DELTA INVESTMENT MANAGEMENT



2022 Bear Market That No One Saw Coming

708 Montgomery Street San Francisco, CA 94111 (415) 249-6337, www.deltaim.com

Disclosures

The presentation is being provided for informational purposes only and should not be used or construed as a recommendation of any security, sector or investment strategy.

The opinions in this presentation are as of the date of the presentation.

Stock and bond markets are volatile and can decline significantly in response to adverse issuer, political, regulatory, market, or economic developments as well as interest rate risk, inflation, credit and default rates. In addition, foreign securities are subject to interest rate, currency exchange rate, economic and political risks, all of which are magnified in emerging markets.

The S&P 500 Index is a market capitalization weighted index of 500 widely held stocks often used as a proxy for the stock market.

Consider the investment objectives, risks, charges, expenses, and instruments used to implement a strategy before investing.

Past performance is no guarantee of future results or returns.

Investing involves risk, including risk of loss.

Delta Investment Management is a California registered investment advisor. The firm is based in San Francisco, CA. For more information, please visit www.deltaim.com or call (415) 249-6337.

DELTA INVESTMENT MANAGEMENT

Delta Investment Philosophy

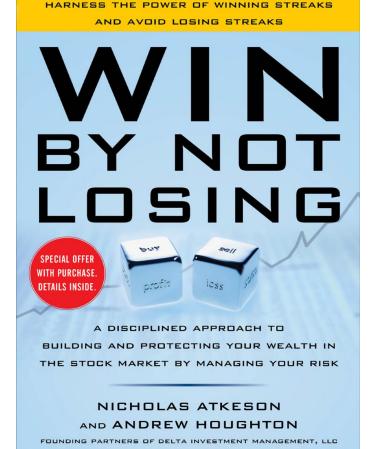
- We believe there are periods in market cycles to be fully invested and there are other periods not to be fully invested
- ✤ As such, we believe it is necessary to be proactive in managing money
- ✤ As active managers, we follow market-tested, proven investment disciplines
- During bullish cycles, we seek to invest in the strongest performing assets
- During bearish cycles, we seek to preserve capital by reducing exposure to risk assets
- We believe diversification in both asset type and asset allocation methodology strengthens portfolio performance through the full investment cycle

DELTA INVESTMENT MANAGEMENT

3

Win by Not Losing

Book Available On Amazon



D E L T A I N V E S T M E N T M A N A G E M E N T

Delta MSI in Barron's

BARRON'S

February 3, 2014

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Market Laboratory • Indicators CROE PUT/CALL RATIO vs SRP 100 FOREIGN EXCHANGE MONEYRATES FEDERAL RESERVE DATA BANK Prising, January 31, 3014 Readings in the CROE equity pat-call ratio of 68:108 Labert Pres. Tr Age Week Pres Ter The furning excitange mid-range rates below apply to trading among banks in smooth of \$1 million and more, so proted at and in the S&P 100 of 125:100 are considered bullish, Age Hamilton Kami Laborati Wash for instance, Bearish signals thish when the coulty pot-call lengt reaches the vicinity of 20,000 and Tax Discourt/Rate (V) Wants Reserve Digs. (No. 1) Champs Changer pos. Kastern time by Restarn and other sources. Retail trans 314 314 tions provide ferver units of ferview corresponded by Pylene Rate (bein) 35 Operate is and edition 29 index ratio hits 75:100. Reetign Pareign E.S.Lin E.S.Lin Gurvang Gurvang Pareign Reetign In48.5 In48.5 Gurvang Gurvang Fri Lattfri, Fri Lattfri, LUCE. 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When the indicator is Egypt (Found-1) 1331.065 -1.420 + 78.823 0.65 0.45 Hong Kong (Date 231.54 below 50%, risk is elevated and stock exposures should be reduced. 101 + 6 + 77 204485 2000H Hungary: [mint] Daniel CROB Manager uses discretion on asset allocation when MSI is 50% +/-3%. 86,337 + 11,558 + 18,218 0160 45.901 India Clapson 3000623 3861 306775 406777 6.050 Indonesis (Autor) .1000624 12188 2 Weeks 3 Weeks Last 42,810 + T.904 + 20,204 Invasil (Date)) INVESTOR SENTIMENT READINGS 300801 100,04 Week Age span (rec) **Current Sentiment** Ago 61.499 -128 -436 manip horage High bullish readings in the Consensus stock index or in the U63L185 + 1TAT1 + 28L481 206701 206700 1,4147 53420 b-months lowest 309855 300811 101.98 52.1% 67.4% 65.2% BULLISH 2.515.108 -0.002 + 806.466 Market Vancotock index mostly are signs of Market Japa, low E-manifest large and own, marked holdsme. 1,4151 5,5865 3007 Current Market Exposure: 100% Equities, 0% Bonds, 0% Cash 2 Books 3 Heales Age Age Averlan(Dire) 3,04,000 -16,101 + 70,607 **Keenalt**(Direct 1004.10 Source: Delta Investment Management Latest Proc.Wh. Wh.76 Tr.Age Lebance Print 3000H11 Consensus Index folayola (Regulti-b 383 1942 5.811 www.deltaim.com, (415) 249-6337 **W6.** Cig. Cig. Cig. Cansensus Ballis/vSentiment 63% 74% 72% Massica (Peur) (145 808 100 3048 314 317 3080 308 308 308 300 040 800 9040 314 314 MILETE 2.471.000 4.48 1.823.291 1.2367 1.2367 6.2368 Reading make Source: Canasmus Inc., P.O. Box 530526, Independence, Me. 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Hikilwan Ave., Chicago, II. 60671 (212) 399-0179. **Devel Arabia** That 2-Month Certific Willionth Accounts -c # Feel aspecty of pre-madistances provided. # For supply of permanents intervention #P Deviced in recommendation of the permittion #PP For example sector is supply and experiment in the permutation of the permutation making a software from permutation and the permutation of the permutation of deterministing the dependence of Foreparity, are obtain the permutation of deterministing the dependence of Foreparity, are obtain the permutation. Market Vane Mingapere illelari South Million (Real) 11.0016 49% 68% Ballish Consenses 81% -Yes Definition South/Korse Mani 1.5. Savings 32 Bonds Source: Market Alane, P.O. 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DELTA INVESTMENT MANAGEMENT

Weekly Newsletter



Delta Insights a weekly commentary on investing

Delta Investment Management is a registered investment advisory firm headquartered in San Francisco. Delta welcomes discussions with individuals seeking investment advice and advisors seeking a new partner. Delta manages stock and bond portfolios at Schwab and TD Ameritrade. Please contact Delta at info@deltaim.com or 415-249-6337 if you would like to learn more how we can be your partner.

The Hidden Risks of "Safe" Assets

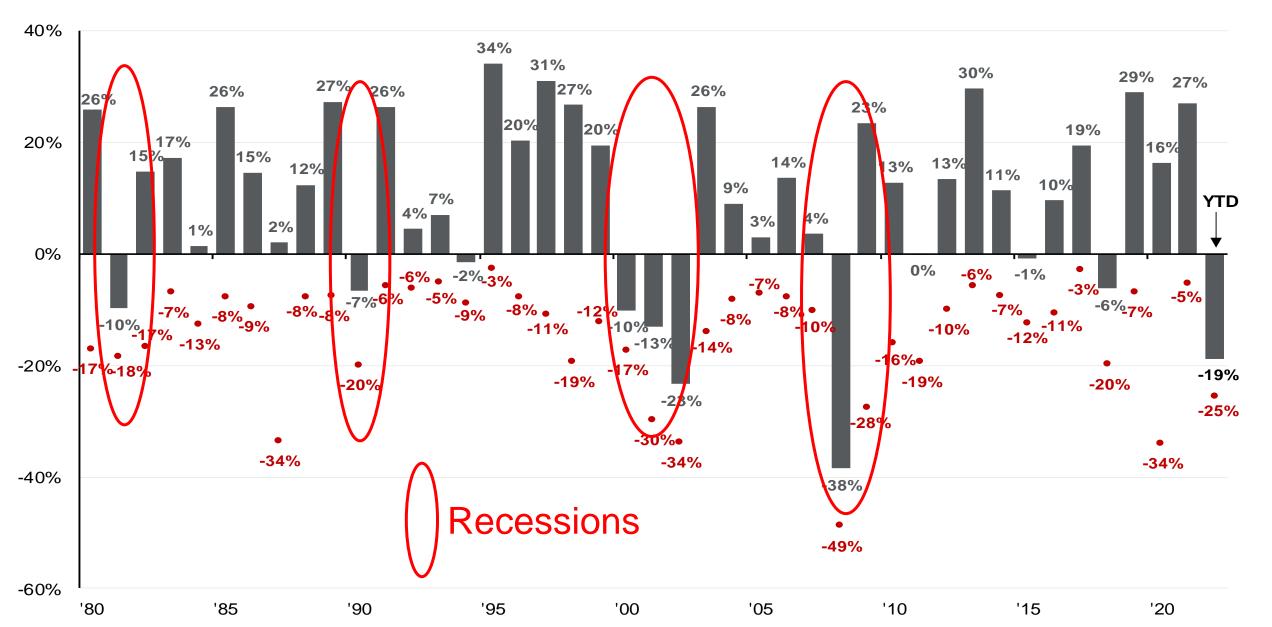
April 6, 2018

Dear Nick,

Money managers often advise clients who would like more safety in their portfolios to increase the weighting of bonds versus stocks. Historically, bonds have experienced lower volatility than stocks. Volatility (standard deviation) is one way risk is measured in finance.

DELTA INVESTMENT MANAGEMENT

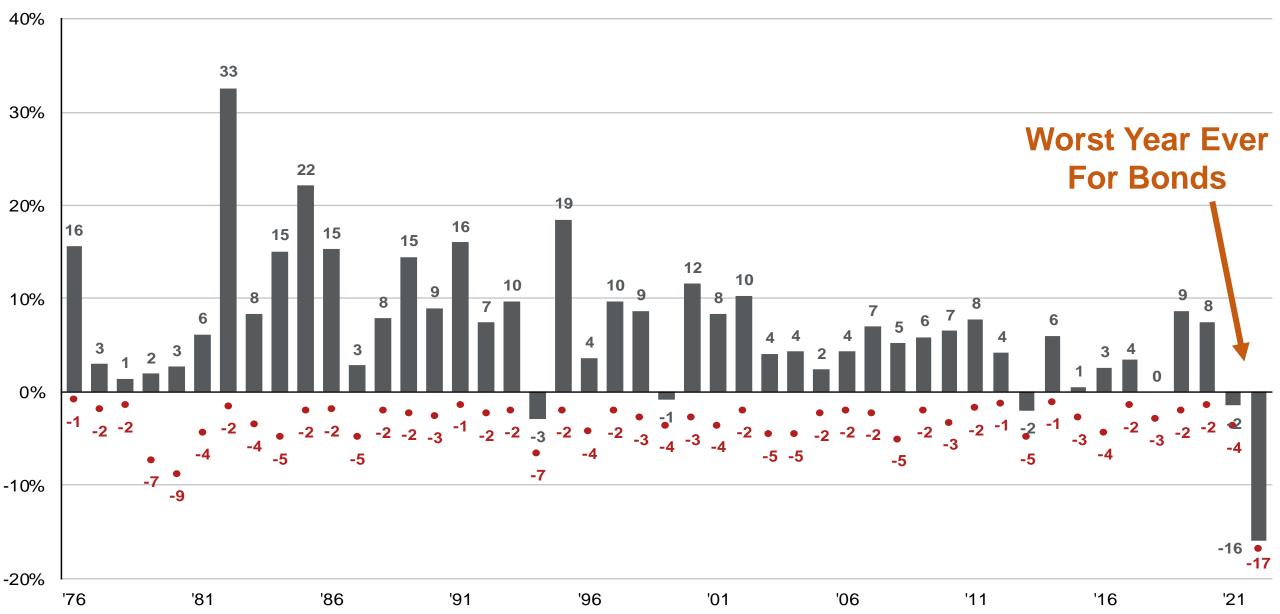
Are We In A Recession in 2022 S&P 500 Intra-Year and Calendar Year Returns



Bloomberg US Agg. Annual Returns and Intra-Year Declines

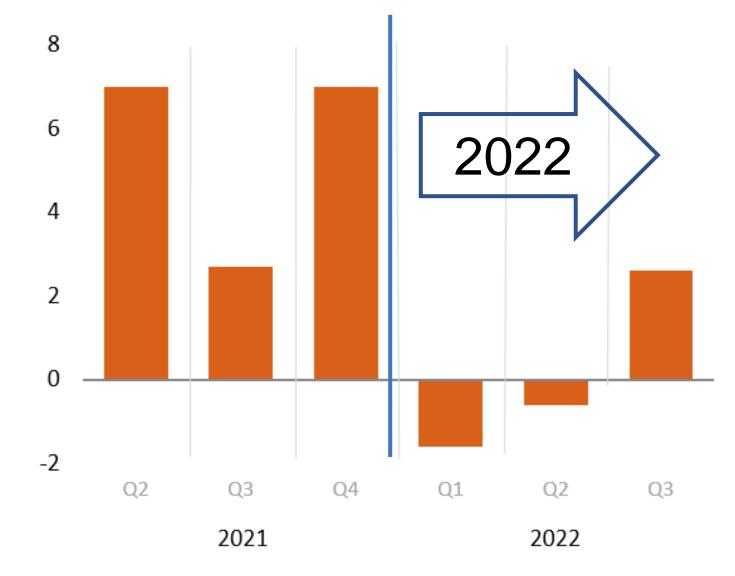
Bloomberg U.S. Aggregate intra-year declines vs. calendar year returns

Despite average intra-year drops of 3.1%, annual returns positive in 42 of 46 years



REAL GDP

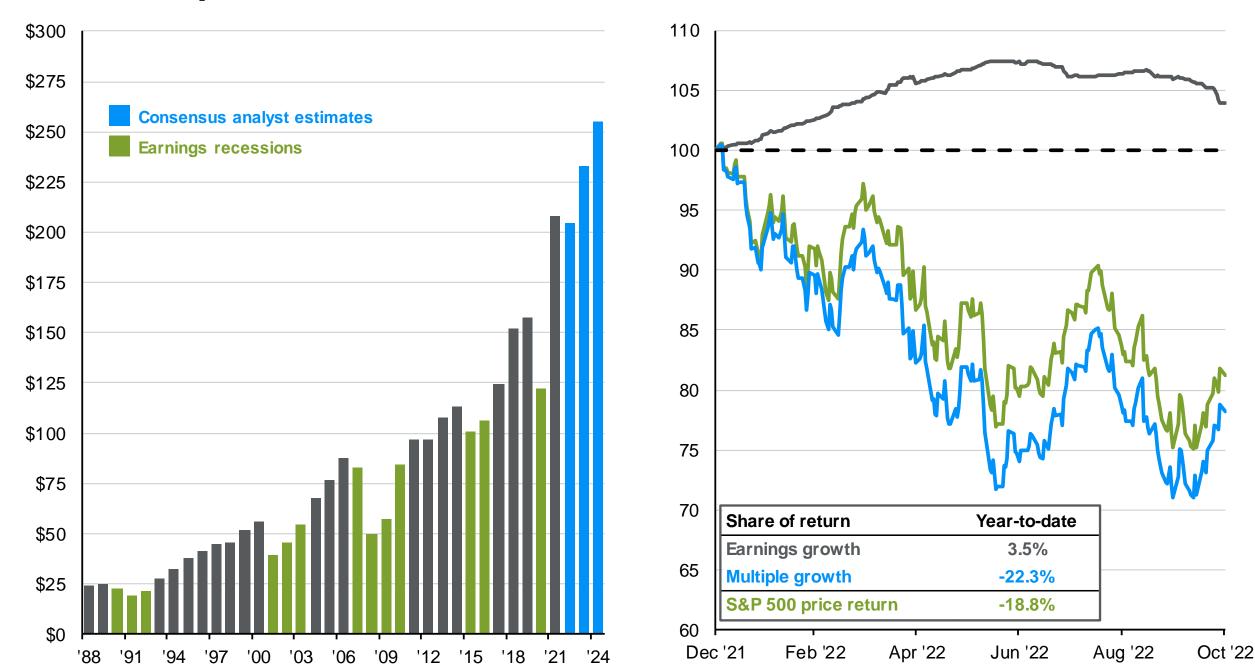
Real GDP: Percent change from preceding quarter



U.S. Bureau of Economic Analysis

Seasonally adjusted annual rates

Corporate Profits and Sources of Return as of 10/31/2022

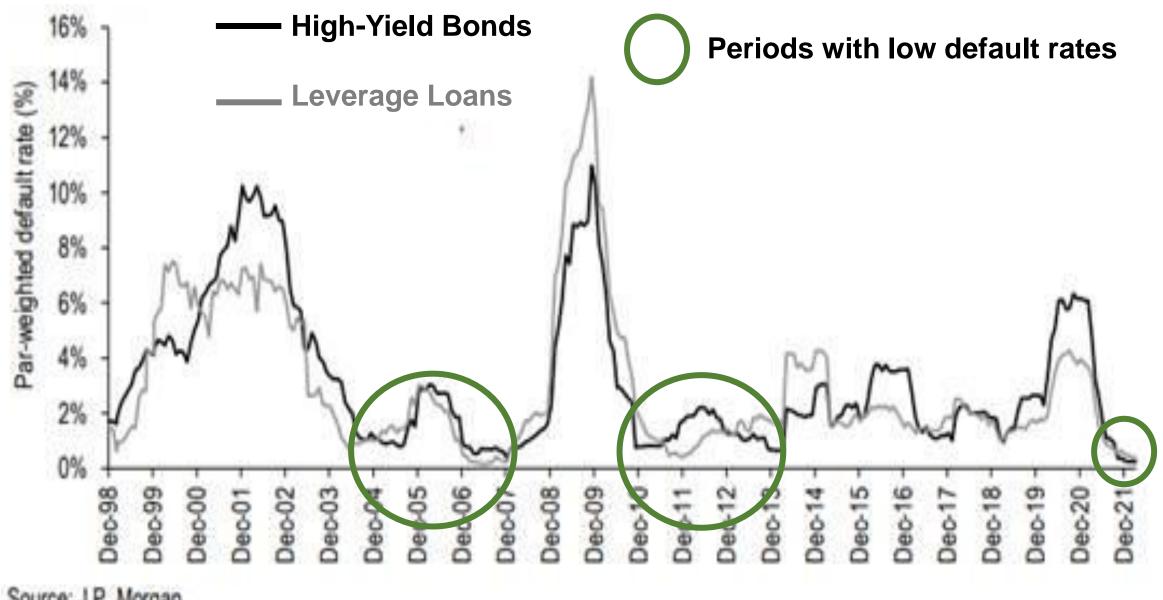


High Yield Spreads and Stock Market Cycles

²⁵ Notes: Green and Red numbers show S&P 500 Total Return by calendar year from 1994 through 2021 YTD. Loss in 2018
²⁰ occurred in fourth quarter. Intra-year loss in 2020 during Covid was -34%. Calendar year gain in 2020 was 18.4%.
¹⁵ Start of



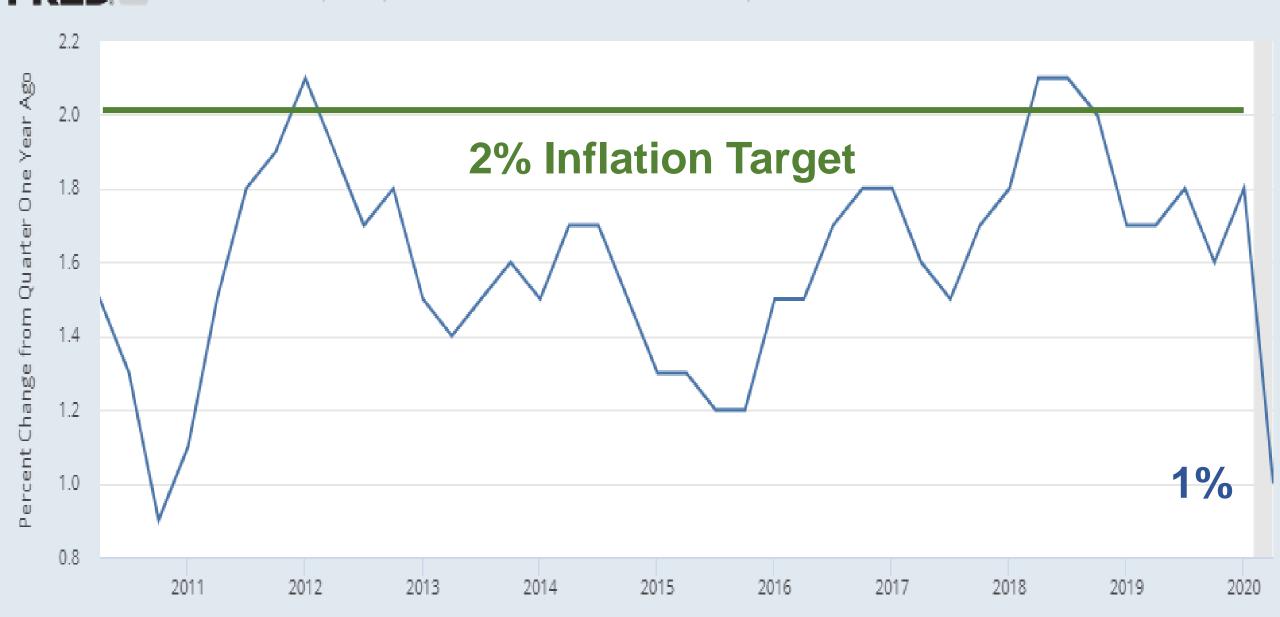
High-Yield Bond and Loan Default Rates



Source: J.P. Morgan.

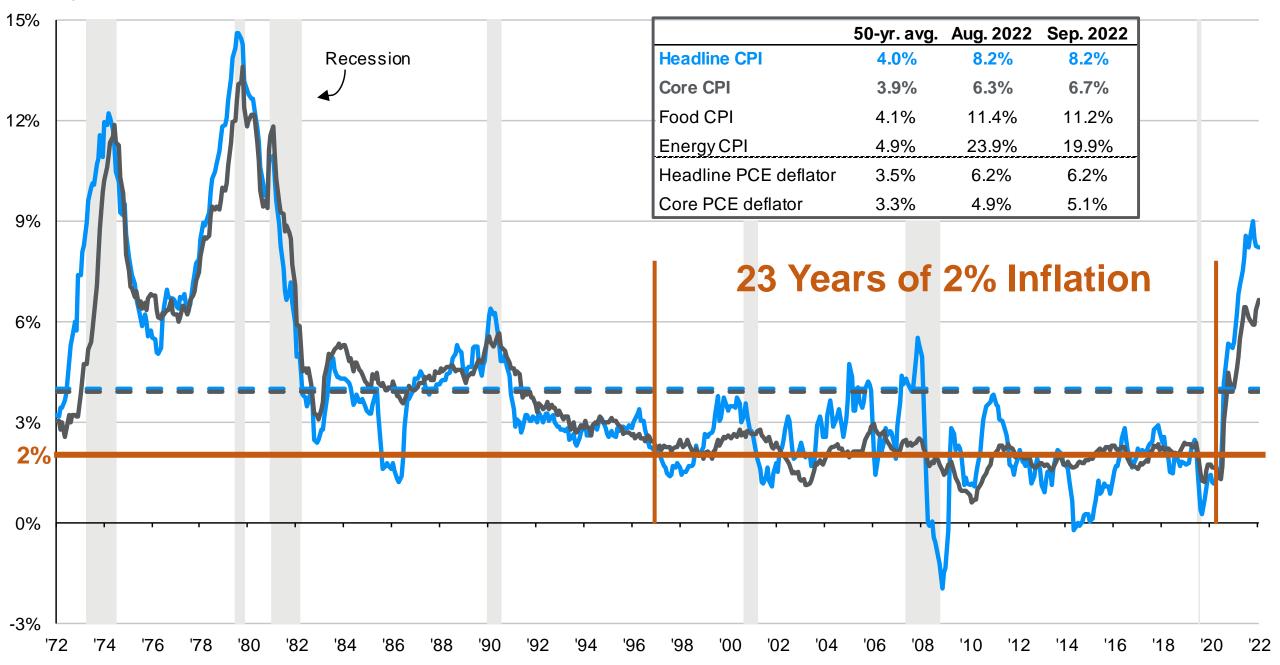
Core PCE (Inflation), 10-Years

FRED 📈 — Personal Consumption Expenditures Excluding Food and Energy (Chain-Type Price Index)



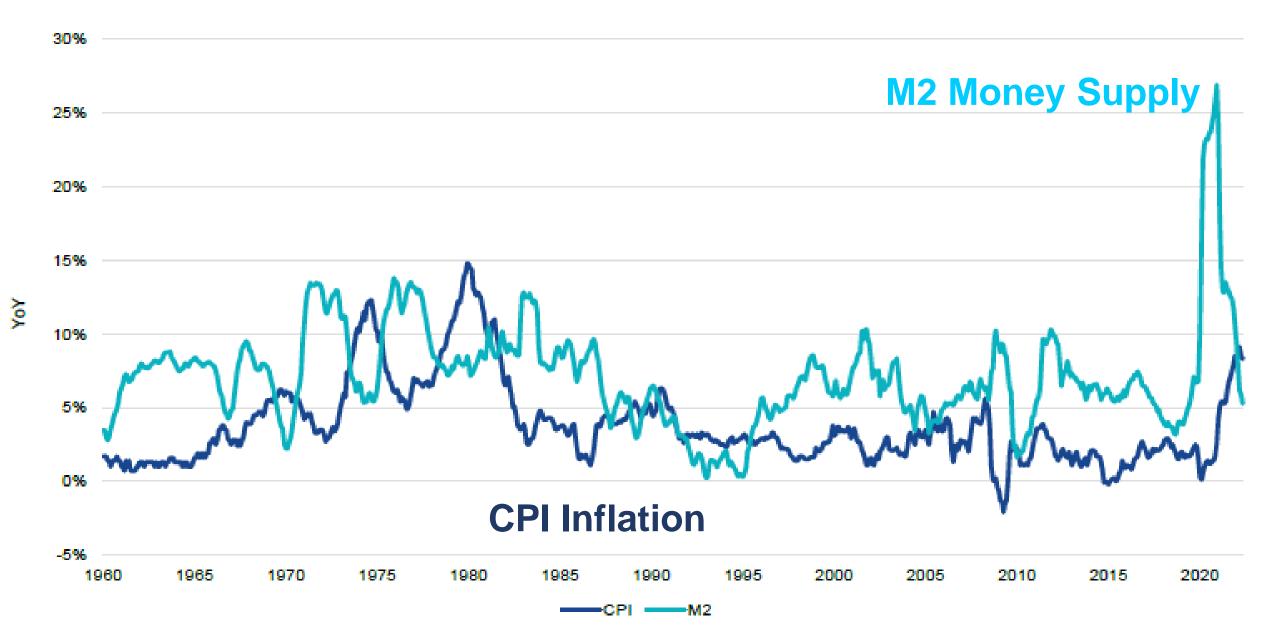
CPI and core CPI

% change vs. prior year, seasonally adjusted

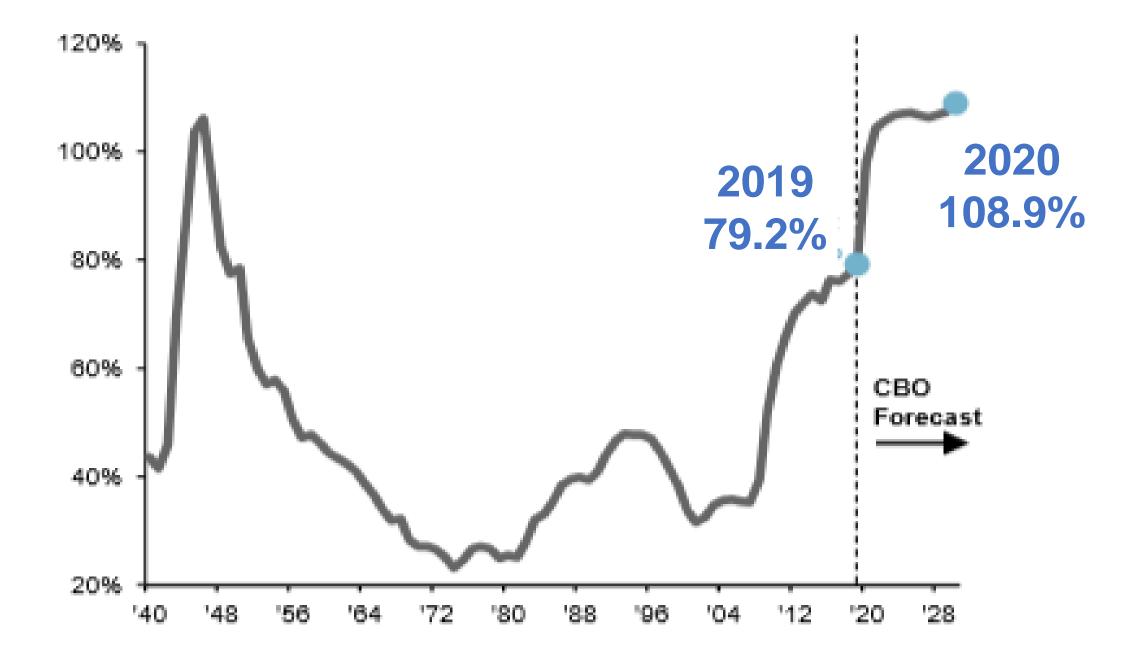


Inflation and Money Supply

CPI vs. M2 Yearly Growth



Federal Debt, % of GDP, 1940-2030

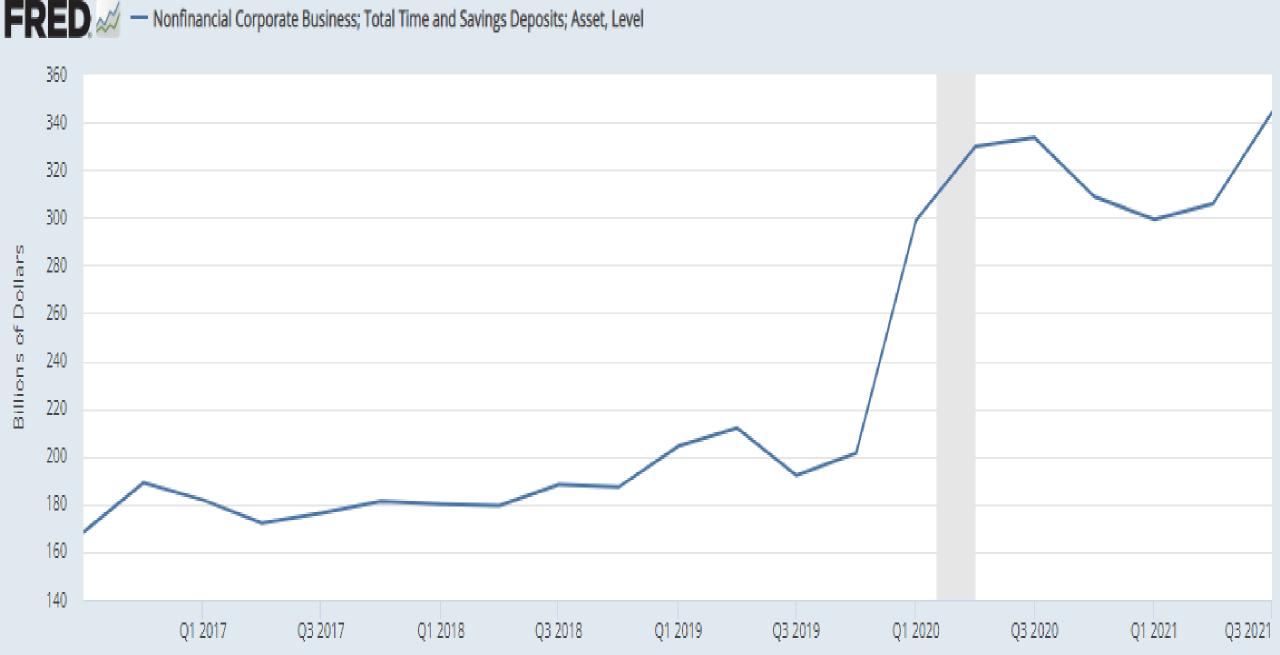


Personal Savings Rate



Corporate Cash in the Bank

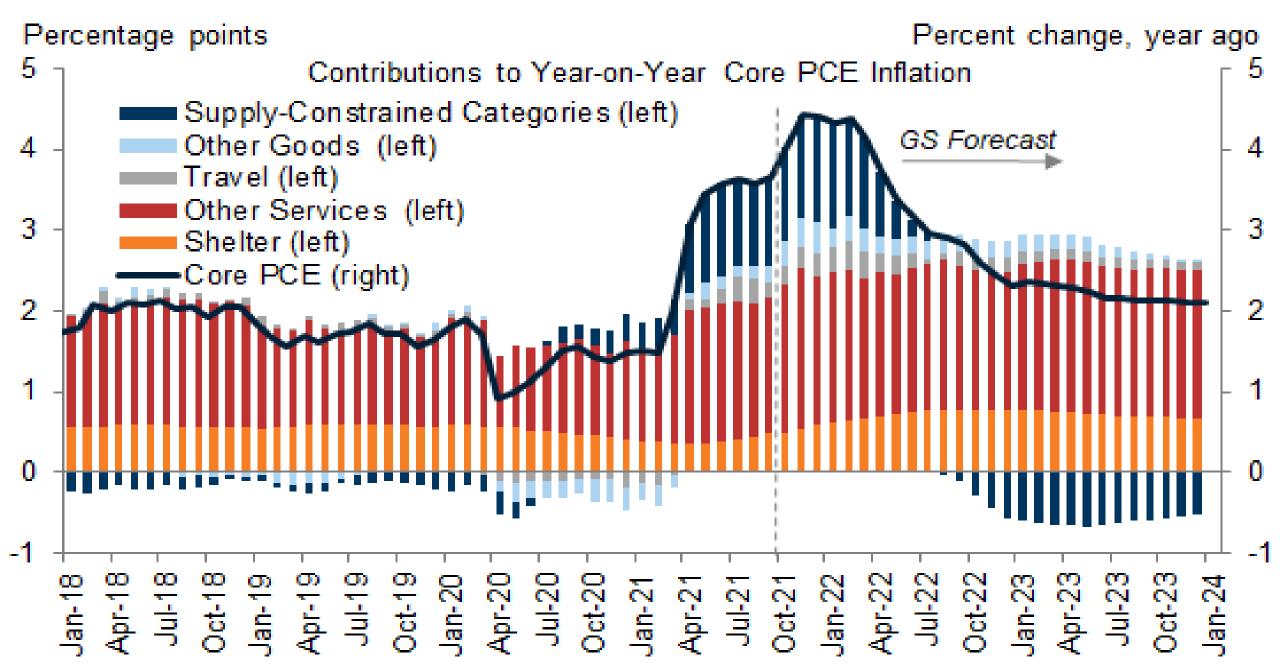
- Nonfinancial Corporate Business; Total Time and Savings Deposits; Asset, Level



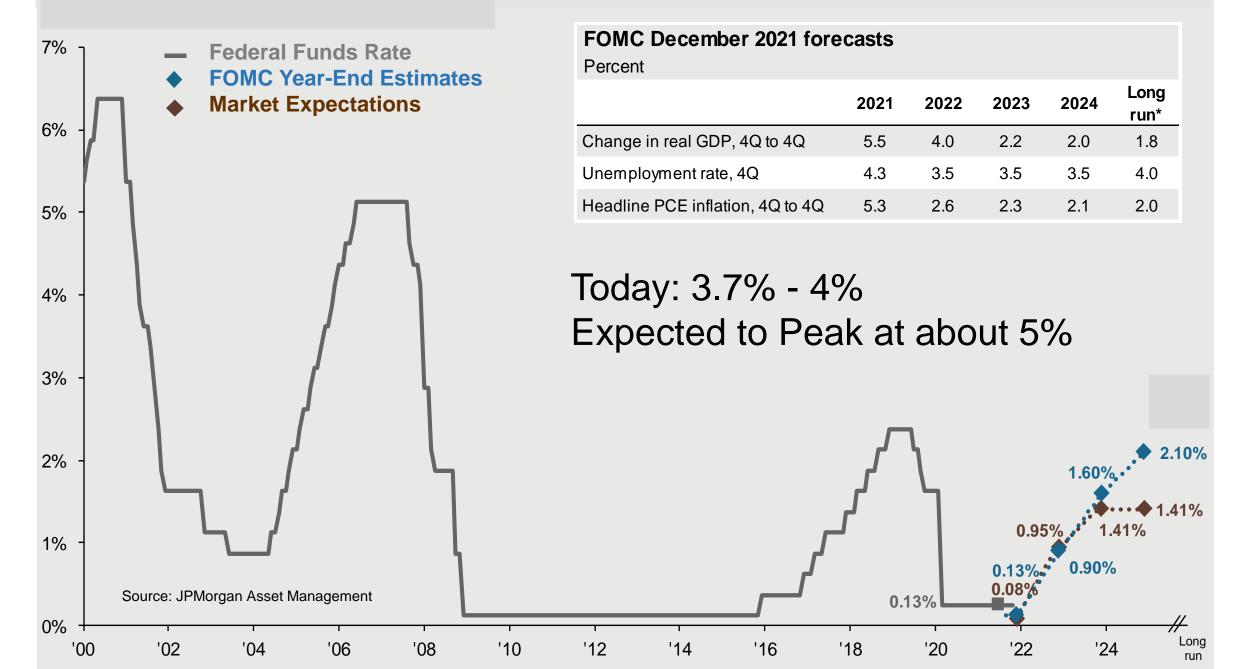
Federal Reserve Chair Jerome Powell - Fall 2021

Inflation will be transitory as it is concentrated in parts of the economy with supply chain bottlenecks. When the supply chain reopens, inflation will ass.

Inflation Migrates Back Towards 2%



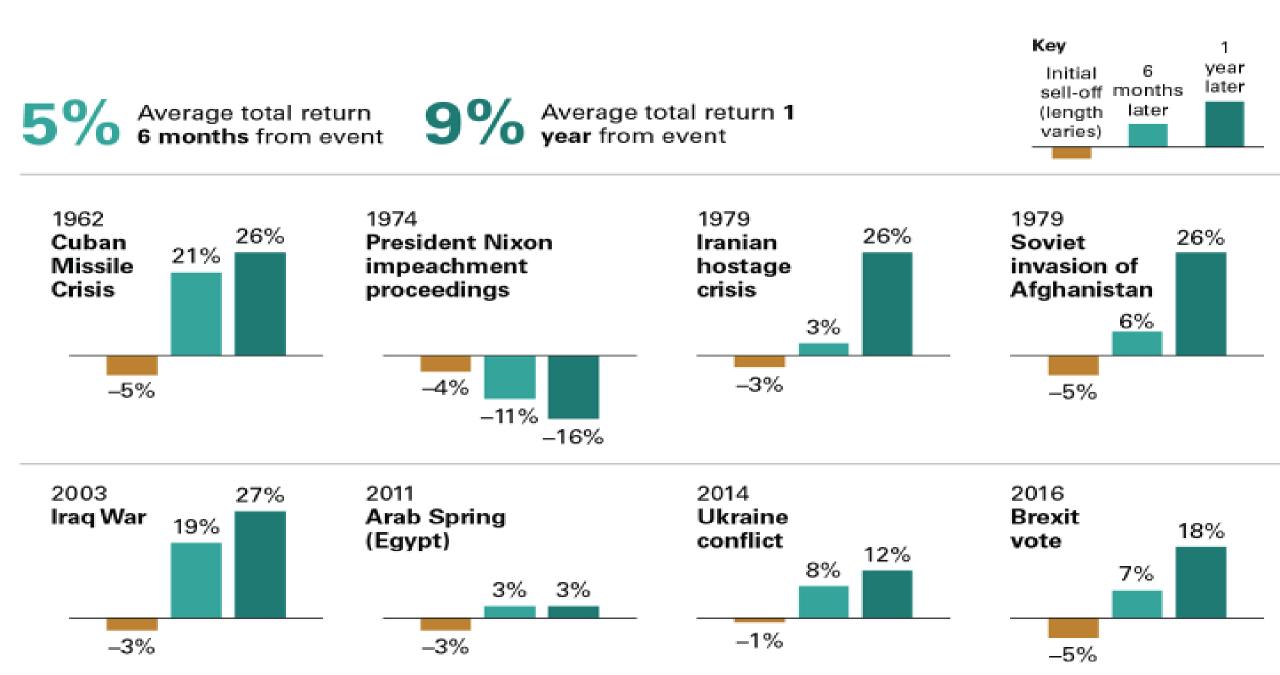
Federal Funds Rate Expectations December 2021



Inflation Was Supposed to be Transitory

- Supply Chain was supposed to reopen faster than it did
- China was supposed to give up on Zero-Covid long ago
- Russia was not expected to invade Ukraine. Regional conflict typically does not last long.
- Filling the system with money just at a time when supply became constrained, the job market was exceptionally strong, excess cash in personal and business accounts was in the trillions of dollars and as the service economy went back to work in the wake of Covid proved to be incredibly inflationary.

Geopolitical sell-offs are typically short-lived

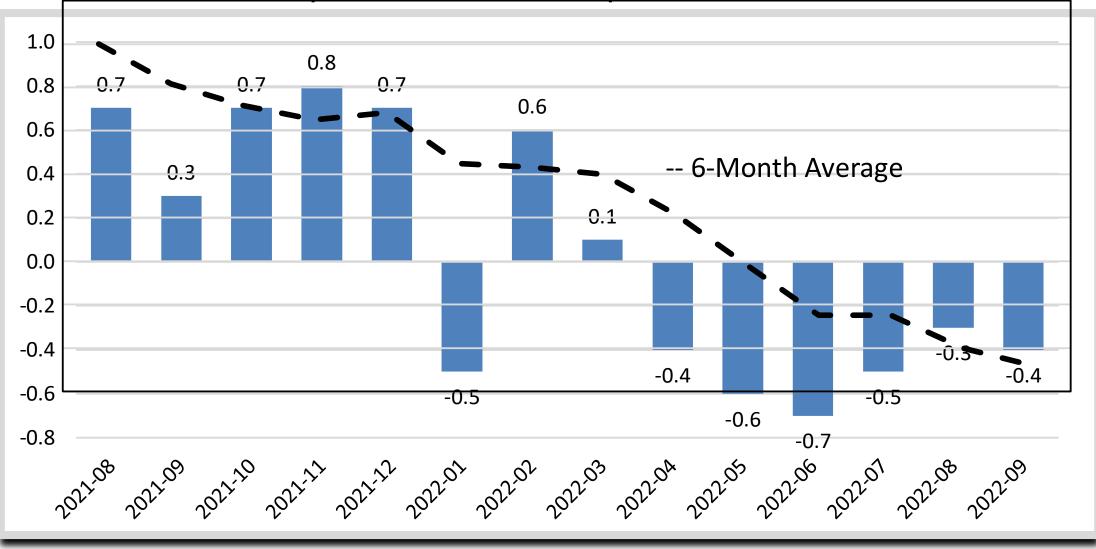


S&P 500 YTD 2022



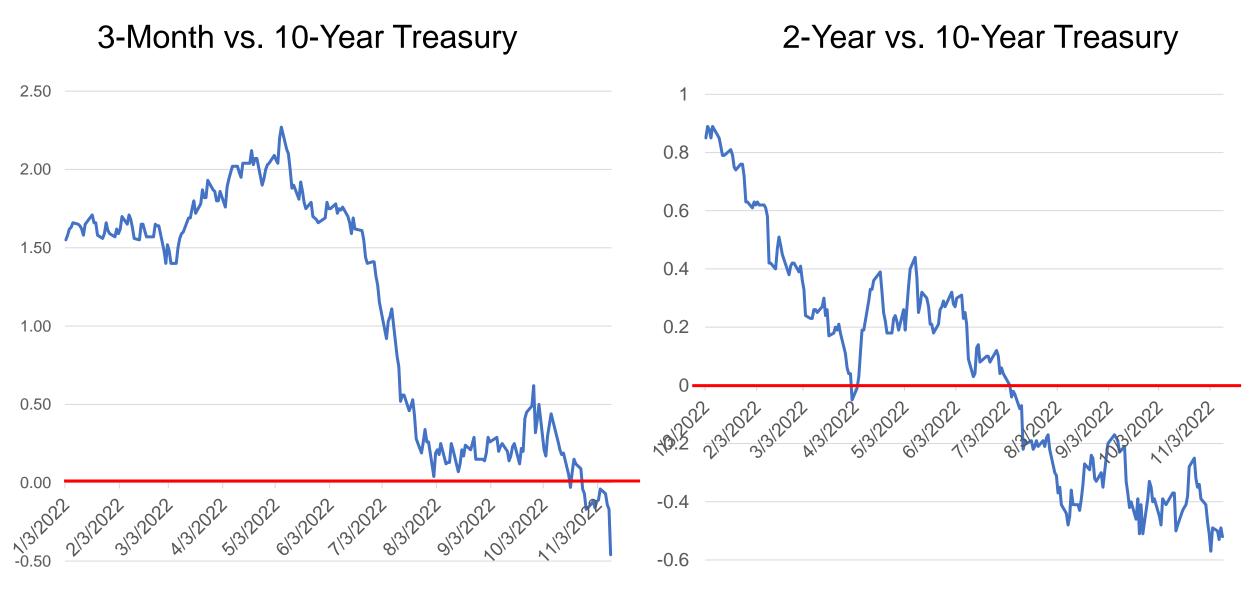
Leading Economic Index % Change Monthly

September 2021 – September 2022



Source: The Conference Board – last update 10/20/2022

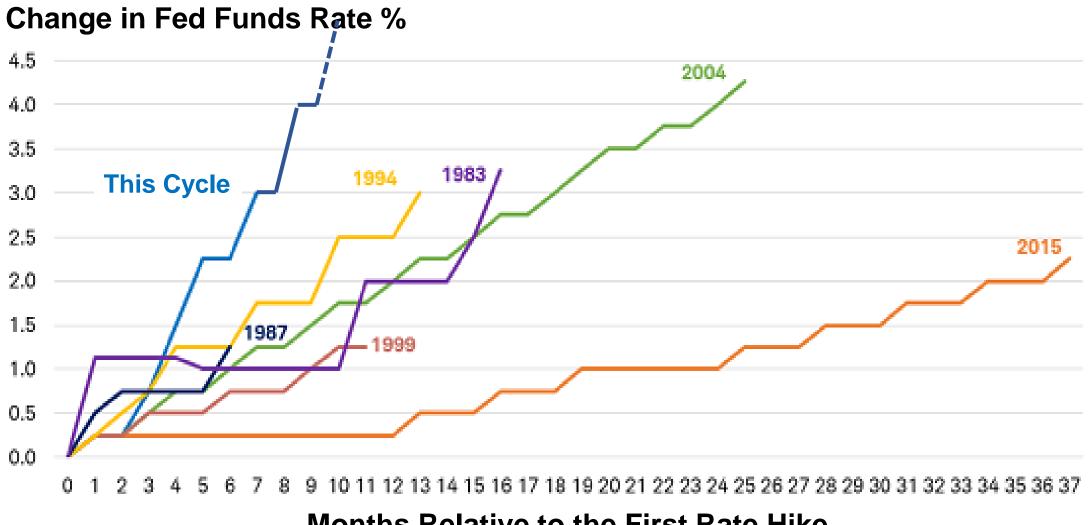
Yield Curves Inverted



-1.00

-0.8

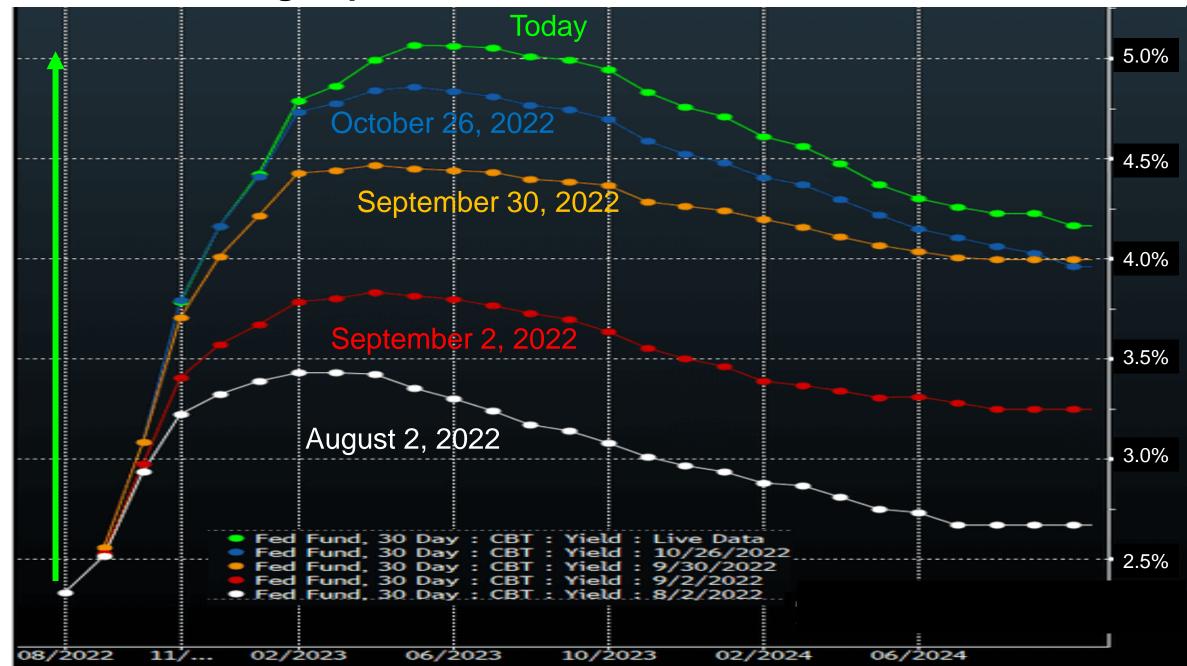
Fed Funds Rising at Fastest Pace Ever



Months Relative to the First Rate Hike

Note: Data is short-term interest rate targeted by the Federal Reserve's Federal Open Market Committee as part of its monetary policy. Source: Bloomberg, Federal Funds Target Rate – Upper Bound (FDTR Index), using monthly data.

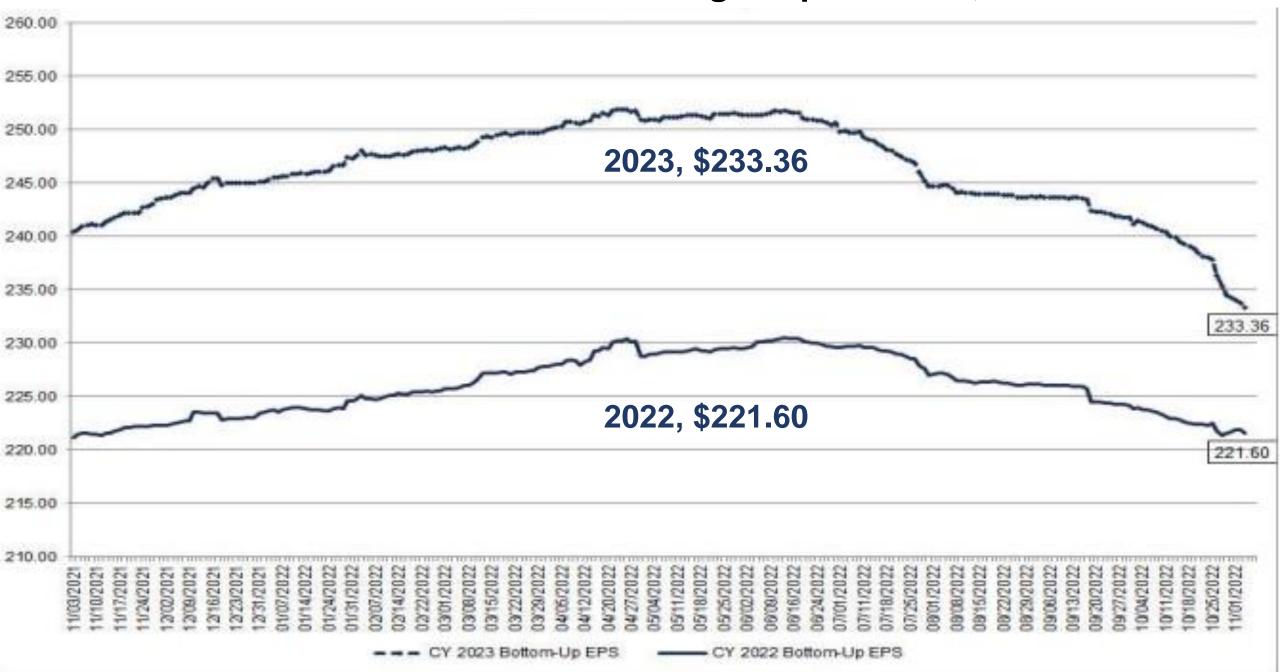
Rising Expectations For Terminal Fed Funds Rate



Expectations for Q4 2022 Earnings Growth Rate Y/Y



S&P 500 CY 2022 and 2023 Earnings Expectations, FactSet



Institutional Investors Survey

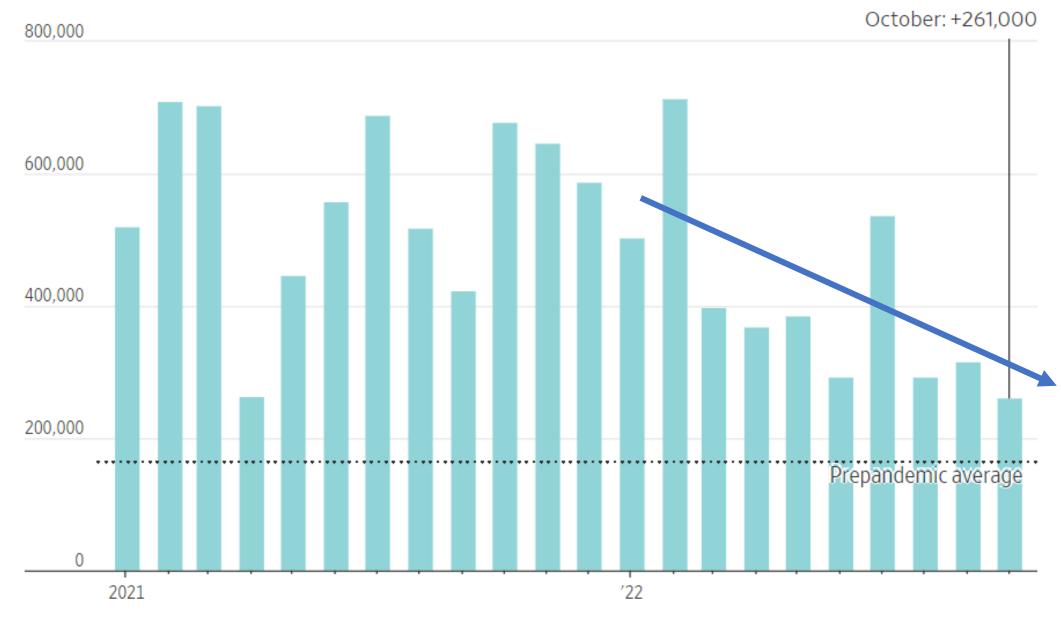
As of 11/01/2022



Peak Fed Funds Rate ~5%

Recession in Spring 2023

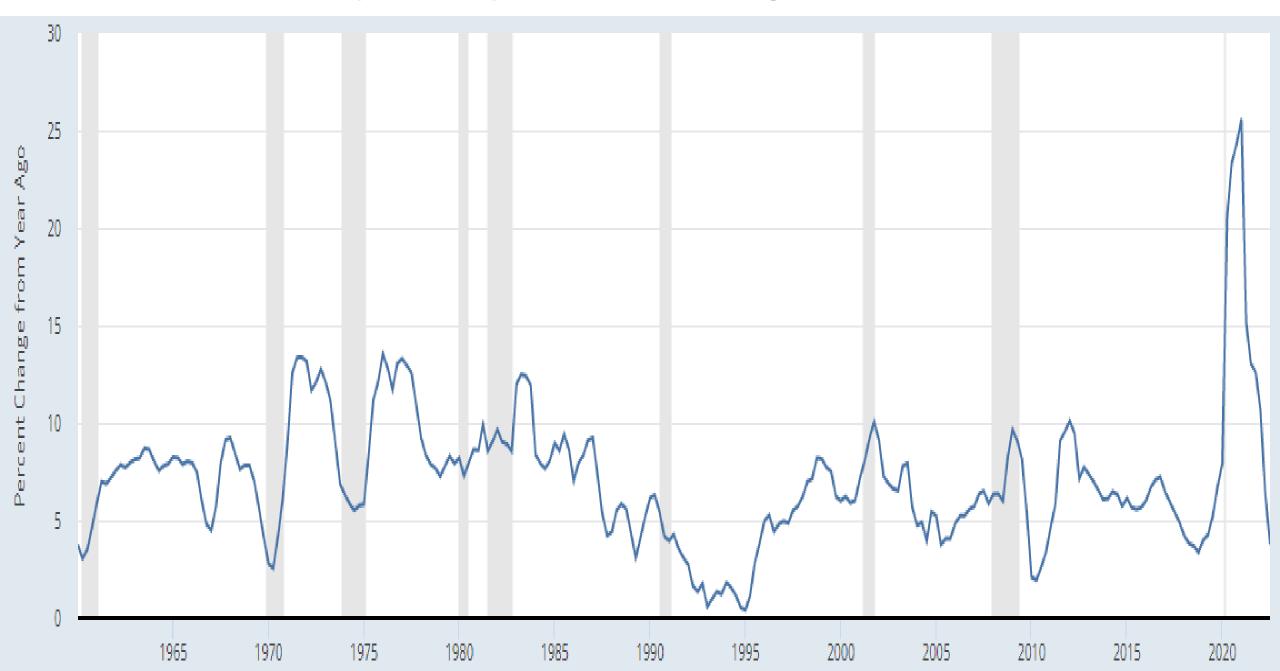
Nonfarm payrolls, monthly change

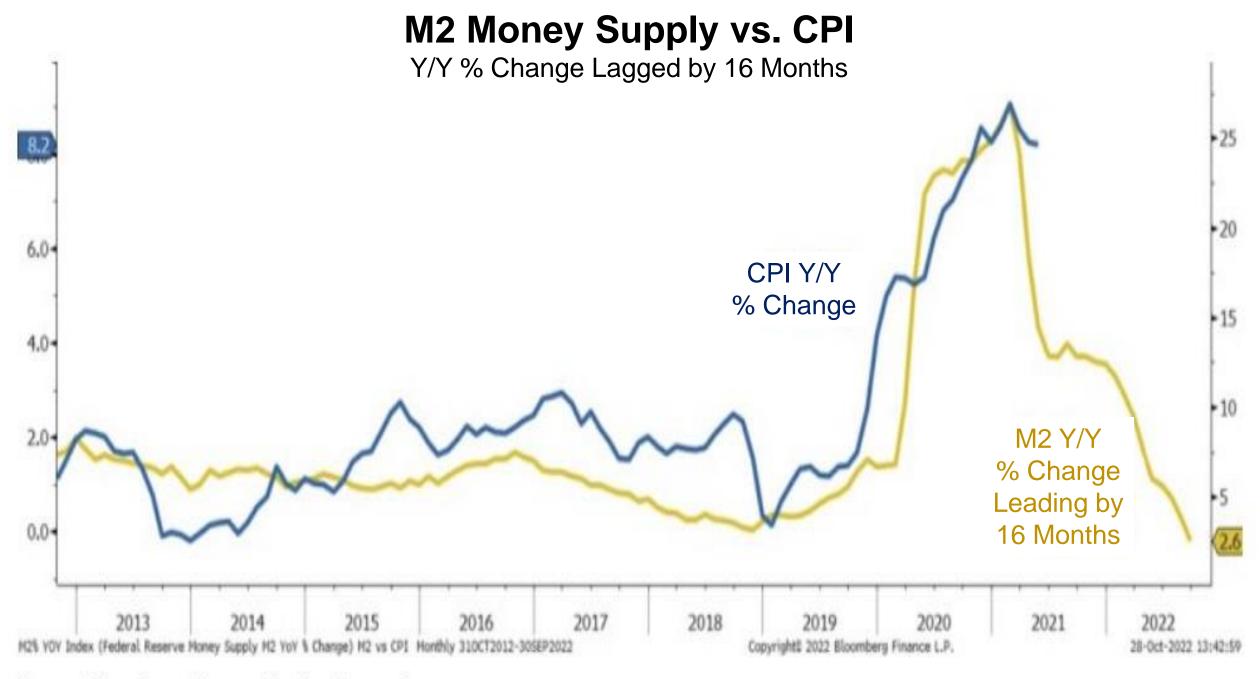


Note: The prepandemic average is the average monthly change in 2019. Data are seasonally adjusted. Source: Labor Department

And Now For Some Good News

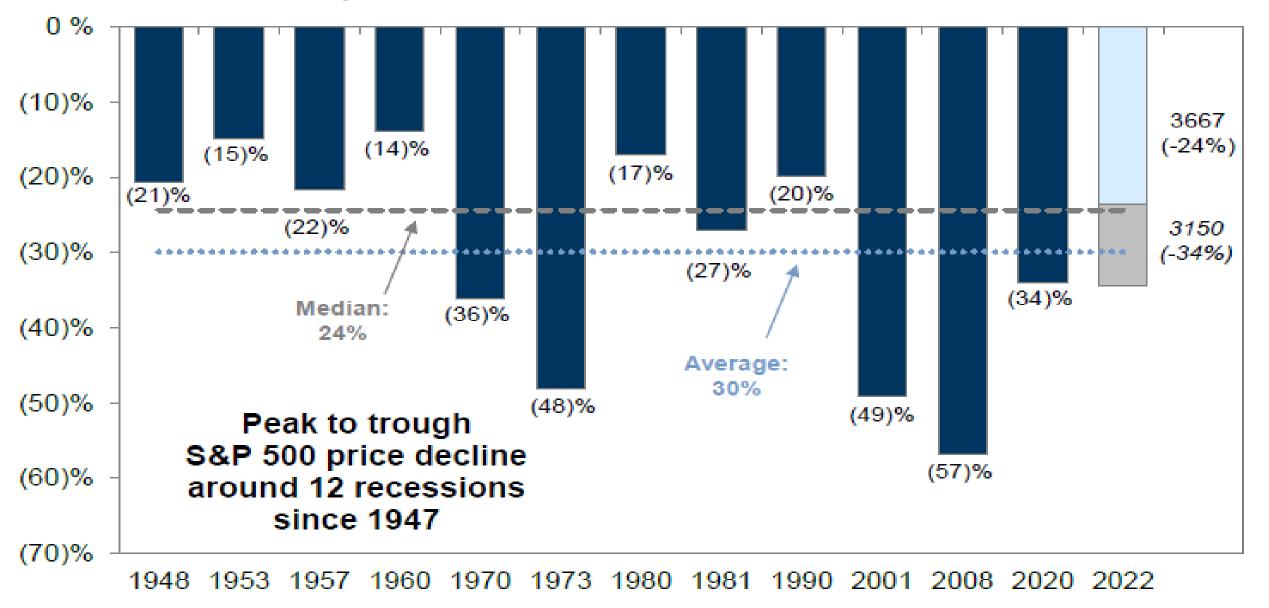
M2 Money Supply Percent Change Year-Over-Year





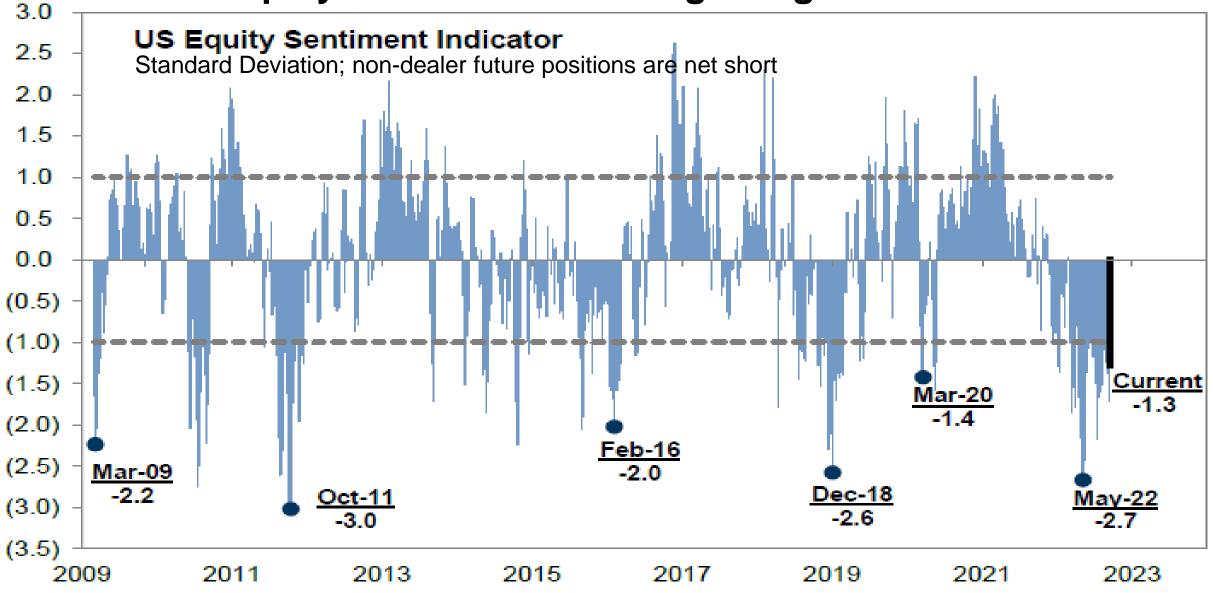
Source: Bloomberg, Morgan Stanley Research

Peak to Trough S&P 500 Declines in Recessions Since 1947



Source: Goldman Sachs Global Investment Research

Equity Investor Positioning is Light -- Bullish



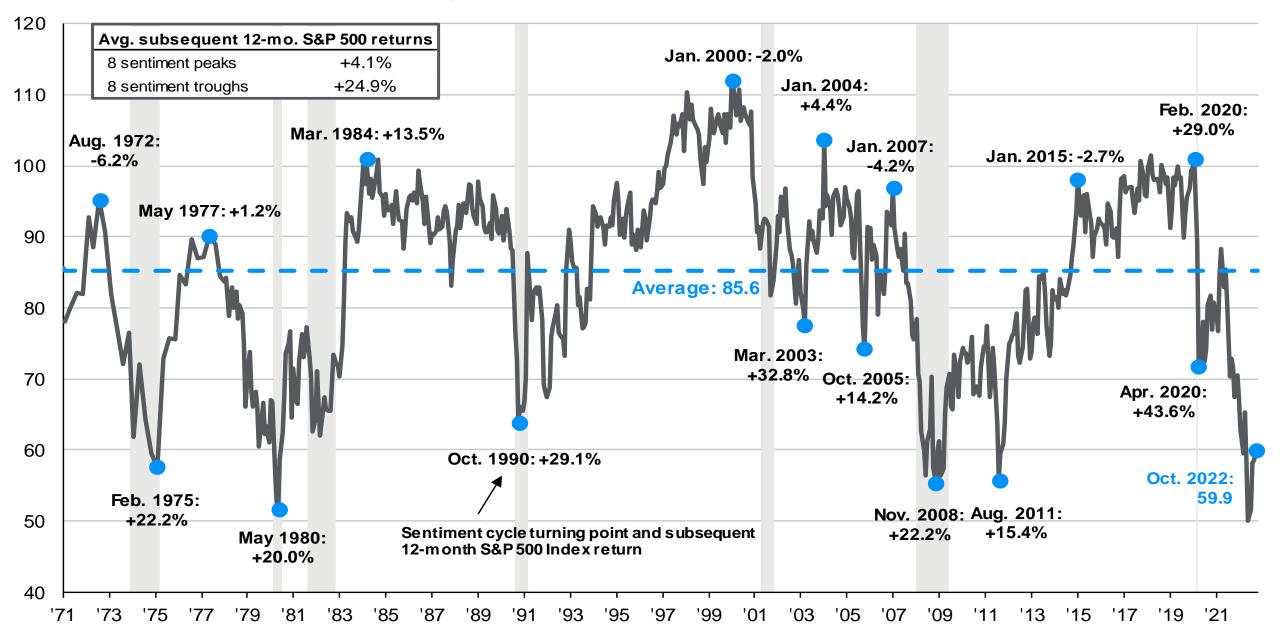
Source: Goldman Sachs Global Investment Research

Supply Chain Correcting – Vendor Lead Times mid-Atlantic



Consumer Confidence and the Stock Market

Consumer Sentiment Index and subsequent 12-month S&P 500 returns



Year	Returns 6m following election	Returns 6-12m following election	Split govt	Fed	Recession			
1950	16.8%	-0.5%		?				
1954	18.6%	12.3%	Yes	Hikes				
1958	12.0%	-0.8%	Yes	Hikes				
1962	19.0%	4.9%		Hikes				
1966	15.9%	-2.6%		Cuts				
1970	23.2%	-8.6%	Yes	Cuts	Yes			
1974	18.0%	0.6%	Yes	Cuts	Yes			
1978	5.7%	0.7%		Hikes				
1982	18.1%	1.5%	Yes	Cuts	Yes			
1986	20.0%	-15.7%	Yes	On hold				
1990	21.1%	3.4%	Yes	Cuts	Yes			
1994	12.4%	13.0%	Yes	Hikes				
1998	19.9%	1.7%	Yes	On hold				
2002	2.1%	12.6%		Cuts				
2006	9.0%	-2.1%	Yes	On hold				
2010	13.7%	-8.8%	Yes	On hold				
2014	3.8%	0.6%	Yes	On hold				
2018	4.7%	6.7%	Yes	Hikes				
2022				Hikes				

6-Month Performance # Up-Dn = **18-0** Avg % Chg = **15.18%** Med % Chg = **16.23%** From 11/8 close: up 3.8% **12-Month Performance**

Up-Dn = **11-7**

Avg % Chg = 1.05%

S&P 500 Total Returns Following 25% Drawdown (%)

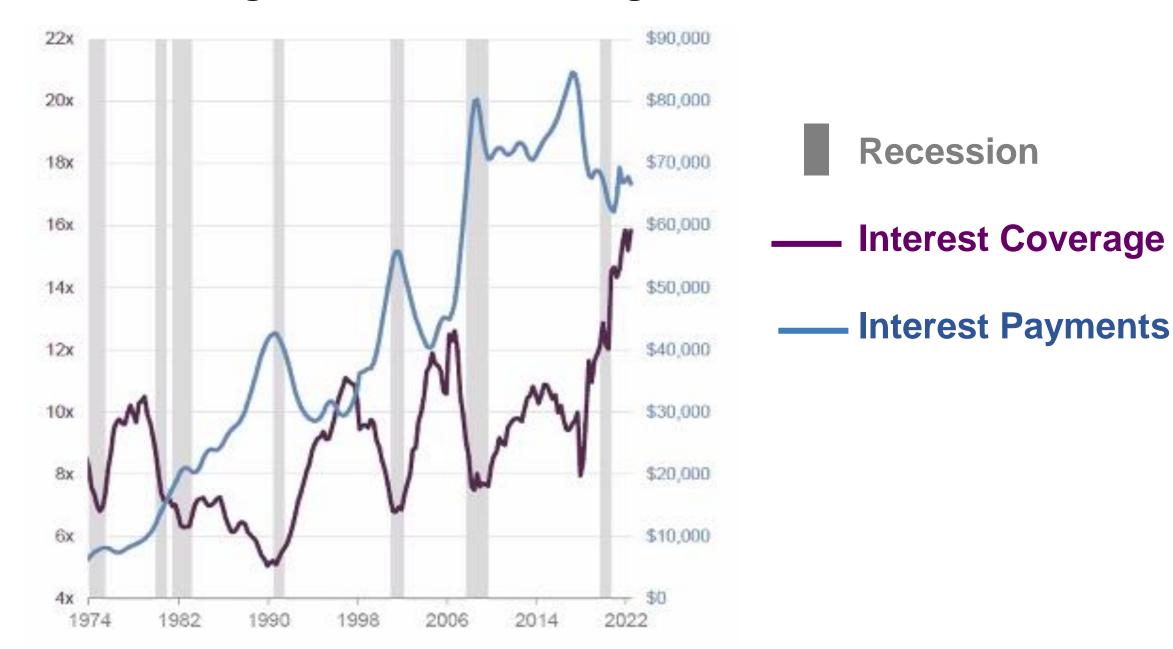
25% Drawdown Period	Peak-to-Trough Drawdown	1-Year	3-Year	5-Year	10-Year		
Dec 1961–Jun 1962	-28	34	70	100	178		
Nov 1968–Apr 1970	-36	35	47	28	100		
Jan 1973–Apr 1974	-48	1	23	44	189		
Nov 1980–Aug 1982	-27	61	108	272	485		
Aug 1987–Oct 1987	-34	28	55	119	471		
Mar 2000–Mar 2001	-49	2	1	24	37		
Oct 2007–Sep 2008	-57	-5	11	65	209		
Feb 2020–Mar 2020	-34	62	-	-	_		
Jan 2022–Sep 2022	-25	_	_	_	_		
Average	-38	27	45	93	238		

HY CREDIT DEFAULTS – There were zero new defaults

or distressed transactions in Oct; first time since 2018.

- HY bond default rate is 1.59% vs. 3.2% long-term
- average. Recovery rates remain at record highs,
- ~56.5% vs. they 25-year average of 39.9%. I flag as
- several investors have expressed concerns about risk
- markets cracking and so far, it's not in Credit. 11/2

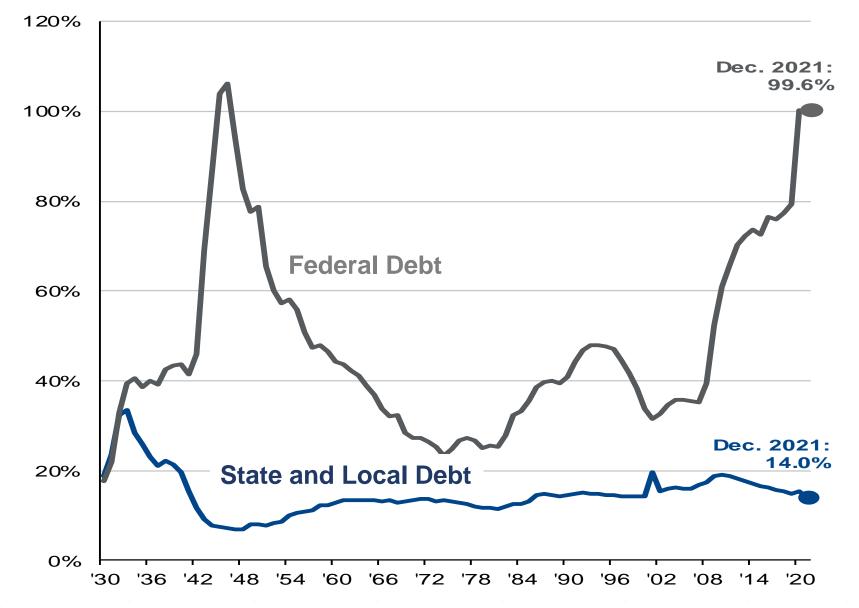
Highest Interest Coverage Ratio Since 1967



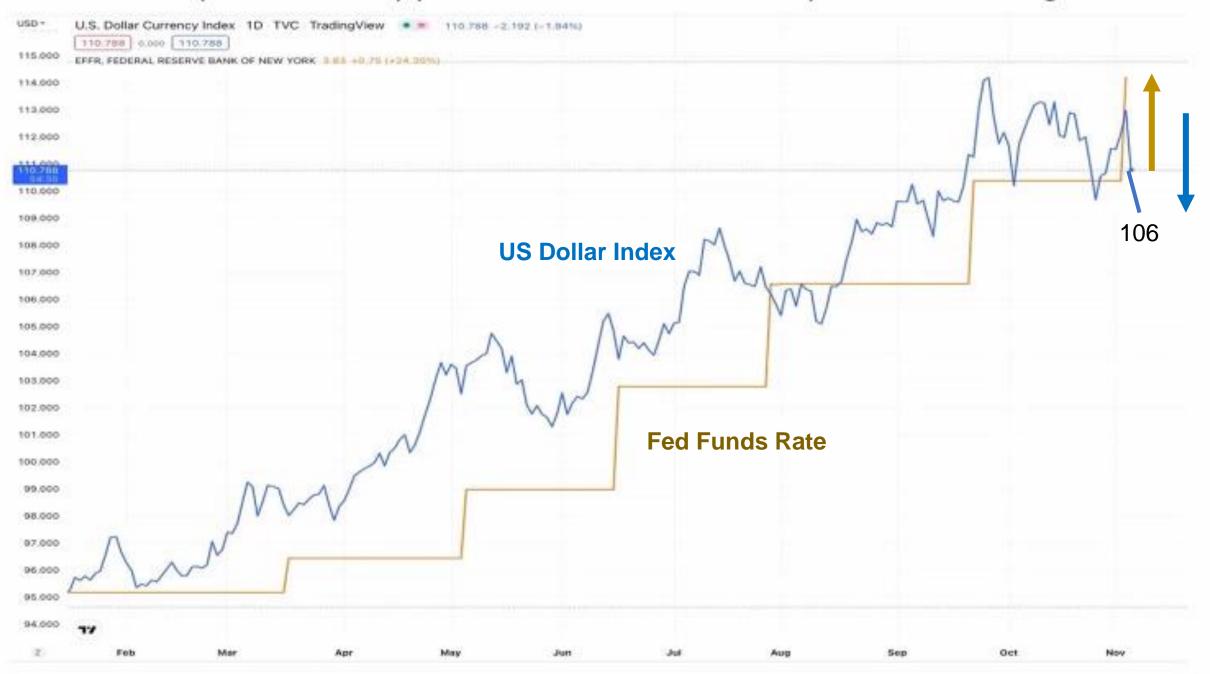
Spread Levels k	эу 🤅	Sect	tor \	/ers	us H	listo	orica	l Tig	hts		
•	95 th Percentile 🔶 12			/31/2021		Late	est				
	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	6 100%
	I			,			,				
AAA CLO (Δ = +101bps)					116	•			217	+4	230
Agency CMBS 8.5 Yr+ (∆ = +47bps)			43	8 🔶					90	• •	95
B Loans (Δ = +236bps)				4	44 🔶				680 4	• •	730
AA CLO (Δ = +124bps)					172	•		29	6 🔶	•	399
Non-agency AAA CMBS (Δ = +78bps)		7	2 🔶					150	•	•	260
Investment Grade Corporates (Δ = +60bps)			9	2 🔶				152 🔶		+	199
Asset Backed Securities, AA-BBB Rated (Δ = +116bps)			1	65 🔶				281 🔶		+	480
Agency RMBS (OAS) (Δ = +39bps)		1994 - 19	81 🔶				7	0 🔶		+	103
High Yield Corporates (∆ = +199bps)	283	+				4	82 🔶			٠	740

State, Local and Federal Net Debt

1930 – 2021 % GDP



Has the DXY (Dollar index) peaked out? 110 is an imp level - leading indicator



Implications of Weaker Dollar

- 60% of IT revenue come from overseas. Positive for the NASDAQ.
- Positive for commodities
- Positive for emerging markets. China coming out of zero Covid and trading below book value.

1973-1974 Reference Point

Fed policy had tightened through 1973/74 in response to inflation, oil shocks...Fed funds 5.5% to 13%

Fed first cut July 1974 as GDP turned negative

Fed sustained pivot began Dec'74 as Fed funds dropped from 9.25% to 4.75% despite inflation being 12%

- 1) GDP turned deeply negative,
- 2) stock market losses from high reached 40%, and
- 3) unemployment rate climbed from 5.6% to 6.6% in month of Dec'74

Following 12-months S&P500 rose 31%

Investment Concepts For Discussion Only

Defined Outcome ETFs: Innovator and First Trust example: BNOV; 30% Cap, 9% buffer PNOV; 21% Cap, 14.5% buffer

JEPI and JEPQ: Stock portfolios with ~12% and 15% yield

High Yield Municipal Bonds example: HIMYX

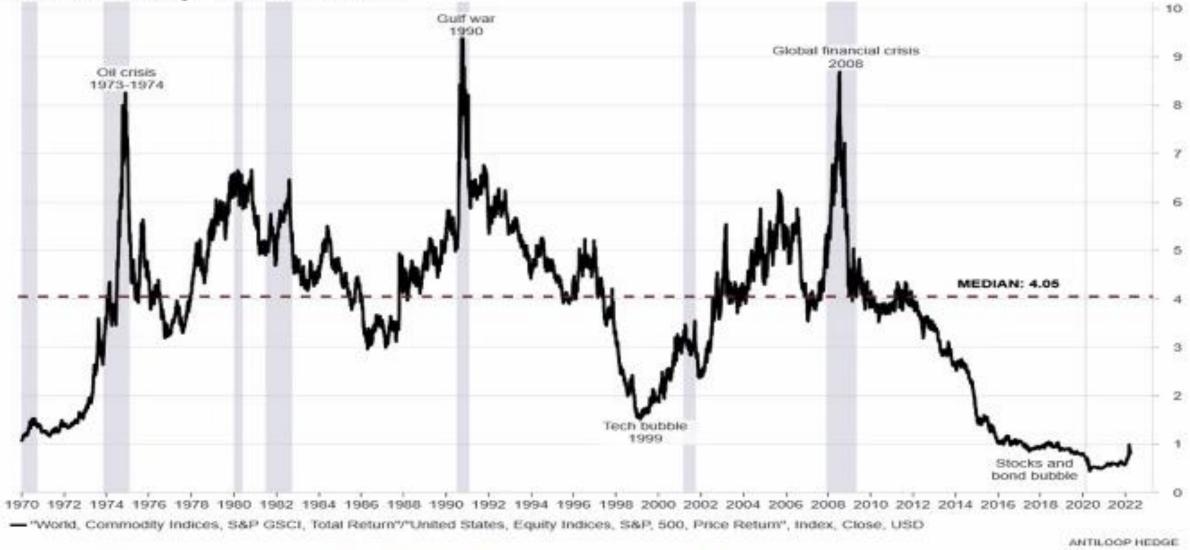
Commodities: example: FFGIX, NBCM

Diversified Equities: RSP, NASDAQ 100

Investing in stock and fixed income securities involves the risk of loss. Past performance is not an indication of future performance. This publication is not a solicitation to buy or offer to sell any of the securities listed or reviewed herein.

Commodities are extremely cheap – Ratio ~ 0.90

GSCI Commodity Index/S&P 500 ratio



Commodities - Live Quote Price Trading Data (tradingeconomics.com)

One EV battery contains

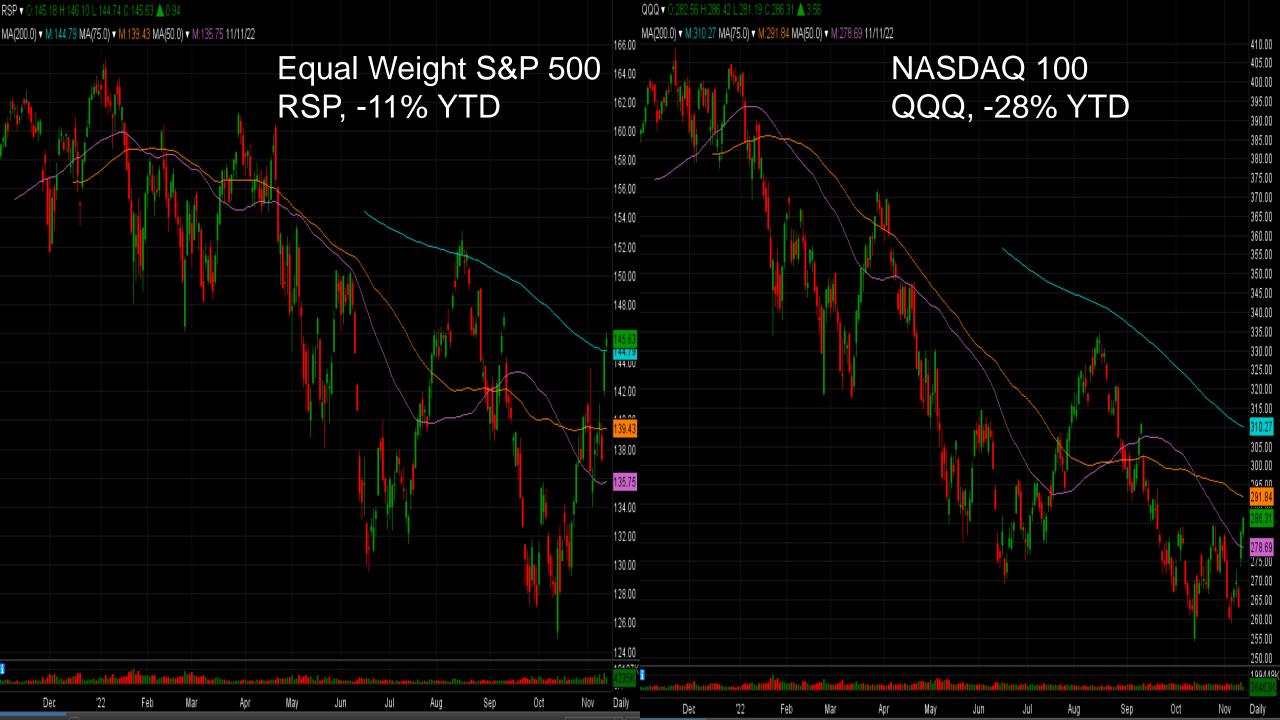
25 pounds of lithium 60 pounds of nickel 44 pounds of manganese 30 pounds of cobalt 200 pounds of copper 400 pounds of aluminum, steel and plastic

Metal mining companies need to process

25,000 pounds of brine for the lithium 30,000 pounds of ore for the cobalt 5,000 pounds of ore for the nickel 25,000 pounds of ore for the copper

The process is extremely energy and metal intensive





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Important disclosure: Past performance does not guarantee future results. Investment strategies offer risk that cold result in a loss of principal which the client will bear. Consider the investment objectives, risks, charges, expenses, and instruments used to implement a strategy before investing.

DELTA INVESTMENT MANAGEMENT