

Fourth Quarter 2022 Investment Environment

William E. Hawes, CFA, CFP®

December 21, 2022



CANDOR ASSET ADVISORS

Agenda

- COVID-19
- Economy and Russia/Ukraine War Fallout
- Government Fiscal and Monetary Activity
- Investment Backdrop

COVID-19

COVID-19 has devastated the world's population

COVID-19 Deaths As of 12/21/22								
	Officially Reported Deaths	Per 100,000	Estimated Excess Deaths	Per 100,000	Vs Official Estimate	Implied Population	% of World	
							GDP	Population
By Select Area								
United States	1,088,236	321.7	1,350,000	399.1	24%	338,276,655	24.5%	4.2%
European Union	1,185,170	263.3	1,550,000	344.4	31%	450,121,534	21.4%	5.6%
Japan	53,738	43.4	150,000	121.1	179%	123,820,276	5.8%	1.6%
Canada	48,859	127.1	45,000	117.1	-8%	38,441,385	1.9%	0.5%
South Korea	31,549	60.9	62,000	119.7	97%	51,804,598	1.8%	0.6%
China	5,242	0.4	1,064,500	81.2	20207%	1,310,500,000	16.2%	16.4%
India	530,680	37.4	6,550,000	461.6	1134%	1,418,930,481	3.3%	17.8%
Brazil	692,280	321.5	860,000	399.4	24%	215,328,149	2.1%	2.7%
Russia	385,189	266.2	1,300,000	898.4	237%	144,699,098	1.8%	1.8%
By Continent								
Asia	1,510,901	32.0	11,750,000	248.9	678%	4,721,565,625		59.2%
Africa	257,415	18.0	2,500,000	174.8	871%	1,430,083,333		17.9%
Europe	1,993,701	267.7	3,550,000	476.7	78%	744,751,961		9.3%
Latin America & Caribbean	1,748,531	265.2	2,600,000	394.3	49%	659,325,415		8.3%
North America	1,137,095	301.8	1,350,000	358.3	19%	376,771,040		4.7%
Oceania	21,846	48.5	37,500	83.3	72%	45,043,299		0.6%
Total	6,669,489	83.6	21,787,500	273.1	227%	7,977,540,674		
% Of Population	0.08%		0.27%					
Change Since 7/4/22	330,987		1,072,500					
Change Since 4/5/22	514,601		2,234,000					
Change Since 2/16/22	832,244		3,096,400					

COVID-19 is now the 7th deadliest event in world history!

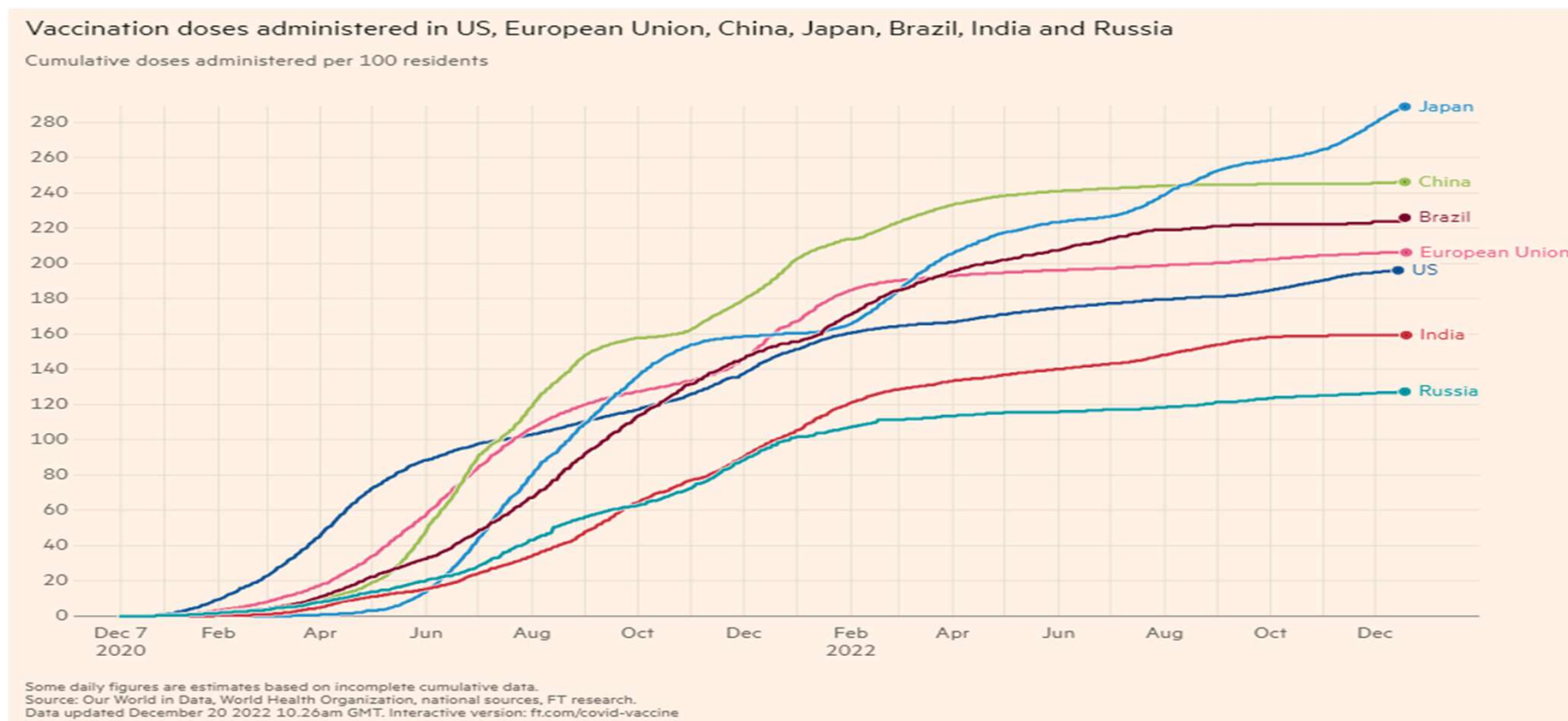
Excess deaths per 100,000 are the highest in Russia, India and the US.

China, India and Russia are likely under reporting COVID-19 related deaths the most.

Excess deaths = The number of people who die from any cause in each time period minus the historical baseline from recent years

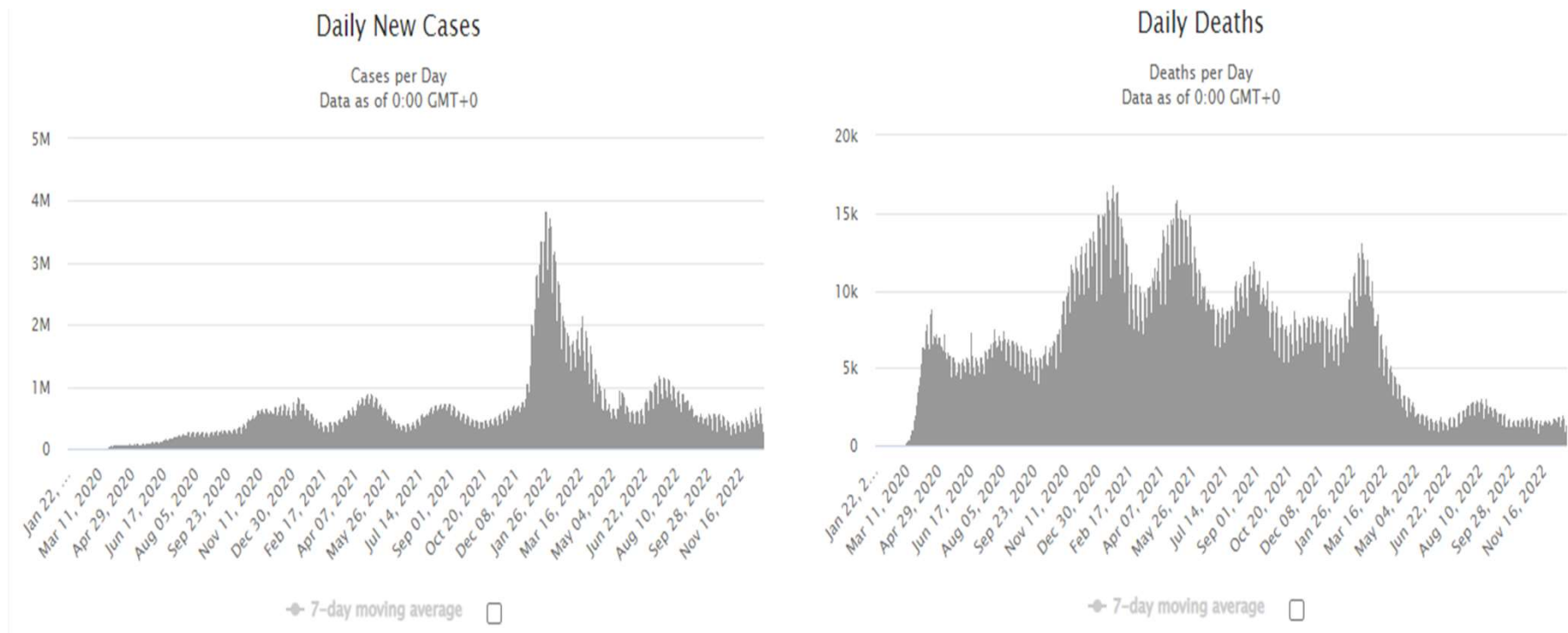
Source: *The Economist*, Wikipedia

Vaccinations are up year-over-year but efforts have slowed in most countries. Japan stands out with total vaccination doses administered continuing to rise in the second half of 2022.



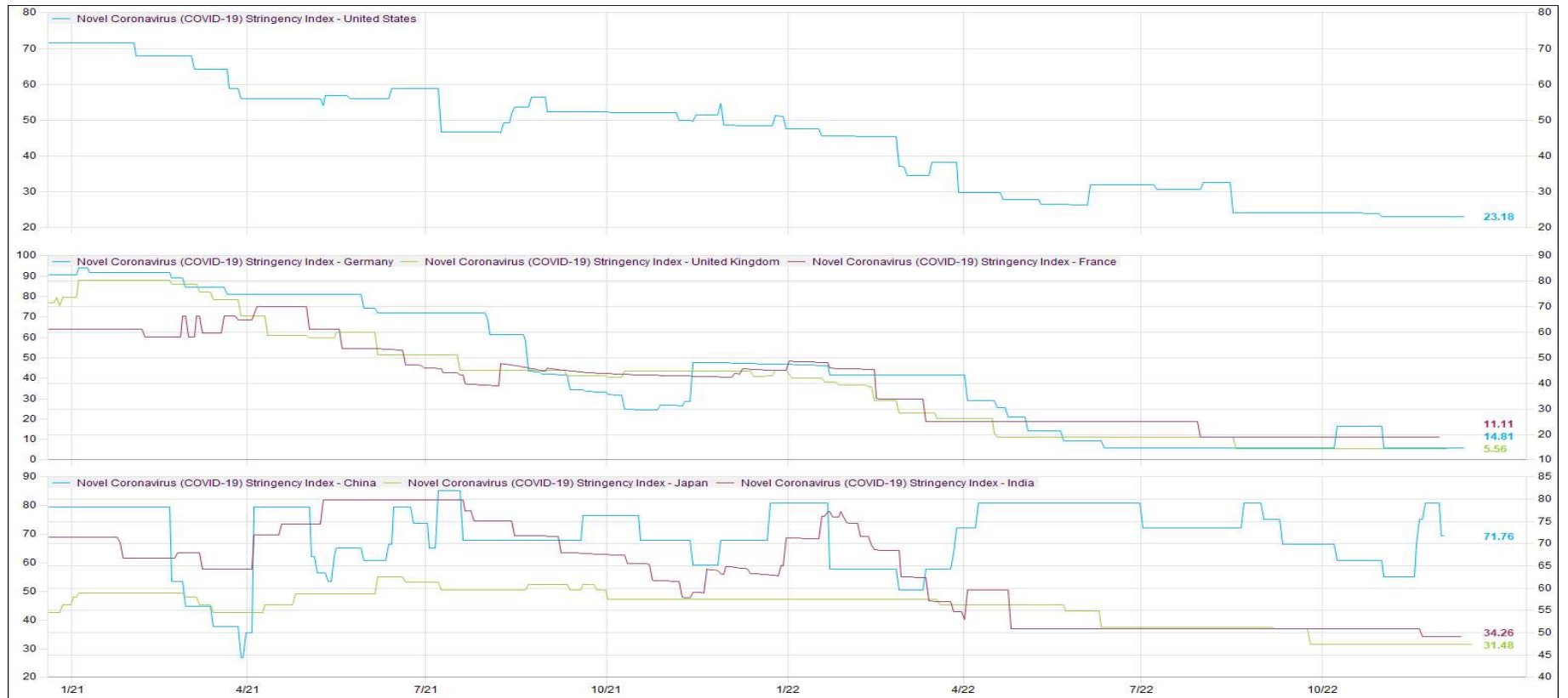
Source: *Financial Times*

Omicron caused new COVID-19 cases to spike earlier this year while vaccinations helped suppress the death rate in the first quarter of 2022. Cases and deaths have moderated since then.



Source: Worldometer

Governments implemented lockdowns in early 2020. Most countries have eased government lockdowns over 2022. China is now beginning to follow suit.



Source: FactSet

The Economy and Russia/Ukraine War Fallout

World Economic Snapshot- 1

	Real Year-Over-Year GDP Growth			CPI Growth			Short Term Interest Rate			ISM Services		
	Latest Available	Previous Quarter	12 Months Ago	1 Month Ago	3 Months Ago	12 Months Ago	Latest Available	3 Months Ago	12 Months Ago	Latest Available	3 Months Ago	12 Months Ago
United States	1.86%	1.80%	4.96%	7.76%	8.25%	6.83%	4.20%	2.60%	0.05%	46.18	43.68	57.96
Eurozone	2.28%	4.25%	3.94%	10.62%	9.14%	4.87%	1.23%	-0.01%	-0.90%	47.10	49.60	58.44
United Kingdom	2.40%	4.38%	8.46%	11.05%	9.87%	5.13%	3.06%	1.99%	0.05%	46.45	47.30	58.09
France	1.02%	4.16%	3.58%	6.20%	5.86%	2.69%	1.38%	0.02%	-0.85%	48.32	50.64	55.89
Germany	1.28%	1.67%	1.85%	10.42%	7.95%	5.31%	1.24%	0.01%	-0.90%	46.21	49.12	57.44
Canada	3.93%	5.28%	4.58%	6.95%	7.10%	4.63%	3.98%	2.87%	0.14%	49.62	48.66	57.21
South Korea	3.07%	2.95%	4.04%	5.67%	5.71%	3.78%	3.61%	2.71%	1.13%	49.04	47.63	50.89
Japan	1.65%	1.40%	1.65%	3.81%	3.01%	0.60%	-0.13%	-0.12%	-0.13%	48.98	51.46	54.55
China	3.94%	0.44%	4.90%	2.17%	2.49%	2.41%	1.91%	1.59%	2.15%	49.37	49.50	49.87
India	6.34%	13.51%	8.40%	6.08%	5.85%	4.84%	6.45%	5.59%	3.56%	55.72	56.23	57.56
Brazil	3.63%	3.68%	4.48%	6.47%	8.73%	10.74%	13.98%	14.32%	10.41%	44.29	51.87	49.75
Russia	#N/A	#N/A	7.46%	-	-	8.39%	462.90%	572.39%	8.27%	53.21	51.74	51.71

World GDP has recovered to trend line pre-COVID levels. Real GDP growth is now facing tougher comparisons.

Inflation has been elevated. The Russia/Ukraine war continues to be a major contributor.

Central banks are raising rates to reign in inflation. China and Japan remain accommodative.

Services are contractionary globally while trends are mixed sequentially and down year over year.

Source: FactSet

World Economic Snapshot - 2

	Long Term Rates			Unemployment Rate			Retail Sales Growth			ISM Manufacturing			
	Latest Available	3 Months Ago	12 Months Ago	2 Month Ago	3 Months Ago	12 Months Ago	2 Months Ago	3 Months Ago	12 Months Ago	Latest Available	3 Months Ago	12 Months Ago	
United States	3.89%	2.90%	1.56%	3.50%	3.70%	4.20%	7.78%	9.31%	16.73%	47.71	51.47	58.29	
Eurozone	1.96%	1.54%	-0.35%	6.60%	6.70%	7.10%	-	9.58%	8.06%	12.81%	47.10	49.60	58.44
United Kingdom	3.30%	2.25%	0.92%	3.70%	3.60%	4.00%	-	4.08%	5.57%	9.33%	46.45	47.30	58.09
France	2.58%	1.68%	0.10%	7.10%	7.10%	7.40%	-	4.64%	2.26%	25.07%	48.32	50.64	55.89
Germany	2.08%	1.10%	-0.25%	3.00%	3.00%	3.30%	-	10.44%	6.02%	2.33%	46.21	49.12	57.44
Canada	3.18%	2.85%	1.68%	5.20%	5.40%	6.10%	-	6.89%	6.62%	5.74%	49.62	48.66	57.21
South Korea	3.93%	3.31%	2.35%	2.80%	2.50%	3.20%	-	5.42%	9.72%	9.93%	49.04	47.63	50.89
Japan	0.25%	0.19%	0.07%	-	2.50%	2.80%	-	4.72%	4.17%	1.18%	48.98	51.46	54.55
China	2.79%	2.70%	2.93%	2.60%	5.30%	5.00%	-	2.48%	5.42%	3.87%	49.37	49.50	49.87
India	7.33%	7.25%	-	-	-	4.20%	-	-	-	-	55.72	56.23	57.56
Brazil	13.03%	12.51%	11.90%	5.50%	8.90%	11.60%	-	13.19%	12.26%	7.58%	44.29	51.87	49.75
Russia	60.28%	60.28%	8.16%	-	-	4.30%	-	-	12.89%	-	53.21	51.74	51.71

Long term rates have increased particularly in developed economies. Russia's invasion of Ukraine caused Russia's interest rates to skyrocket.

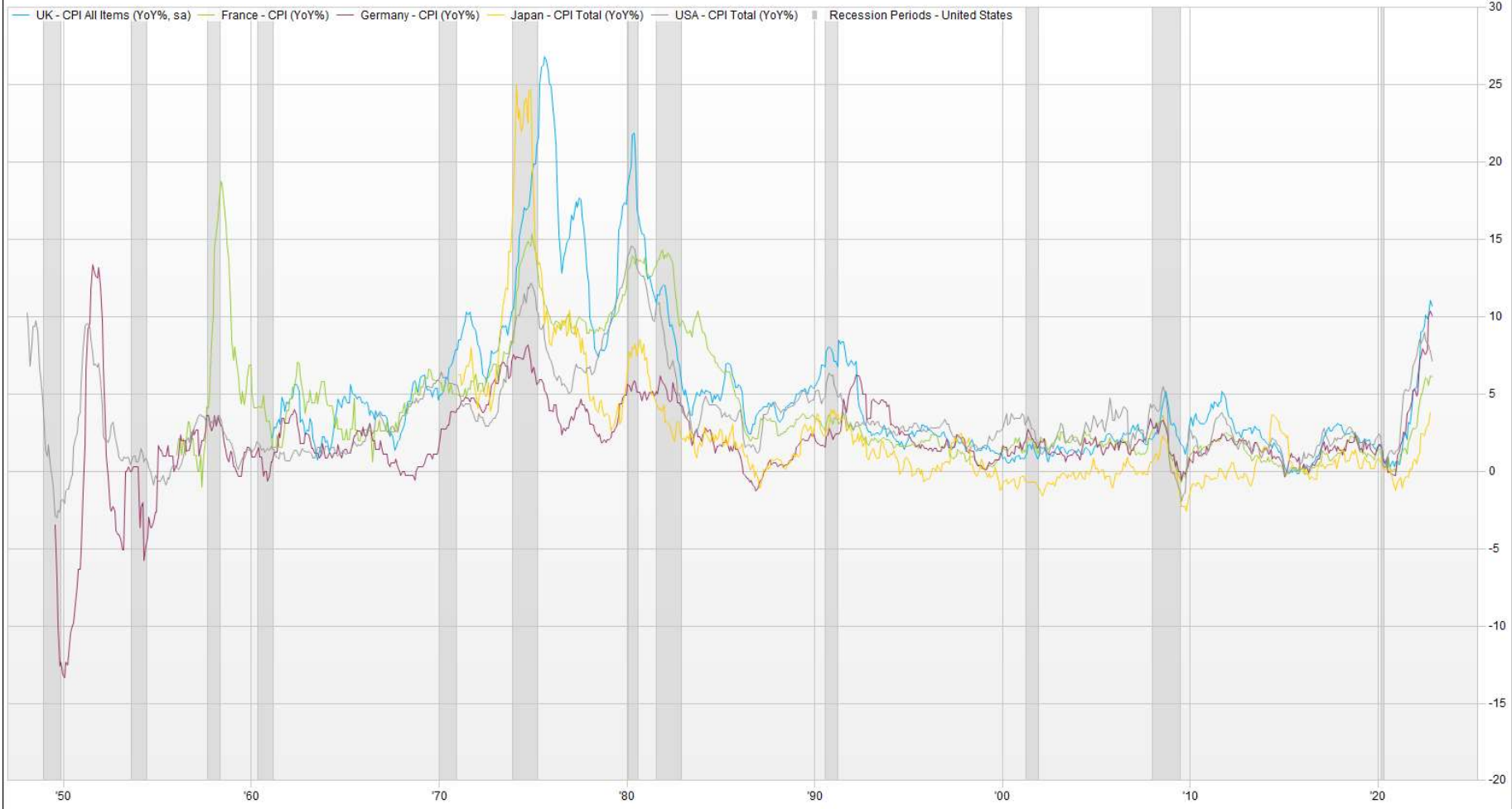
Unemployment remains near historic lows. Most central banks feel they have leeway to raise rates.

Retail sales growth remains solid in most areas

Manufacturing is contractionary in most places. Activity has moderated in most areas.

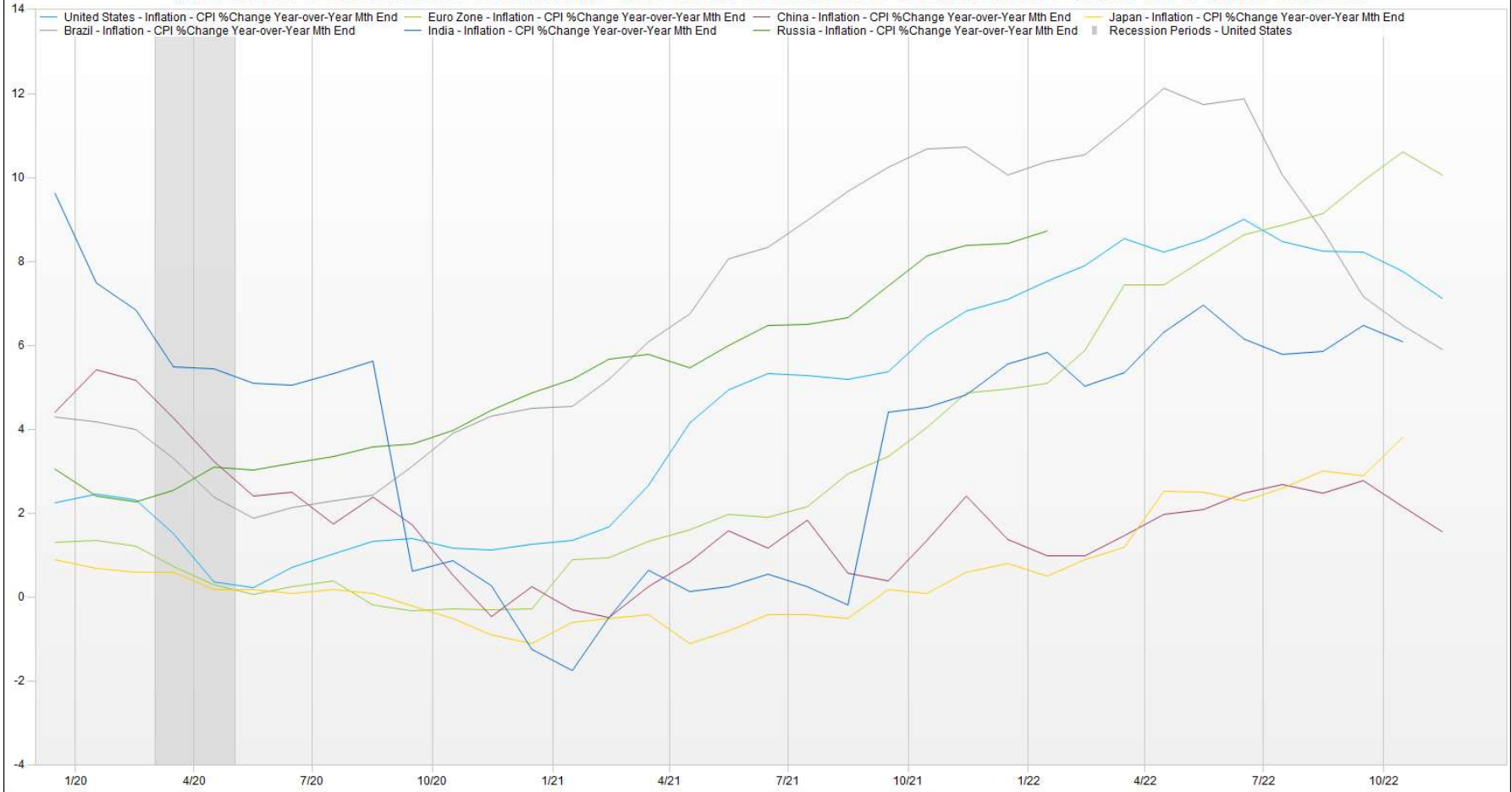
Source: FactSet

Inflation Hasn't Been This High Since The 1980s in Most Developed Nations



Source: FactSet

Inflation Pressures Remain Elevated But Have Started to Ease In Some Areas



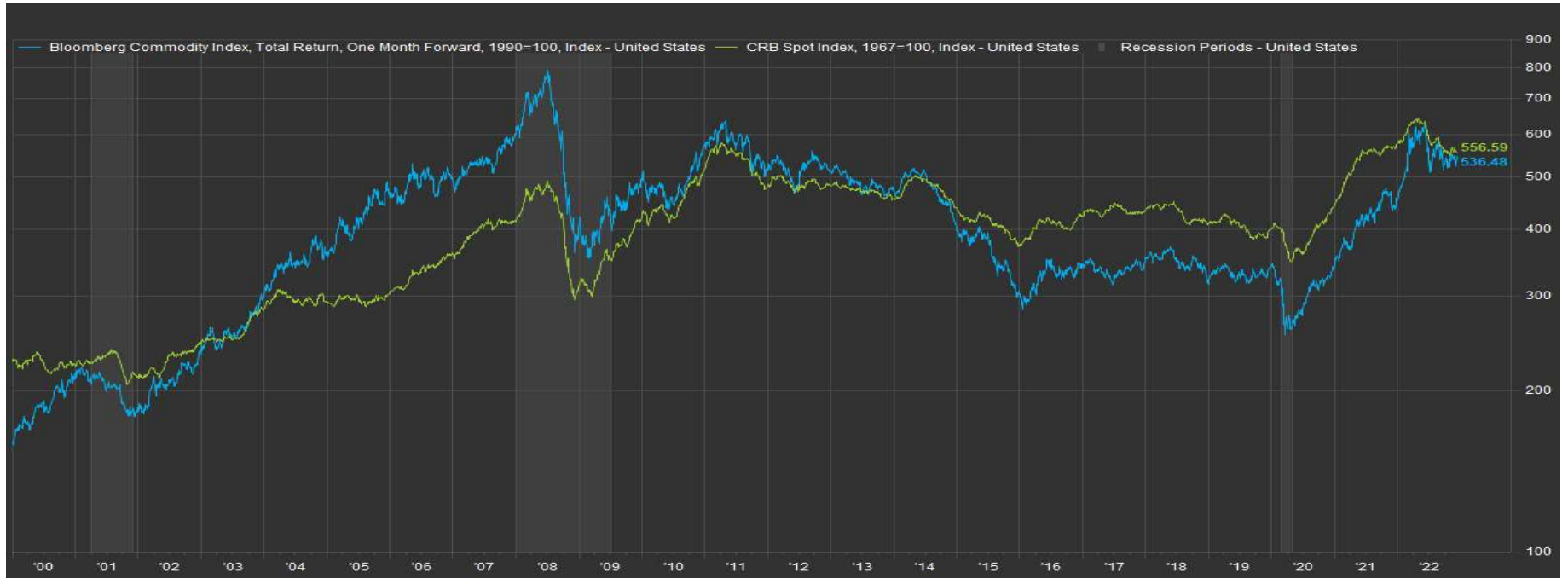
Source: FactSet

Commodity prices are up 6% year-to-date with natural gas and nickel seeing the most inflation. Cost pressures have eased in the last few months.

Commodities where Russia and Ukraine represent a larger % of global exports have seen greater inflation year-to-date but weaker inflation recently.

	Commodity Price Changes As of 12/16/22				Share of Pre-War Global Exports		
	1 Month	3 Month	Start of War	Year-To-Date	Russia	Ukraine	Combined
ENERGY							
Natural Gas	18.1%	-19.0%	51.9%	82.5%	13%	0%	13%
Crude Oil	-13.5%	-10.6%	-16.1%	4.4%	11%	1%	12%
Oil Products	-25.4%	-18.2%	-21.3%	-3.9%	10%	1%	11%
BULKES							
Iron Ore*	19.7%	10.1%	-22.7%	-1.8%	1%	3%	4%
PRECIOUS METALS							
Gold*	0.2%	6.7%	-6.9%	-2.8%	5%	0%	5%
Platinum*	-0.5%	13.4%	-5.9%	6.4%	1%	3%	4%
Palladium	-13.7%	-16.0%	-26.5%	-6.1%	24%	1%	25%
BASE METALS							
Aluminum	-0.6%	5.5%	-27.9%	-14.6%	9%	1%	10%
Copper*	-2.0%	6.8%	-16.0%	-15.5%	4%	0%	4%
Nickel	-3.3%	22.8%	14.7%	36.8%	21%	1%	22%
Zinc*	2.9%	0.3%	-10.5%	-10.9%	2%	0%	2%
AGRICULTURE							
Fertilizers*	0.0%	0.1%	2.4%	6.2%	12%	1%	13%
Corn	-0.4%	-4.8%	-3.6%	10.4%	1%	13%	14%
Wheat	-6.8%	-9.6%	-12.0%	-3.1%	18%	9%	26%
Simple Averages	-1.8%	-0.9%	-7.2%	6.3%	9%	2%	12%
Average where	-5.1%	-5.5%	-4.3%	12.5%			
Russia & Ukraine represent a combined 10%+ of total exports							
Natural Gas- Henry Hub NYMEX Spot \$/Mmbtu; Crude Oil - ICE Brent \$/gal;							
Oil Products - NY Conventional Gasoline \$/gal; Iron Ore - Iron Ore 62% Fe CFR China Cash \$/mt;							
Palladium - \$/ozt; Gold - NY \$/ozt, Platinum - \$/ozt;							
Aluminum, Nickel, Zinc- LME Cash \$/t, Copper - NYMEX Cash \$/lb							
Fertilizer - Potash and Phosphorus USDA Index, Corn - Central Illinois \$/bu; Wheat - CBOT \$/bu							
Source: FactSet price changes, Capital Economics/Wall Street Journal export share, OECD* export share before the war							

Commodity prices are near historic highs although they have started to weaken

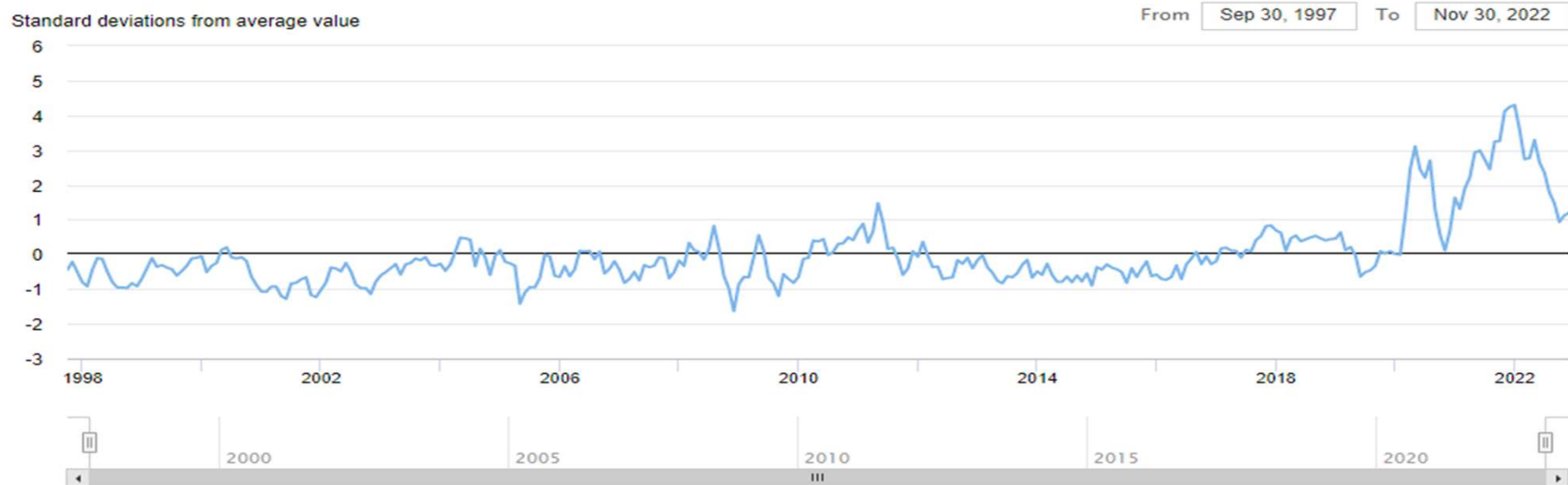


	Weighting In Indices			
	Energy	Agriculture	Precious Metals	Industrial Metals
Bloomberg	29.8%	35.2%	19.8%	15.5%
CRB Spot	39.0%	41.0%	7.0%	13.0%

Source: FactSet, Wikipedia

Global supply chains have been strained since the start of COVID-19. Bottlenecks have been easing in 2022.

Global Supply Chain Pressure Index

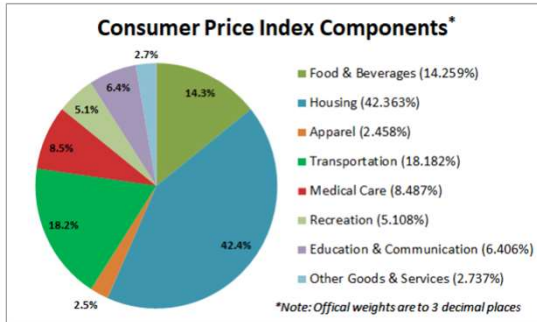


Sources: Bureau of Labor Statistics; Harper Petersen Holding GmbH; Baltic Exchange; IHS Markit; Institute for Supply Management; Haver Analytics; Refinitiv; authors' calculations.

Notes: GSCPI readings for the most recent months can be revised as realized data become available, replacing the imputed values generated through principal component analysis. Further, for some series, mainly the BLS airfreight cost indices, each new release comes with revisions to up to twelve months of previous data. Thus, revisions can have an impact up to a year back in time.

Source: New York Federal Reserve

US inflation details

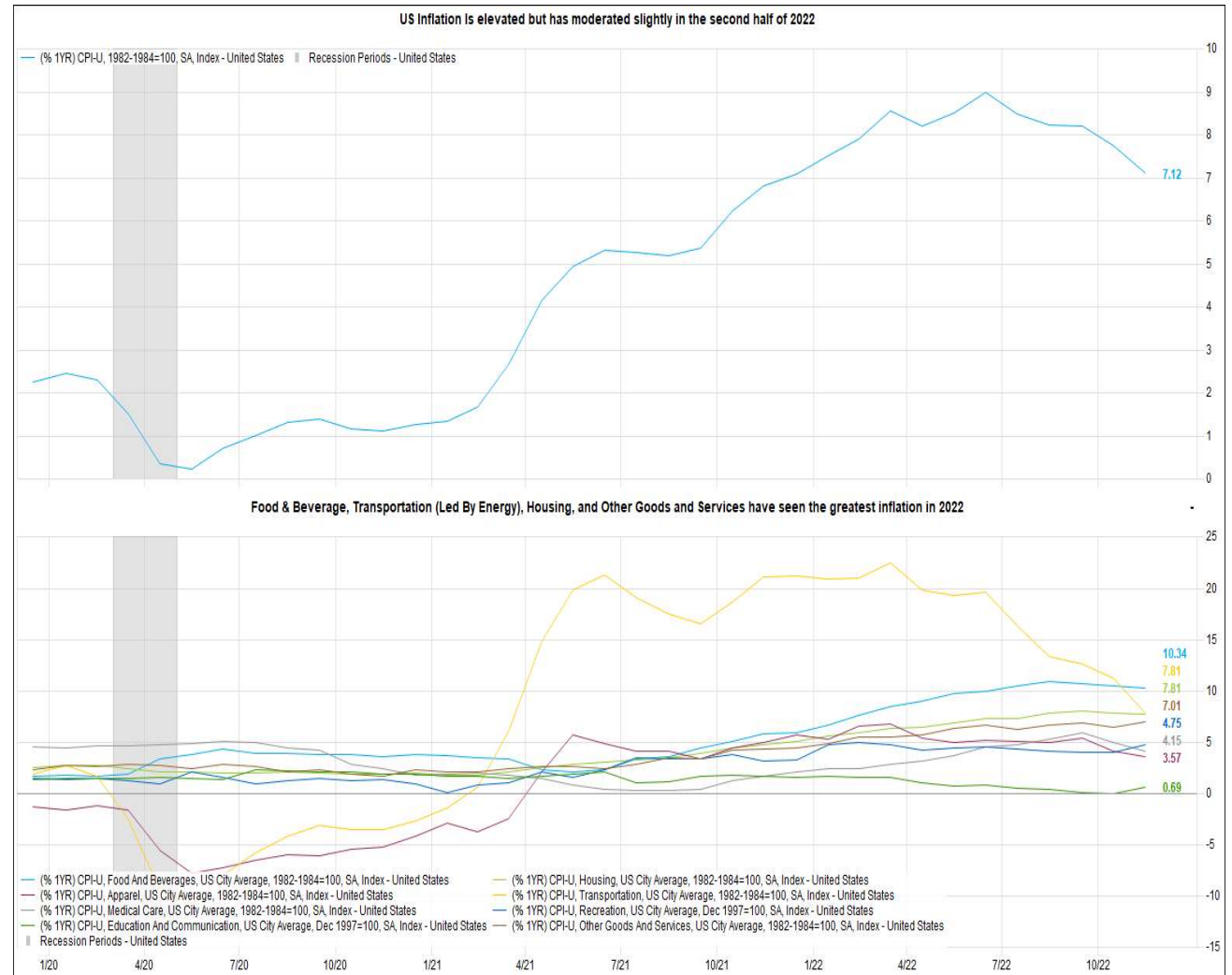


Source: BLS; The most recent annual reweighting was in December 2021

Housing, transportation (tied to energy prices) and food & beverage are the most important inflation components.

All three components have been inflation leaders. Some data points suggest housing price inflation is starting to ease.

Source: BLS & FactSet



The US economy is approaching a recession

Recession determinants

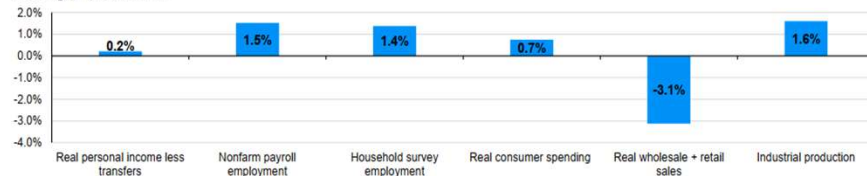
GTM U.S. 20

Variables used by the NBER in making recession determination*

% change month-over-month

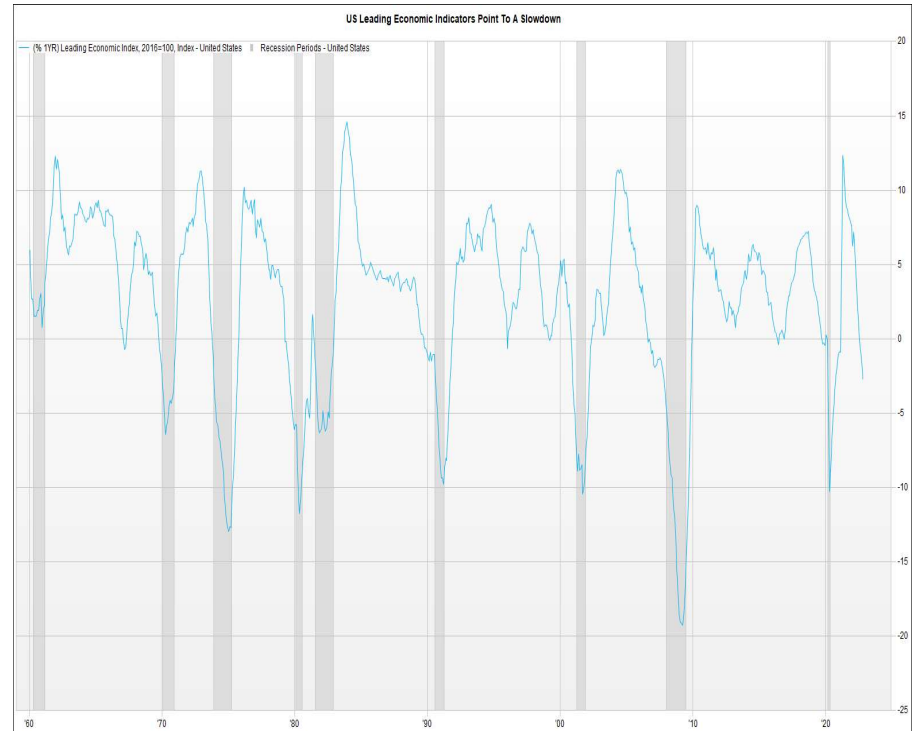


% change, last six months



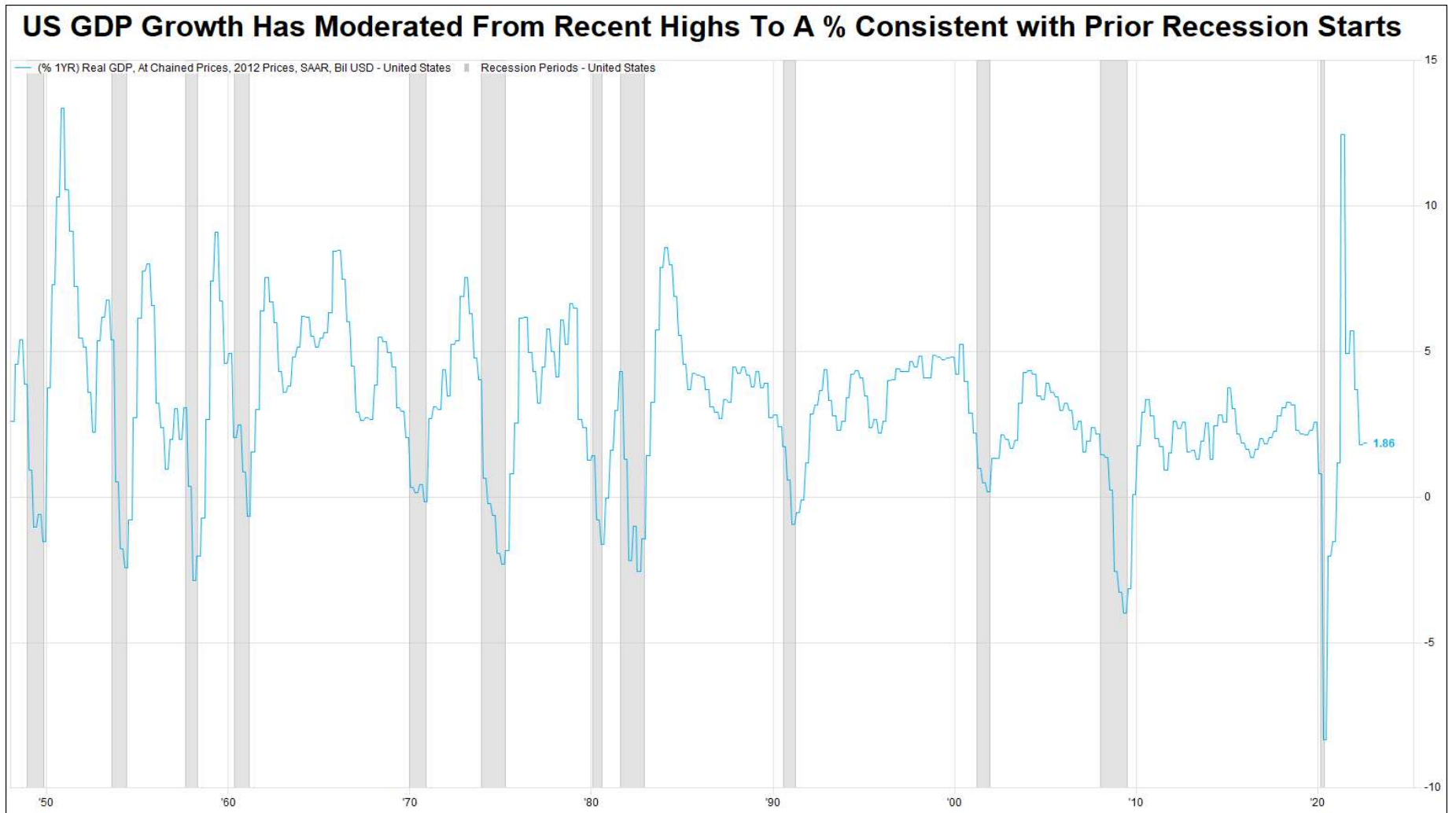
Source: Bureau of Economic Analysis, Bureau of Labor Statistics, Census Bureau, Federal Reserve of St. Louis, NBER, J.P. Morgan Asset Management. Heatmap shading reflects 10 years of data, with green and red reflecting a range of +/- 0.5 standard deviations from a baseline of 0% monthly growth. *The NBER's definition of a recession involves a significant decline in economic activity that is spread across the economy and lasts more than a few months. Because a recession must influence the economy broadly and not be confined to one sector, the committee emphasizes economy-wide measures of economic activity. Specifically, they consider real personal income less transfers, nonfarm payroll employment, employment as measured by the household survey, real personal consumption expenditures, wholesale-retail sales adjusted for price changes and industrial production. There is no fixed rule about what measures contribute to the process or how they are weighted, but the committee notes that "in recent decades, the two measures we have put the most weight on are real personal income less transfers and nonfarm payroll employment." Guide to the Markets - U.S. Data as of September 30, 2022.

J.P.Morgan
ASSET MANAGEMENT



According to NBER, a recession is defined as a significant decline in economic activity lasting more than a few months. Economic activity has slowed recently. Whether we are already in a recession is debatable.

Source: JP Morgan Asset Management and FactSet



Source: FactSet

US recessions have averaged 10 months since 1945 and caused a 1-10% decline in real GDP.

Notice how expansions exceed recessions in duration.

Source: National Bureau of Economic Research

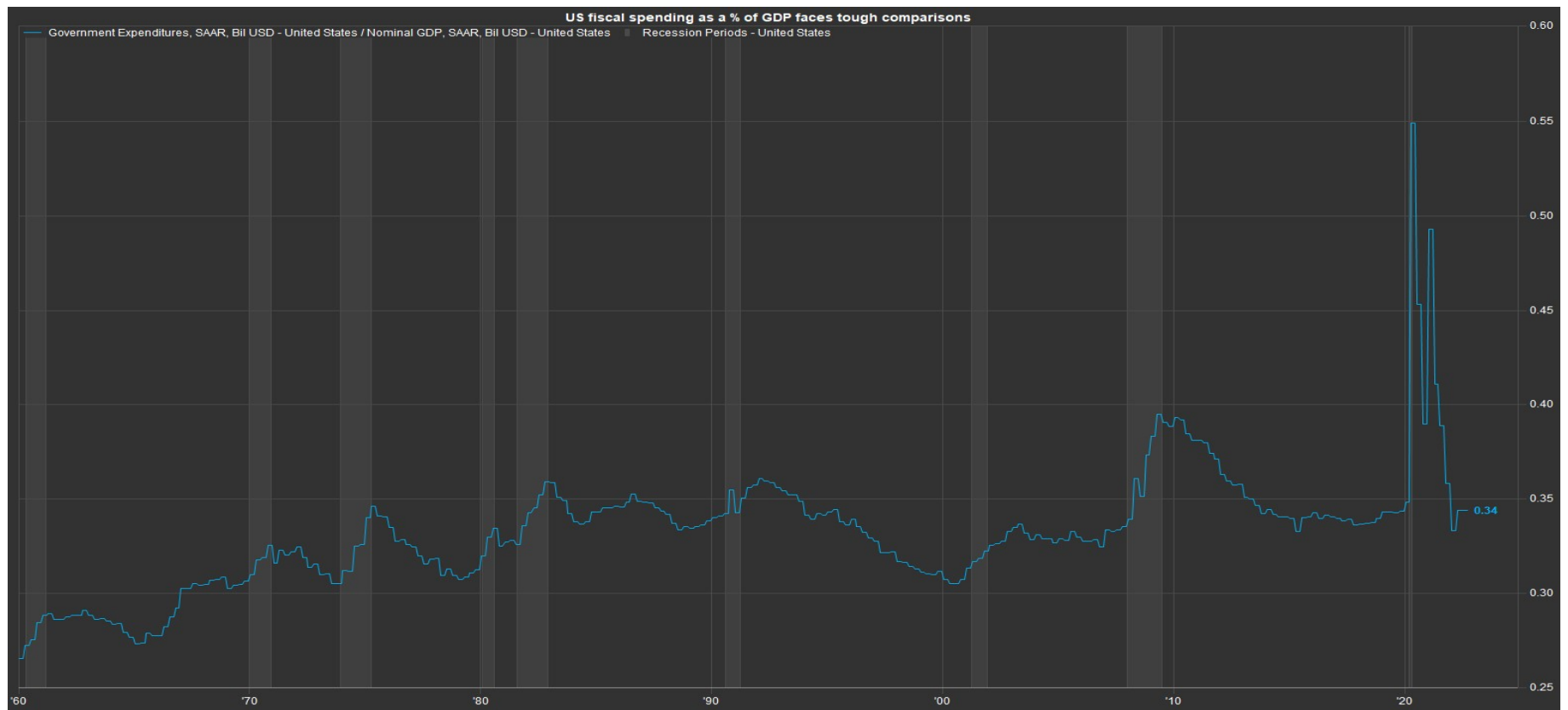
Peak month (Peak Quarter)	Trough month (Trough Quarter)	Contraction <i>Duration, peak to trough</i>	Expansion <i>Duration, trough to peak</i>	Cycle	
				<i>Duration, trough to trough</i>	<i>Duration, peak to peak</i>
	December 1854 (1854Q4)				
June 1857 (1857Q2)	December 1858 (1858Q4)	18	30	48	
October 1860 (1860Q3)	June 1861 (1861Q3)	8	22	30	40
April 1865 (1865Q1)	December 1867 (1868Q1)	32	46	78	54
June 1869 (1869Q2)	December 1870 (1870Q4)	18	18	36	50
October 1873 (1873Q3)	March 1879 (1879Q1)	65	34	99	52
March 1882 (1882Q1)	May 1885 (1885Q2)	38	36	74	101
March 1887 (1887Q2)	April 1888 (1888Q1)	13	22	35	60
July 1890 (1890Q3)	May 1891 (1891Q2)	10	27	37	40
January 1893 (1893Q1)	June 1894 (1894Q2)	17	20	37	30
December 1895 (1895Q4)	June 1897 (1897Q2)	18	18	36	35
June 1899 (1899Q3)	December 1900 (1900Q4)	18	24	42	42
September 1902 (1902Q4)	August 1904 (1904Q3)	23	21	44	39
May 1907 (1907Q2)	June 1908 (1908Q2)	13	33	46	56
January 1910 (1910Q1)	January 1912 (1911Q4)	24	19	43	32
January 1913 (1913Q1)	December 1914 (1914Q4)	23	12	35	36
August 1918 (1918Q3)	March 1919 (1919Q1)	7	44	51	67
January 1920 (1920Q1)	July 1921 (1921Q3)	18	10	28	17
May 1923 (1923Q2)	July 1924 (1924Q3)	14	22	36	40
October 1926 (1926Q3)	November 1927 (1927Q4)	13	27	40	41
August 1929 (1929Q3)	March 1933 (1933Q1)	43	21	64	34
May 1937 (1937Q2)	June 1938 (1938Q2)	13	50	63	93
February 1945 (1945Q1)	October 1945 (1945Q4)	8	80	88	93
November 1948 (1948Q4)	October 1949 (1949Q4)	11	37	48	45
July 1953 (1953Q2)	May 1954 (1954Q2)	10	45	55	56
August 1957 (1957Q3)	April 1958 (1958Q2)	8	39	47	49
April 1960 (1960Q2)	February 1961 (1961Q1)	10	24	34	32
December 1969 (1969Q4)	November 1970 (1970Q4)	11	106	117	116
November 1973 (1973Q4)	March 1975 (1975Q1)	16	36	52	47
January 1980 (1980Q1)	July 1980 (1980Q3)	6	58	64	74
July 1981 (1981Q3)	November 1982 (1982Q4)	16	12	28	18
July 1990 (1990Q3)	March 1991 (1991Q1)	8	92	100	108
March 2001 (2001Q1)	November 2001 (2001Q4)	8	120	128	128
December 2007 (2007Q4)	June 2009 (2009Q2)	18	73	91	81
February 2020 (2019Q4)	April 2020 (2020Q2)	2	128	130	146
Average	1854-2020	17.0	41.4	58.4	59.2
Average	1854-1919	21.6	26.6	48.2	48.9
Average	1919-1945	18.2	35.0	53.2	53.0
Average	1945-2020	10.3	64.2	74.5	75.0

Most economists expect GDP growth and inflation to moderate

	GDP Forecast				Inflation Forecast		
	2022	2023	2024		2022	2023	2024
USA	1.80	0.50	1.00	USA	6.19	3.52	2.57
Euro area	3.30	0.50	1.40	Euro area	8.30	6.80	3.40
UK	4.40	-0.40	0.20	UK	8.87	6.61	3.31
France	2.60	0.60	1.20	France	5.88	5.75	2.71
Germany	1.80	-0.30	1.50	Germany	8.48	8.00	3.34
Canada	3.20	1.00	1.30	Canada	6.83	4.06	2.39
Korea	2.70	1.80	1.90	Korea	5.21	3.90	2.33
Japan	1.60	1.80	0.90	Japan	2.33	1.97	1.67
China	3.30	4.60	4.10	China	2.00	2.20	2.00
India	6.60	5.70	6.90	India	6.90	5.40	4.40
Brazil	2.80	1.20	1.40	Brazil	8.90	4.20	4.50
Russia	-3.90	-5.60	-0.20				
Simple Country Average	3.08	1.65	2.04	Simple Country Average	6.16	4.56	2.92
Source: OECD November 2022 Forecast							

Government Fiscal and Monetary Activity

US fiscal spending reached historic highs during the height of COVID-19. We are now dealing with a government spending hangover.



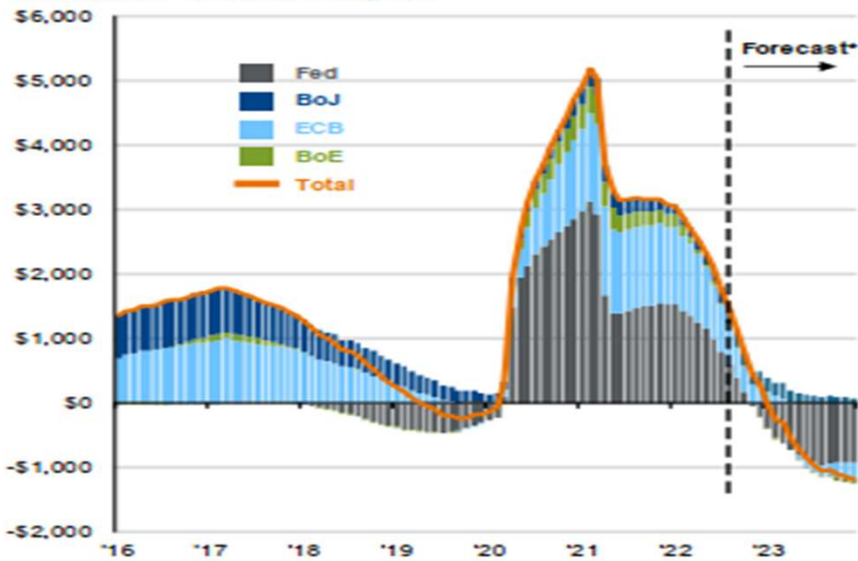
Source: FactSet

Central banks are providing less monetary support given inflationary pressures. The US and UK are leading the way.

Developed market monetary policy

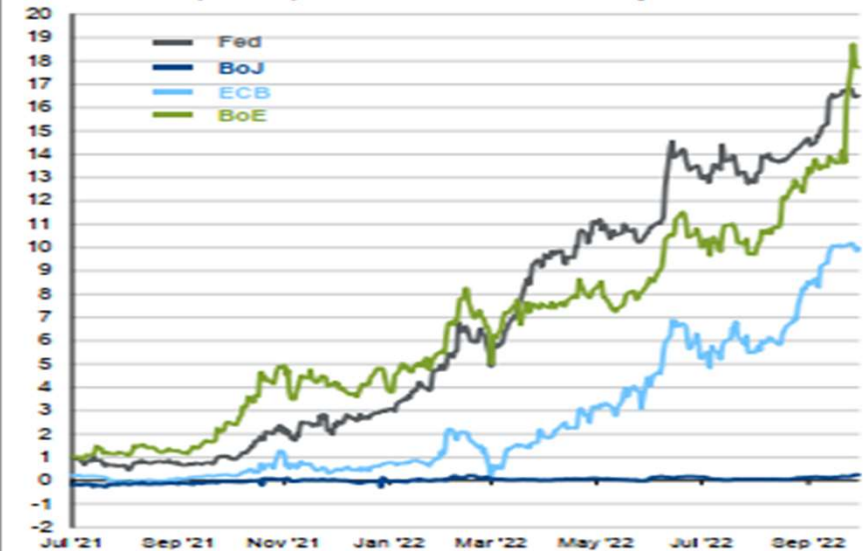
GTM | U.S. | 41

Developed market central bank bond purchases
USD billions, 12-month rolling flow



Market pricing for central bank hikes in 2022

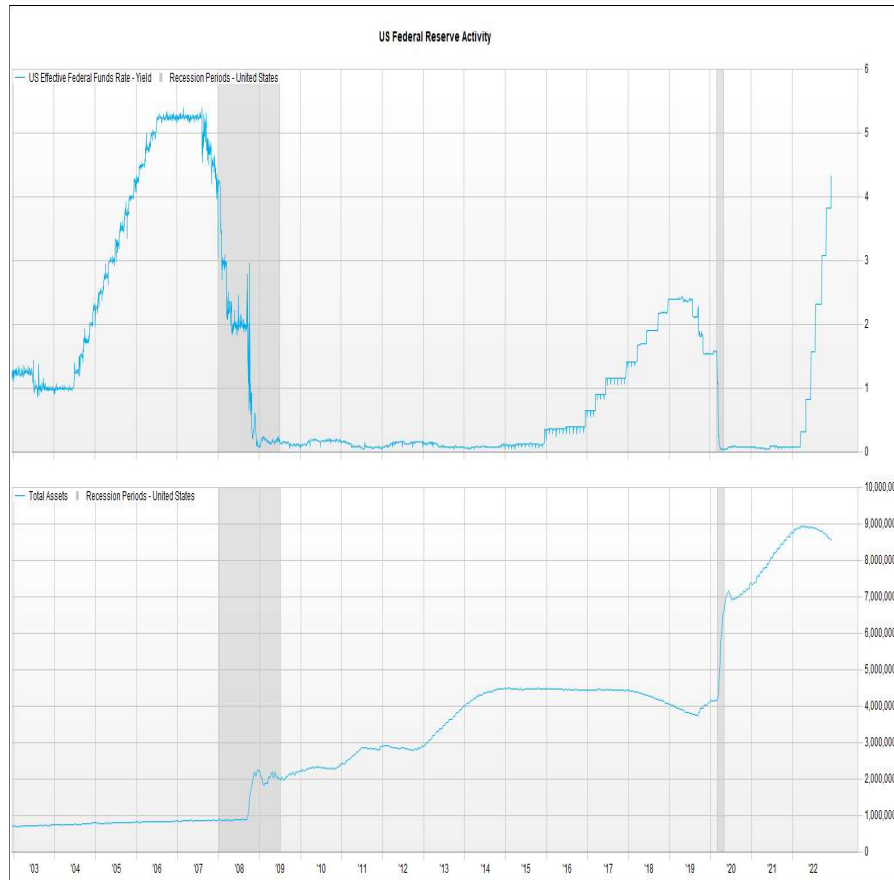
Number of 25bp hikes priced into OIS contracts for year-end 2022**



Source: BIS, Bloomberg, FactSet, J.P. Morgan Asset Management (Left) Bank of England (BoE), Bank of Japan (BoJ), European Central Bank (ECB), Federal Reserve System (Fed), J.P. Morgan Global Economic Research. *DM bond purchase forecasts are internal assumptions based on government bond purchases as outlined in the most recent monetary policy announcements from the BoE, BoJ, ECB and Federal Reserve through December 2023. **Rate hikes shown are cumulative and reflect hikes delivered year-to-date. Forecasts, projections and other forward-looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and are not a reliable indicator of future performance. Given their inherent uncertainties and risks associated with forecast, projections or other forward-looking statements, actual events, results or performance may differ materially from those reflected or contemplated.

J.P. Morgan
ASSET MANAGEMENT

The Federal Reserve is raising rates at the fastest pace since the early 1980s and shrinking the balance sheet to slow down the economy



Source: FactSet, Federal Reserve

Recent FOMC December 2022 economic projections are less promising.

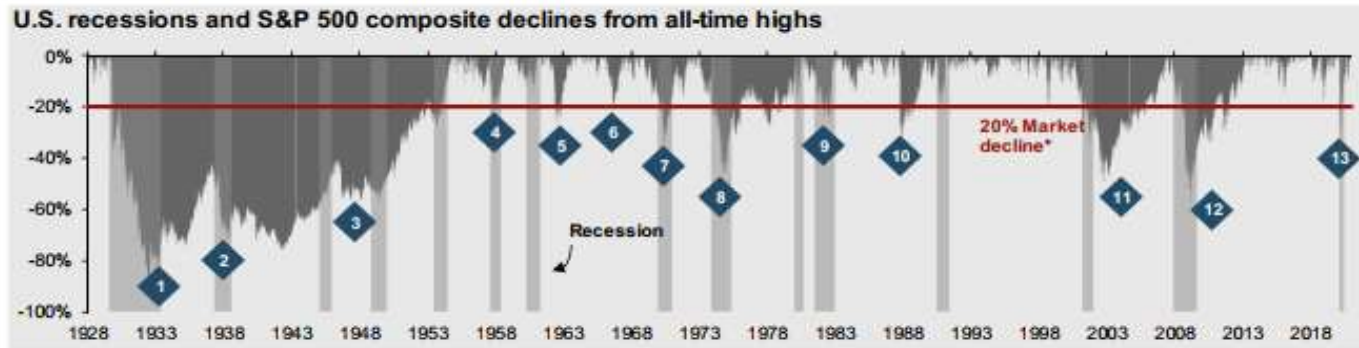
Variable	Median ¹				
	2022	2023	2024	2025	Longer run
Change in real GDP	0.5	0.5	1.6	1.8	1.8
September projection	0.2	1.2	1.7	1.8	1.8
Unemployment rate	3.7	4.6	4.6	4.5	4.0
September projection	3.8	4.4	4.4	4.3	4.0
PCE inflation	5.6	3.1	2.5	2.1	2.0
September projection	5.4	2.8	2.3	2.0	2.0
Core PCE inflation ²	4.8	3.5	2.5	2.1	
September projection	4.5	3.1	2.3	2.1	
Memo: Projected appropriate policy path					
Federal funds rate	4.4	5.1	4.1	3.1	2.5
September projection	4.4	4.6	3.9	2.9	2.5

Federal Reserve comments in May 2022 revealed that they plan on shrinking the balance sheet as follows:

Balance Sheet Monthly Reduction Schedule			
	Treasury	Agency Debt & Agency MBS	Total
June 2022-August 2022	\$30.0	\$17.5	\$47.5
Thereafter	\$60.0	\$35.0	\$95.0

Investment Backdrop

Stock bear market history- We are dealing with greater risks today with commodity price pressures, fed policy tightening and higher odds of a recession



Characteristics of bull and bear markets

Market correction	Bear Market			Macro environment				Bull markets		
	Market peak	Bear return*	Duration (months)*	Recession	Commodity Spike	Aggressive Fed	Extreme Valuation	Bull begin date	Bull return	Duration (months)
1 Crash of 1929 - Excessive leverage, irrational exuberance	Sep 1929	-86%	32	◆				Jul 1926	152%	37
2 1937 Fed Tightening - Premature policy tightening	Mar 1937	-60%	61	◆		◆		Mar 1935	129%	23
3 Post WWII Crash - Post-war demobilization, recession fears	May 1945	-30%	36	◆				Apr 1942	158%	49
4 Eisenhower Recession - Worldwide recession	Aug 1956	-22%	11	◆				Jun 1949	267%	85
5 Flash Crash of 1962 - Flash crash, Cuban Missile Crisis	Dec 1961	-28%	6	◆				Oct 1960	39%	19
6 1966 Financial Crisis - Credit crunch	Feb 1966	-22%	7	◆				Oct 1962	76%	39
7 Tech Crash of 1970 - Economic overheating, civil unrest	Nov 1968	-36%	7	◆	◆			Oct 1966	48%	25
8 Stagflation - OPEC oil embargo	Jan 1973	-48%	20	◆	◆			May 1970	74%	31
9 Volcker Tightening - Whip Inflation Now	Nov 1980	-27%	20	◆	◆	◆		Mar 1978	62%	32
10 1987 Crash - Program trading, overheating markets	Aug 1987	-34%	3	◆				Aug 1982	229%	60
11 Tech Bubble - Extreme valuations, .com boom/bust	Mar 2000	-49%	30	◆			◆	Oct 1990	417%	16
12 Global Financial Crisis - Leverage/housing, Lehman collapse	Oct 2007	-57%	7	◆	◆			Oct 2002	101%	60
13 Global Slowdown - COVID-19, oil price war	Feb 2020	-34%	1	◆				Mar 2009	401%	141
Averages	-	-42%	22					-	168%	54

Source: FactSet, NBER, Robert Shiller, Standard & Poor's, J.P. Morgan Asset Management.
 *A bear market is defined as a 20% or more decline from the previous market high. The related market return is the peak to trough return over the cycle. Periods of "Recession" are defined using NBER business cycle dates. "Commodity spikes" are defined as movement in oil prices of over 100% over an 18-month period. Periods of "Extreme Valuations" are those where S&P 500 last 12-months P/E levels were approximately two standard deviations above long-run averages, or time periods where equity market valuations appeared expensive given the broader macroeconomic environment. "Aggressive Fed Tightening" is defined as Federal Reserve monetary tightening that was unexpected and/or significant in magnitude. Bear and bull returns are price returns.
 Guide to the Markets - U.S. Data are as of December 31, 2020.



Source: JP Morgan Asset Management
 Past performance is not a guarantee or predictor of future performance.

Sources of bear markets:

% of the time

- 77% recessions
- 54% extreme valuations
- 46% aggressive fed actions
- 31% commodity spikes

The % of time a recession occurs due to

- 23% one factor
- 46% two factors
- 31% three factors

Consumer price inflation registered 7.1% year-over-year in the most recent period. How much and how fast it falls will be a key thing to watch.

The chart below highlights how various asset classes have performed in different inflation environments. Annual total returns since 1926 are cited.

	US Large Cap Stocks	US Small Cap Stocks	20 year Corporate Fixed Income	20 year Govt. Fixed Income	5 year Govt. Fixed Income	30 Day T-Bills	Inflation
Average	12.3%	16.3%	6.4%	6.0%	5.2%	3.3%	3.0%
Median	14.7%	17.9%	4.8%	3.7%	3.7%	2.8%	2.7%
Average Since 1950	13.1%	16.0%	6.9%	6.5%	5.8%	4.1%	3.5%
Median Since 1950	15.4%	17.9%	5.6%	3.7%	4.3%	3.8%	2.9%
When Inflation							
Is Negative	13.2%	9.1%	5.5%	5.8%	3.9%	1.8%	-4.0%
0-5%	13.4%	18.5%	7.7%	7.3%	5.6%	3.0%	2.3%
5-10%	7.7%	9.8%	2.4%	1.0%	3.8%	4.6%	7.5%
10%+	4.1%	12.9%	-2.1%	-0.2%	3.7%	7.5%	14.1%

Source: CFA Institute, Ibbotson, and Candor Asset Advisors

- **Conclusions**
 - All asset real returns are negative when inflation is 10%+.
 - When annual inflation is 5-10%, stock real returns are positive while fixed income returns are negative.
 - Stock and fixed income returns are often stronger when annual inflation is between 0% and 5%.

Past performance is not a guarantee or predictor of future performance. Stocks are not guaranteed and have been more volatile than other asset classes. Government bonds and Treasury bills are guaranteed by the full faith and credit of the United States government as to the timely payment of principal and interest. Diversification does not eliminate the risk of experiencing investment losses.

The Federal Reserve expects to raise rates by an additional 0.7% in 2023. Fed rate hikes should moderate in 2023 and serve as a diminishing headwind.

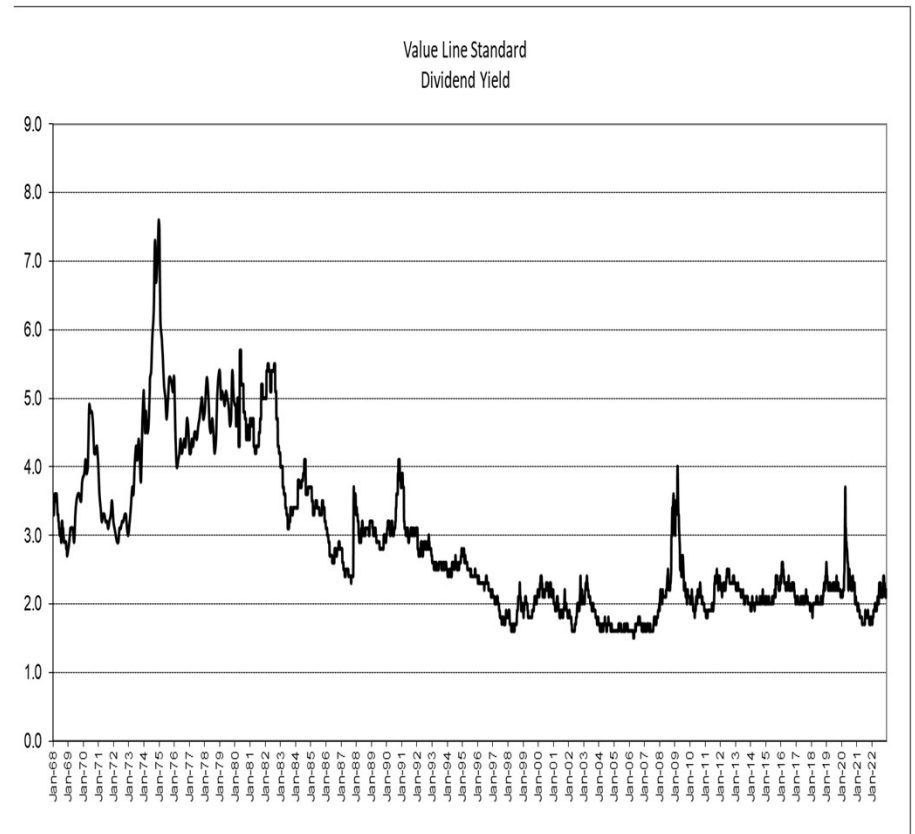
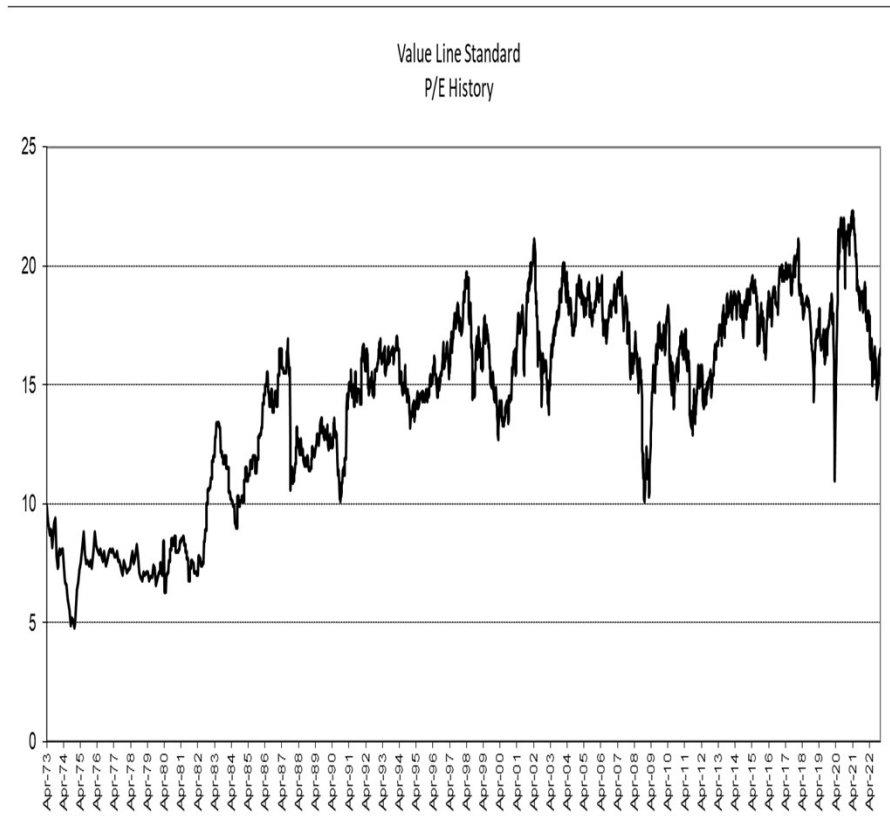
	US Large Cap Stocks	US Small Cap Stocks	US 20 Year Corporate Bonds	US 20 Year Govt. Bonds	US 5 Year Govt. Bonds	US 30 Day T-Bills	US Inflation
Since 1954							
Average Monthly Returns	0.98%	1.24%	0.56%	0.54%	0.48%	0.34%	0.29%
Median Monthly Returns	1.28%	1.50%	0.45%	0.32%	0.34%	0.32%	0.28%
Fed Tightening Periods Average Monthly Returns	0.76%	1.03%	0.17%	0.15%	0.23%	0.47%	0.42%
Fed Tightening Periods Median Monthly Returns	0.78%	0.84%	0.15%	0.07%	0.14%	0.42%	0.40%

- Conclusions:
 - Significant fed hikes often depress investment returns
 - When the Fed hiked significantly
 - In 10 of 13 instances a recession occurred within 12 months of fed actions
 - In 3 of 13 instances a bear market occurred within 12 months of fed actions

Source: CFA Institute, Ibbotson, Candor Asset Advisors

Past performance is not a guarantee or predictor of future performance. Stocks are not guaranteed and have been more volatile than other asset classes. Government bonds and Treasury bills are guaranteed by the full faith and credit of the United States government as to the timely payment of principal and interest. Diversification does not eliminate the risk of experiencing investment losses.

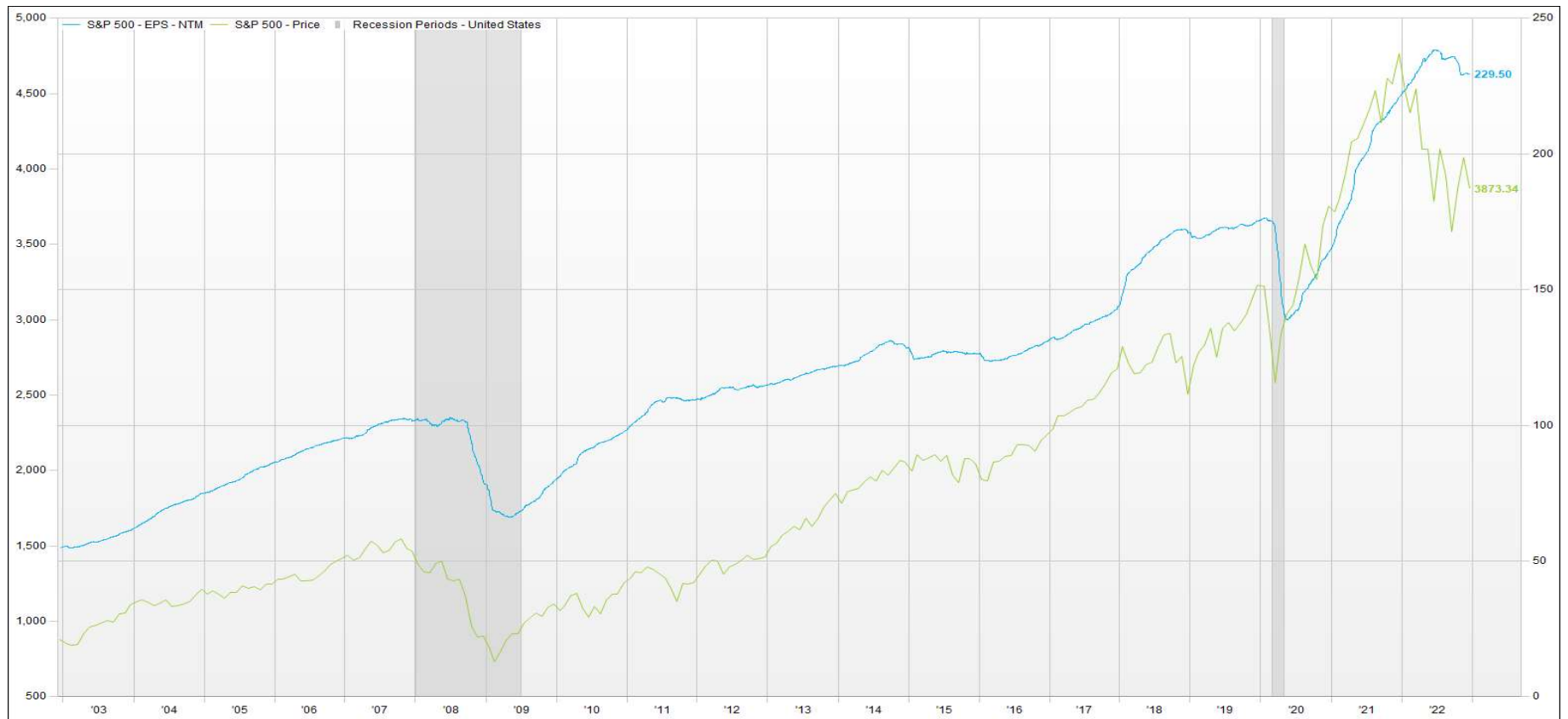
US stock valuations are near historic averages



Source: Value Line Investment Survey

Past performance is not a guarantee or predictor of future performance. Stocks are not guaranteed and have been more volatile than other asset classes.

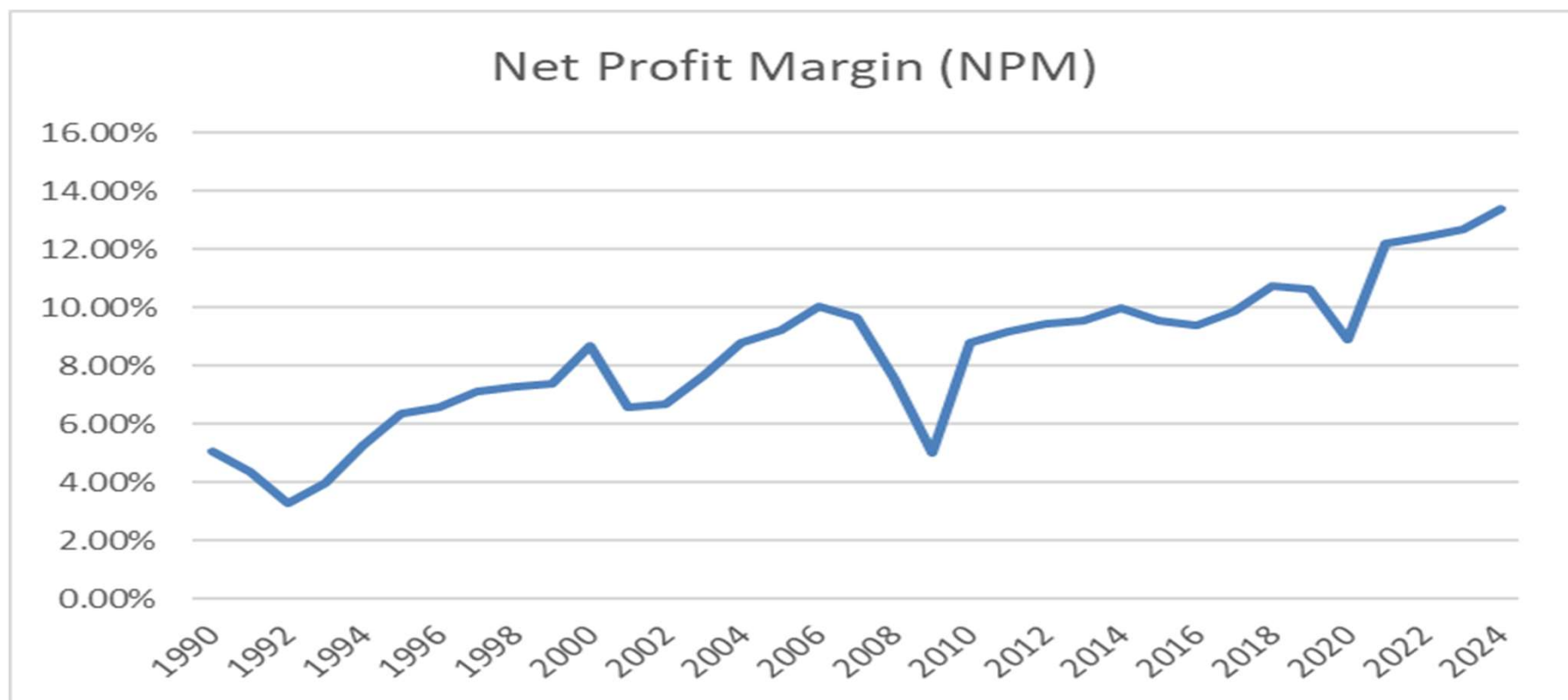
The stock market generally follows earnings over time. The market's recent weakness suggests earnings estimates are too high if a recession occurs.



Source: FactSet

Past performance is not a guarantee or predictor of future performance.

S&P profit margins will be a key factor to watch. Margins are near historic highs and consensus expects margins to hold up.



Source: FactSet

Consensus estimates appear vulnerable if/when a recession occurs

	Consensus Estimates			Past Recessions Since 1990	If Recession Starts in 2023E	Implied Revision
	2021A	2022E	2023E			
Sales Per Share	\$1,533.65	\$1,758.00	\$1,807.90		\$1,762.85	-2.5%
Annual Growth	14.0%	14.6%	29.5%	0.3%		
EPS	\$186.79	\$218.13	\$229.86		\$178.00	-22.6%
Annual Growth	55.9%	16.8%	5.4%	-18.4%		
Dividend Per Share	\$57.69	\$65.50	\$68.97		\$65.56	-4.9%
Annual Growth	2.4%	13.5%	5.3%	0.1%		

Source: Candor Asset Advisors and FactSet

Stock returns are often depressed right before and during recessions. Fixed income often outperforms during recessions. Recessions raise the risk of stock bear markets.

Since 1926	US Large Cap Stocks	US Small Cap Stocks	US 20 Year Corporate Bonds	US 20 Year Govt. Bonds	US 5 Year Govt. Bonds	US 30 Day T-Bills	US Inflation
Average Monthly Returns	0.97%	1.26%	0.51%	0.47%	0.41%	0.27%	0.24%
Median Monthly Returns	1.31%	1.48%	0.40%	0.31%	0.27%	0.22%	0.24%
Average Monthly Return 6 Months Prior to Recession	0.47%	0.62%	0.13%	0.23%	0.33%	0.38%	0.33%
Average Monthly Return 12 Months Prior to Recession	0.94%	0.96%	0.16%	0.14%	0.28%	0.35%	0.35%
Average Recession Monthly Returns	-0.25%	-0.59%	0.71%	0.79%	0.68%	0.29%	0.03%
Median Recession Monthly Returns	0.17%	-0.79%	0.53%	0.55%	0.49%	0.18%	0.00%

- Conclusions
 - Stock and fixed income returns generally moderate 6 to 12 months before a recession.
 - Fixed income returns are relatively flat 0 to 6 months prior to a recession.
 - During recessions fixed income and particularly long-term debt outperform stocks.
 - 54% of the time there has been a recession, a bear market has occurred at the same time or soon after.
 - 70% of stock bear markets occur around the same time or soon after a recession.

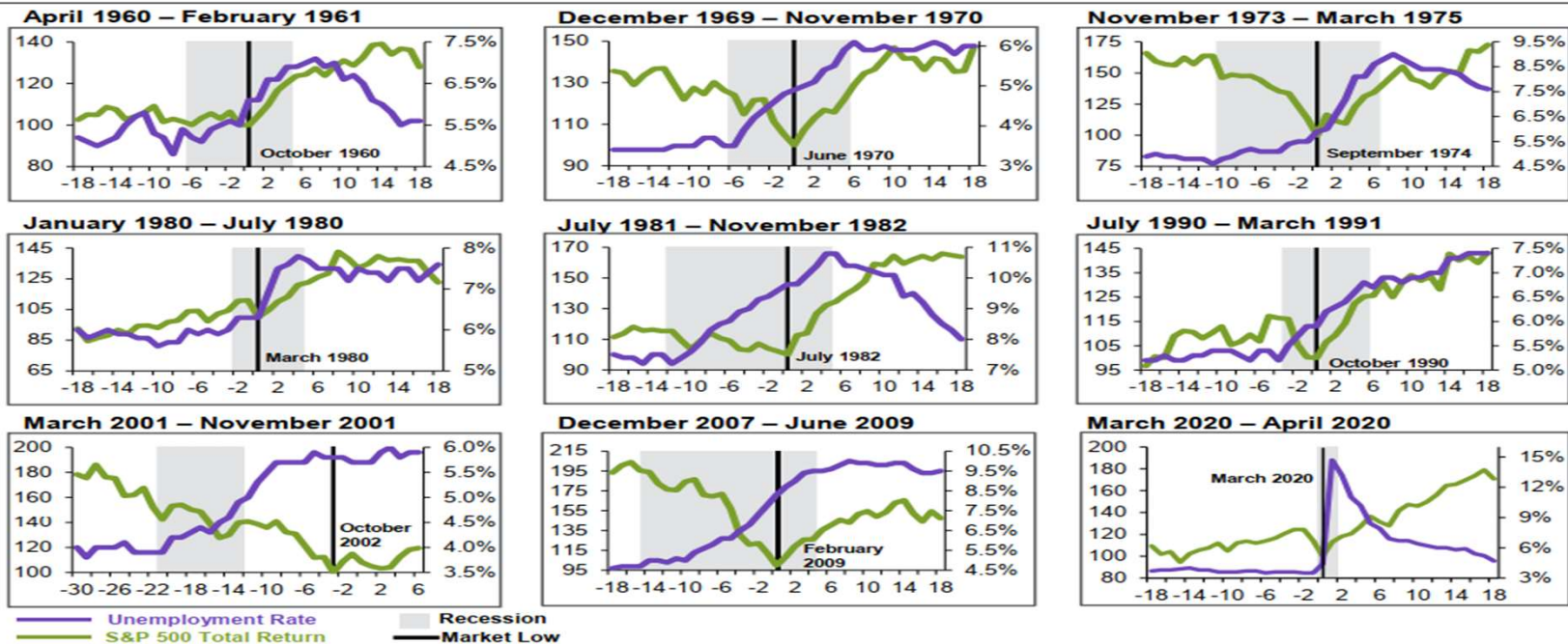
Source: CFA Institute, Ibbotson, Candor Asset Advisors

Past performance is not a guarantee or predictor of future performance. Stocks are not guaranteed and have been more volatile than other asset classes. Government bonds and Treasury bills are guaranteed by the full faith and credit of the United States government as to the timely payment of principal and interest. Diversification does not eliminate the risk of experiencing investment losses.

History suggests the stock market typically bottoms during the recession as investors increasingly focus on the pending recovery

Market inflection points, recessions and the unemployment rate

GTM | U.S. | 17



Source: BLS, Ibbotson, J.P. Morgan Asset Management. Time zero represents the numeric low of the S&P 500 Total Return Index associated with the recessionary period defined by the shaded grey area; data shown in months. S&P500 Index is rebased to 100 at time zero. Guide to the Markets – U.S. Data are as of September 30, 2022.

J.P.Morgan
ASSET MANAGEMENT

Stock market declines regularly occur

A history of market declines

Standard & Poor's 500 Composite Index (1951-2021)

Size of decline	-5% or more	-10% or more	-15% or more	-20% or more
Average frequency*	About three times per year	About once per year	About once every three years	About once every six years
Average length†	43 days	110 days	251 days	370 days
Last occurrence	October 2021	September 2020	March 2020	March 2020

* Assumes 50% recovery of lost value.

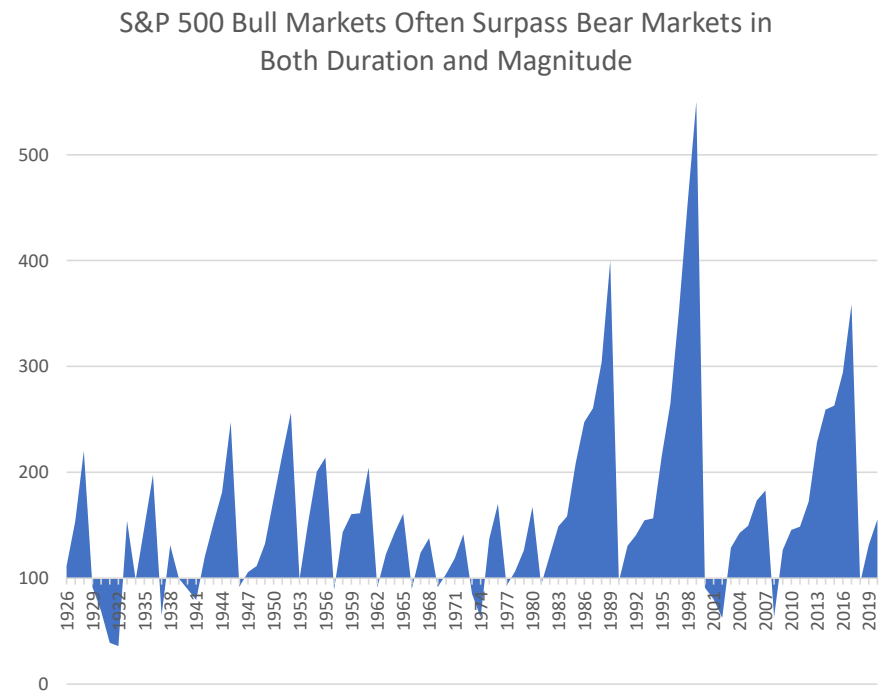
† Measures market high to market low.

Sources: Capital Group, RIMES, Standard & Poor's. As of 12/31/21.

Past performance is not a guarantee or predictor of future performance. Stocks are not guaranteed and have been more volatile than other asset classes.

With the S&P down 19% from recent highs and the average bear market decline registering 30-40%, it is fair to say at least some of the current risks are priced in. Riding out the current rough patch is usually the best advice for most stock investors.

Month Where US Large Cap Stocks Total Return Cumulative Decline Surpassed 20%	10 Year Compound Annual Growth Rate From Start Date			
	10 years Hence	Ride it Out	Sell out and Invest 3 years Later	Sell Out and Invest 5 Years Later
October-29	October-39	-1.0%	10.1%	6.4%
May-31	May-41	2.3%	3.5%	-1.5%
September-31	September-41	6.3%	5.0%	-1.7%
December-31	December-41	6.4%	3.0%	-3.8%
April-32	April-42	8.7%	2.0%	-4.5%
May-32	May-42	12.3%	2.3%	-3.8%
November-32	November-42	9.4%	0.7%	1.3%
October-37	October-47	8.1%	7.4%	7.7%
March-38	March-48	11.9%	6.9%	11.9%
May-40	May-50	13.8%	8.6%	5.2%
September-46	September-56	18.4%	15.8%	9.7%
June-62	June-72	10.5%	4.8%	3.3%
August-74	August-84	14.2%	9.1%	6.0%
October-87	October-97	17.2%	13.8%	9.5%
July-02	July-12	6.3%	2.6%	0.6%
October-08	October-18	13.2%	14.3%	5.5%
March-20	March-21	?	?	?
Averages		9.9%	6.9%	3.2%
Pre 1950 Averages		7.2%	4.5%	1.3%
Since 1950 Averages		13.4%	9.9%	5.7%



Source: CFA Institute, Ibbotson, Candor Asset Advisors

Past performance is not a guarantee or predictor of future performance. Stocks are not guaranteed and have been more volatile than other asset classes.

For more information

- Check out our website at:
www.candorassetadvisors.com



Candor Asset Advisors, LLC is an investment management and financial advisory firm located in Austin, Texas. We help our clients identify, refine and achieve their financial goals by providing sound investment advice, focused planning, prudent asset allocation and effective portfolio management.

Achieving these financial goals helps you realize what's important to you -- whether that's purchasing a home, funding a child's education, taking the vacation of your dreams, starting a business, providing care for loved ones, making charitable donations, or retiring on your terms.

Honesty, integrity and customer service are at the heart of everything we do. We believe open communication is essential. We employ a collaborative process to understand your goals, constraints, life events, risk tolerance and time horizon so that we can tailor our recommendations to you.

Thank you for your interest in our firm. Please [reach out](#) if you would like to know more.

- We discuss where we see opportunities in stocks, fixed income and other asset classes in our investment strategy commentaries
- Sign up to receive our insights by emailing us @:
 - info@candorassetadvisors.com
- To schedule a conversation, use the following link:
 - https://calendly.com/bhawes-1/brief_conversation

William E. Hawes, CFA, CFP®
President & Chief Investment Officer

With over 22 years of industry experience, Bill brings a wealth of knowledge in investment management. Prior to earning his MBA, Bill worked in mortgage banking and insurance, and the insights gained provided him with a broader perspective of the financial issues facing clients.

Bill has been a Chartered Financial Analyst since 2000 and is a member of the CFA Society of Austin. Bill also enjoys golf, travel, studying history, watching his favorite sports teams and spending time with family.



Before founding Candor Asset Advisors, LLC, Bill co-created and managed Century Management's Large Cap Absolute Value and Large Cap Value strategies. Bill also analyzed companies in a variety of industries for the firm's all cap value strategy.

Prior to moving back to Texas, Bill served as an equity analyst for Engemann Asset Management in Southern California. He co-managed a mid-cap growth fund and served as an multi-sector analyst for the mid cap and large cap growth team.

After graduate school, Bill served as co-portfolio manager and equity analyst at Franklin Templeton. While there he served as portfolio manager on All Cap, Large Cap Core and Consumer Sector portfolios. Notable institutional clients included CalPers, Mitsui Trust, Norges Bank and Penn Mutual. He also spent considerable time analyzing auto, transportation and consumer stocks.

Bill earned his Master in Business Administration from the University of Southern California. While there he also served on USC's MBA student investment fund.

Between his graduate and undergraduate studies, Bill worked at North American Mortgage Company in California as a management trainee and later as a financial analyst and marketing coordinator. The experience gave him a better understanding of the mortgage and real estate markets which he leverages to this day.

Bill earned his Bachelor of Business Administration from the University of Texas at Austin. While a student, he also served as a special agent for Northwestern Mutual. The experience gave him an understanding of life and disability insurance and the work ethic, tools and temperament needed to grow a financial services practice.



CANDOR ASSET ADVISORS

William E. Hawes, CFA, CFP®

512 522-8501

bhawes@candorassetadvisors.com

1250 Capital of Texas Highway South

Building 3, Suite 400

Austin, Texas 78746

www.candorassetadvisors.com

Investment advisory and financial planning services offered through Candor Asset Advisors, LLC, a registered investment advisor.

Disclosures

- Investment advisory and financial planning services offered through Candor Asset Advisors, LLC, a registered investment advisor.
- Past performance is not a guarantee or predictor of future performance.
- Financial plans are hypothetical in nature and intended to help you in making decisions on your financial future based on information that you have provided and reviewed. Assumptions need to be reviewed regularly.
- Stocks are not guaranteed and have been more volatile than other asset classes. Government bonds and Treasury bills are guaranteed by the full faith and credit of the United States government as to the timely payment of principal and interest.
- Diversification does not eliminate the risk of experiencing investment losses.
- Candor Asset Advisors does not endorse or support the contents or opinions of third-party providers.
- Candor Asset Advisors is not responsible for the content, privacy and security of a third-party website.