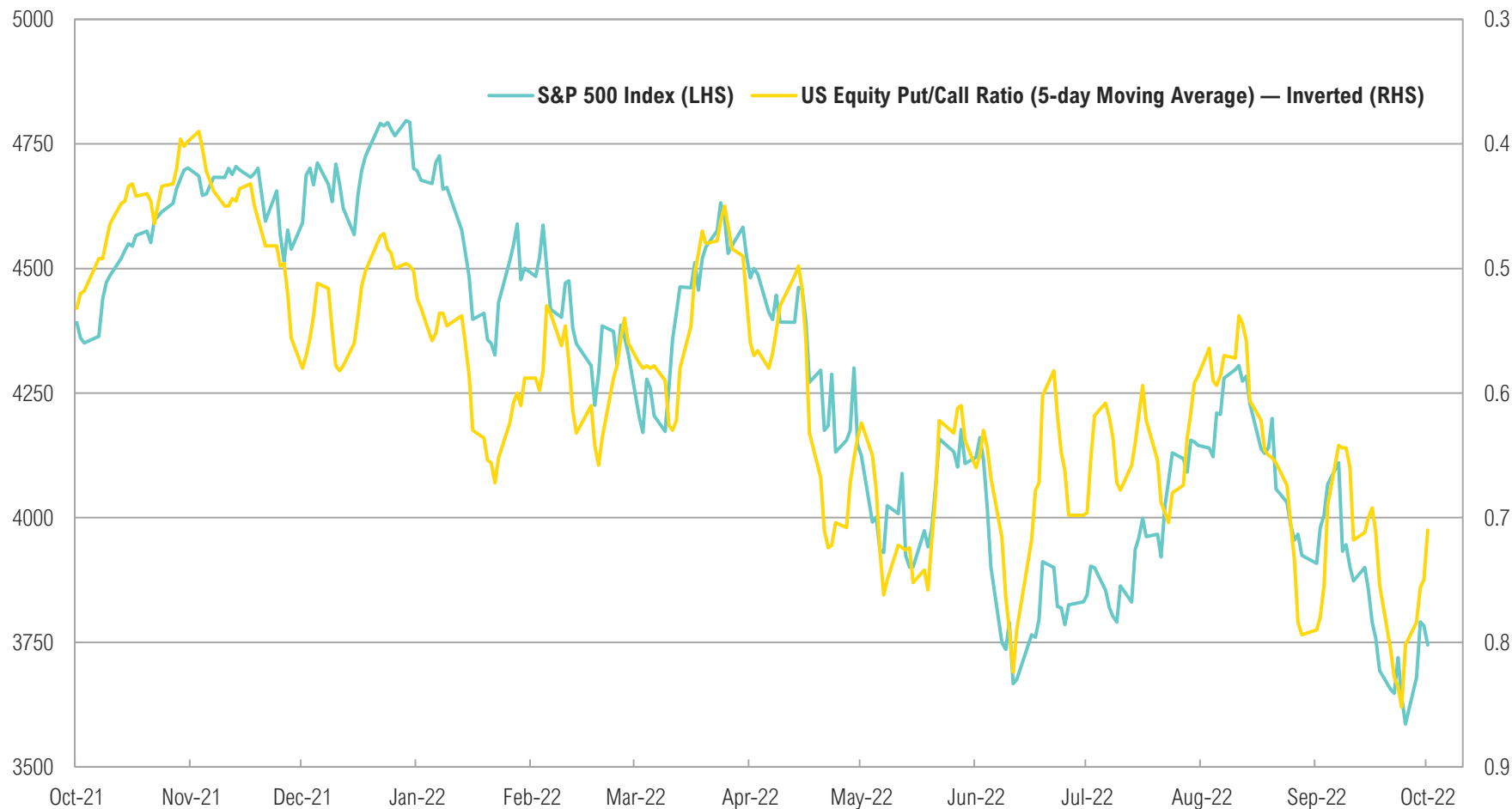
Source: Bloomberg

Period of analysis from 1/1/2000 through 3/31/2022 using weekly data. Equity risk premium calculated as S&P 500 earnings yield minus 10-Year Treasury yield.

Equity put/call ratio has a strong inverse correlation to equity returns; current showing significant bearish positioning

S&P 500 INDEX

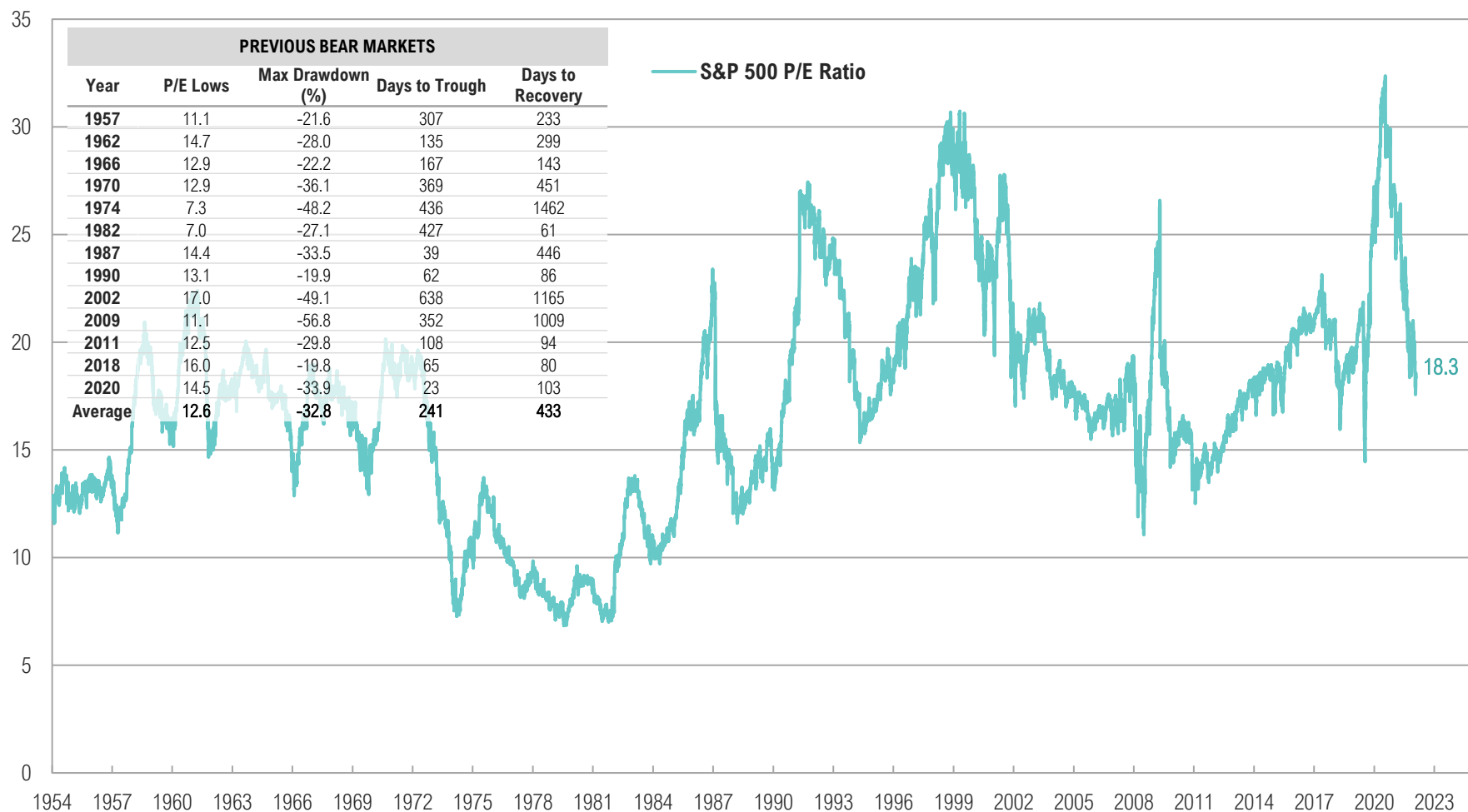
CBOE EQUITY PUT/CALL RATIO (INVERTED)



Source: Bloomberg

U.S. stock market valuations have improved, but are still higher than the average valuation reached at the lows of post-war bear markets

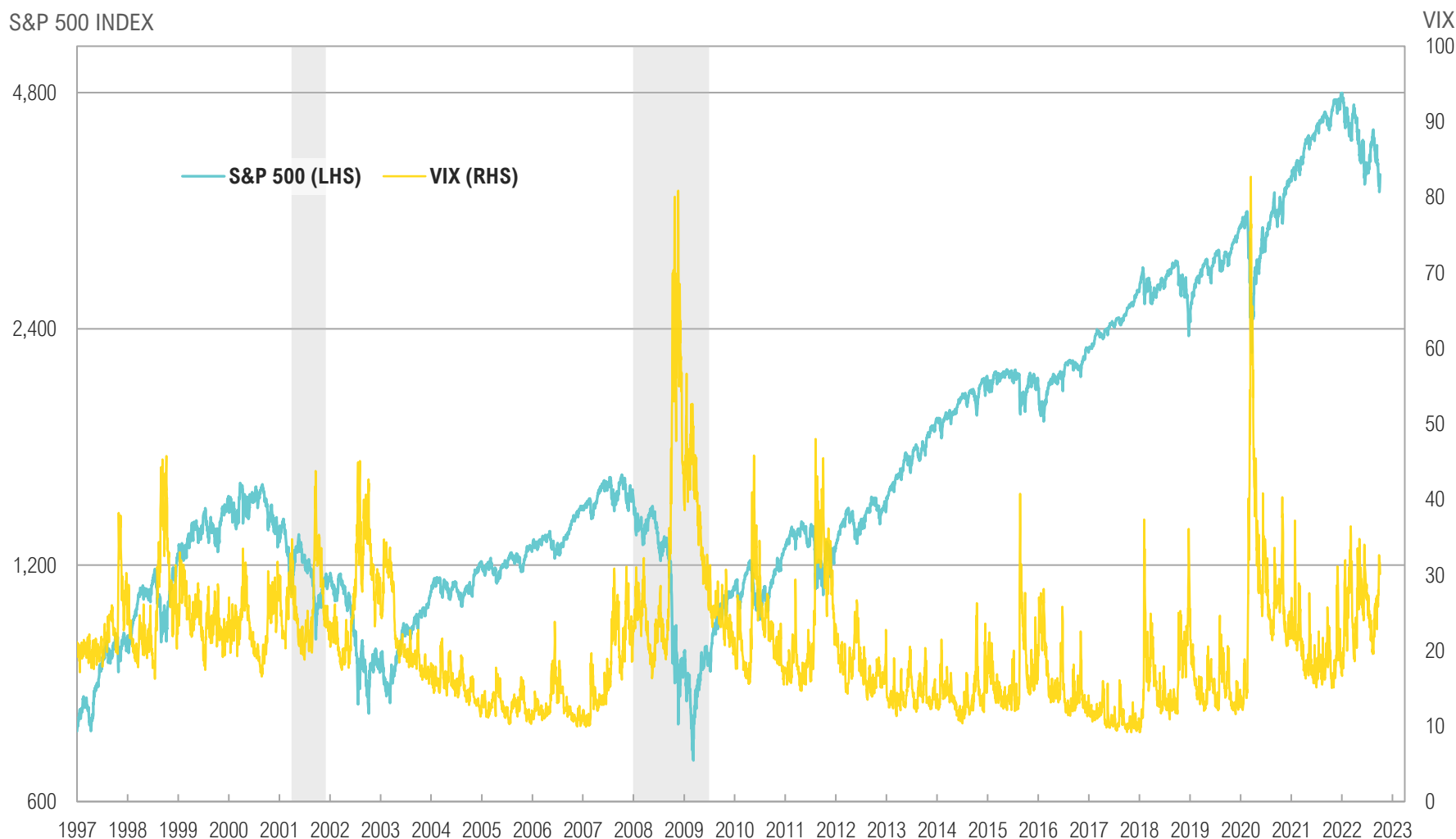
PRICE-TO-EARNINGS RATIO, %



Source: Bloomberg

➤ **Lower equity prices have helped ease valuations; implied volatility was contained for most of the quarter but ended the quarter back above 30**

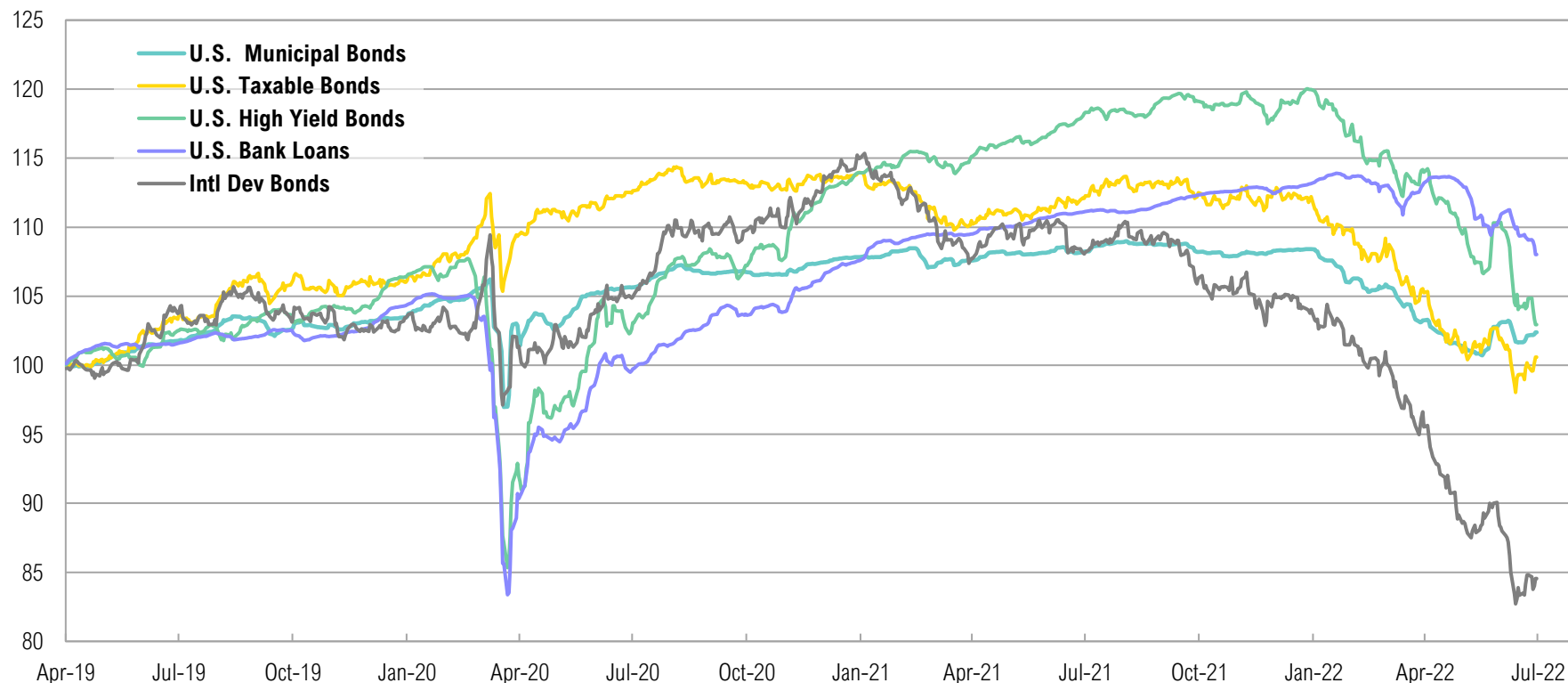
S&P 500 INDEX



Source: Bloomberg

Most U.S. fixed income and credit asset classes were down over the quarter; international developed bonds fared the worst and are now down over the last decade

CALENDAR YEAR & TRAILING TOTAL RETURNS



Asset Class	Benchmark	MTD	QTD	YTD	1-Yr	3-Yr	5-Yr	10-Yr	2021	2020	2019	2018	2017
U.S. Municipal Bonds	BBgBarc Municipal 1-10Y Blend 1-12Y TR	-2.6	-2.3	-7.7	-7.6	-0.8	0.7	1.4	0.5	4.2	5.6	1.6	3.5
U.S. Taxable Bonds	BBgBarc US Agg Bond TR	-4.3	-4.8	-14.6	-14.6	-3.3	-0.3	0.9	-1.5	7.5	8.7	0.0	3.5
U.S. High Yield Bonds	BBgBarc US Corporate High Yield TR	-4.0	-0.6	-14.7	-14.1	-0.5	1.6	3.9	5.3	7.1	14.3	-2.1	7.5
U.S. Bank Loans	S&P/LSTA Leveraged Loan TR	-2.3	1.4	-3.3	-2.5	2.2	3.0	3.5	5.2	3.1	8.6	0.4	4.1
Intl Dev Bonds	S&P International Sov Ex-US Bond TR	-6.6	-10.0	-26.9	-28.1	-9.7	-5.2	-2.5	-9.5	11.2	4.6	-2.3	11.3

Source: Bloomberg

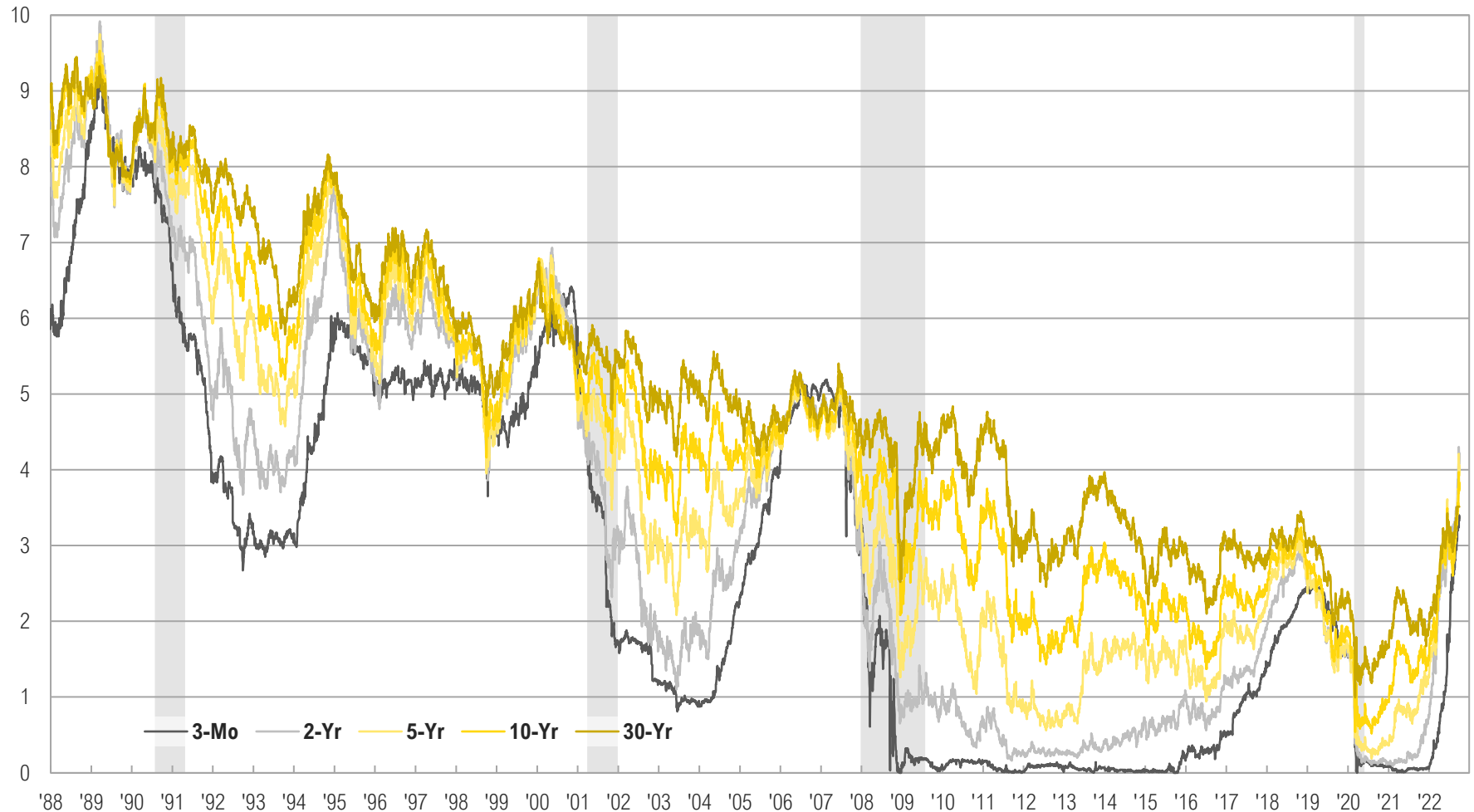
Returns for periods greater than 1 year are annualized.

Monthly Dashboard

SEE IMPORTANT DISCLOSURES AT THE END OF THIS PRESENTATION

Parts of the Treasury yield curve have moved into deeply inverted territory as inflation and rate hikes have started to take their toll on growth

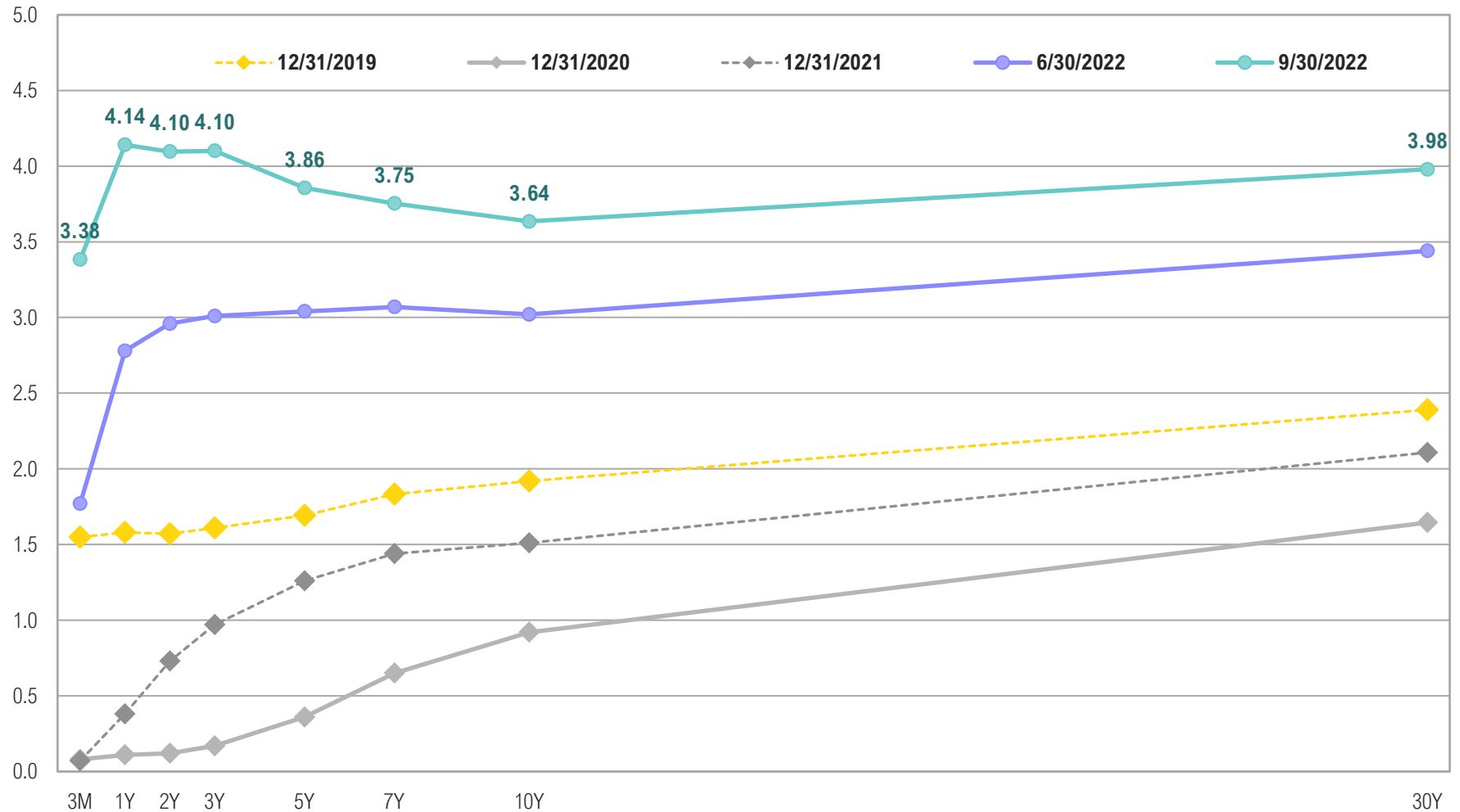
U.S. TREASURY YIELDS BY TENOR



Source: Bloomberg

Parts of the Treasury yield curve have moved into deeply inverted territory as inflation and rate hikes have started to take their toll on growth

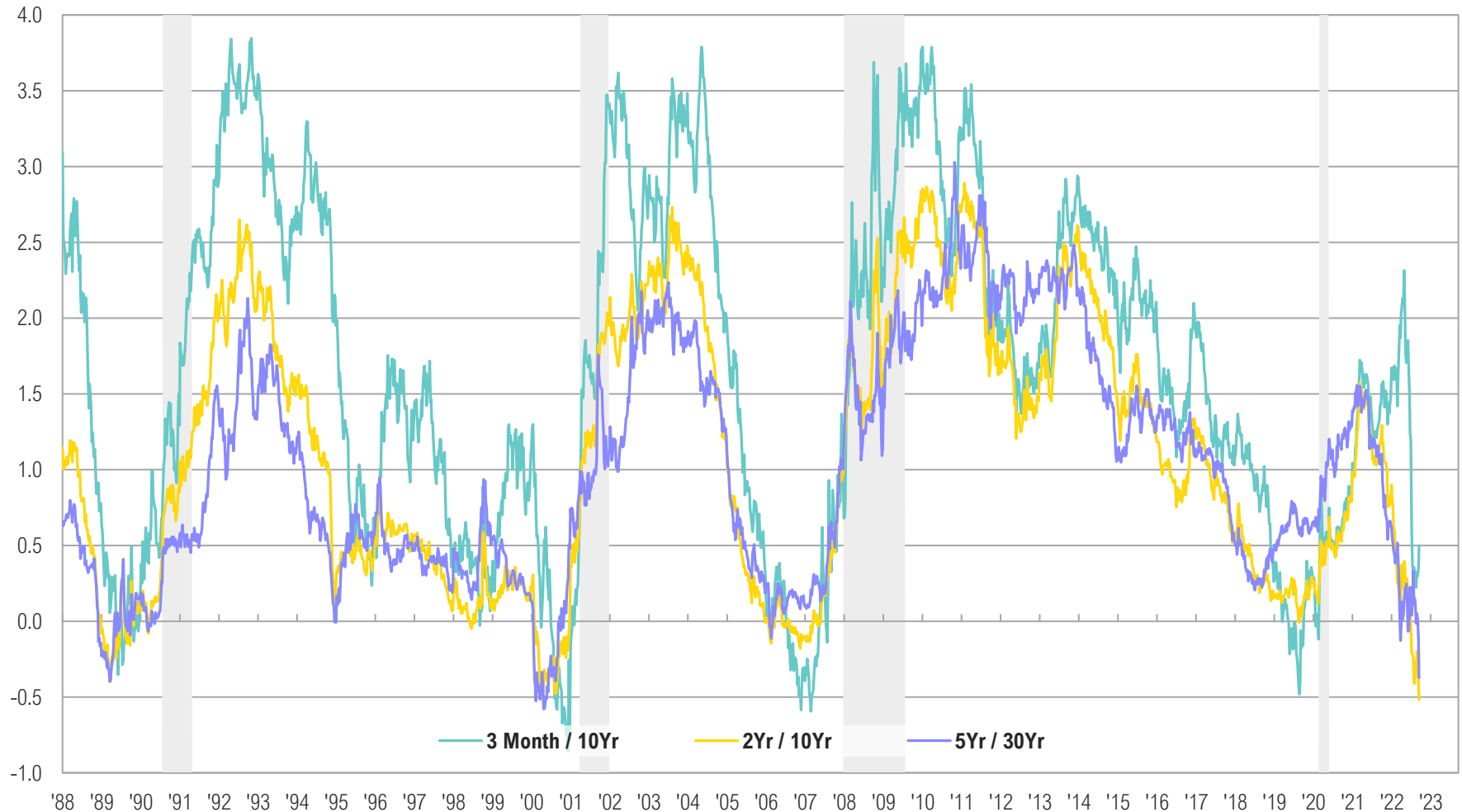
U.S. TREASURY YIELD CURVE BY DATE



Source: Bloomberg

➤ 2s10s Treasury spread cratered on rate hike, and subsequent slowdown, expectations and currently sits at -0.45%

U.S. TREASURY SPREADS, %

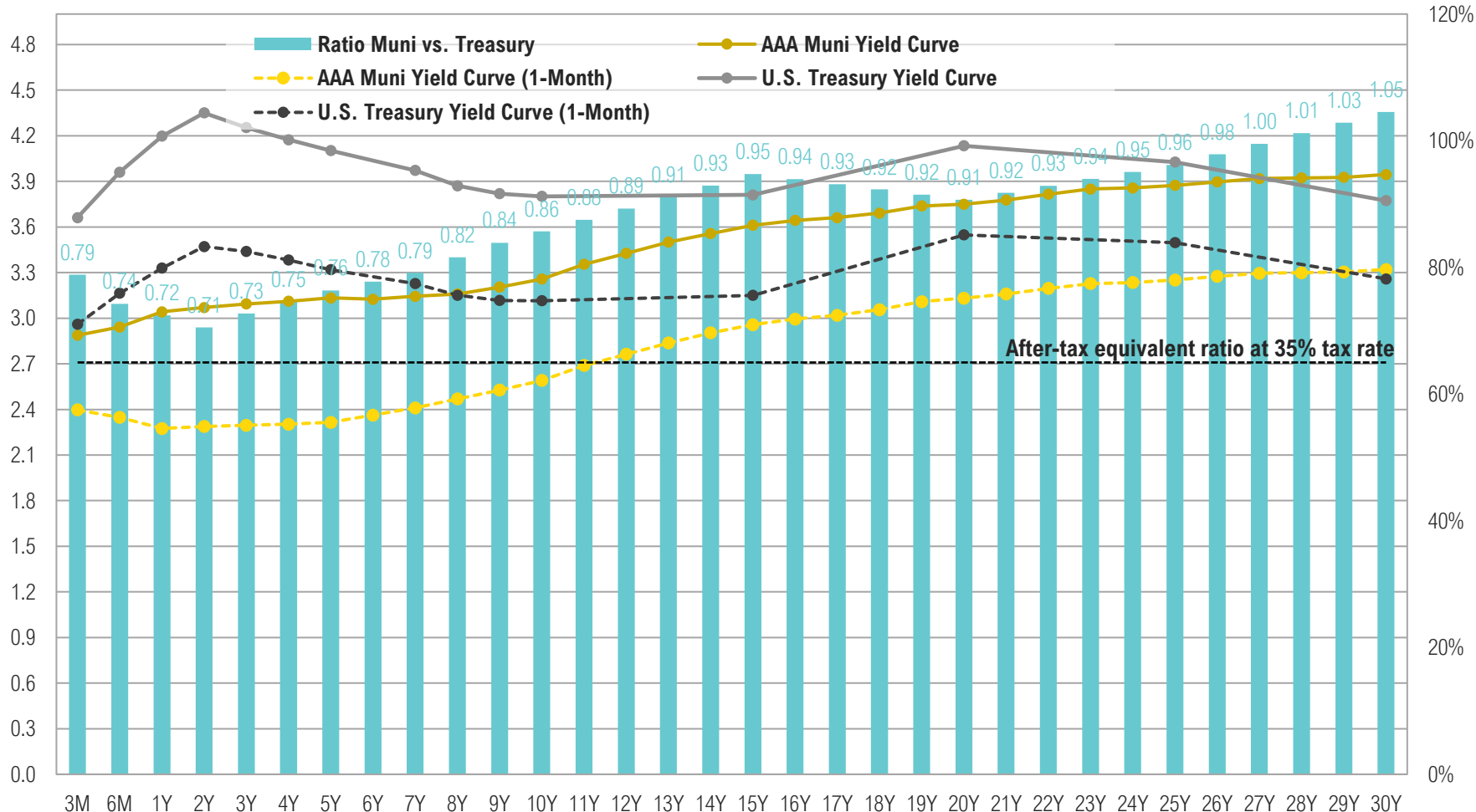


Source: Bloomberg

Muni-Treasury ratio: muni bonds are looking attractive relative to treasuries on a taxable-equivalent basis at all durations

YIELD TO MATURITY, %

MUNI/TREASURY RATIO

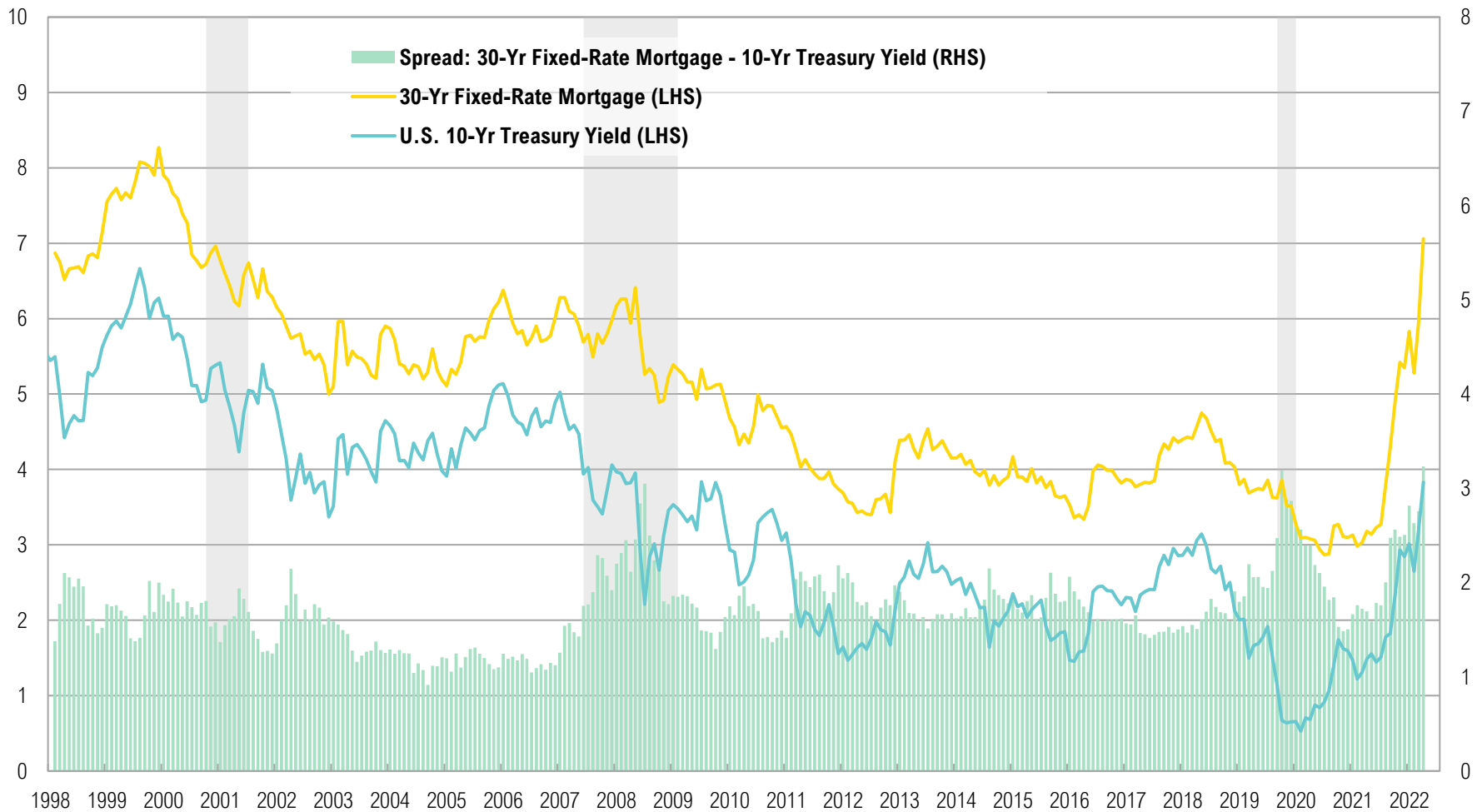


Source: Bloomberg

➤ 30-year fixed mortgage rates spiked in September as mortgage rate spreads vs. 10-year Treasury widened; higher rates will have a negative impact on housing and consumers *with a lag*

U.S. 10-YR TREASURY YIELD VS. 30-YR FIXED-RATE MORTGAGE

SPREAD, %

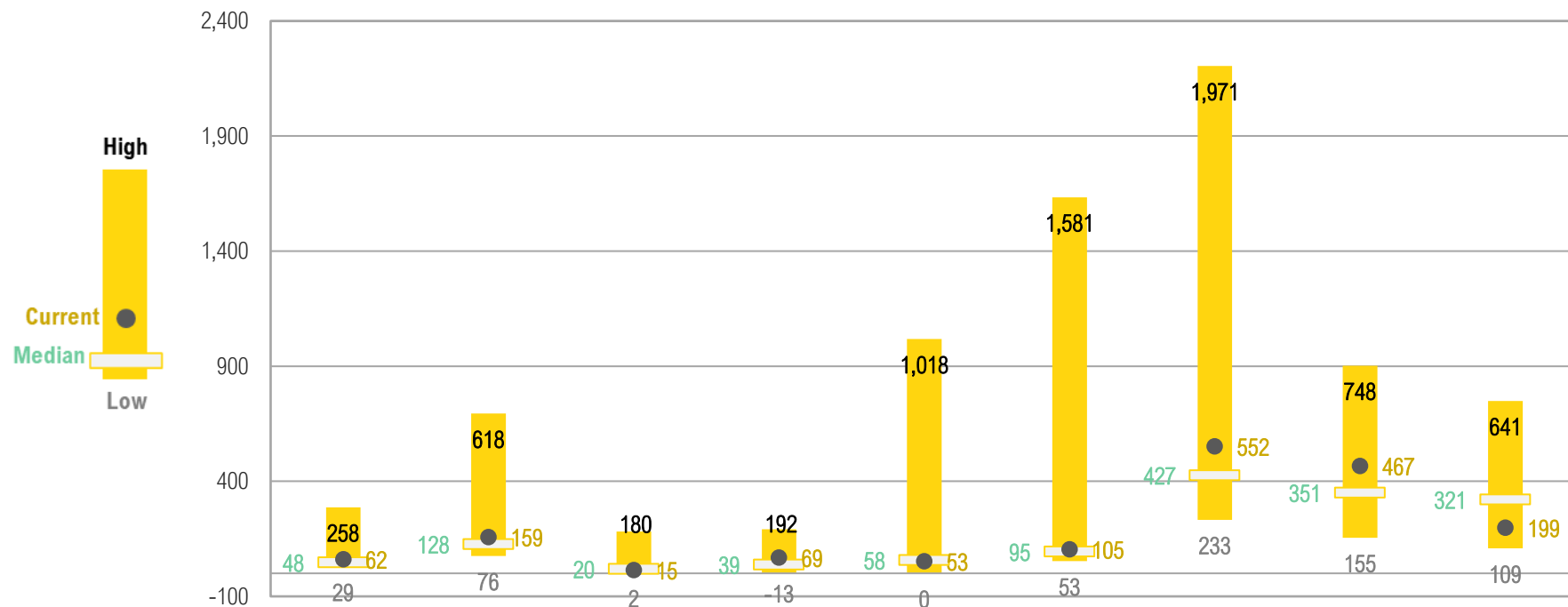


Source: Bloomberg

30-Yr Fixed-Rate Mortgage (FRM) represented by the Bankrate.com US Home Mortgage 30 Year Fixed National Avg.

Credit spreads at or modestly above average across most sectors; starting to shift up modestly as recession fears start to become more entrenched

CURRENT CREDIT SPREAD VS. LONG-TERM HIGH/LOW RANGE

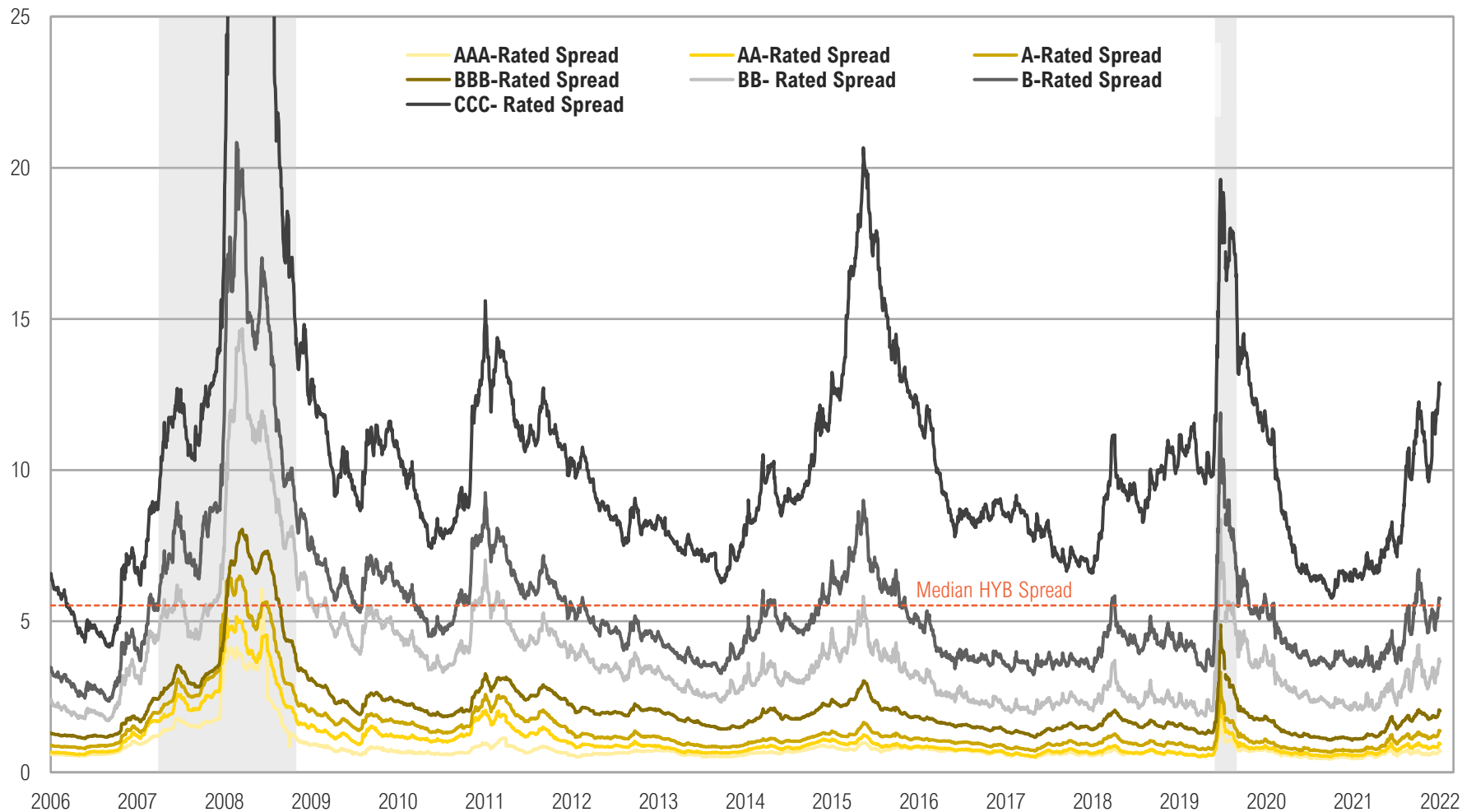


	Aggregate	Corporate	Agency	MBS	ABS	CMBS	High Yield	Emerging Markets	High Yield Muni Spread*
Max Spread Date	12/3/2008	12/3/2008	11/20/2008	12/3/2008	1/6/2009	11/21/2008	12/16/2008	11/28/2008	1/12/2009
Min Spread Date	4/14/2021	3/8/2005	4/19/2021	7/27/2010	10/1/2009	12/8/2004	5/22/2007	5/31/2007	6/11/2007
Spread on 12/31/21	36	92	8	31	38	68	283	330	200
Spread on 12/31/20	42	96	10	39	33	81	360	323	275
Spread on 12/31/19	39	93	10	39	44	72	336	277	223
Spread on 12/31/18	36	93	14	25	36	62	343	311	278

Source: Bloomberg. High Yield Muni Spread data is relative to Bloomberg Municipal Bond Index. Yield spread data is from 2004 – current.

Credit spreads widened in September; notably, CCC-rated bonds widened by 106bps and have widened 603bps since the start of the year

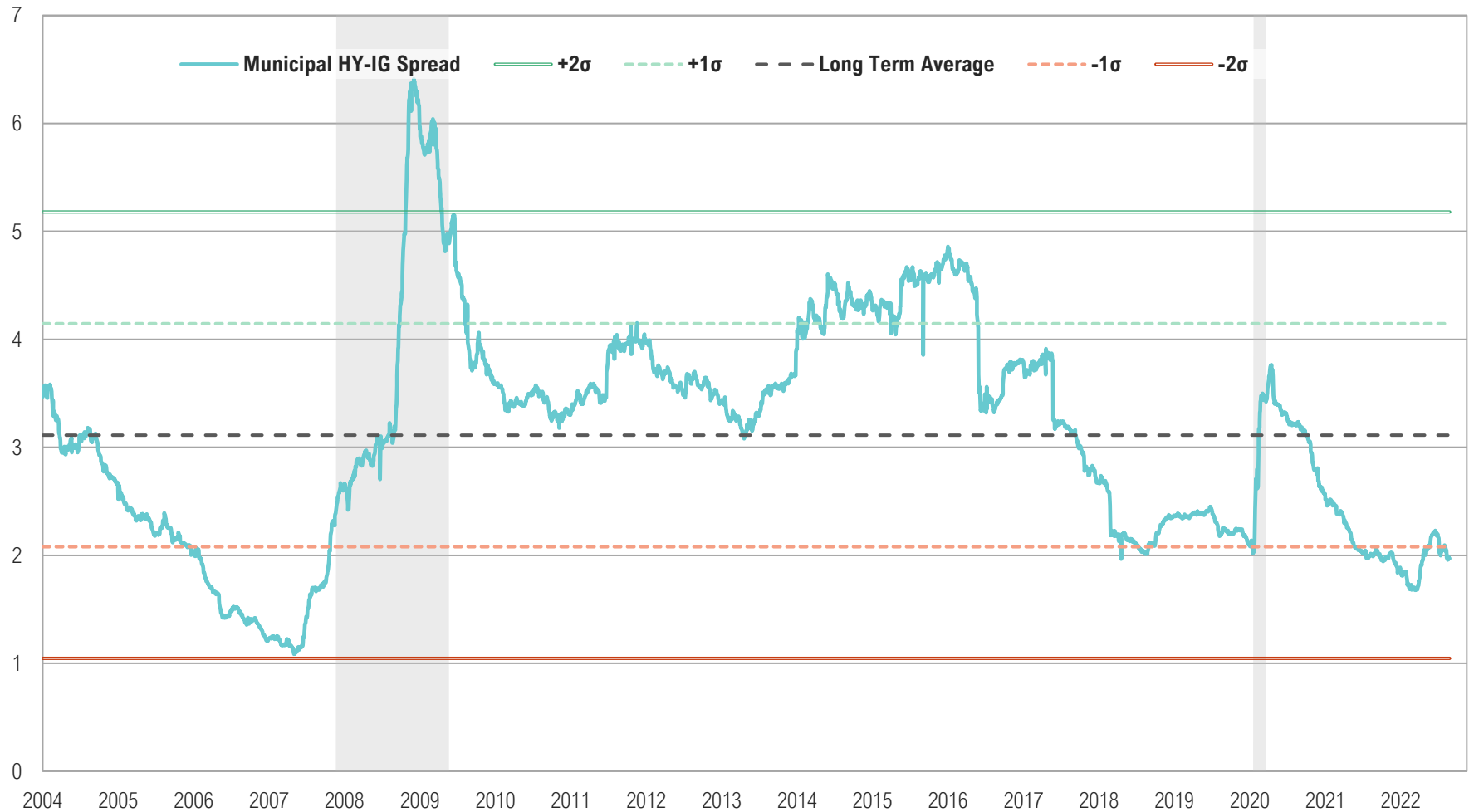
CREDIT SPREADS BY RATING



Source: Bloomberg

High yield-to-investment grade muni spreads have widened from 2022 lows but remain tight relative to history

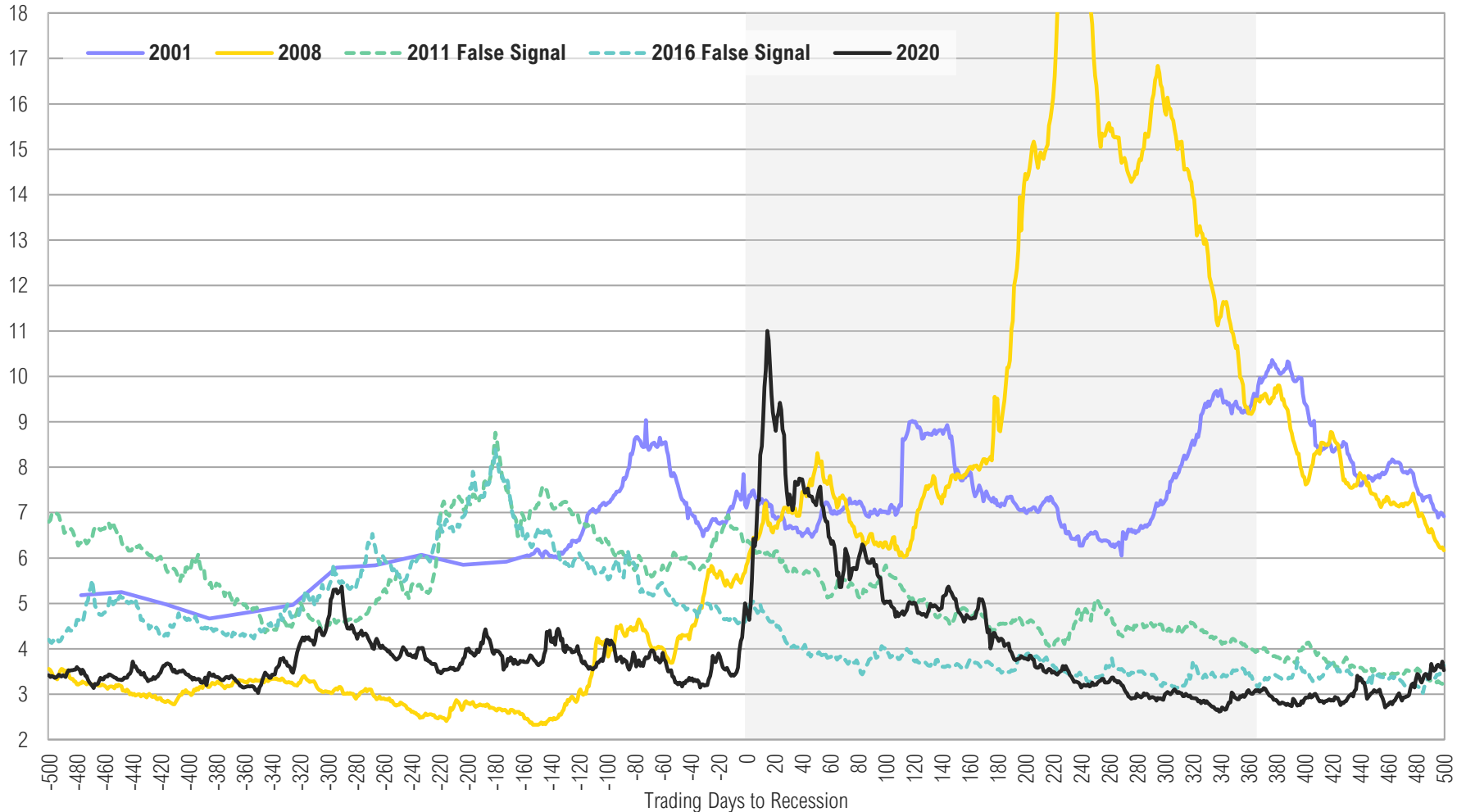
HIGH YIELD – INVESTMENT GRADE MUNI SPREAD



Source: Bloomberg

High yield spreads through the COVID-19 crisis highlight the episodic nature of volatility with an active Fed put, which may not be in place during next crisis

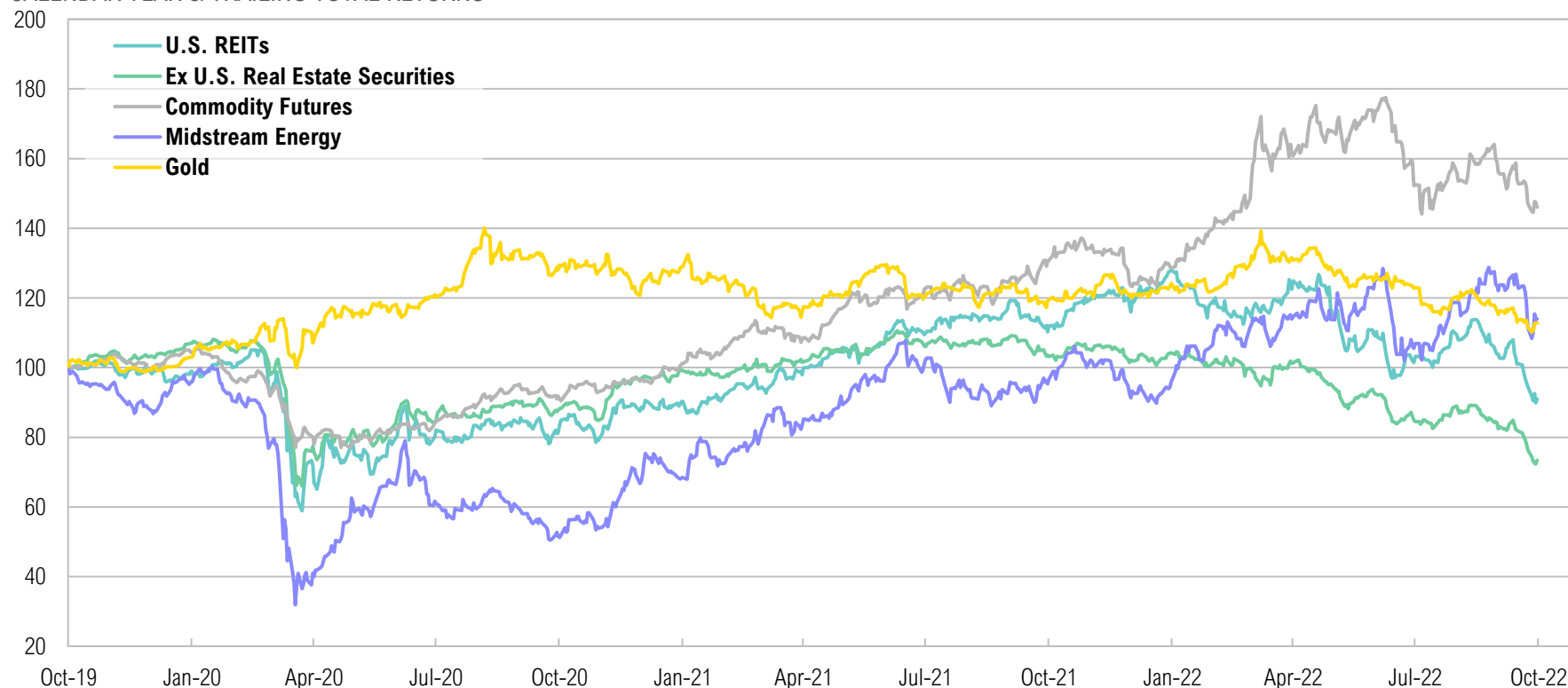
HIGH YIELD SPREADS & NUMBER OF TRADING DAYS TO RECESSION



Source: Bloomberg, FRED, SpringTide calculations

While energy gave back returns in September, it was the only area of the real assets and infrastructure category to be up in Q3; REITs continue to struggle in the rising rate environment

CALENDAR YEAR & TRAILING TOTAL RETURNS



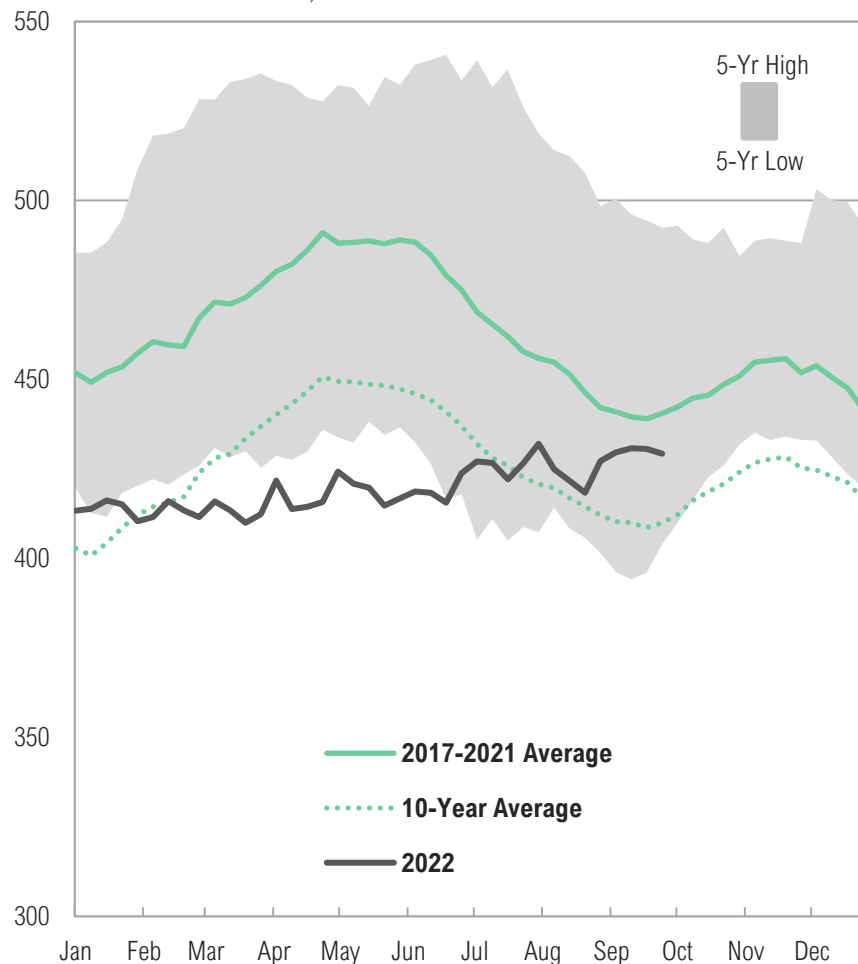
Asset Class	Benchmark	MTD	QTD	YTD	1-Yr	3-Yr	5-Yr	10-Yr	2021	2020	2019	2018	2017
U.S. REITs	MSCI US REIT NR	-12.3	-10.3	-28.9	-17.5	-3.1	1.7	4.9	41.7	-8.7	24.3	-5.8	3.7
Ex U.S. Real Estate Securities	S&P Global Ex US REIT TR	-13.6	-13.0	-30.1	-26.7	-9.0	-2.2	2.0	13.5	-9.3	24.7	-6.5	16.7
Broad Commodity Futures	Bloomberg Commodity TR	-8.1	-4.1	13.6	11.8	13.5	7.0	-2.1	27.1	-3.1	7.7	-11.2	1.7
Energy Partnerships	Alerian MLP TR	-7.6	8.1	18.9	19.6	4.5	1.9	0.7	40.2	-28.7	6.6	-12.4	-6.5
Gold	LBMA Gold Price AM	-2.3	-7.8	-8.1	-3.4	4.0	5.4	-0.6	-3.8	24.2	18.8	-1.1	11.9

Source: Bloomberg

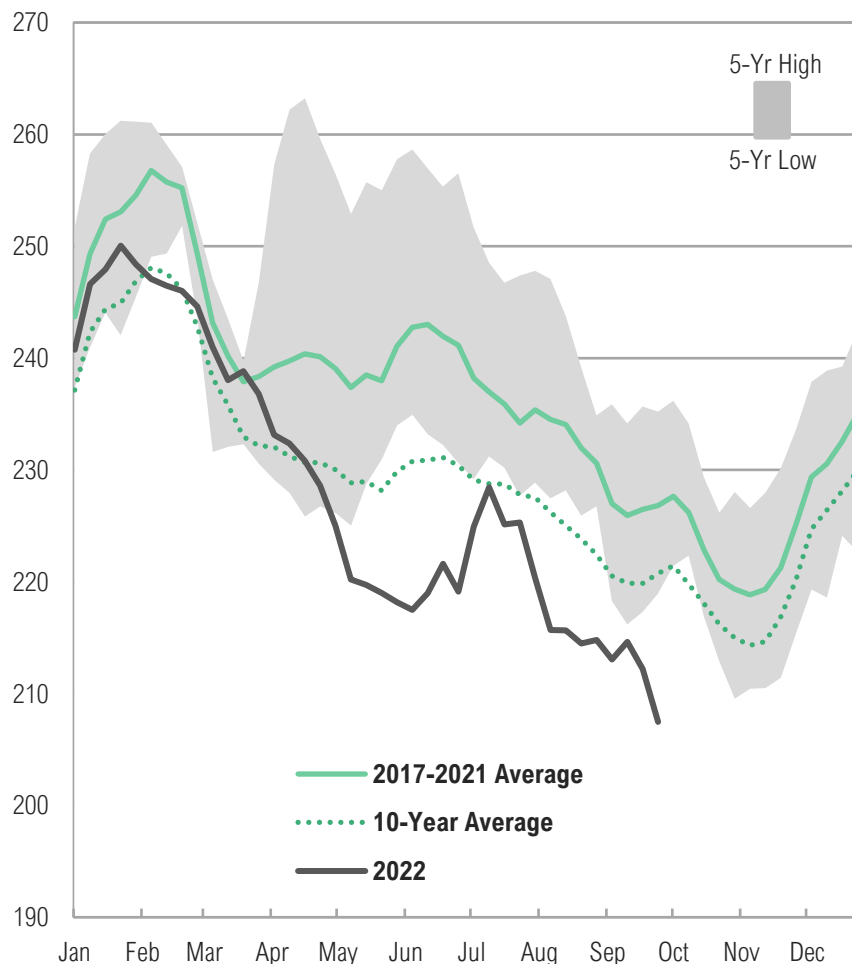
Returns for periods greater than 1 year are annualized.

Crude oil and gasoline inventories remain well below long-term averages, despite nearly 180 million barrels being released from U.S. SPRs YTD

U.S. CRUDE INVENTORIES, MILLIONS OF BARRELS



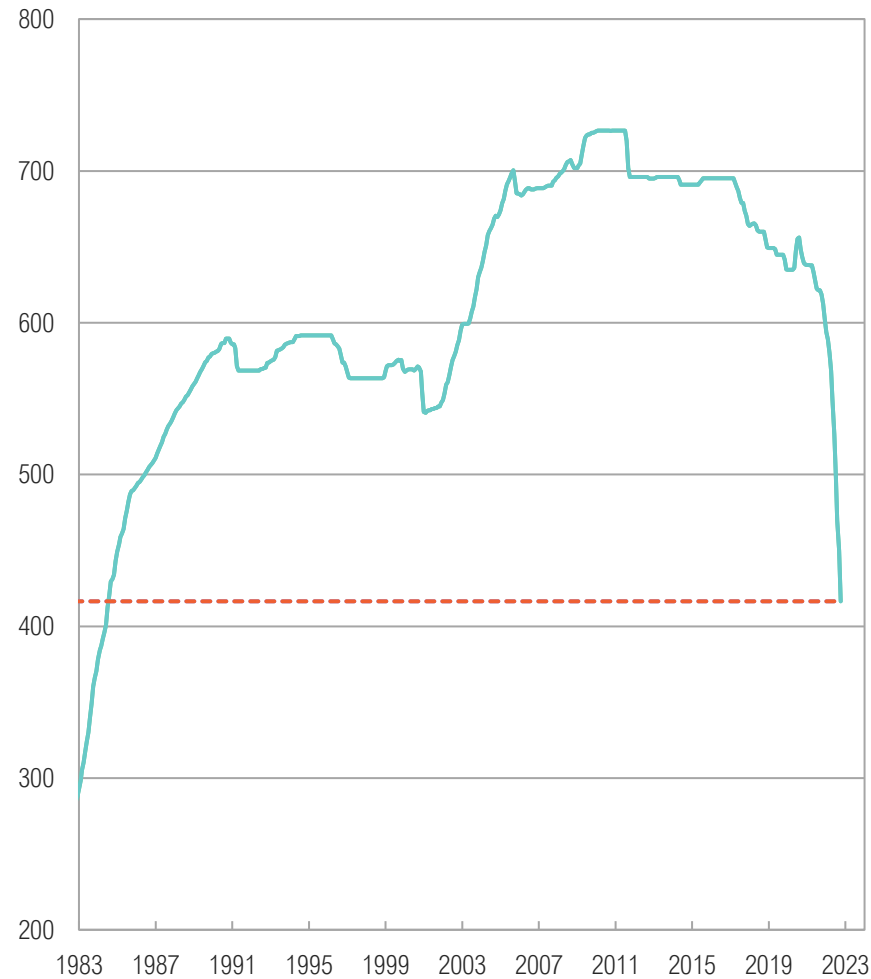
U.S. GASOLINE INVENTORIES, MILLIONS OF BARRELS



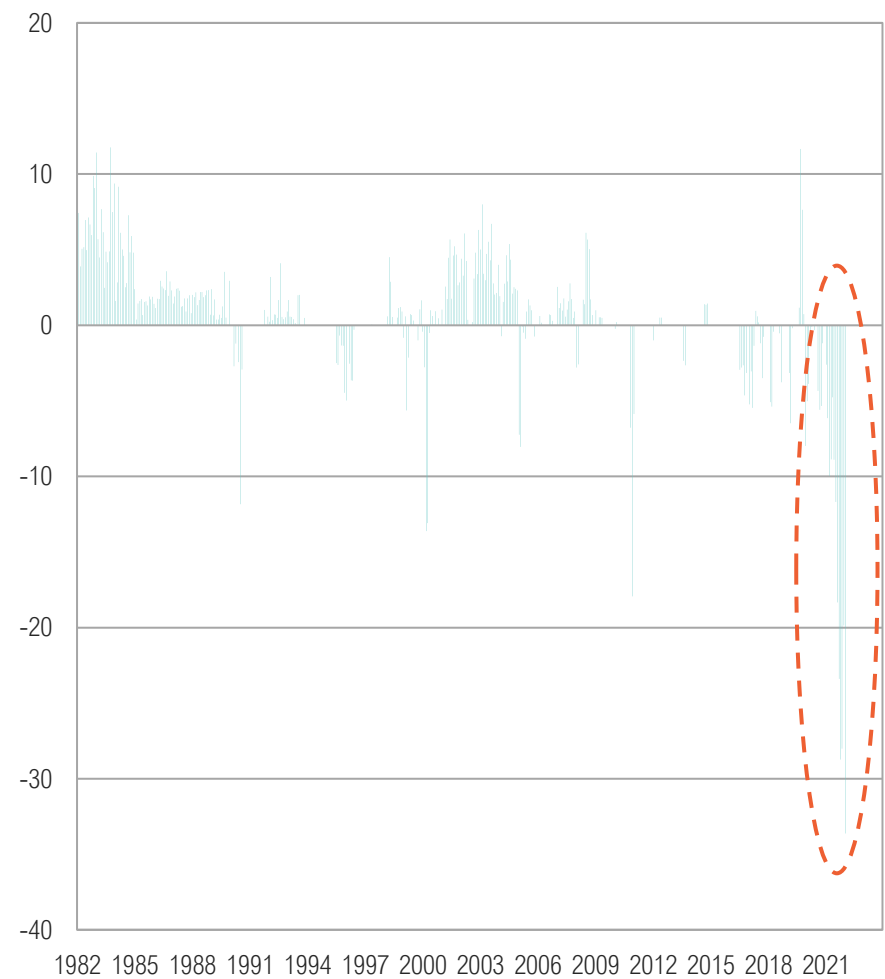
Source: EIA, SpringTide calculations

➤ U.S. strategic petroleum reserves have been depleted to the lowest level since 1985; 180mn barrels depleted, 417mn remaining = 21 days of avg consumption

U.S. SPR INVENTORY, MILLIONS OF BARRELS



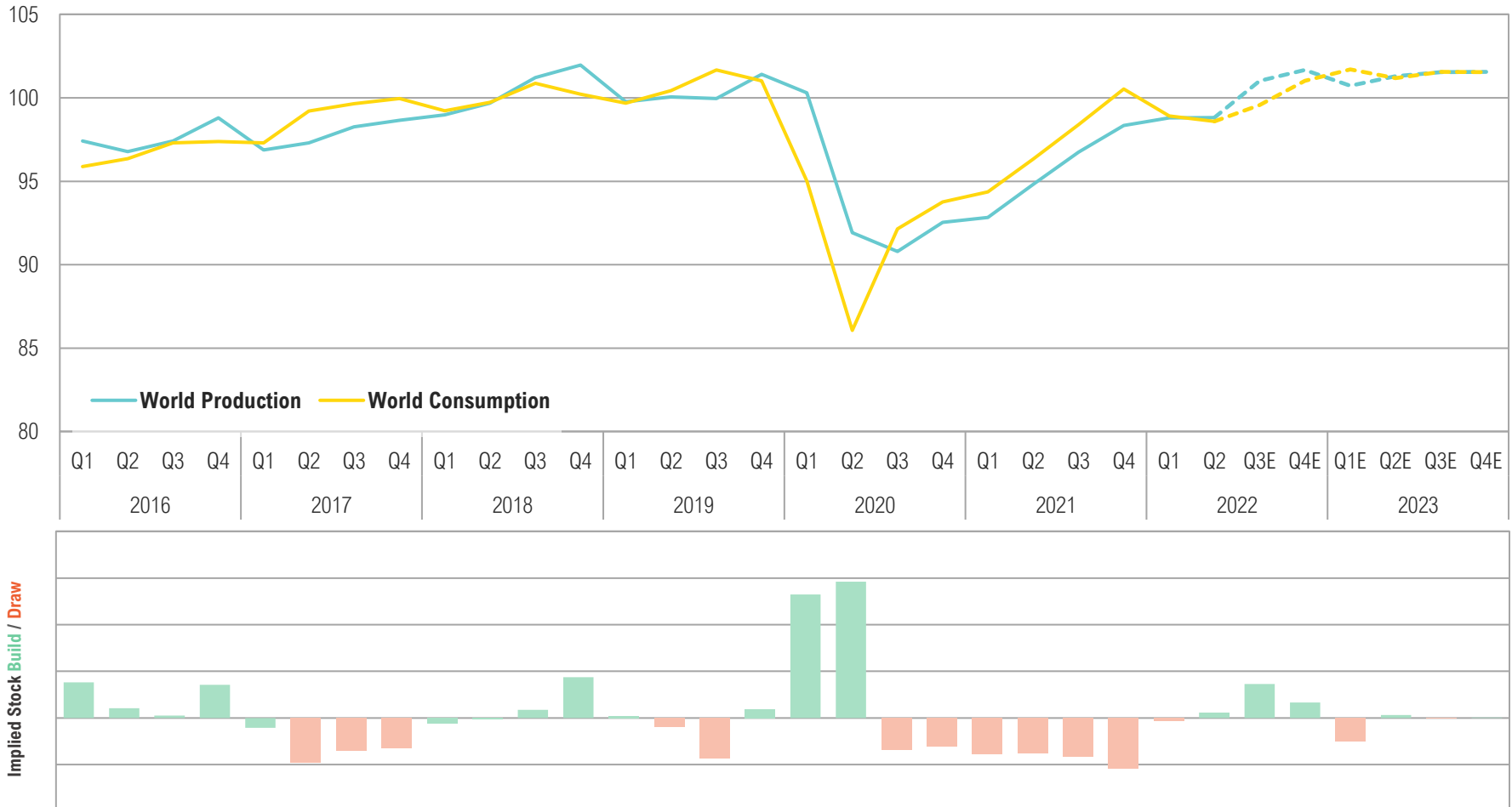
MONTHLY CHANGE IN SPR RESERVES, MILLIONS OF BARRELS



Source: Bloomberg
Daily oil demand based on EIA projections

Energy production is estimated to have outpaced consumption marginally in Q2 for the first time since 2020; the EIA expects this trend to continue short term

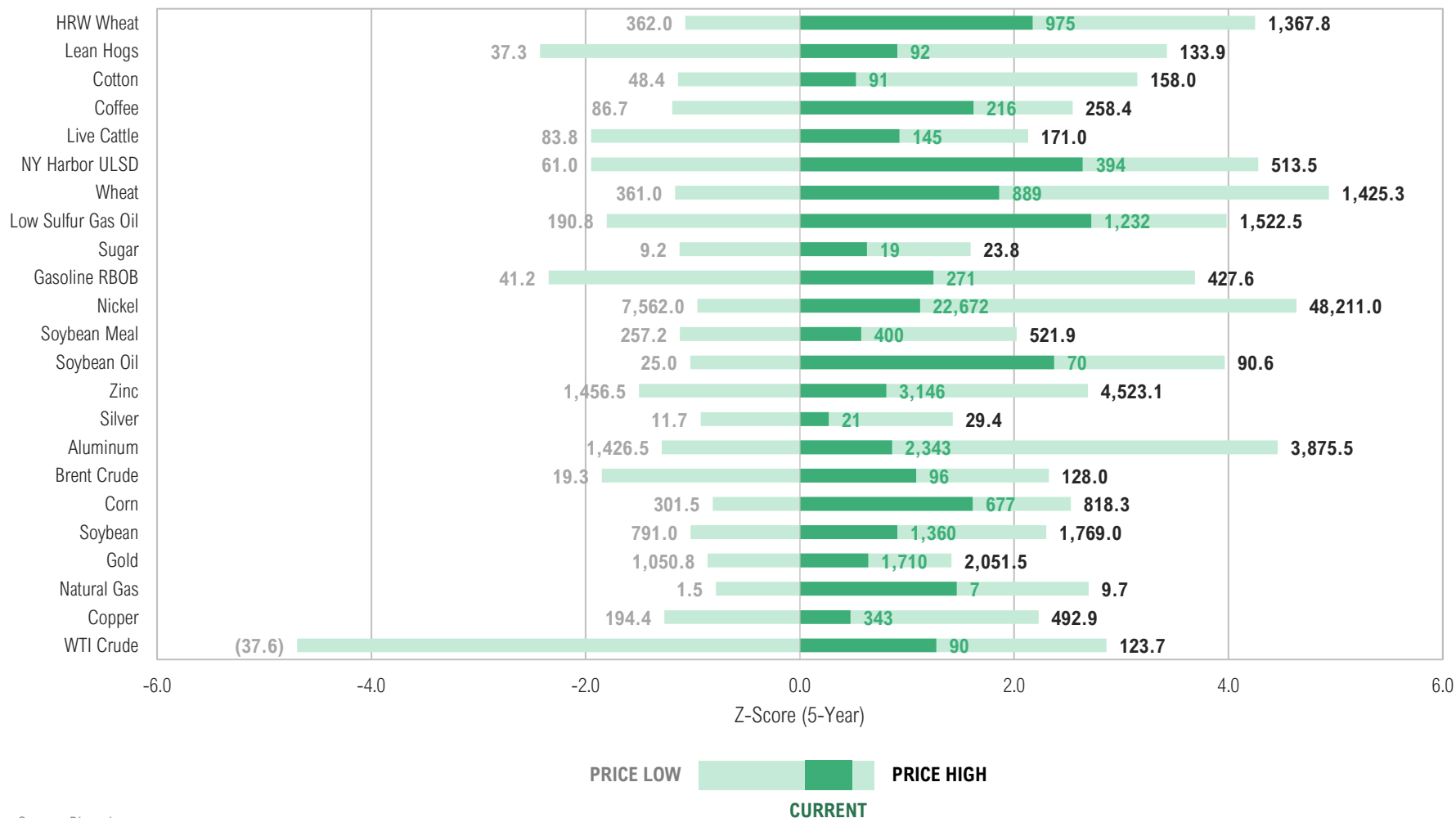
WORLD LIQUID FUELS PRODUCTION AND CONSUMPTION BALANCE



Source: EIA, SpringTide calculations

➤ Several commodities hit new all-time highs following Russia's invasion of Ukraine given their importance to global supply of energy and food; recent correction is modest in context

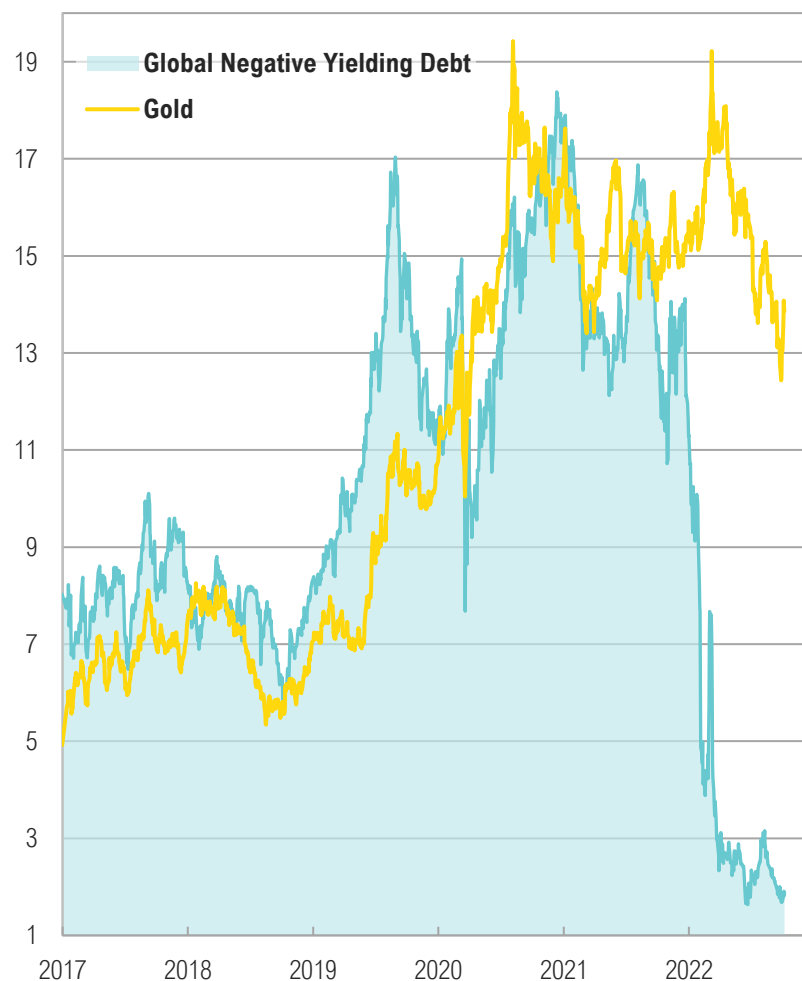
PRICE Z-SCORES VS. HISTORICAL RANGES



Source: Bloomberg

Real yields popped into positive territory (using TIPS implied); gold will likely only start to work when the Fed ultimately pivots away from rate hikes

GLOBAL AGGREGATE NEGATIVE YIELDING DEBT MKT CAP, \$Tn



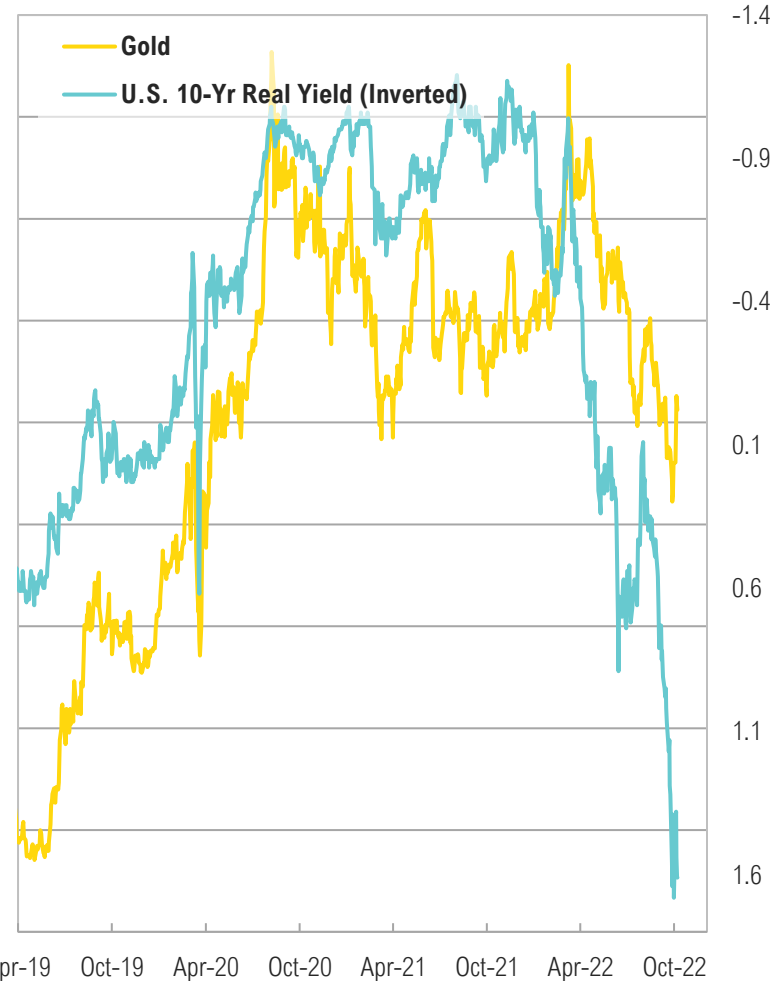
GOLD, \$/OZ



GOLD, \$/OZ



U.S. 10-YR REAL YIELD (INVERTED), %



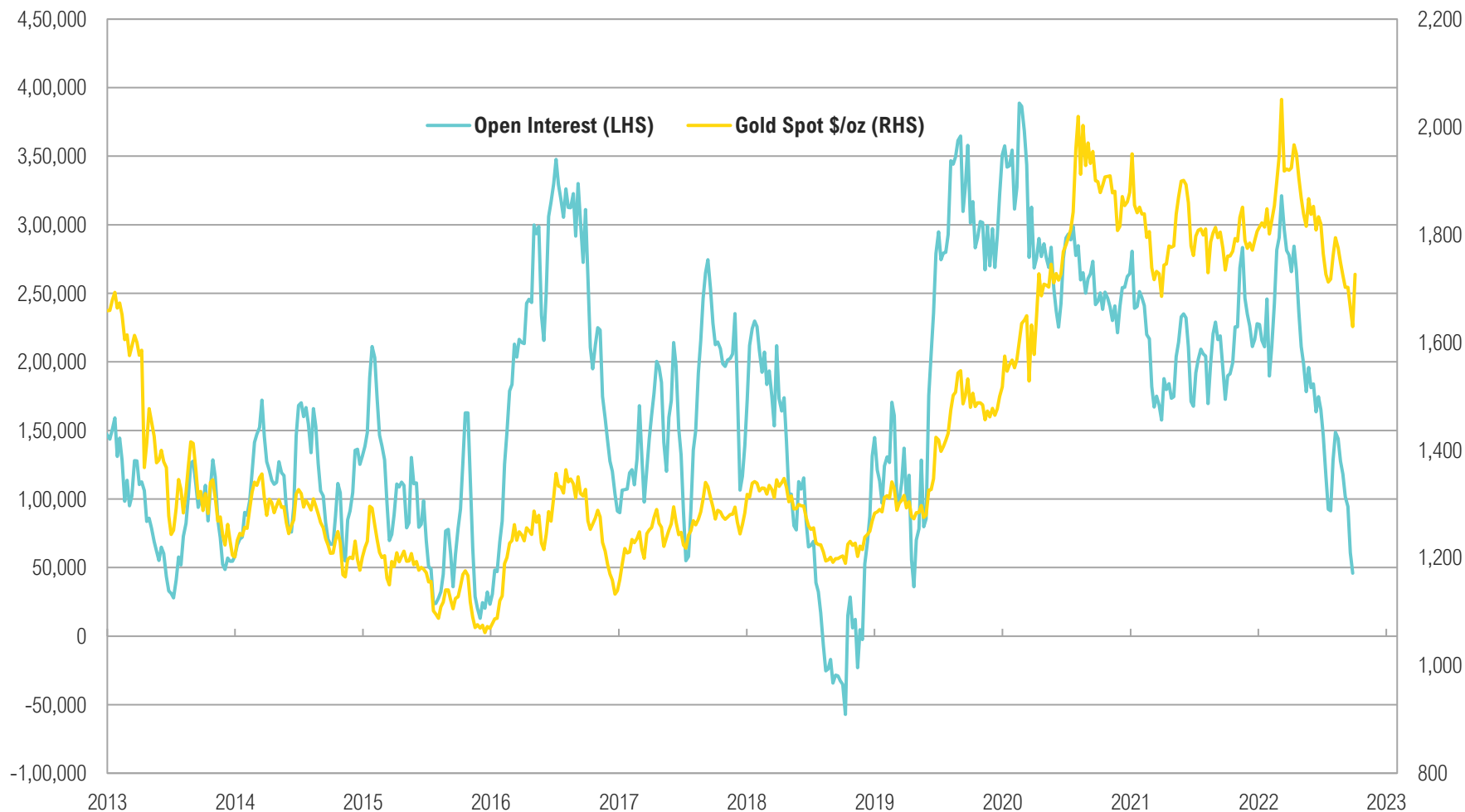
Source: Bloomberg

U.S. 10-year Real Yield is represented by the U.S. Treasury Real Constant Maturity Treasury (R CMTs) rate.

➤ Spec positioning in gold futures suggests markets are nearing capitulation, which has generally resulted in above-average forward returns

SPEC OPEN INTEREST

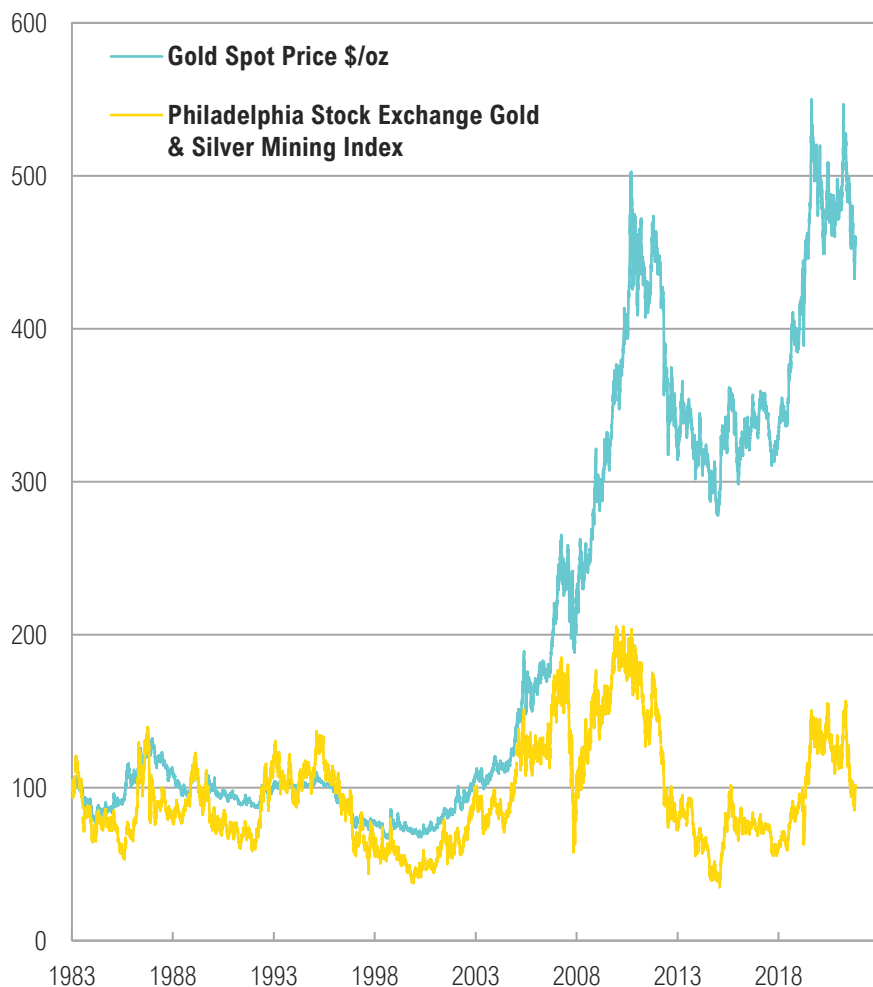
GOLD SPOT, \$/OZ



Source: Bloomberg

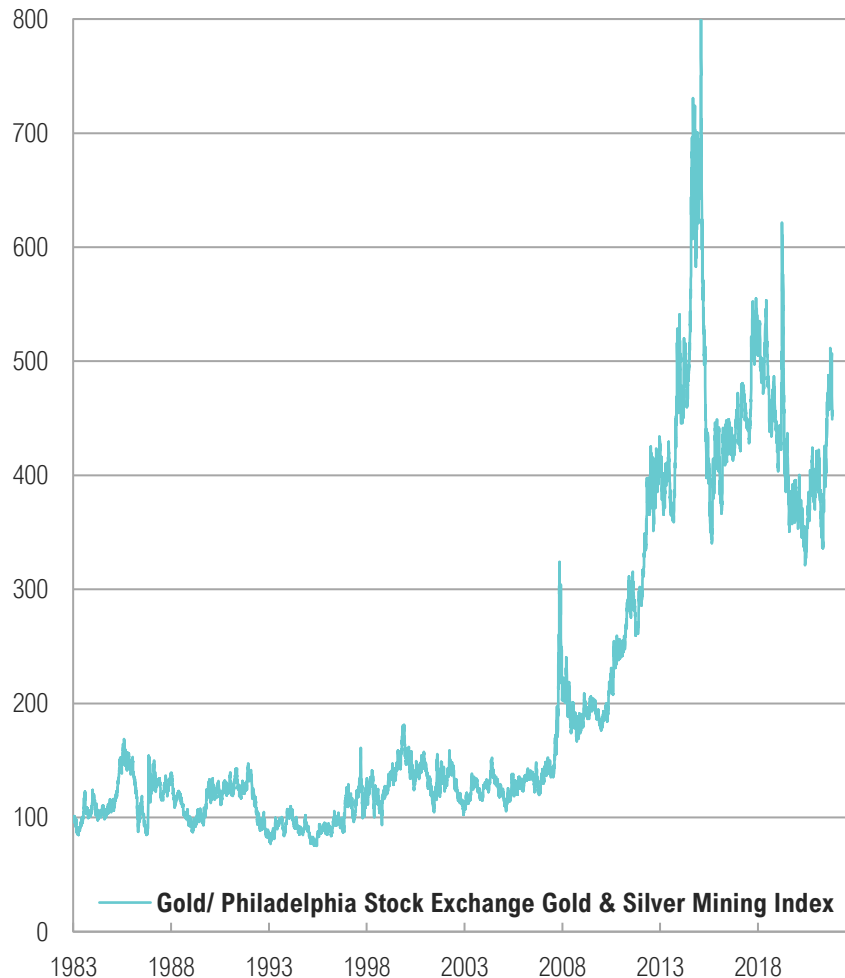
➤ Gold miners now look *very* cheap relative to the physical on the surface, but operating costs are a concern given energy and labor backdrop

GROWTH OF 100



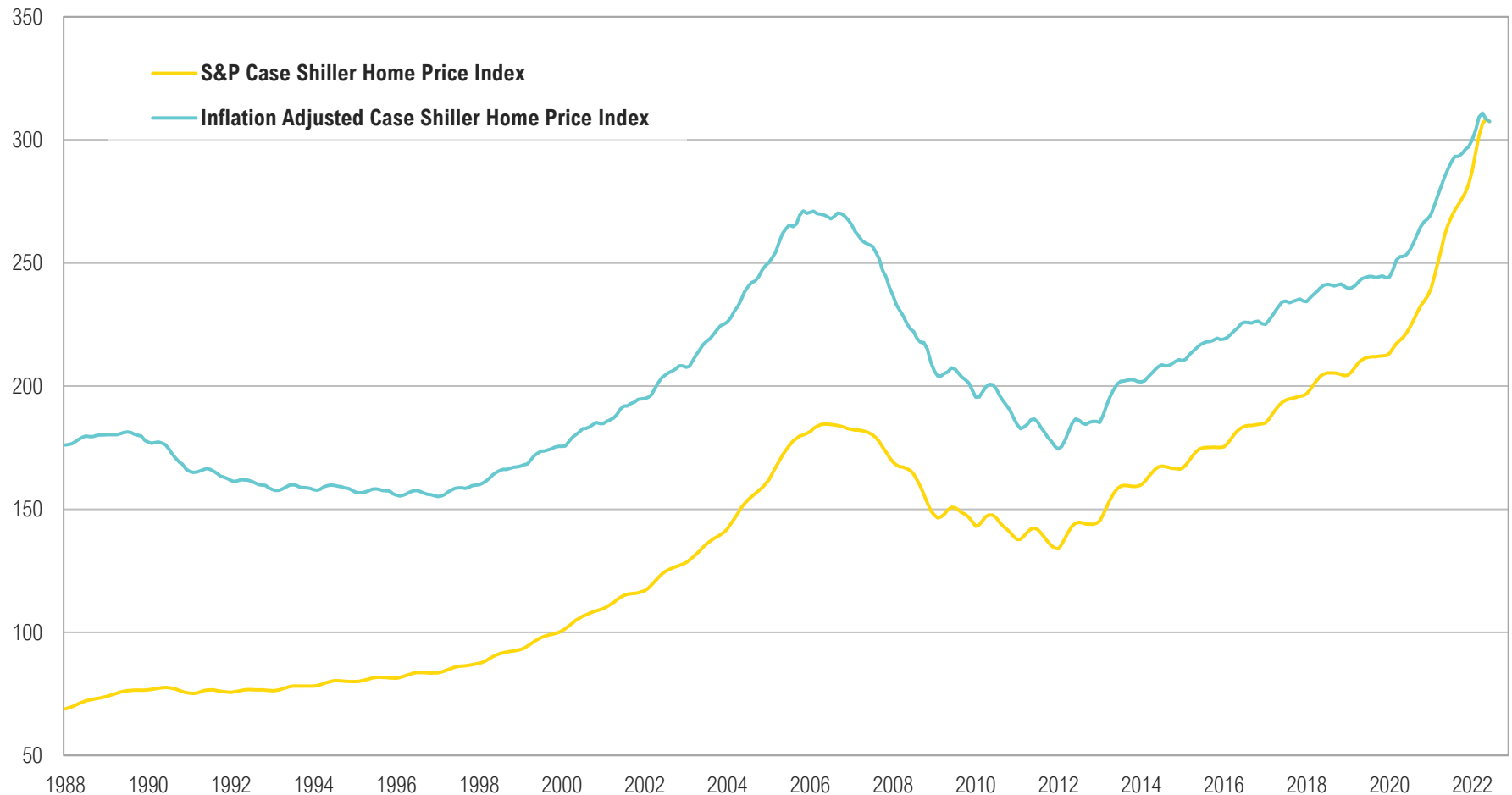
Source: Bloomberg

RATIO: GROWTH OF 100



➤ House prices continued to make new nominal highs, but are starting to show early signs of cooling on an inflation adjusted basis

S&P 500 CASE-SHILLER HOUSING PRICE INDEX VS. INFLATION-ADJUSTED INDEX IN CURRENT DOLLARS

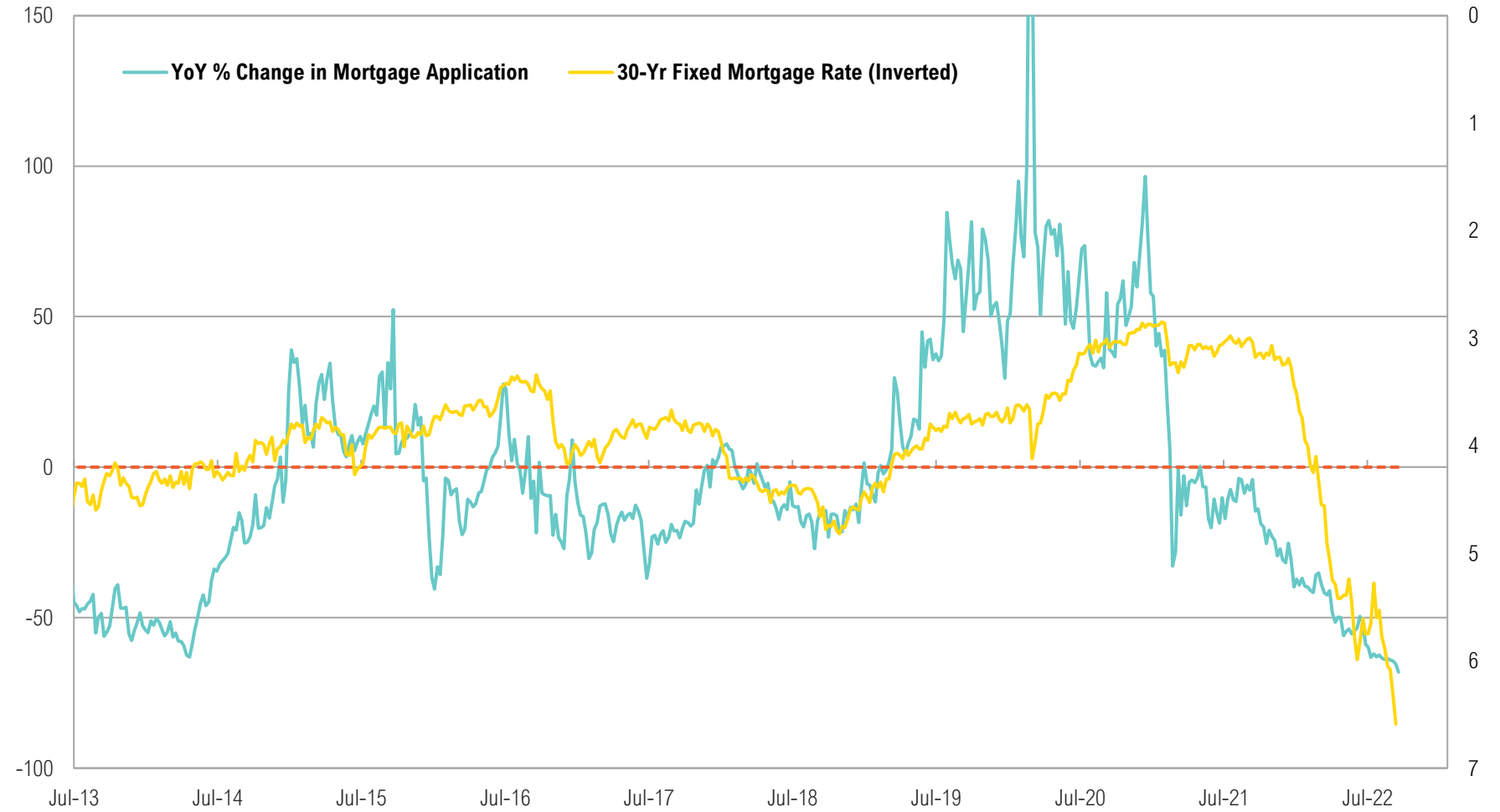


Source: Bloomberg
As of 7/31/2022

➤ U.S. mortgage applications have plummeted, -68% year-over-year, as fixed mortgage rates have spiked from 3% to near 7% in just nine months

ROLLING 52-WK CHANGE IN MORTGAGE APPLICATIONS, %

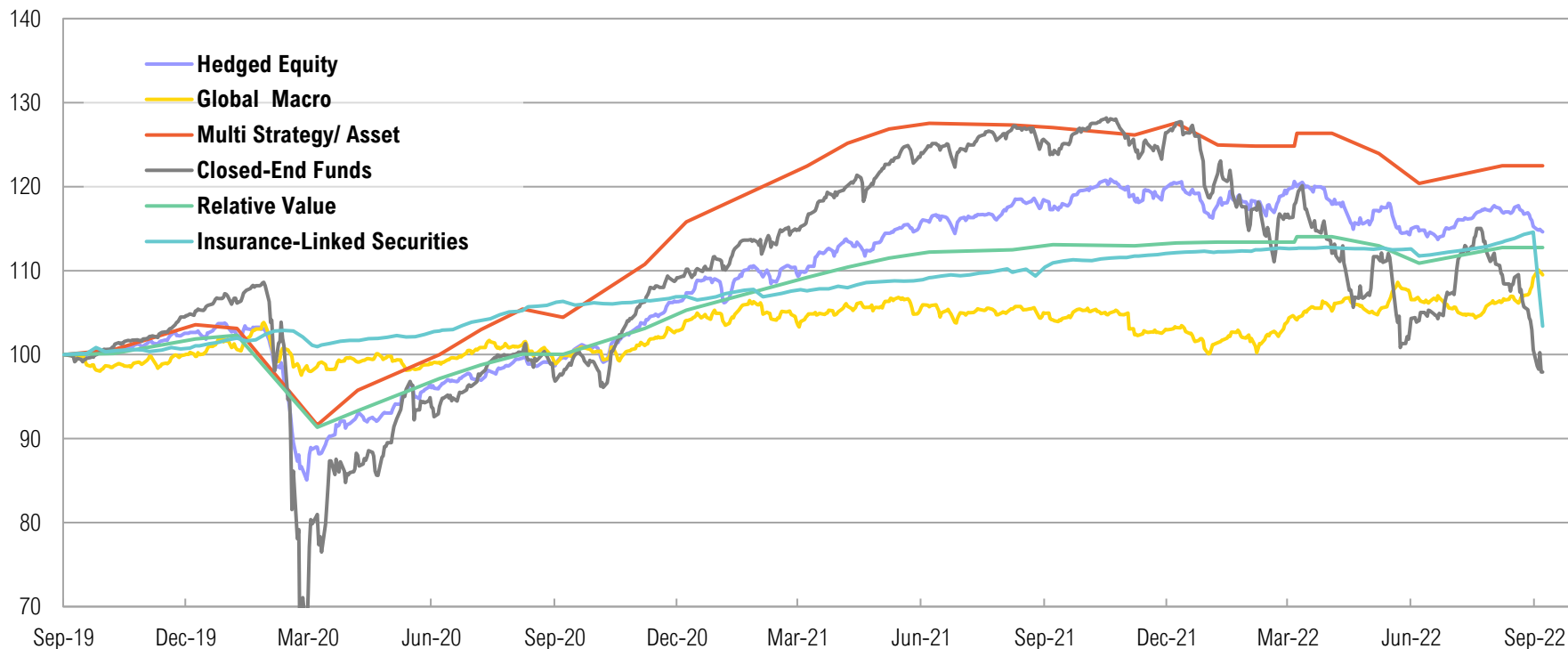
30-YEAR FIXED MORTGAGE RATE, % (INVERTED)



Source: Bloomberg

Insurance-linked securities was the worst performing opportunistic asset class in Q3 as hurricane Ian threatens heavy losses; global macro is the only positive asset class YTD

CALENDAR YEAR & TRAILING TOTAL RETURNS



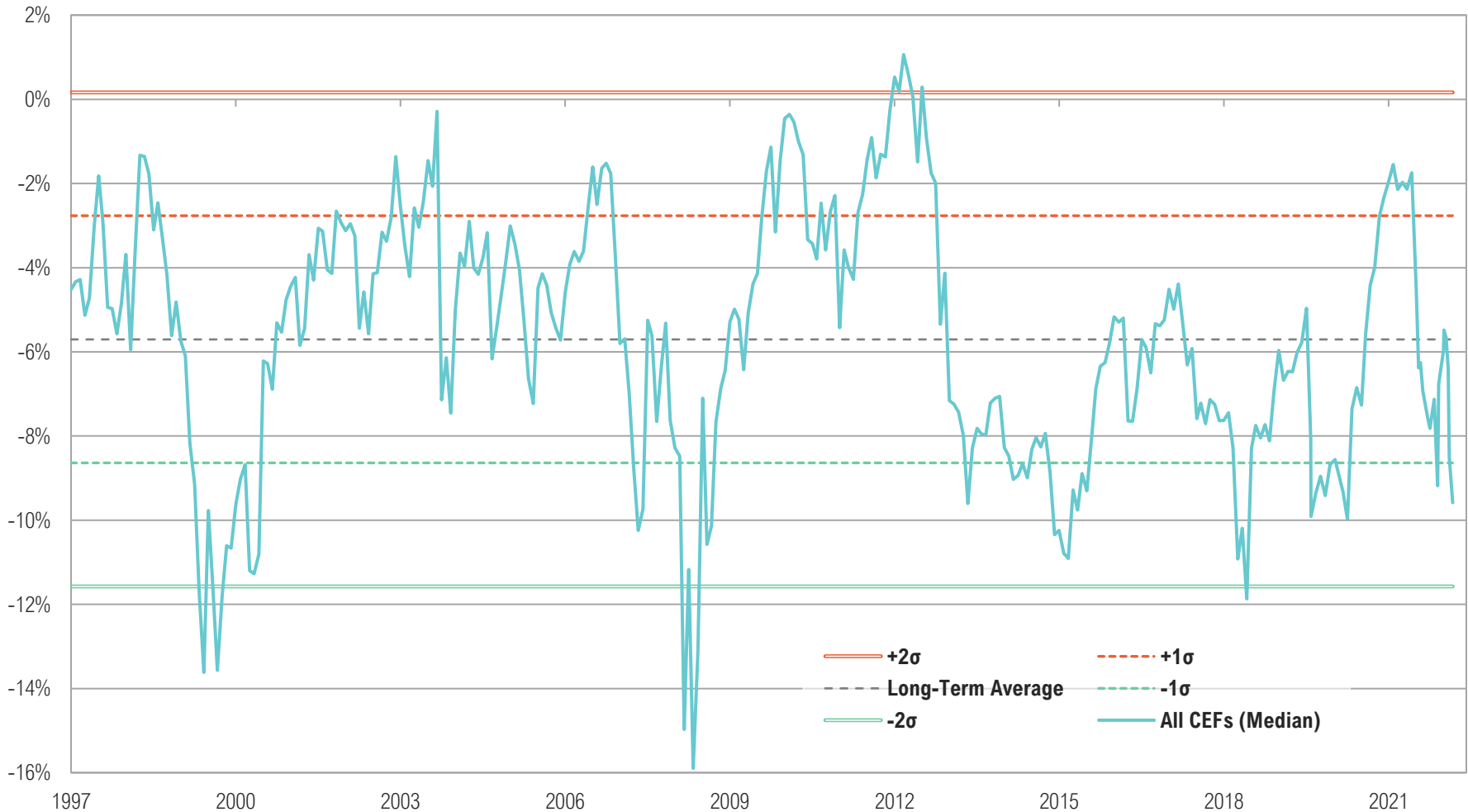
Asset Class	Benchmark	MTD	QTD	YTD	1-Yr	3-Yr	5-Yr	10-Yr	2021	2020	2019	2018	2017
Hedged Equity	HFRX Equity Hedge Index	-2.0	-0.1	-4.8	-2.3	4.7	2.8	3.2	12.1	4.6	10.7	-9.4	10.0
Global Macro	HFRX Macro-CTA Index	3.0	2.7	6.1	5.2	3.1	2.7	1.1	-0.8	4.3	4.8	-3.2	2.5
Multi Strategy/ Asset	HFR1 Fund Weighted Composite Index	N/A	1.7	-4.0	-3.6	7.0	5.0	4.9	10.2	11.8	10.4	-4.7	8.6
Relative Value	HFR1 Relative Value Index	N/A	1.7	-0.5	-0.3	4.1	3.7	4.3	7.6	3.4	7.4	-0.4	5.1
Closed-End Funds	S-Network Composite Closed-End Index	-10.6	-5.9	-23.2	-20.9	-0.7	1.5	4.5	7.4	-3.7	15.1	-15.3	6.3
Insurance-Linked Securities	SwissRe Global Cat Bond Index	-8.8	-7.5	-7.8	-6.8	1.1	2.7	4.0	4.9	5.8	4.6	2.5	0.5

Source: Bloomberg

Due to reporting lag, Multi Strategy and Relative Value trailing return data in the table above is lagged by 1 month. Returns for periods greater than 1 year are annualized.

CEF discounts have widened significantly from -6.4% in August to -9.6% in September; U.S. taxable bonds are trading at widest discount since 2018

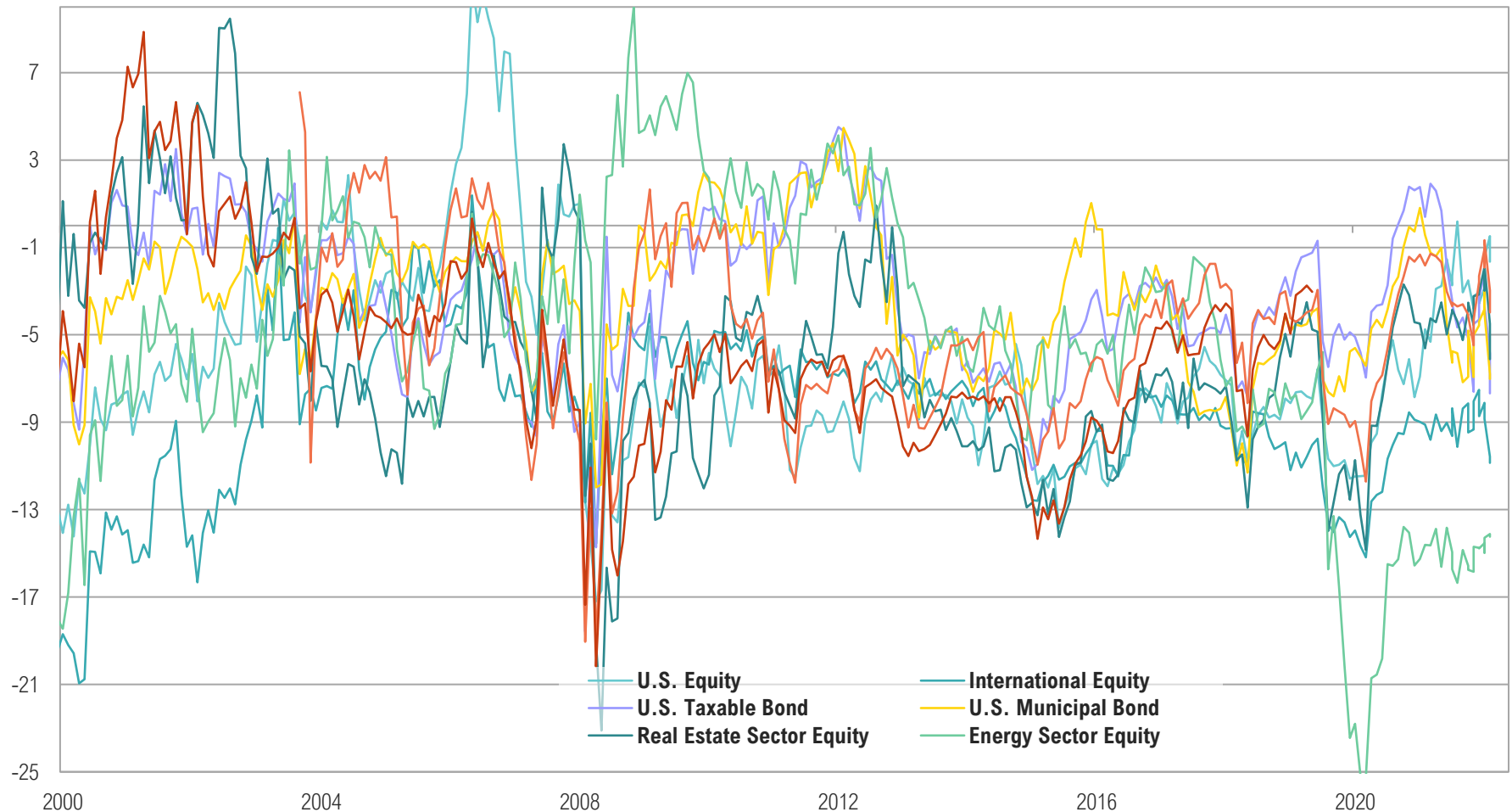
MEDIAN PREMIUM / DISCOUNT TO NET ASSET VALUE



Source: Bloomberg

CEF discounts mixed by sector but are broadly widening; U.S. taxable bond CEFs are trading at widest discount since 2018

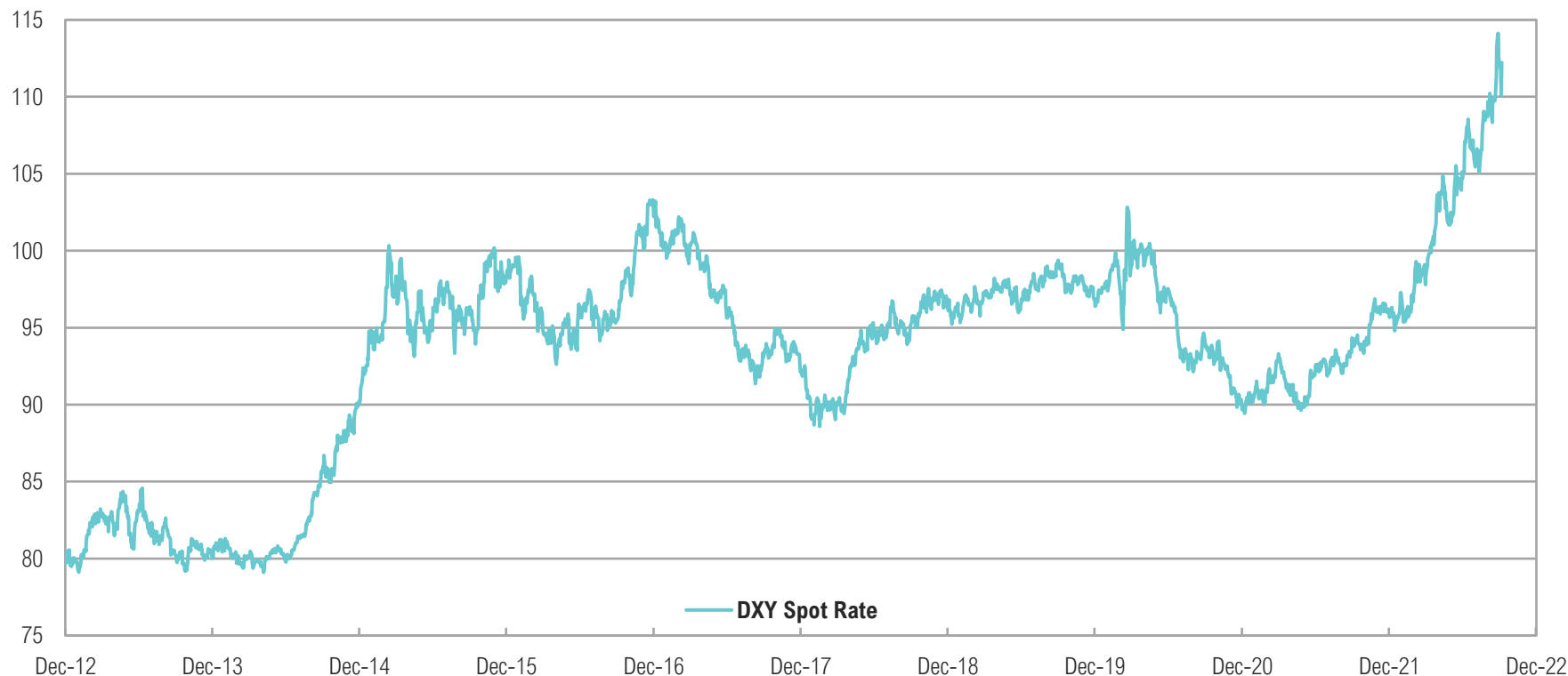
MEDIAN PREMIUM / DISCOUNT BY CEF SECTOR



Source: Bloomberg

➤ Dramatic U.S. dollar strength, bringing the greenback to parity with the euro, driven by safe-haven bid, relative yields

U.S. DOLLAR SPOT CALENDAR YEAR & TRAILING TOTAL RETURNS



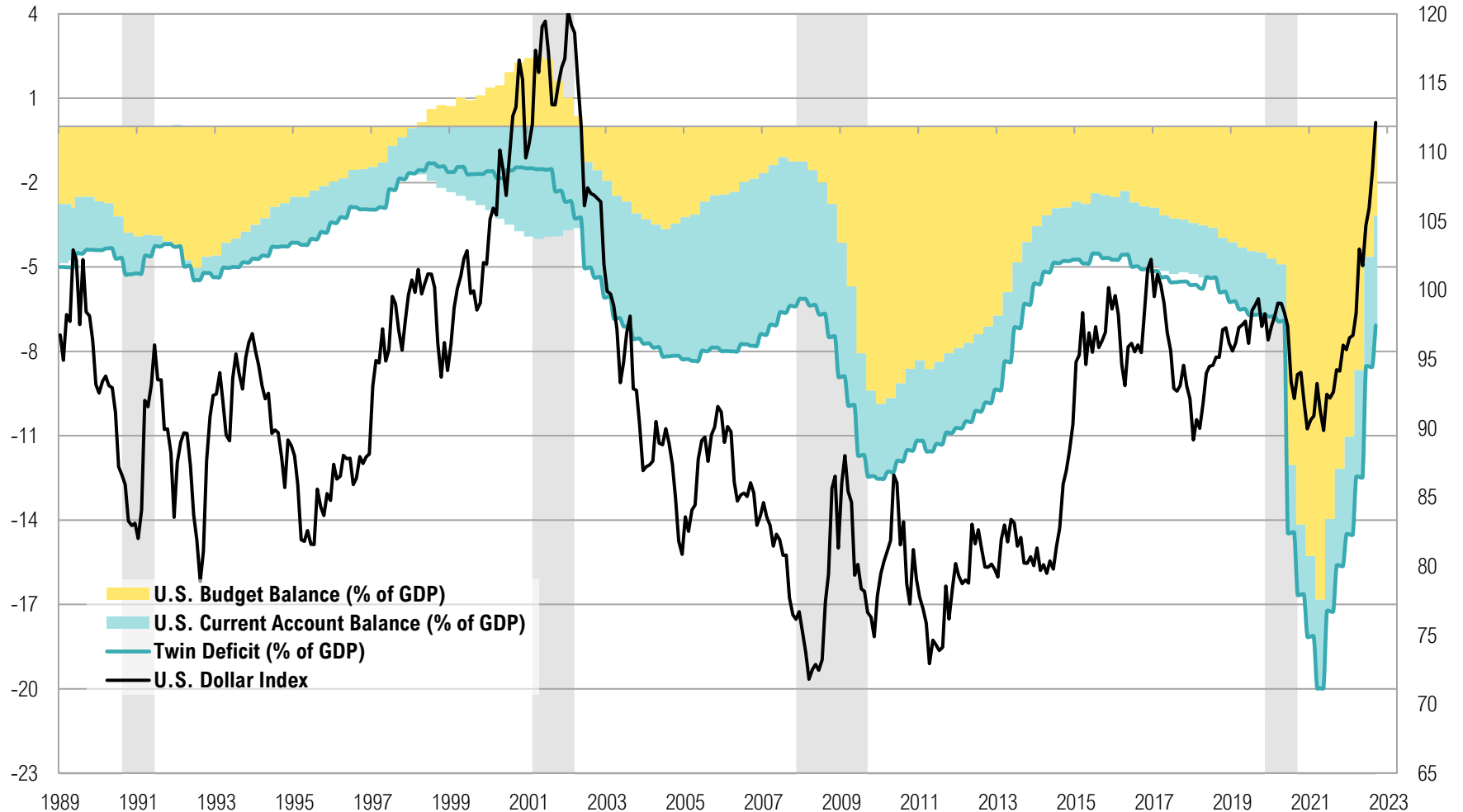
Currencies	Current Rate	MTD	QTD	YTD	1-Yr	3-Yr	5-Yr	10-Yr	2021	2020	2019	2018	2017
U.S. dollar / Euro	1.0	0.6	5.5	15.1	17.1	3.4	3.9	3.0	7.4	-8.2	2.2	4.7	-12.4
U.S. dollar / Japanese yen	144.6	3.2	7.0	25.7	30.0	11.3	5.7	8.6	11.5	-5.1	-1.0	-2.6	-3.7
U.S. dollar / Pound sterling	0.9	1.9	6.8	19.4	19.0	2.8	3.7	4.3	1.0	-3.0	-3.9	5.8	-8.6
U.S. dollar / Canadian dollar	1.4	3.5	5.6	7.8	7.4	1.0	1.8	3.8	-0.7	-2.0	-4.7	8.7	-6.5

Source: Bloomberg

➤ U.S. dollar strength driven by safe-haven bid, relative yields; potentially helped by brief respite in deficit situation

U.S. BUDGET & CURRENT ACCOUNT BALANCE AS A % OF GDP

U.S. DOLLAR INDEX



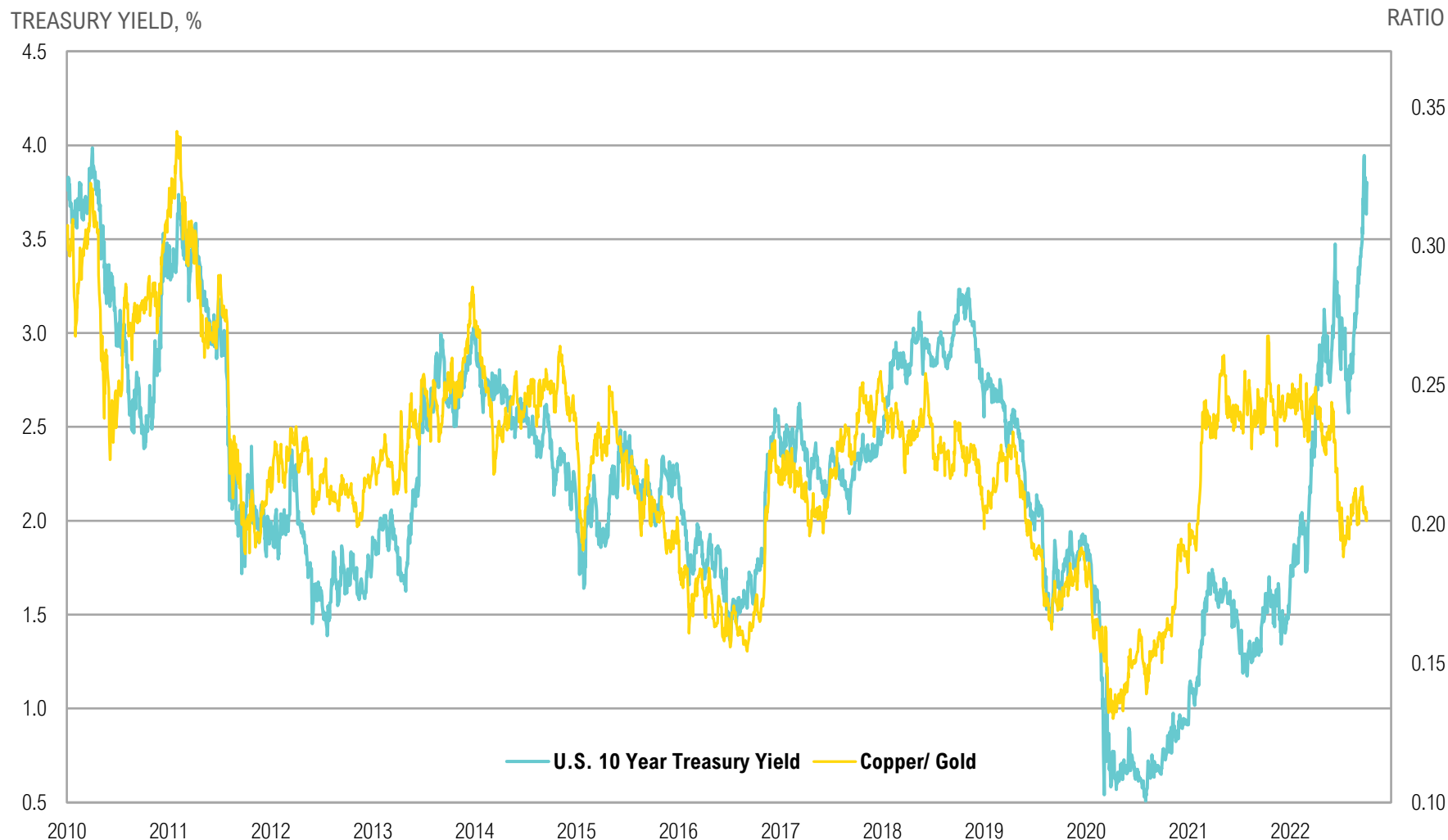
Source: Bloomberg

Futures spec positioning shows bearish positioning in U.S. intermediate term bonds, gold, crude and several stock indices

Equities	Latest	W/W Chg	M/M Chg	Max	Min	1 Year	3 Year	5 Year	10 Year
S&P 500	14,824	6,161	6,316	18,859	(21,394)	#N/A N/A	1.79	2.17	1.76
VIX	(82,724)	(926)	23,621	92,913	(218,362)	-0.77	0.13	-0.07	-0.25
Russell 2000	(107,569)	247	(11,114)	72,749	(120,386)	-1.31	-1.96	-2.16	-2.19
NASDAQ	3,121	(2,778)	(31,704)	47,085	(133,005)	-1.16	-0.31	-0.37	-0.88
Nikkei	1,520	6,161	6,161	14,214	(16,298)	1.27	1.44	0.81	-0.01
MSCI EAFE	(11,275)	4,134	10,269	84,108	(36,158)	-0.67	-1.62	-1.99	-2.24
MSCI EM	16,193	19,697	49,298	286,674	(40,489)	-0.58	-1.30	-1.73	-1.25
Rates									
2 Year UST	(321,128)	20,289	(81,283)	86,786	(421,551)	-2.16	-1.29	-1.25	-1.73
5 Year UST	(415,158)	72,375	56,996	148,962	(866,140)	-1.20	-1.51	-0.69	-1.21
10 Year UST	(335,824)	(57,274)	(15,297)	238,882	(758,490)	-1.01	-1.65	-0.89	-1.34
30D Fed Funds	102,483	78,319	(167)	488,558	(320,917)	1.33	0.11	0.38	0.83
Currencies									
USD	30,609	2,558	(4,510)	44,971	(15,000)	-1.40	0.80	0.75	0.36
JPY	(85,294)	(2,252)	(46,655)	52,239	(140,151)	-0.31	-1.11	-0.84	-0.77
EUR	29,886	(5,855)	74,931	212,535	(123,765)	0.89	-0.20	-0.02	0.46
GBP	(53,332)	5,059	(25,466)	49,216	(107,406)	-0.53	-1.31	-1.02	-0.88
Commodities									
Crude	271,504	(16,016)	(26,922)	784,290	263,770	-1.69	-2.33	-2.03	-1.26
Gold	45,973	(14,813)	(81,630)	388,803	(56,998)	-2.35	-3.05	-1.59	-1.33
Platinum	174	(2,743)	1,576	69,306	(11,540)	-0.75	-1.17	-1.14	-1.67
Palladium	(831)	250	963	27,608	(4,057)	1.62	-0.55	-0.93	-1.38
Copper	(26,359)	(8,400)	(9,169)	80,564	(60,135)	-1.29	-1.19	-1.18	-0.99
Aluminum	7,611	495	2,829	13,555	(3,197)	2.96	2.58	0.87	0.87
Silver	(168)	1,151	5,102	80,646	(30,158)	-1.22	-2.00	-1.22	-1.29
Soybeans	79,087	(17,090)	(16,318)	270,935	(148,817)	-0.83	-0.43	0.08	0.03
Wheat	1,850	8,213	19,303	63,219	(119,350)	-0.24	-0.70	0.00	0.49
Live Cattle	81,297	(12,361)	(2,990)	183,134	19,421	0.56	0.40	0.03	0.05
Sugar	28,845	9,524	(3,522)	316,046	(205,161)	-1.45	-1.05	-0.31	-0.42
Coffee	43,542	3,834	6,321	72,005	(106,651)	-0.32	0.35	0.88	1.02

Source: CFTC

➤ Copper/gold ratio rolling over suggests growth slowing and longer-term interest rates may follow suit



Source: Bloomberg

S&P 500 Index: Widely regarded as the best single gauge of the U.S. equities market. The index includes a representative sample of 500 leading companies in leading industries of the U.S. economy. The S&P 500 Index focuses on the large-cap segment of the market; however, since it includes a significant portion of the total value of the market, it also represents the market.

MSCI ACWI: (ACWI: All Country World Index) a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets.

MSCI EAFE Index: (EAFE: Europe, Australasia, Far East) a free float-adjusted market capitalization index that is designed to measure the equity market performance of developed markets, excluding the US & Canada.

MSCI EAFE Small Cap Index: (EAFE: Europe, Australasia, Far East) a free float-adjusted market capitalization index that is designed to measure the small cap equity market performance of developed markets, excluding the US & Canada.

MSCI EM Index: A free float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets.

Russell 1000 Index: Measures the performance of the 1,000 largest companies in the Russell 3000.

Russell 2000 Index: Measures the performance of the 2,000 smallest companies in the Russell 3000 Index.

Russell 3000 Index: Measures the performance of the 3,000 largest U.S. companies based on total market capitalization.

Cambridge Associates U.S. Global Buyout and Growth Index: Based on data compiled from 1,768 global (U.S. & ex – U.S.) buyout and growth equity funds, including fully liquidated partnerships, formed between 1986 and 2013.

Cambridge Associates Private Equity Index: Based on data compiled from

1,468 U.S. private equity funds (buyout, growth equity, private equity energy and subordinated capital funds), including fully liquidated partnerships, formed between 1986 and 2017.

Cambridge Associates Venture Capital Index: Based on data compiled from 1,807 US venture capital funds (1,161 early stage, 210 late & expansion stage, and 436 multi-stage funds), including fully liquidated partnerships, formed between 1981 and 2018.

Bloomberg Barclays U.S. Aggregate Bond Index: A broad-based flagship benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, MBS (agency fixed-rate pass-throughs), ABS and CMBS (agency and non-agency).

Bloomberg Barclays Global Aggregate Index: A multi-currency measure of global investment grade debt from twenty-four local currency markets. This benchmark includes treasury, government-related, corporate and securitized fixed-rate bonds from both developed and emerging markets issuers.

Bloomberg Barclays Global Aggregate ex-USD Index: A multi-currency measure of investment grade debt from 24 local currency markets. This benchmark includes treasury, government-related, corporate and securitized fixed-rate bonds from both developed and emerging markets issuers. Bonds issued in USD are excluded.

Bloomberg Barclays Municipal Index: Consists of a broad selection of investment- grade general obligation and revenue bonds of maturities ranging from one year to 30 years. It is an unmanaged index representative of the tax-exempt bond market.

Bloomberg Barclays US High Yield Index: Covers the universe of fixed rate, non-investment grade debt. Eurobonds and debt issues from countries designated as emerging markets (sovereign rating of Baa1/BBB+/BBB+ and below using the middle of Moody's, S&P, and Fitch) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included.

Bloomberg Barclays 1-3 Month U.S. Treasury Bill Index: Includes all publicly issued zero-coupon US Treasury Bills that have a remaining maturity of less than 3 months and more than 1 month, are rated investment grade, and have \$250 million or more of outstanding face value. In addition, the securities must be denominated in U.S. dollars and must be fixed rate and non-convertible.

J.P. Morgan Emerging Market Bond Global Index (EMBI): Includes U.S. dollar denominated Brady bonds, Eurobonds, traded loans and local market debt instruments issued by sovereign and quasi-sovereign entities.

Alerian MLP Index: A composite of the 50 most prominent energy Master Limited Partnerships (MLPs) that provides investors with an unbiased, comprehensive benchmark for the asset class.

Bloomberg Commodity Index: Composed of futures contracts on physical commodities and represents twenty two separate commodities traded on U.S. exchanges, with the exception of aluminum, nickel, and zinc.

S&P Global Ex-U.S. Property Index: Measures the investable universe of publicly traded property companies domiciled in developed and emerging markets excluding the U.S. The companies included are engaged in real estate related activities such as property ownership, management, development, rental and investment

MSCI US REIT Index: A free float-adjusted market capitalization weighted index that is comprised of equity Real Estate Investment Trusts (REITs). The index is based on the MSCI USA Investable Market Index (IMI), its parent index, which captures the large, mid and small cap segments of the USA market. With 150 constituents, it represents about 99% of the US REIT universe and securities are classified under the Equity REITs Industry (under the Real Estate Sector) according to the Global Industry Classification Standard (GICS®), have core real estate exposure (i.e., only selected Specialized REITs are eligible) and carry REIT tax status.

Cambridge Associates Private Real Estate Index: Based on data compiled from 1,001 real estate funds (including opportunistic and value-added real estate

funds), including fully liquidated partnerships, formed between 1986 and 2017.

S&P Global Infrastructure Index: Designed to track 75 companies from around the world chosen to represent the listed infrastructure industry while maintaining liquidity and tradability. To create diversified exposure, the index includes three distinct infrastructure clusters: energy, transportation, and utilities.

LBMA Gold Price Index: The global benchmark prices for unallocated gold and silver delivered in London. ICE Benchmark Administration Limited (IBA) operates electronic auctions for spot, unallocated London gold and silver, providing a market-based platform for buyers and sellers to trade. The auctions are run at 10:30am and 3:00pm London time for gold and at 12:00pm London time for silver. The final auction prices are published to the market as the LBMA Gold Price AM, the LBMA Gold Price PM and the LBMA Silver Price benchmarks, respectively. The price formation for each auction is in US Dollars.

HFRI Indices: Equally weighted performance indexes, utilized by numerous hedge fund managers as a benchmark for their own hedge funds. The HFRI are broken down into 4 main strategies, each with multiple sub strategies. All single-manager HFRI Index constituents are included in the HFRI Fund Weighted Composite, which accounts for over 2200 funds listed on the internal HFR Database.

HFRI Equity Hedge Index: Investment Managers who maintain positions both long and short in primarily equity and equity derivative securities. EH managers would typically maintain at least 50% exposure to, and may in some cases be entirely invested in, equities, both long and short.

HFRI Event Driven Index: Investment Managers who maintain positions in companies currently or prospectively involved in corporate transactions of a wide variety including but not limited to mergers, restructurings, financial distress, tender offers, shareholder buybacks, debt exchanges, security issuance or other capital structure adjustments.

HFRI Relative Value Index: Investment Managers who maintain positions in which the investment thesis is predicated on realization of a valuation discrepancy in the relationship between multiple securities.

HFRI Credit Index: A composite index of strategies trading primarily in credit markets. It is an aggregation of following 7 HFRI sub-strategy indices. HFRI ED: Credit Arbitrage Index, HFRI ED: Distressed/Restructuring Index, HFRI ED: Multi-Strategy Index, HFRI RV: Fixed Income-Asset Backed Index, HFRI RV: Fixed Income-Convertible Arbitrage Index, HFRI RV: Fixed Income-Corporate Index, and HFRI RV: Multi-Strategy Index.

HFRX Indices: Equally weighted index across all substrategy and regional indices. Hedge Fund Research, Inc. (HFR) utilizes a UCITSIII compliant methodology to construct the HFRX Hedge Fund Indices. The methodology is based on defined and predetermined rules and objective criteria to select and rebalance components to maximize representation of the Hedge Fund Universe.

HFRX Short Bias Index: Short-Biased strategies employ analytical techniques in which the investment thesis is predicated on assessment of the valuation characteristics on the underlying companies with the goal of identifying over-valued companies. Short Biased strategies may vary the investment level or the level of short exposure over market cycles, but the primary distinguishing characteristic is that the manager maintains consistent short exposure and expects to outperform traditional equity managers in declining equity markets.

HFRX Macro/CTA Index: Macro strategy managers trade a broad range of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard currency and commodity markets. Managers employ a variety of techniques, both discretionary and systematic analysis, combinations of top down and bottom up theses, quantitative and fundamental approaches and long and short-term holding periods.

HFRX Equity Hedge Index: Equity Hedge strategies maintain positions both long and short in primarily equity and equity derivative securities. A wide variety of strategies can range broadly in terms of levels of net exposure, leverage employed, holding period, concentrations of market capitalizations and valuation ranges of typical portfolios. Equity Hedge managers would typically maintain at

least 50% and may in some cases be substantially entirely invested in equities, both long and short.

ASSET CLASS DEFINITIONS

Asset class performance was measured using the following benchmarks unless stated otherwise:

U.S. Large Cap Stocks: S&P 500 TR Index

U.S. Small & Micro Cap Stocks: Russell 2000 TR Index

Intl Dev Large Cap Stocks: MSCI EAFE GR Index

Emerging & Frontier Market Stocks: MSCI Emerging Markets GR Index

U.S. Inter-Term Muni Bonds: Bloomberg Barclays 1-10 (1-12 Yr) Muni Bond TR Index

U.S. Inter-Term Bonds: Bloomberg Barclays U.S. Aggregate Bond TR Index

U.S. High Yield Bonds: Bloomberg Barclays U.S. Corporate High Yield TR Index

U.S. Bank Loans: S&P/LSTA U.S. Leveraged Loan Index

Intl Developed Bonds: Bloomberg Barclays Global Aggregate ex-U.S. Index

Emerging & Frontier Market Bonds: JPMorgan EMBI Global Diversified TR Index

U.S. REITs: MSCI U.S. REIT GR Index

Ex U.S. Real Estate Securities: S&P Global Ex-U.S. Property TR Index

Commodity Futures: Bloomberg Commodity TR Index

Midstream Energy: Alerian MLP TR Index

Gold: LBMA Gold Price

U.S. 60/40: 60% S&P 500 TR Index 40% Bloomberg Barclays U.S. Aggregate Bond TR Index

Global 60/40: 60% MSCI ACWI GR Index 40% Bloomberg Barclays Global Aggregate Bond TR Index

Alpha: The excess return generated by an active manager or fund relative to its benchmark.

Bear Market: A bear market is a condition in which securities prices fall and widespread pessimism causes the stock market's downward spiral to be self-sustaining. Although figures vary, a downturn of 20 percent or more from a peak in multiple broad market indexes, such as the Dow Jones Industrial Average (DJIA) or Standard & Poor's 500 Index (S&P 500), over a two-month period is considered an entry into a bear market.

Bull Market: A bull market is the condition of a financial market of a group of securities in which prices are rising or are expected to rise. The term "bull market" is most often used to refer to the stock market but can be applied to anything that is traded, such as bonds, real estate, currencies and commodities. Because prices of securities rise and fall essentially continuously during trading, the term "bull market" is typically reserved for extended periods in which a large portion of security prices are rising.

Credit Spread: A credit spread is the difference in yield between a US Treasury bond and a debt security with the same maturity but of lesser quality.

Default Rate: The default rate is most commonly referred to as the percentage of loans that have been charged off after a prolonged period of missed payments.

Excess Returns: A security's return minus the return from another security in the same time period.

Full Employment: The condition in which virtually all who are able and willing to work are employed.

Implied Volatility: The estimated volatility of a security's price. In general, implied volatility increases when the market is bearish and decreases when the market is bullish. This is due to the common belief that bearish markets are more risky than bullish markets.

Large Cap: Sometimes "big cap", refers to a company with a market capitalization value of more than \$10 billion. Large cap is a shortened version of the term "large market capitalization." Market capitalization is calculated by multiplying the number of a company's shares outstanding by its stock price per share.

Long/Short Equity: Long-short portfolios hold sizeable stakes in both long and short positions in equities and related derivatives. Some funds that fall into this category will shift their exposure to long and short positions depending on their macro outlook or the opportunities they uncover through bottom-up research. Some funds may simply hedge long stock positions through exchange traded funds or derivatives. At least 75% of the

assets are in equity securities or derivatives.

Price-to-Earnings (P/E) Ratio: The price-earnings ratio (P/E Ratio) is the ratio for valuing a company that measures its current share price relative to its per-share earnings. The price-earnings ratio can be calculated as: Market Value per Share/Earnings per Share.

Price-to-Book (P/B) Ratio: The price-to-book ratio (P/B Ratio) is a ratio used to compare a stock's market value to its book value. It is calculated by dividing the current closing price of the stock by the latest quarter's book value per share. Also known as the "price-equity ratio.

Sharpe Ratio: The ratio is the average return earned in excess of the risk-free rate per unit of volatility or total risk. It also known as the Reward-to-volatility Ratio.

Shiller P/E: Valuation measure that takes into consideration the price and cyclically-adjusted earnings of a security, adjusted for inflation.

Small Cap: Small cap stocks are generally defined as the stock of publicly traded companies that have a market capitalization ranging from \$300 million to about \$2 billion. Small cap stock companies often have a high stock price. It's the number of available shares that make them "small."

Spread Changes: Changes in the spread between Treasury securities and non-Treasury securities that are identical in all respects except for quality rating.

Standard Deviation: Measures the historical dispersion of a security, fund or index around an average. Investors use standard deviation to measure expected risk or volatility, and a higher standard deviation means the security has tended to show higher volatility or price swings in the past.

Yield: The income produced by an investment, typically calculated as the interest received annually divided by the investment's price.

Yield-to-Duration: A ratio used in fixed income investing to compare the amount of return (yield to maturity) an investor is receiving per unit of duration or interest rate risk.

Z-score: A Z-score is a numerical measurement of a value's relationship to the mean in a group of values. A Z-score of 0 represents the score as identical to the mean score. Positive and negative scores reflect the number of standard deviations that the score is either above or below the mean, respectively.

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