

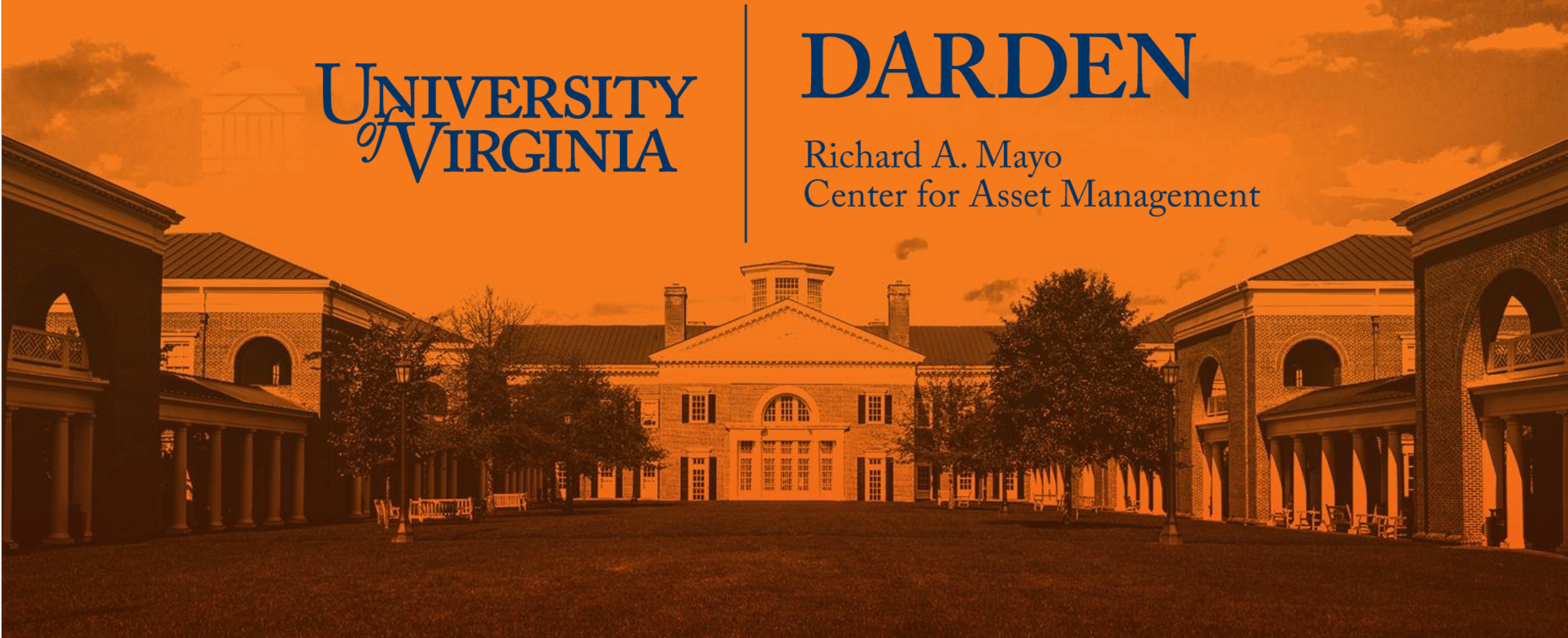
Economic Forecast Webinar

17 February, 2023

UNIVERSITY
of VIRGINIA

DARDEN

Richard A. Mayo
Center for Asset Management



Economic Forecast Poll

The US Economy in the Next 12 Months:

- 1) Recession (GDP declines 2 qtrs)
- 2) Soft Landing (GDP slightly positive for 2 qtrs)
- 3) No Landing (GDP grows at or above long-term trend)



Asset Market Returns 2022



Commodities were the only positive asset class for 2022



Be Humble When Forecasting!



**2023 Ahead:
Proceed
with
Caution!**

“Forecasting is difficult, especially when it’s about the future.”

— Niels Bohr, Nobel Prize-winning Physicist (1885-1962)
(Popularized by Yogi Berra)



Current Issues Facing Markets and Economy

Many Headwinds Today

1) Global Growth Mixed Bag

- a) From Globalization to Regionalization
- b) Impact of China's return to normal
- c) Will Europe and U.S. avoid recession?

2) U.S. De-Levering

- a) Fed policy, balance sheet unwinding
- b) Fiscal stimulus (ending?)
- c) Debt Ceiling Crisis

3) Inflation

- a) Has eased but..
- b) Will it persist and stay above Fed 2% target?



Some Recent Humbling Examples

One Example: February 2022

FEDERAL RESERVE BANK OF KANSAS CITY

“ U.S. economy is expected to continue to expand at an **above-trend** pace [of 4%] in 2022”

↗
Actual '22 growth was below trend, 2%

..And another: Jerome Powell (July '21)



“Some inflation, but it’s transitory”

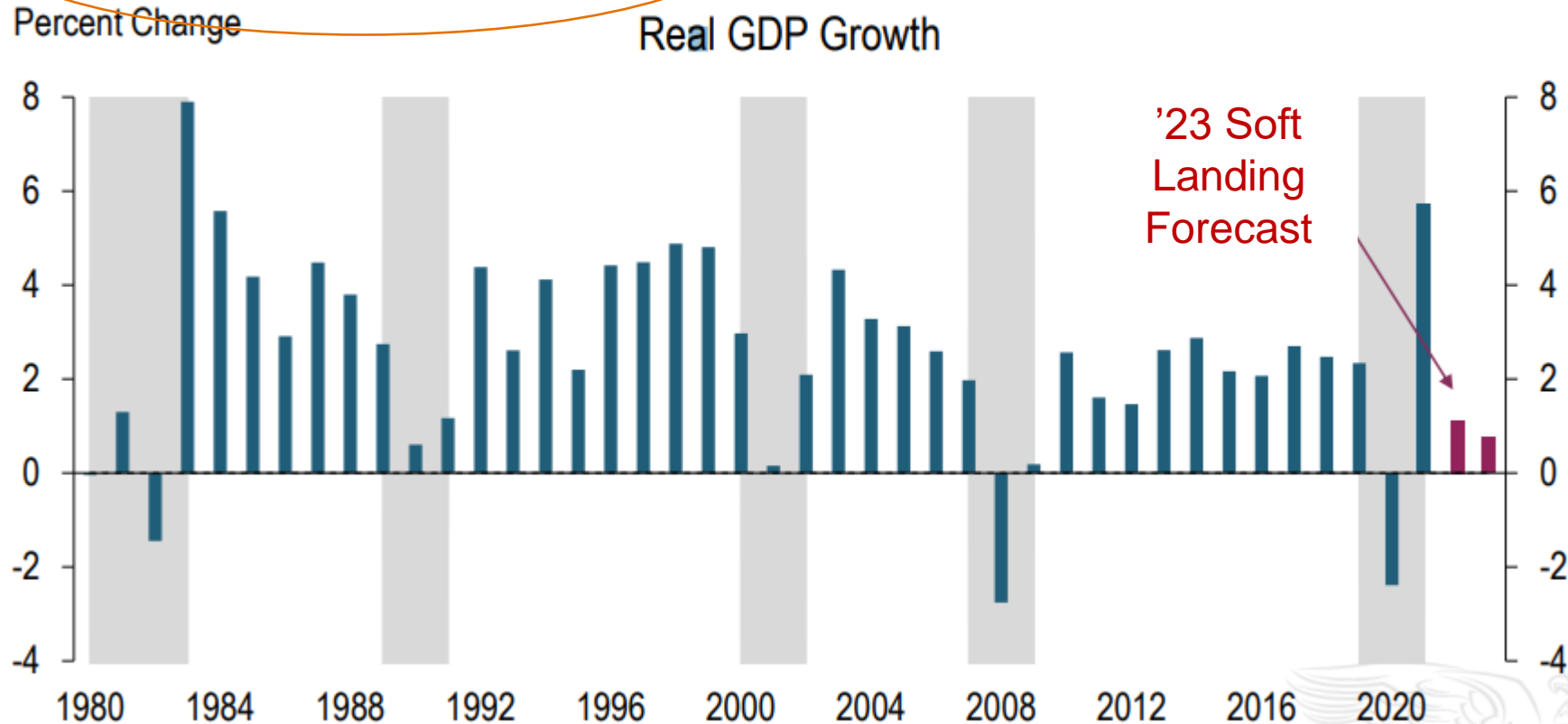
Source: [Kansas City Fed](#), [BEA](#), Feb, 2022



Kansas City Fed's Current View

FEDERAL RESERVE BANK OF KANSAS CITY

Economy set to underperform



Sources: BEA, NBER, Wolters Kluwer, Haver Analytics

Kansas City Fed Forecast slowing economy '22-'23

World Bank GDP forecast for '23

- US +0.5%
- Global +1.7%

Will the widely-anticipated soft landing be achieved?

Source: [Kansas City Fed](#), [BEA](#), Jan, 2023



...One More Example

In fall of 2007, the Fed and others were calling for a soft landing



Federal Reserve
Bank of Dallas

U.S. MARKET NEWS

SEPTEMBER 26, 2007 / 8:35 PM / UPDATED 15 YEARS AGO

U.S. economy on track for soft landing - Dallas Fed

By Reuters Staff

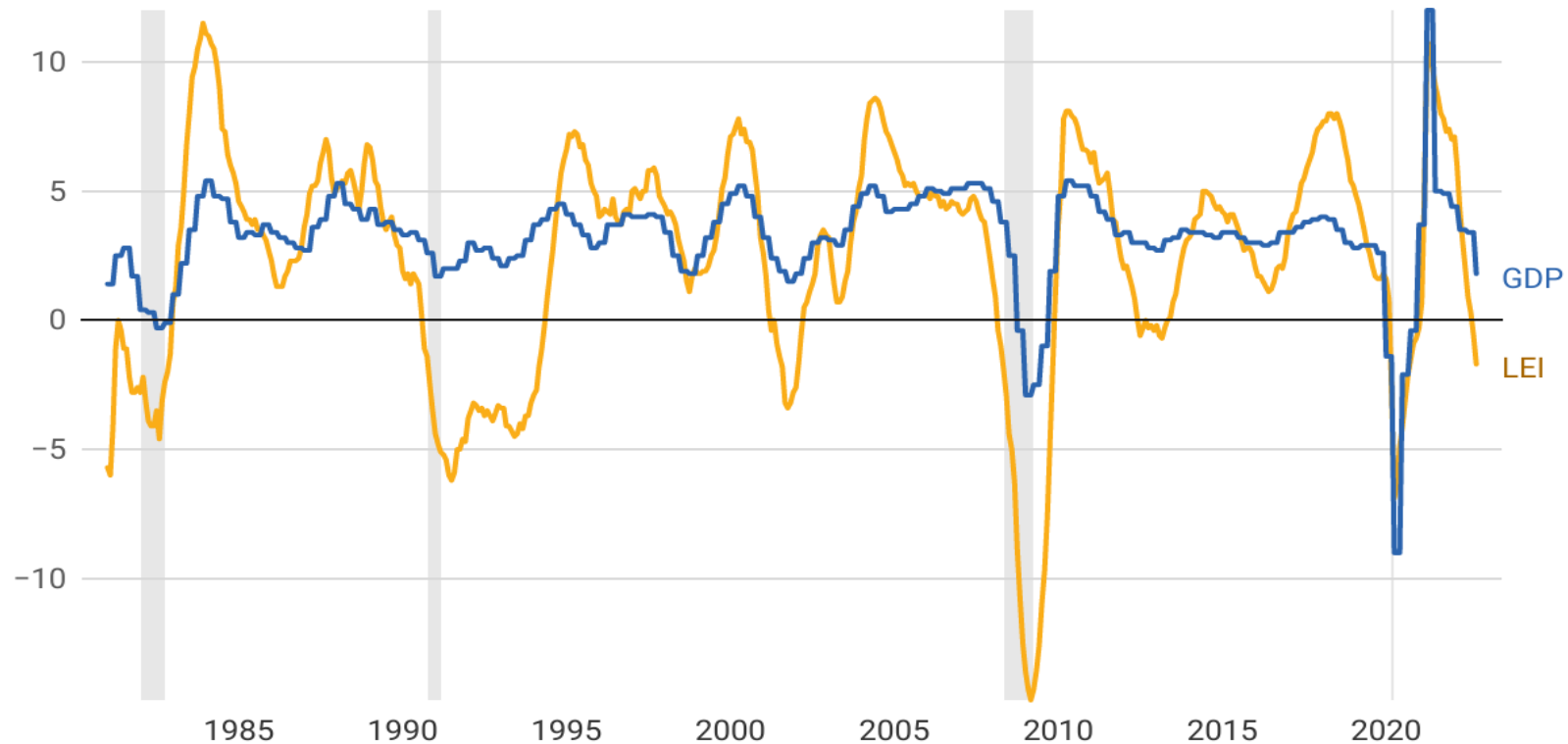


WASHINGTON, Sept 26
(Reuters) - U.S. inflation pressures are easing and the economy should manage a soft landing, the Federal Reserve Bank of Dallas said on Wednesday.

Will Global Economy Achieve Soft Landing?

Global leading indicators signal a likely further slowing in global GDP

Global GDP and Leading Economic Index (y/y % change)



- Leading Indicators currently pointing to a recession in '23
- LEI has not been wrong in over 40 yrs...
- Only time will tell of course
- In meantime, as always, stick with a data-driven decision-making process!

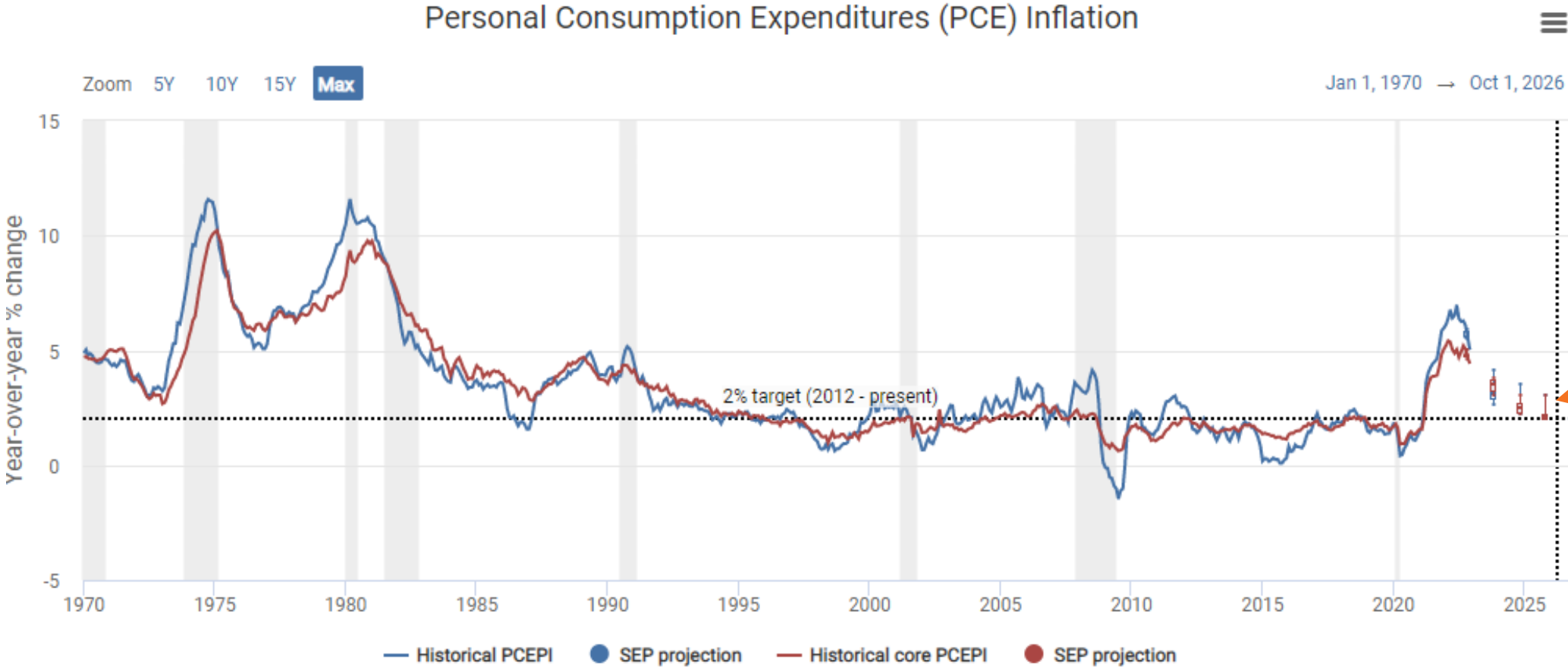
Global GDP is available on a quarterly basis, while the LEI is available on a monthly basis; Global GDP is aggregated using weights based on nominal GDP converted using purchasing power parities; Shaded areas represent global recessions as defined by the World Bank and IMF, with the monthly dating derived from The Conference Board Global Business Cycle Chronology.

Source: The Conference Board • Created with Datawrapper



What is Fed saying about Inflation?

A History of Inflation



Will Inflation persist?

Inflation expected higher than Fed target, 2.0%....

Until 2025!

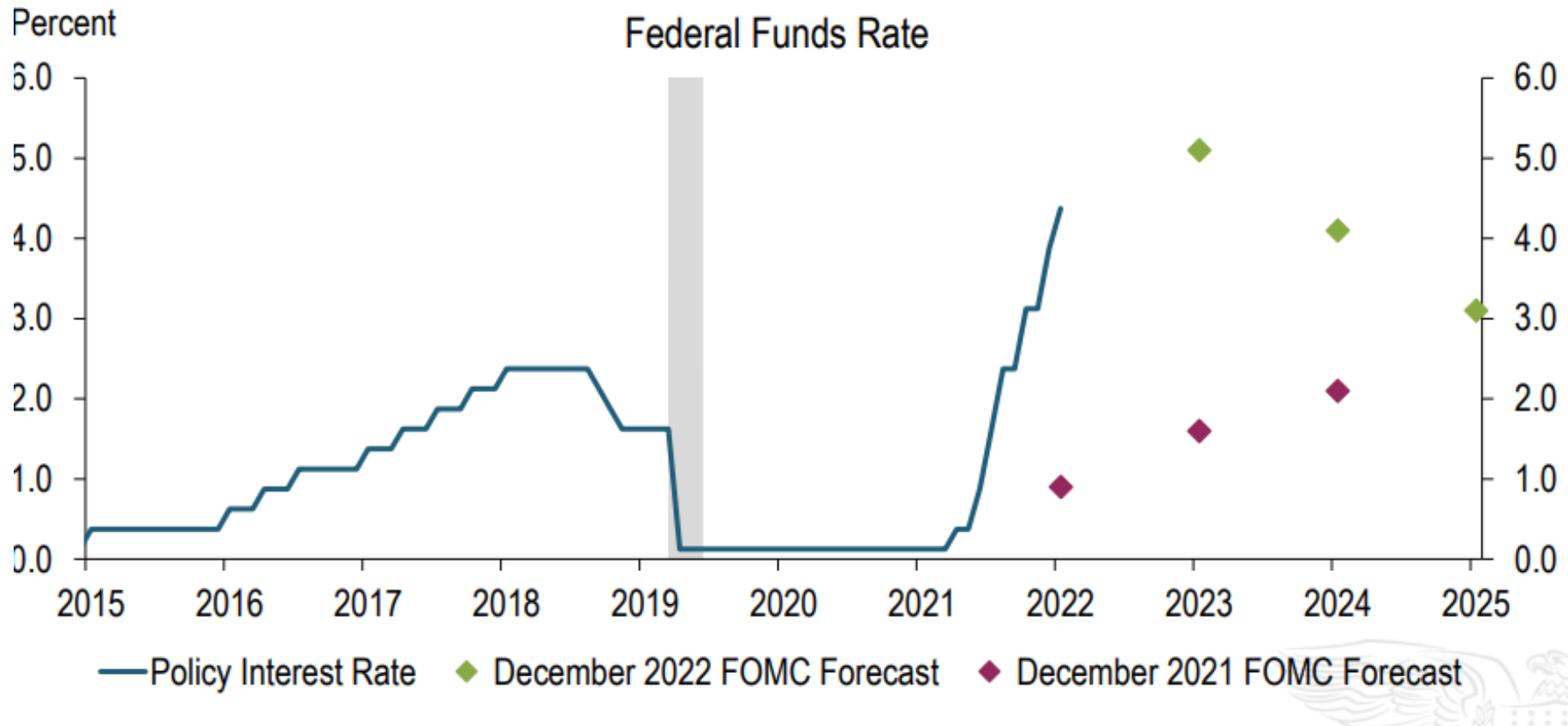
Seasonally adjusted. Projections are from the latest SEP. Recessions are shaded. Source: Bureau of Economic Analysis. See and learn more on FRED.



Rates Higher for Longer?

FEDERAL RESERVE BANK OF KANSAS CITY

More tightening expected (and much more than anticipated)



- .. FOMC expects Fed Funds to decline rapidly 2nd half '23
- And the market agrees
- So, bond market is pricing in certain recession, right?
- NOT necessarily!
- Why?
- Because the neutral Fed Funds Rate = 3% (per Jeremy Siegel)
- So Fed still restrictive through 2024!



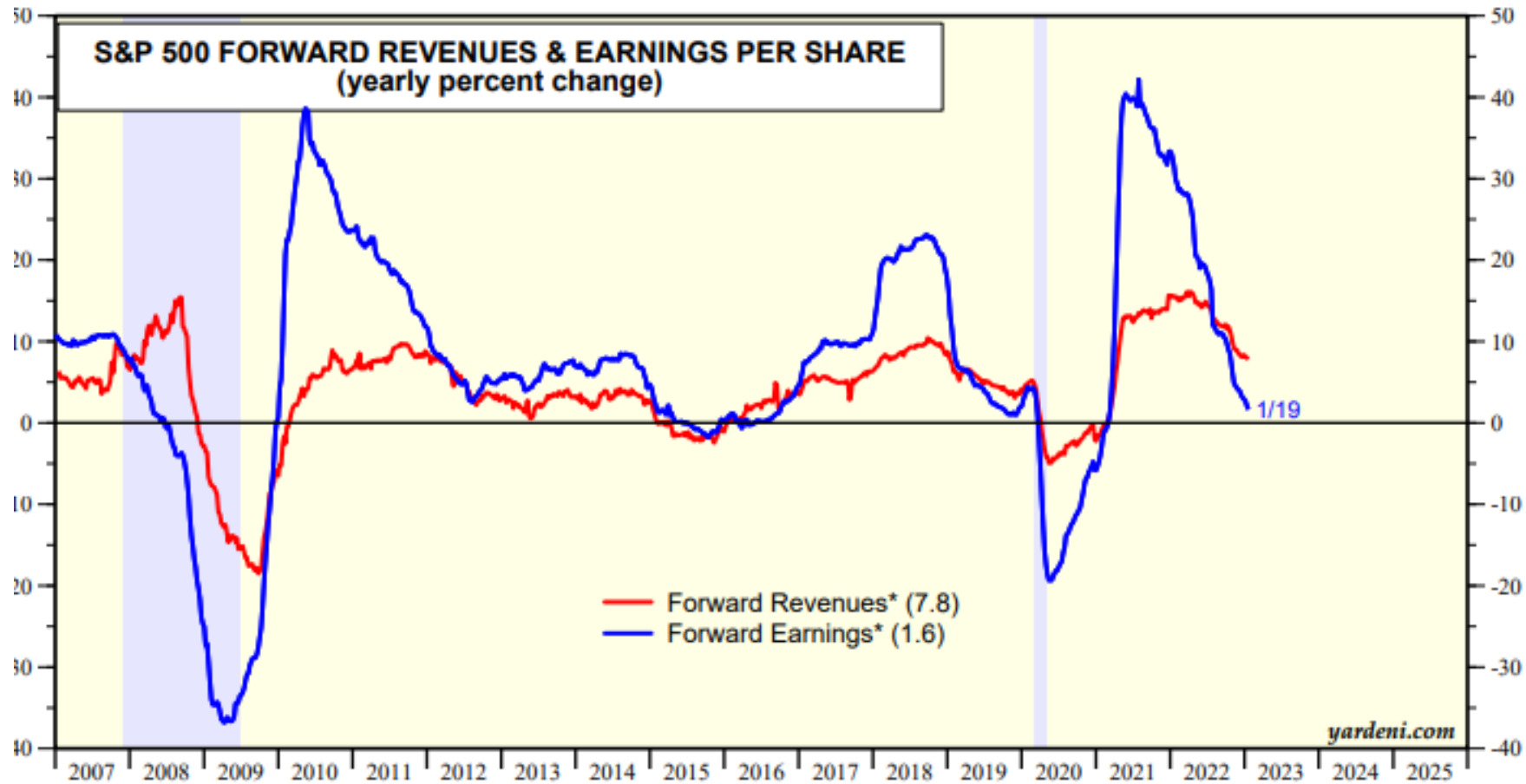
What Does All This Mean for Markets?

...Depends on Drivers of Market Returns

- 1) Global Economy and Interest Rates
- 2) **Corporate Profits**
- 3) Asset Valuation Levels



Corporate Earnings Slowing



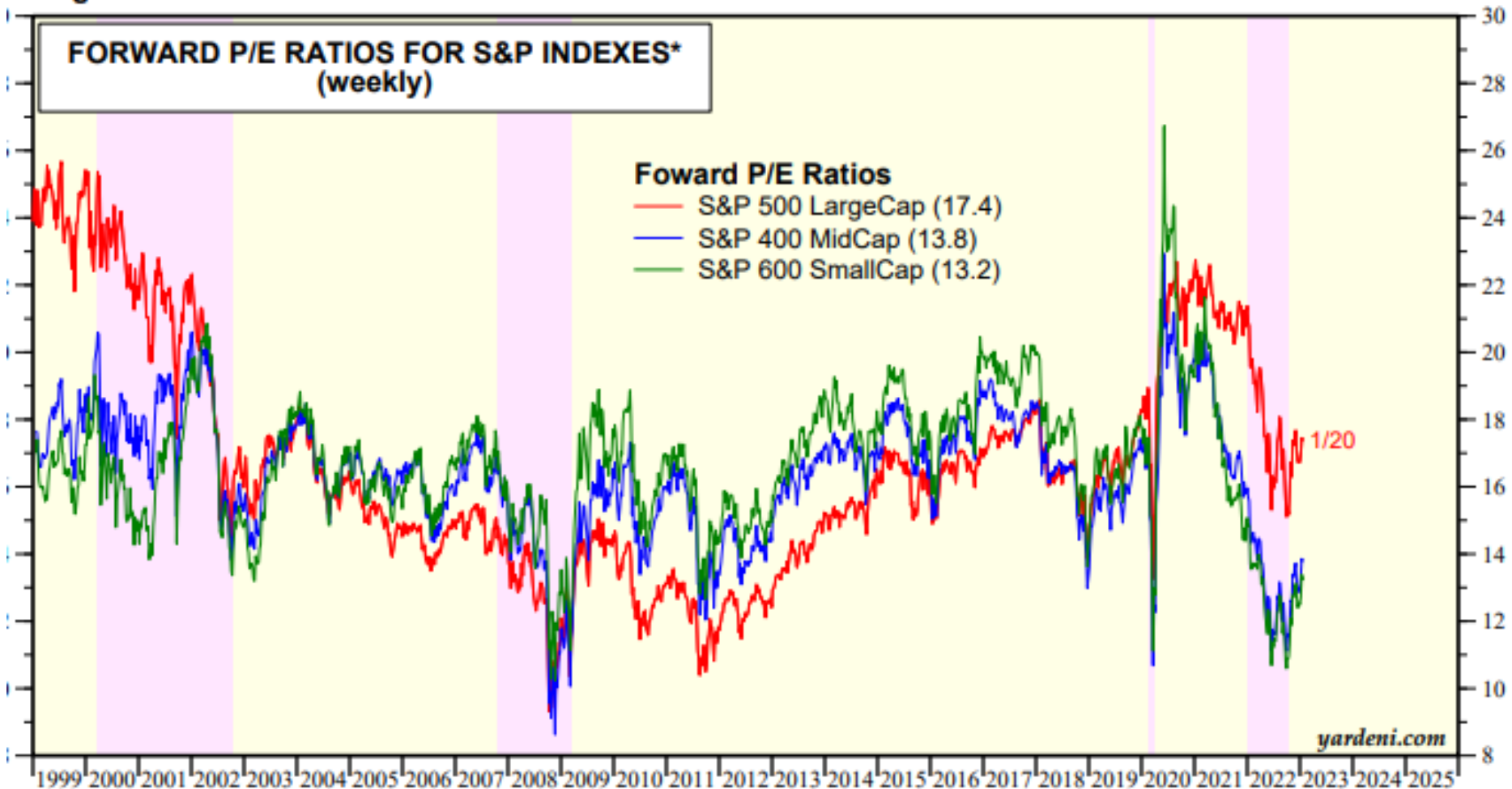
* Time-weighted average of consensus estimates for current year and next year.
Note: Shaded areas are recessions according to the National Bureau of Economic Research.
Source: I/B/E/S data by Refinitiv and Standard & Poor's.

Markets had predicted *Strong* earnings growth for 2022

Avg EPS decline during recessions: **-30%**



P/E for Large/Mid/Small Cap Stocks



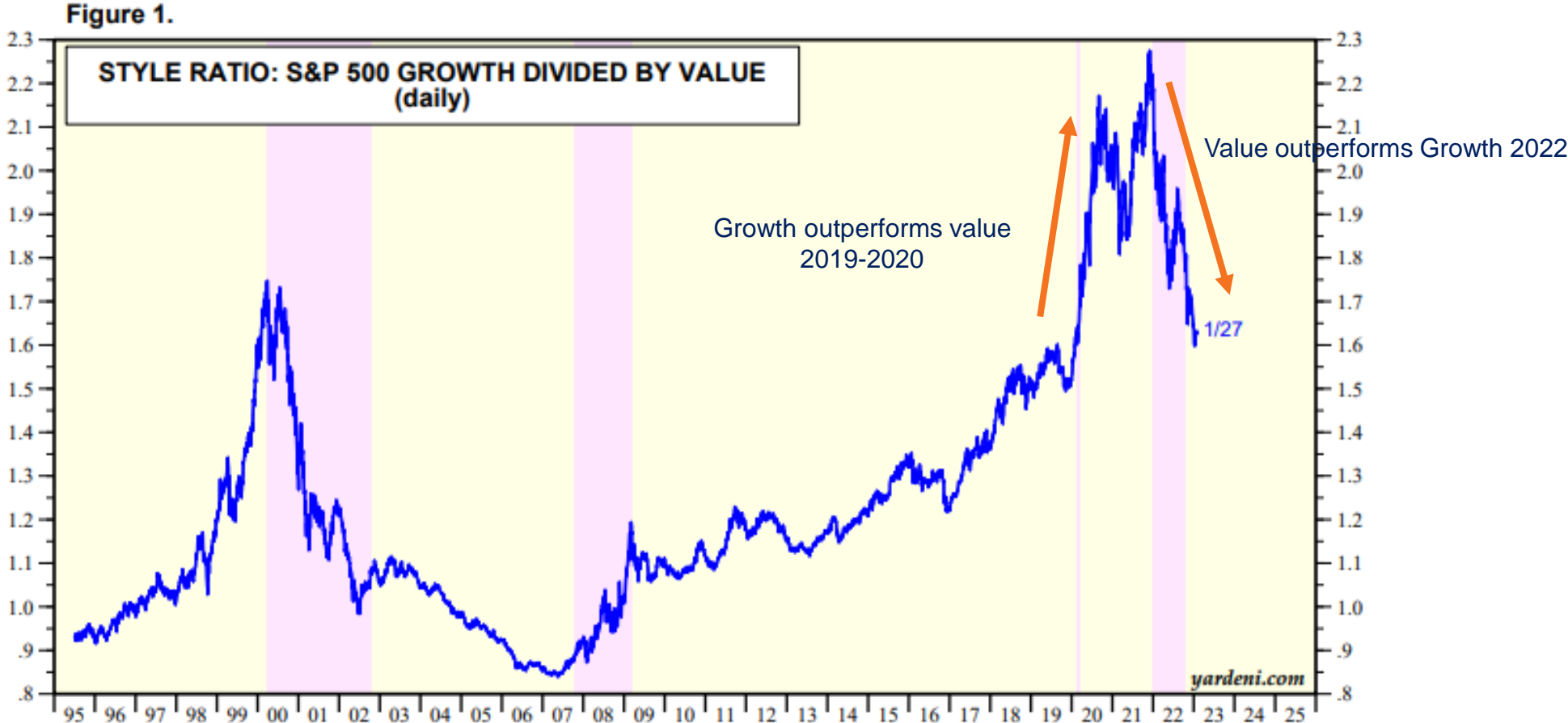
- P/Es improving following 2022 market declines
- Small/Mid cap stocks relatively cheaper vs large cap stocks
- Shiller S&P500 CAPE still relatively high vs history

* Price divided by 52-week forward consensus expected operating earnings per share.
Note: Shaded red areas are S&P 500 bear market declines of 20% or more. Yellow areas show bull markets.
Source: I/B/E/S data by Refinitiv.



Mighty Swings in Growth vs Value Performance

Relative Performance of Growth Stocks vs Value Stocks



Note: Shaded red areas are S&P 500 bear market declines of 20% or more. Yellow areas show bull markets.
Source: Standard & Poor's and Haver Analytics.

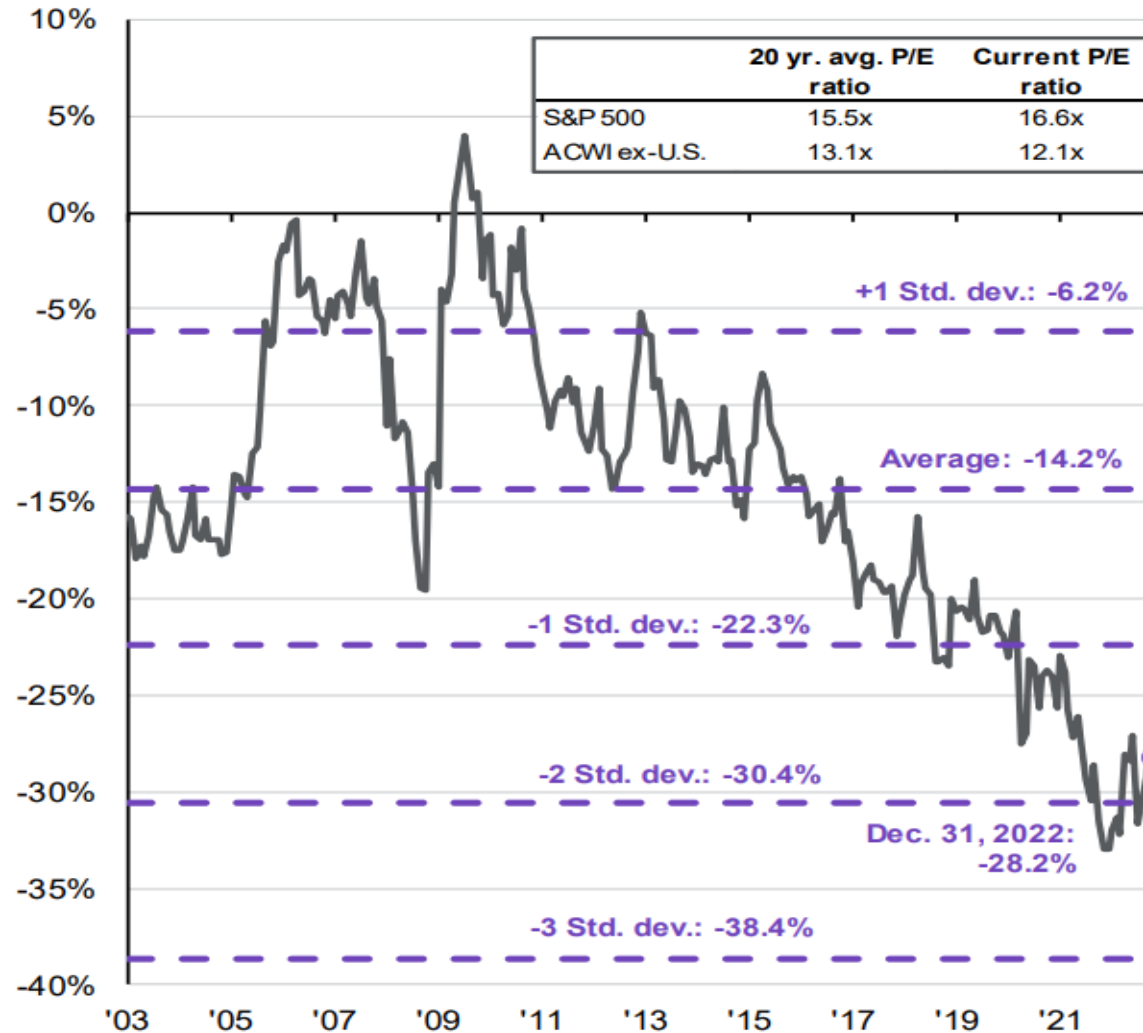
Source: yardeni.com.



International Equity Valuations

International: Price-to-earnings discount vs. U.S.

MSCI AC World ex-U.S. vs. S&P 500 Indices, next 12 months

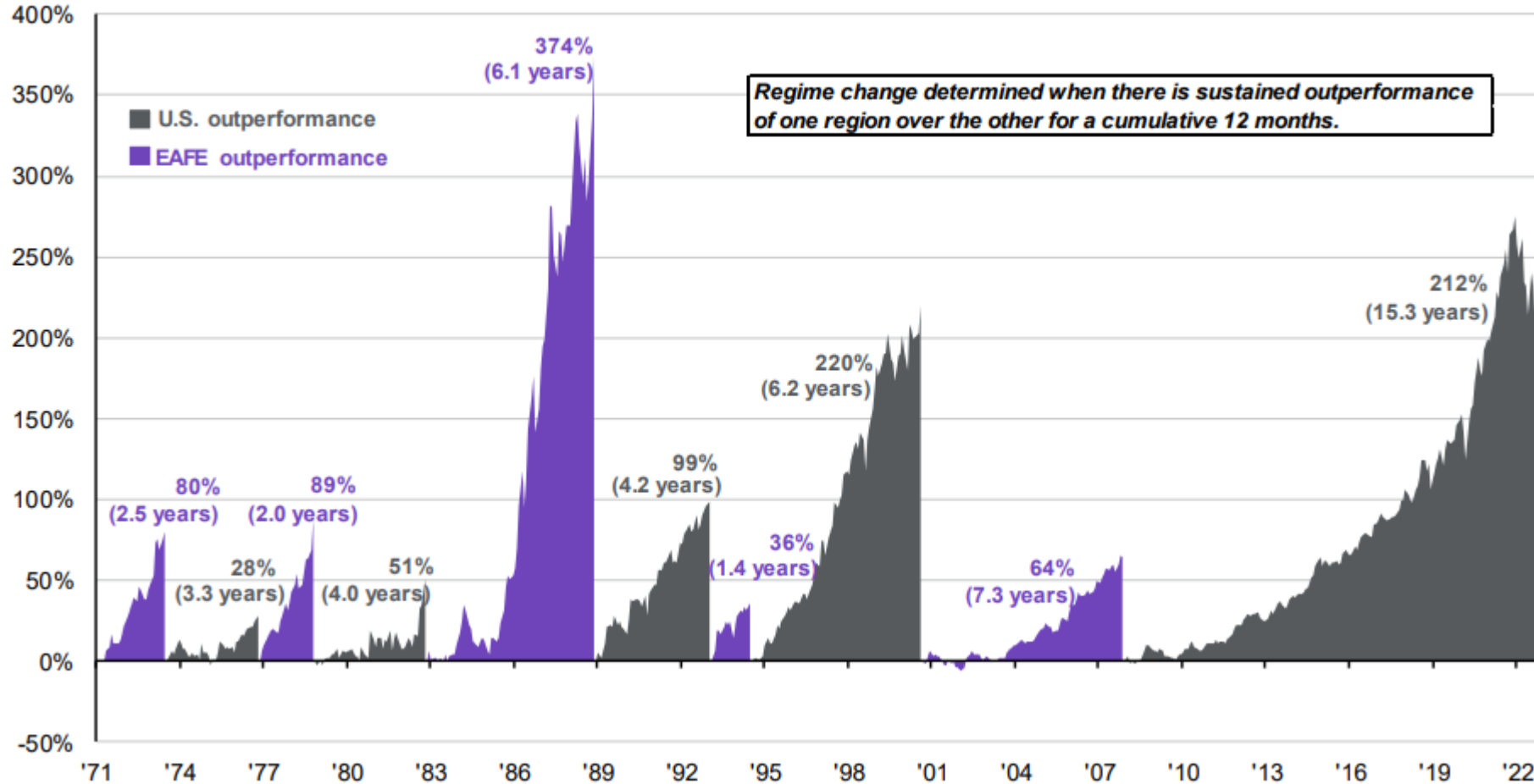


International stocks are currently on sale

International Equities Due to Outperform?

MSCI EAFE and MSCI USA relative performance

U.S. dollar, total return, cumulative outperformance*



Source: FactSet, MSCI, J.P. Morgan Asset Management. *Cycles of outperformance include a qualitative component to determine turning points in leadership.

Guide to the Markets – U.S. Data are as of December 31, 2022.



What to Do? A Humble Approach

1) Get Diversified!

“Diversification is the only free lunch in investing”

— Harry Markowitz, Nobel Laureate in Economic Sciences**

*“Asset allocation policy is by far the most important investment decision.” **

— Roger Ibbotson



PROGRAMS EVENTS AND W

Welcome to **Portfolio for the Future™**!

[← Back to Portfolio for the Future™](#)

Putting 2020 into Perspective: Diversification May Work Better than You Think

By **Rodney Sullivan, CFA, CAIA, Executive Director, University of Virginia Darden School of Business** US recessions are typically accompanied by declines in stock market returns and, of course, 2020 has been no exception. We are once again reminded that investing is not easy

Source: <https://caia.org/blog/2020/08/06/putting-2020-into-perspective-diversification-may-work-better-than-you-think>

* Ibbotson, Roger and Paul Kaplan, “Does Asset Allocation Policy Explain 40, 90, or 100 Percent of Performance?” *Financial Analysts Journal* Jan 2000 56,1.

** Harry Markowitz with Rodney Sullivan and Antti Imanen, “Markowitz on Portfolio Theory and Practice.” *AQR Words from the Wise*. Jan. 29, 2016.

2) Invest for the Long-Haul

WHEN JEFF BEZOS MET WARREN BUFFETT

"WARREN, YOUR
INVESTING STRATEGY
IS SO SIMPLE; WHY
DOESN'T EVERYONE
JUST COPY YOU?"

"BECAUSE
NOBODY WANTS
TO GET RICH
SLOW"



This is (Humble) Diversification

Global Diversified Portfolio

Uses major global asset classes:

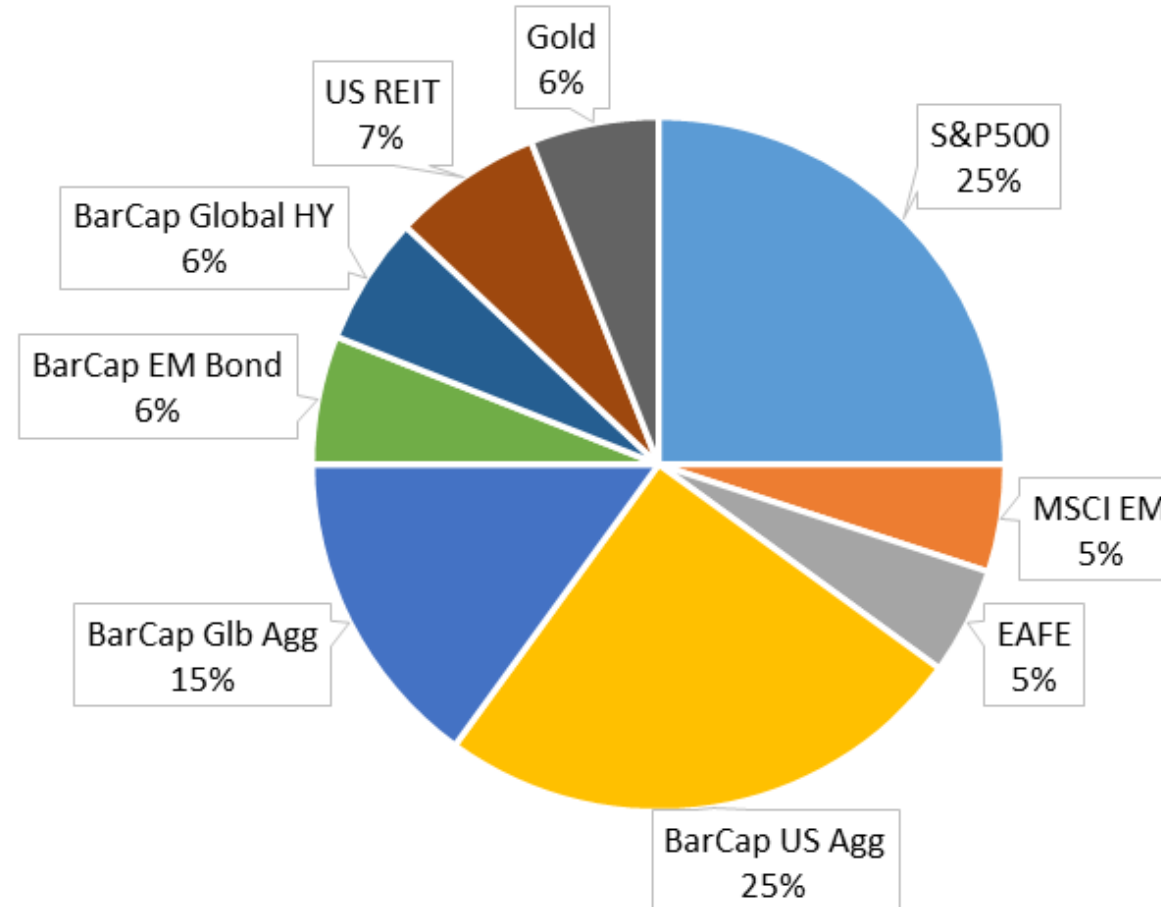
Stocks

Bonds

Real Assets

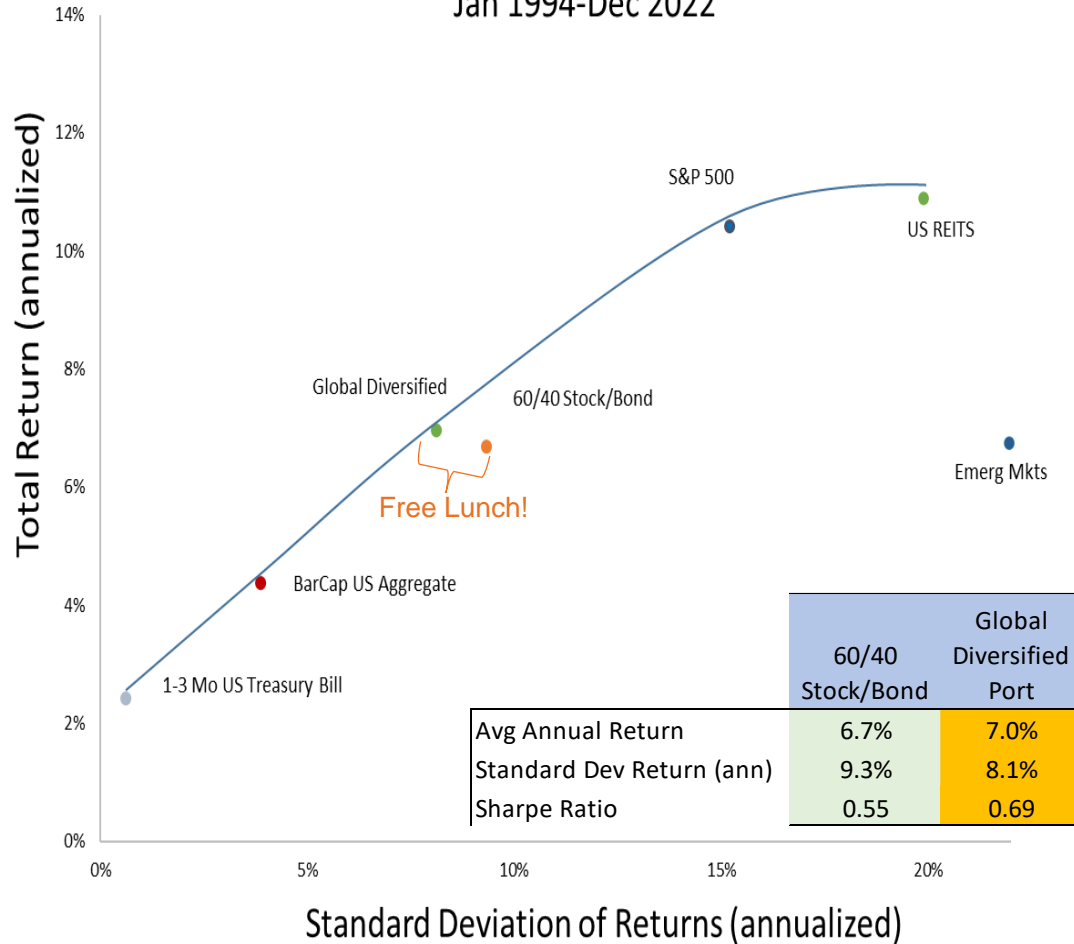
Publicly traded, liquid assets

Hypothetical Global Diversified Portfolio
60% Riskier Assets / 40% Safer Assets

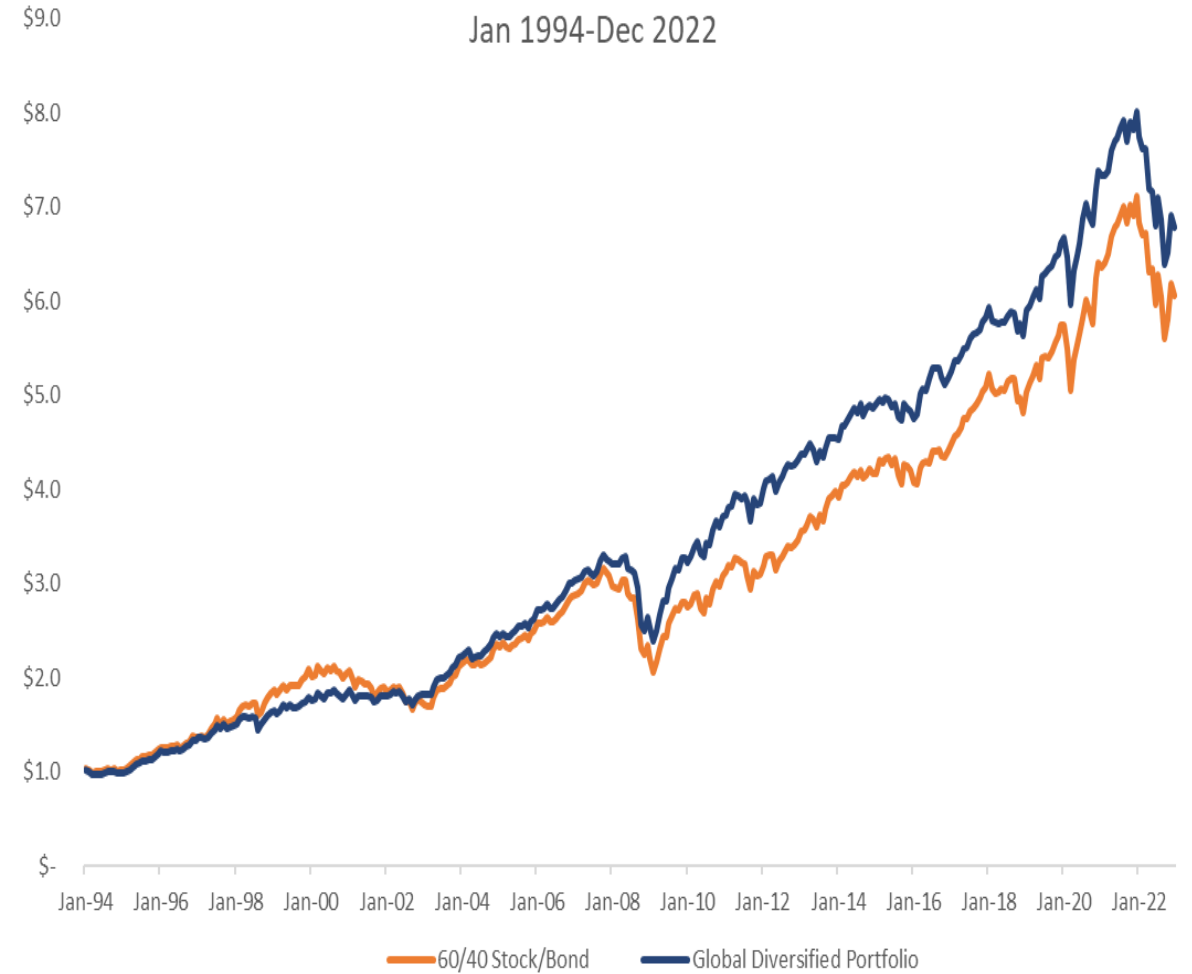


Global Diversification: LT Performance

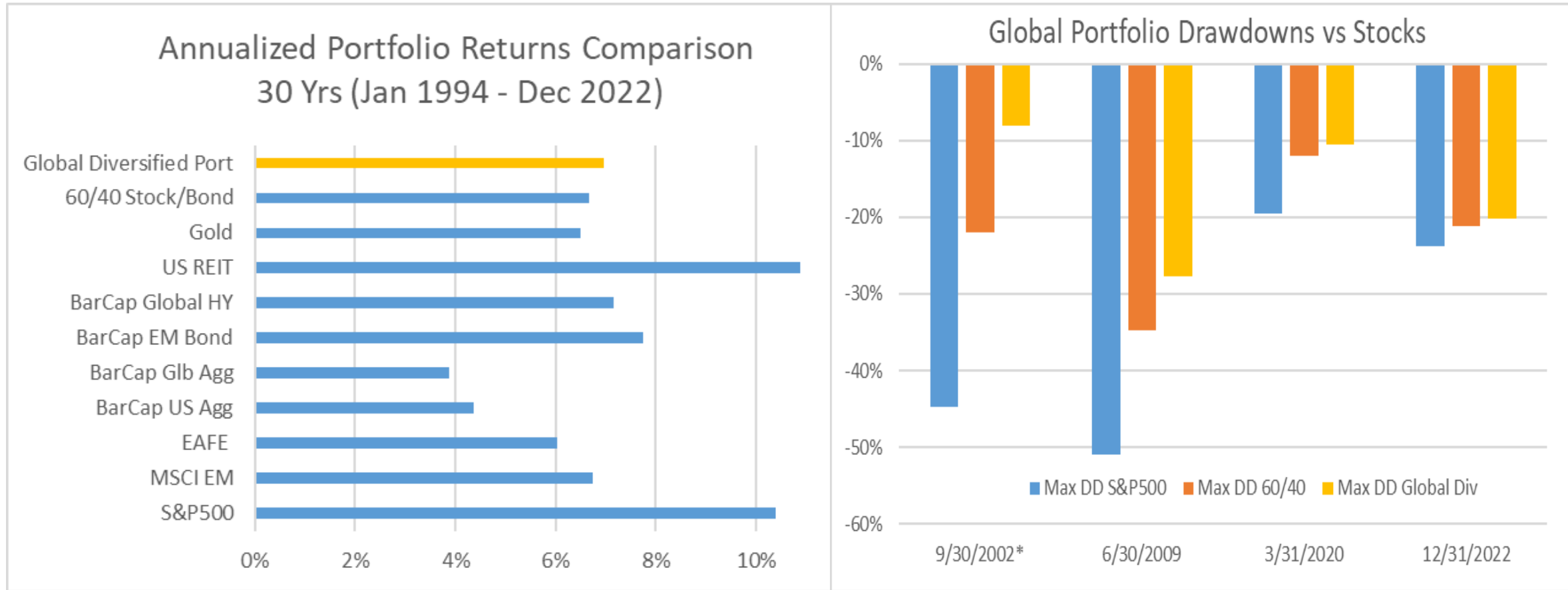
Risk and Return Comparison
Jan 1994-Dec 2022



Growth of \$1
Jan 1994-Dec 2022

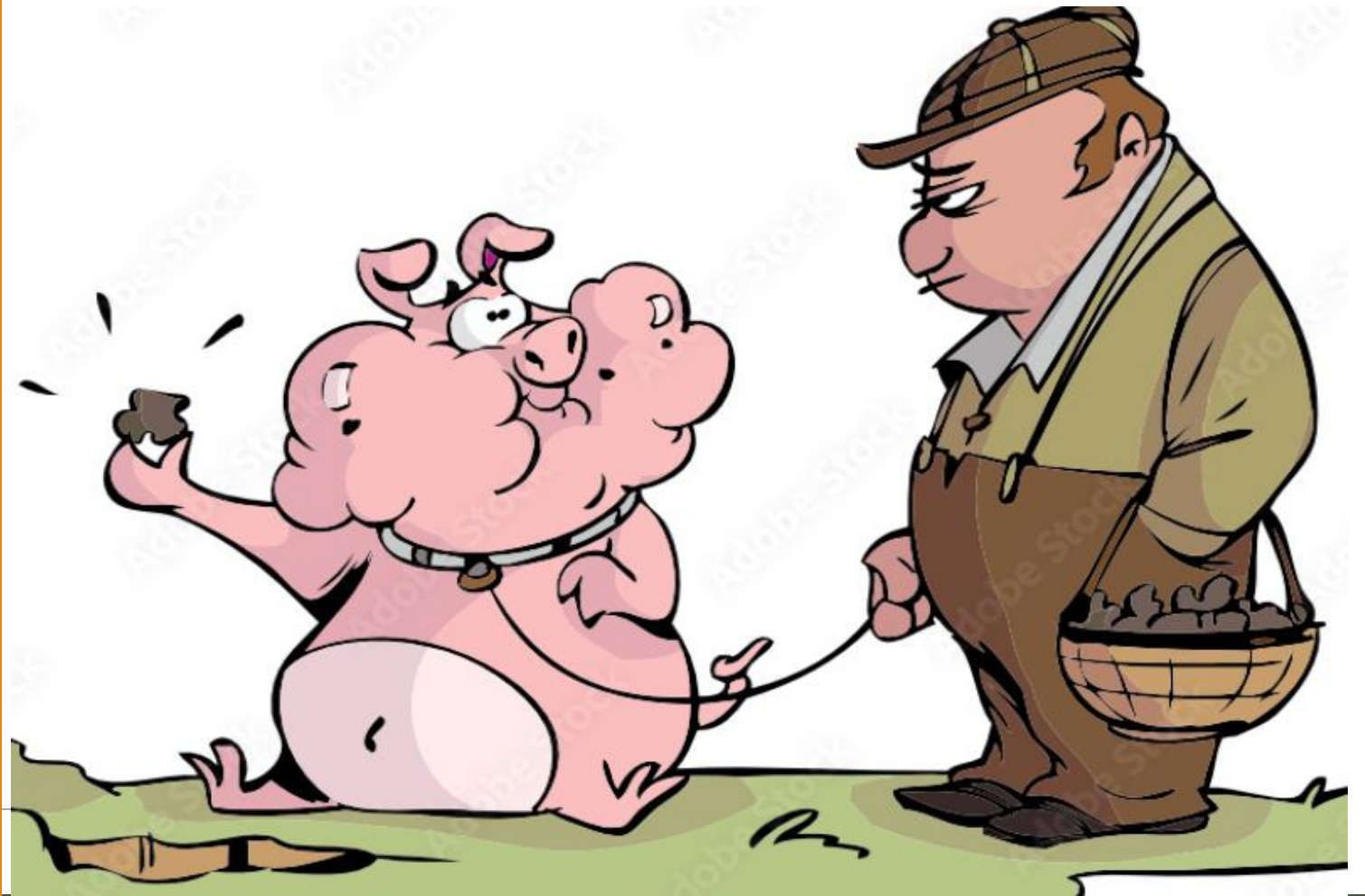


Global Diversification May Help Soften the Blows



Source: Author analysis, data from Bloomberg. Returns shown are annual total returns for various indexes and do not represent any actual Vesteer portfolio or strategy. The results are hypothetical, and are NOT an indicator of future results and do NOT represent returns that any investor actually attained. Indexes are unmanaged, do not reflect management or trading fees, and one cannot invest directly in an index. Whenever you invest, you are at risk of loss of principal as the market fluctuates. Past performance is not indicative of future results. Purchases are subject to suitability. This requires a review of an investor's objective, risk tolerance, and time horizons. Investing always involves risk and possible loss of capital.

3) Gently Rotate Asset Weights Over Time



- *Harvest opportunities – Like truffle hunting!*
- *Sow seeds of success now for 3yrs from now*
- *Be Humble! – Balance portfolio risks*

APPENDIX

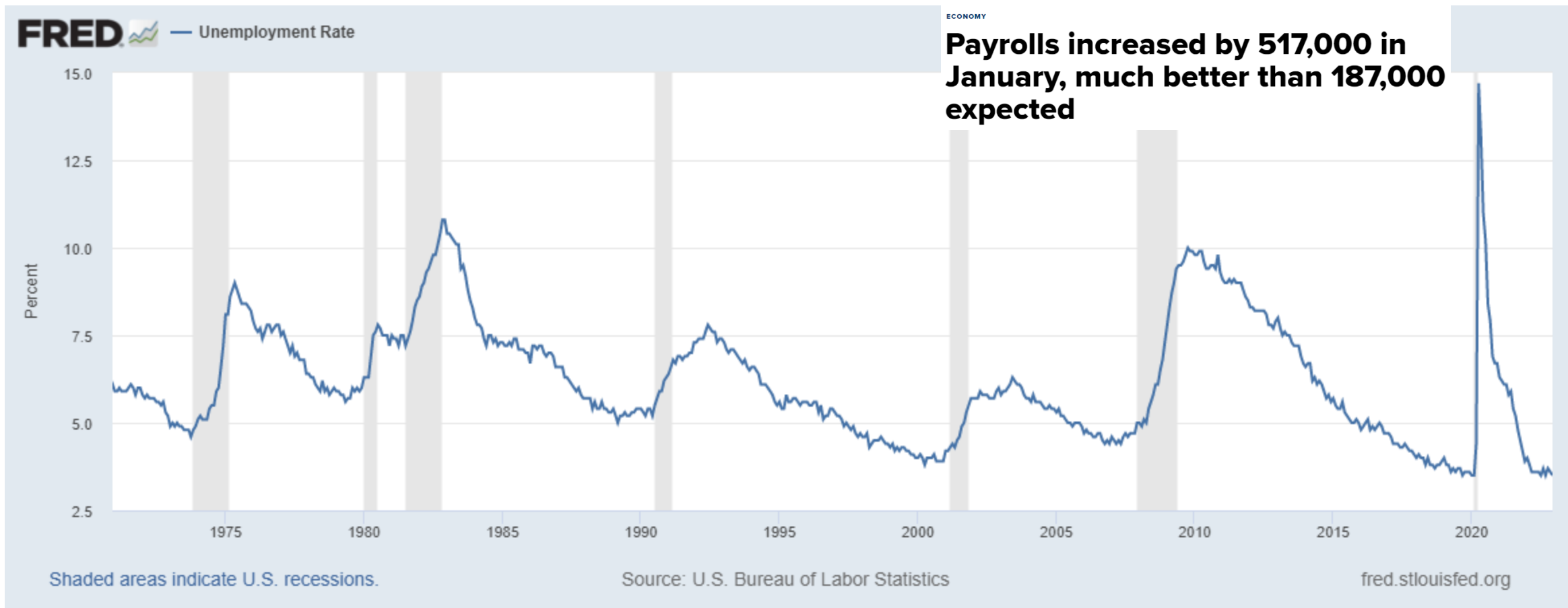
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Yet, Labor Market Remains Strong

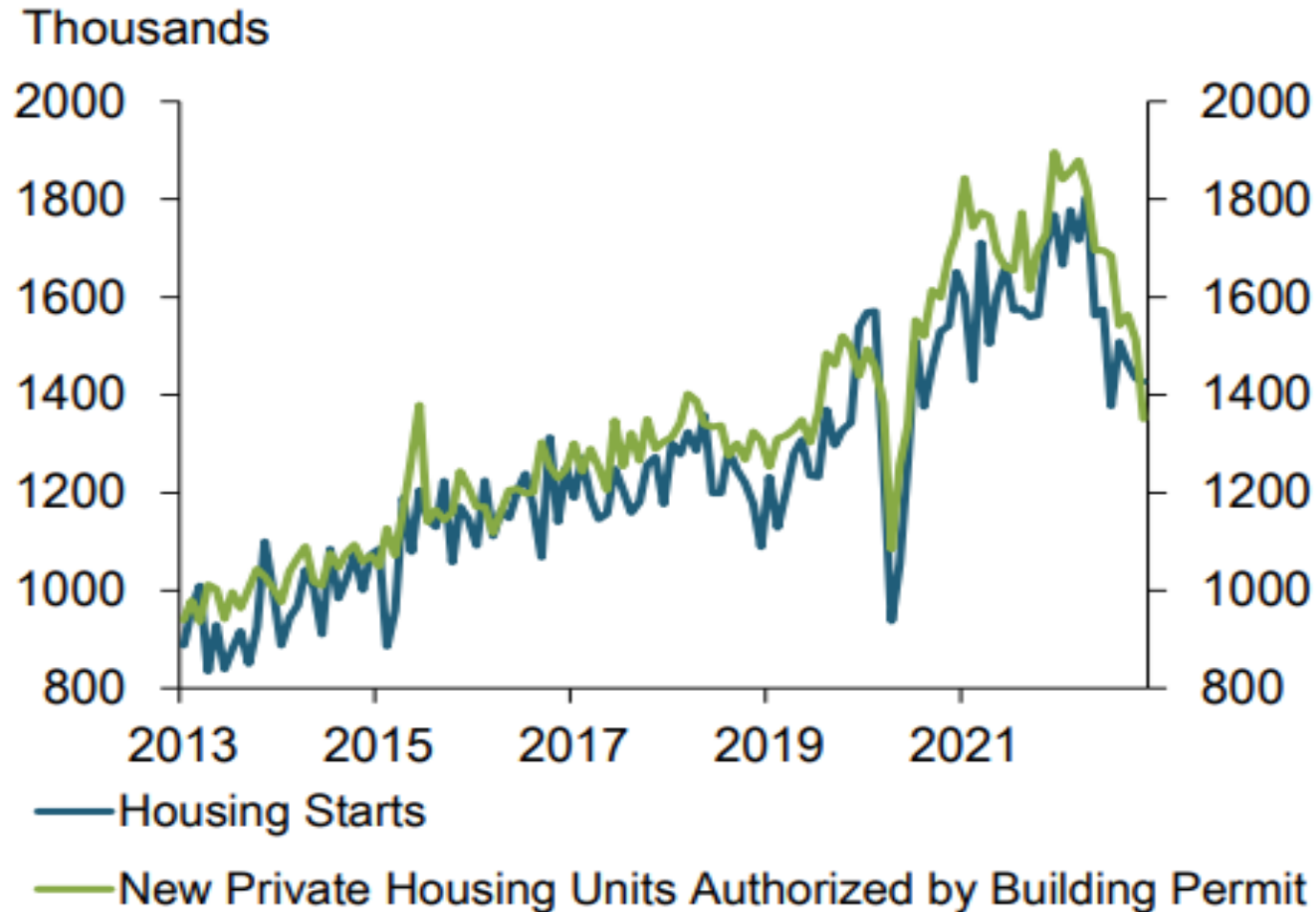


- Unemployment at 50-year lows! **Jan '23 = 3.4%**
- Powell has said Fed will keep rates “higher for longer”
- Services sector still very strong, putting upward pressure on wages



Housing Slowing Rapidly

Higher interest rates pulling down some sectors

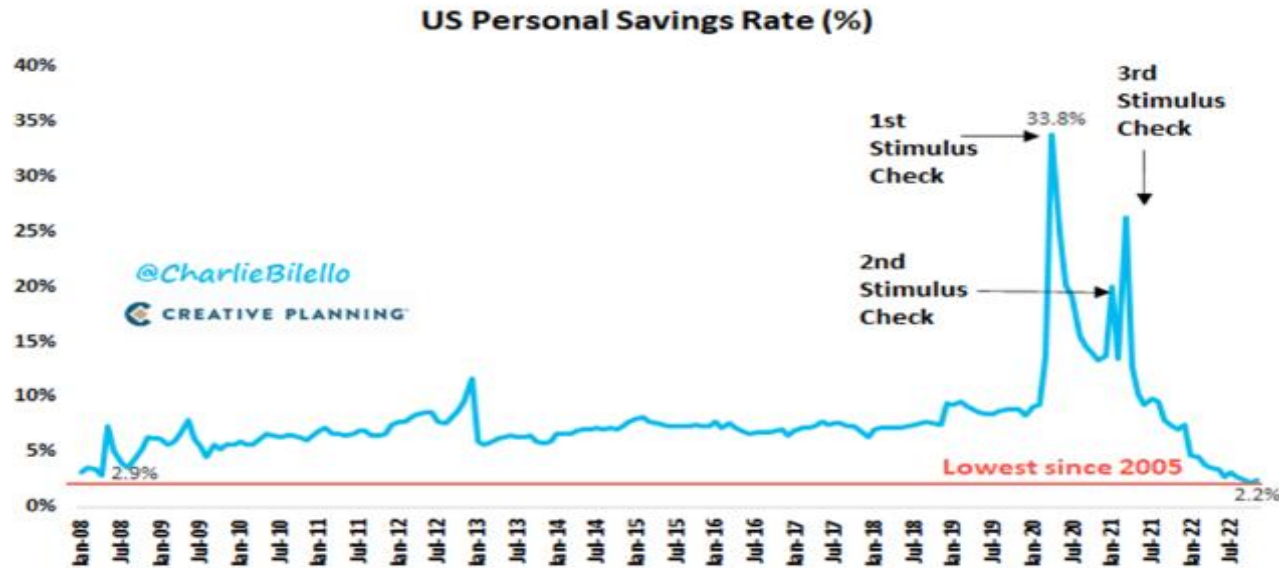


- Housing market is slowing rather dramatically
- Single family housing starts weaker than multi-family

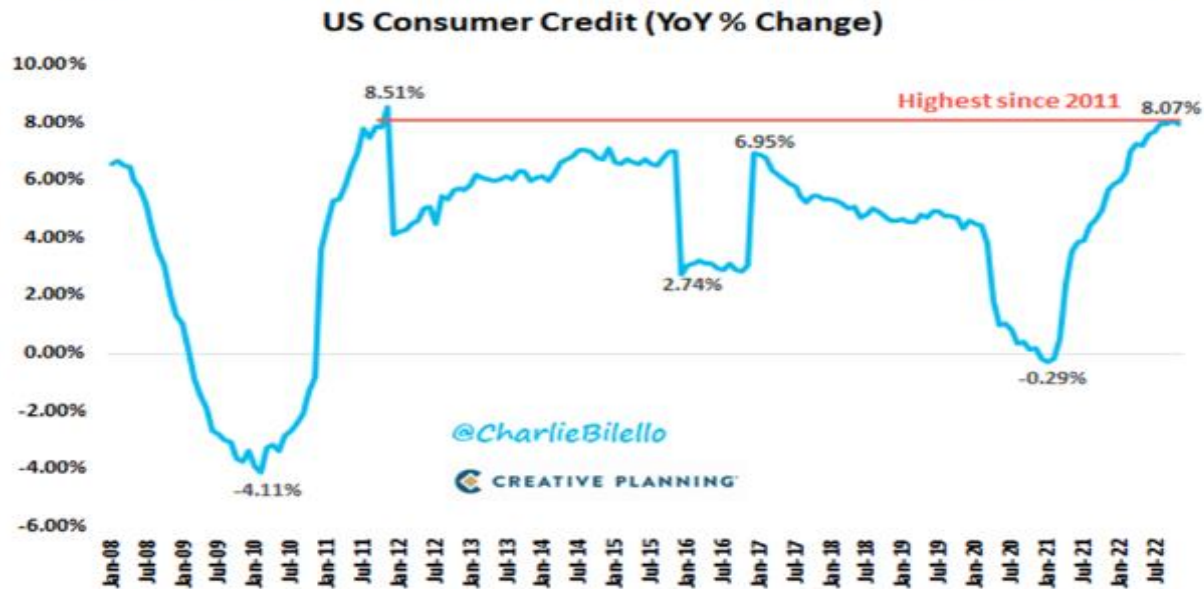
Source: [Kansas City Fed](#), Jan, 2023



Consumers Are Stretched



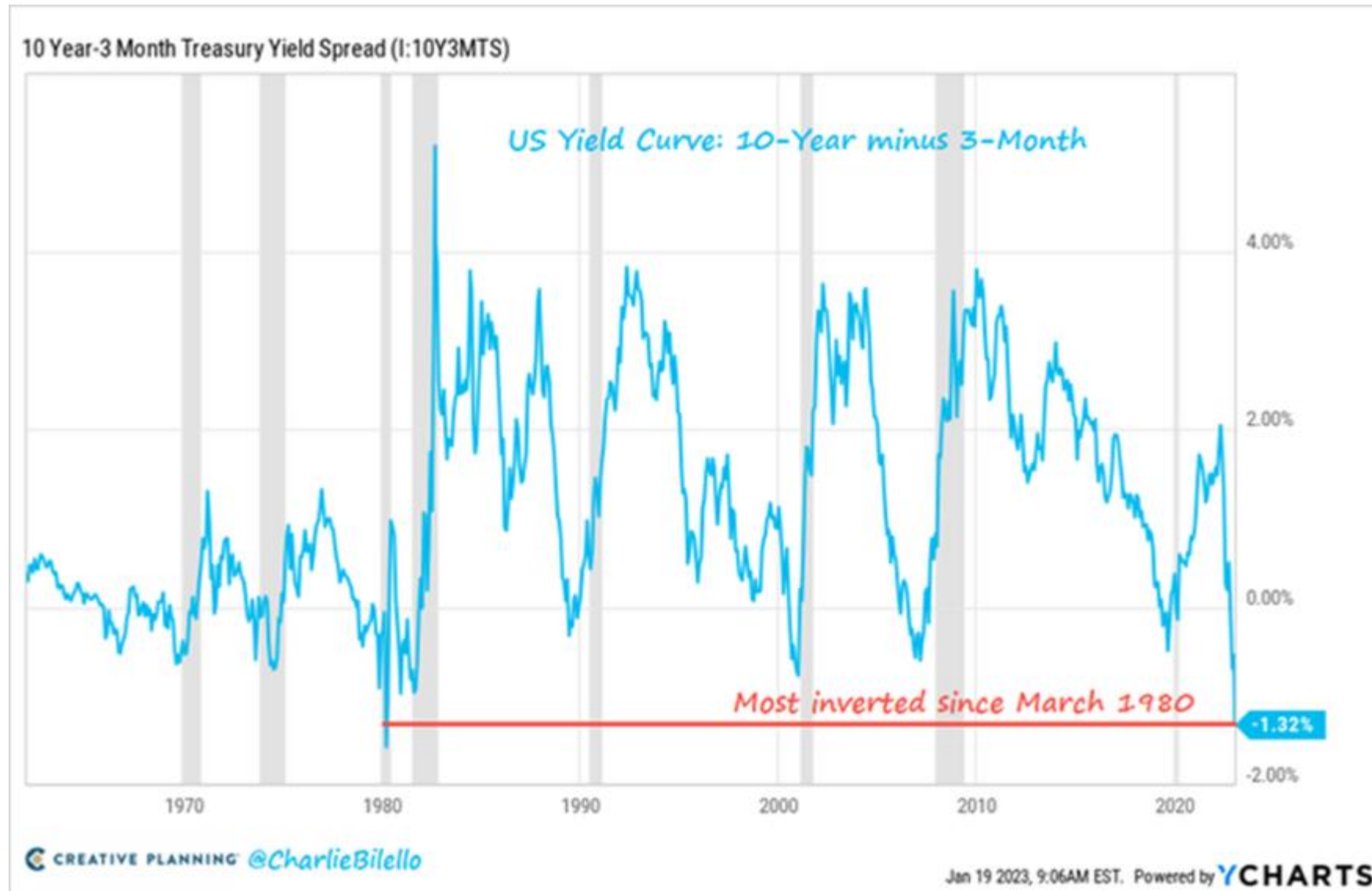
- Stimulus money is now running out...



- ...and consumers are borrowing heavily again



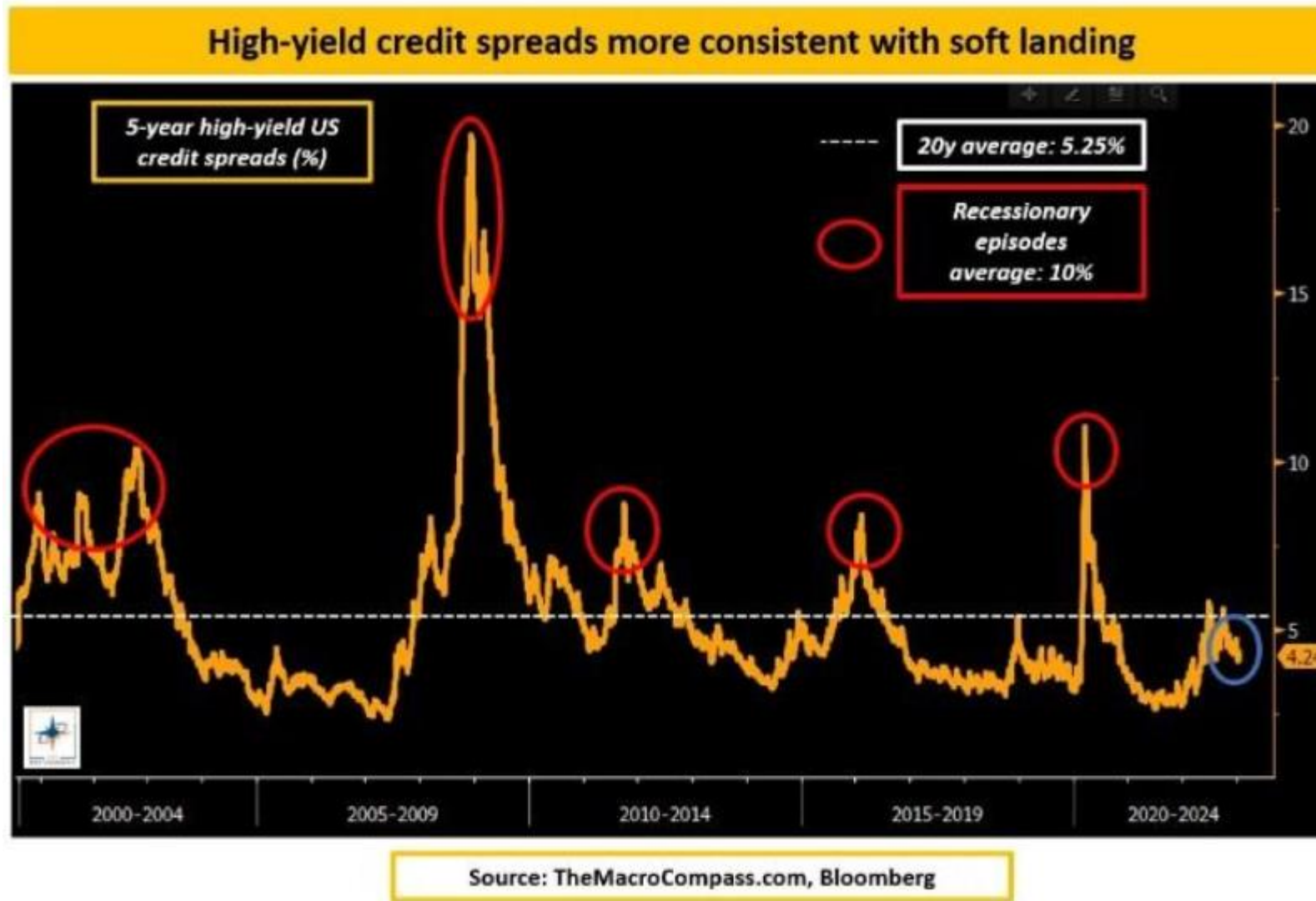
Are Bond Markets Forecasting Recession?



- Yield curve is most inverted in 40 yrs!
- So, bond market is pricing in certain recession, right?

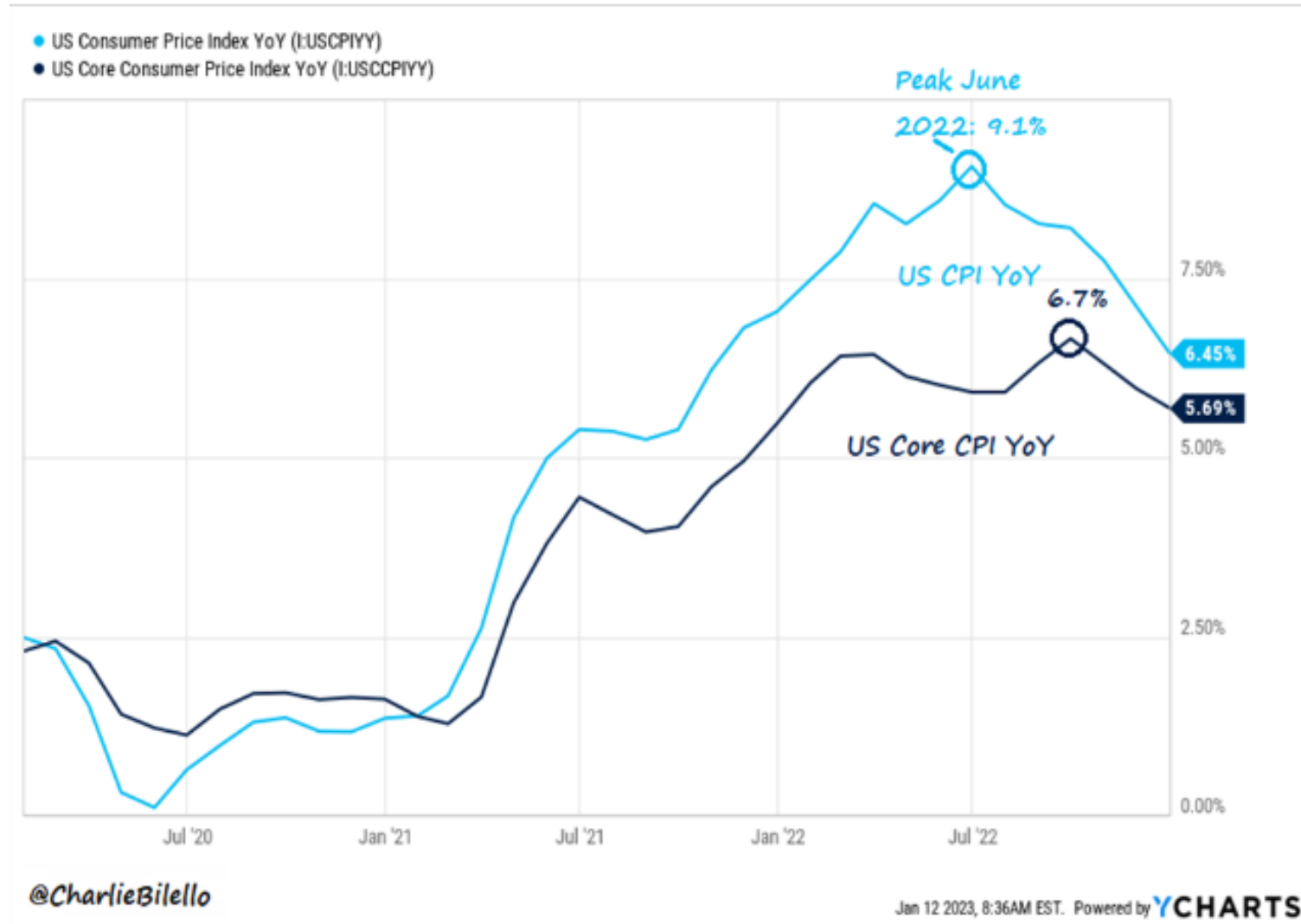


Credit Spreads Are Not Expecting Recession



- More consistent with a soft landing.
- Will this forecast be correct?

A Disinflation Story

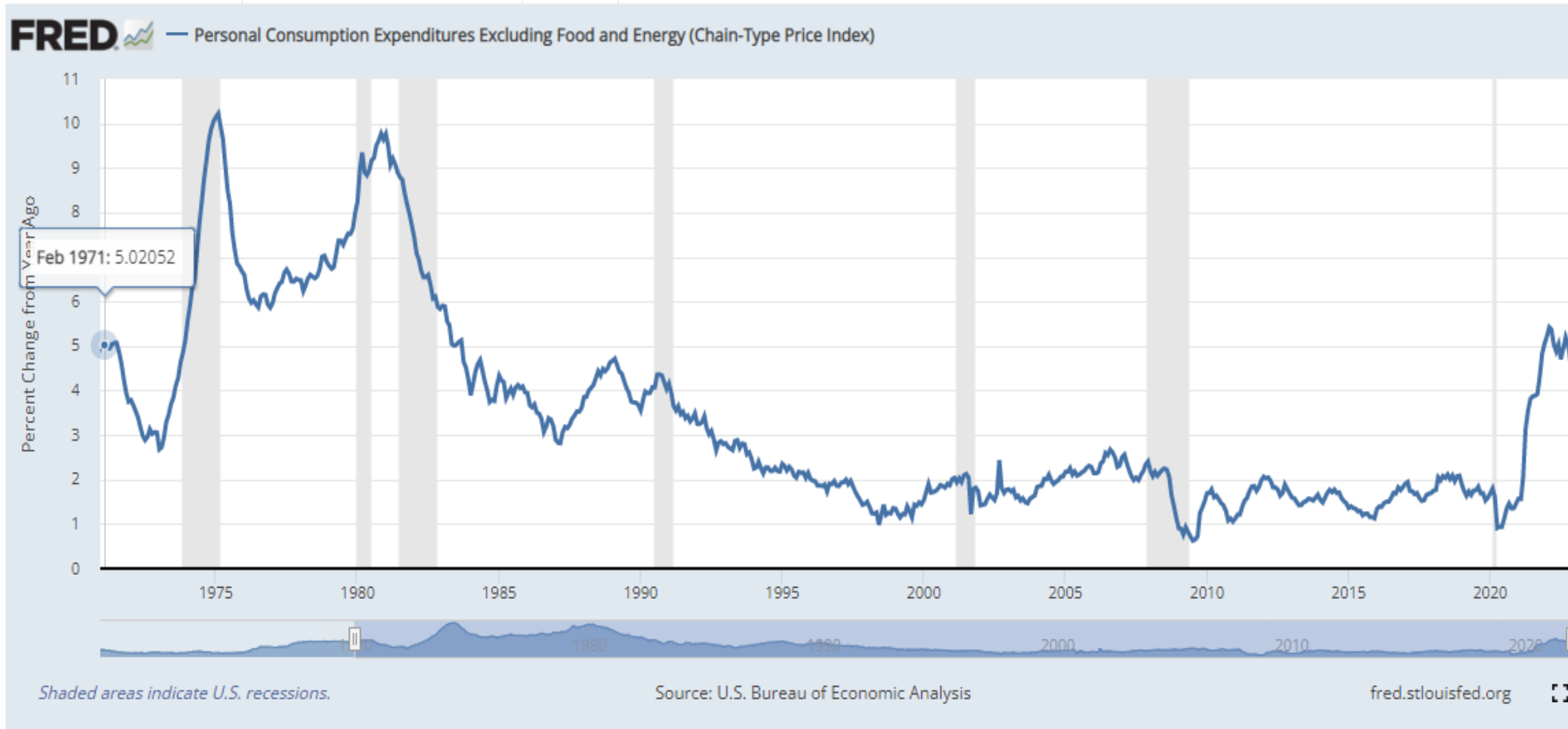


- .. Inflation is indeed falling rapidly

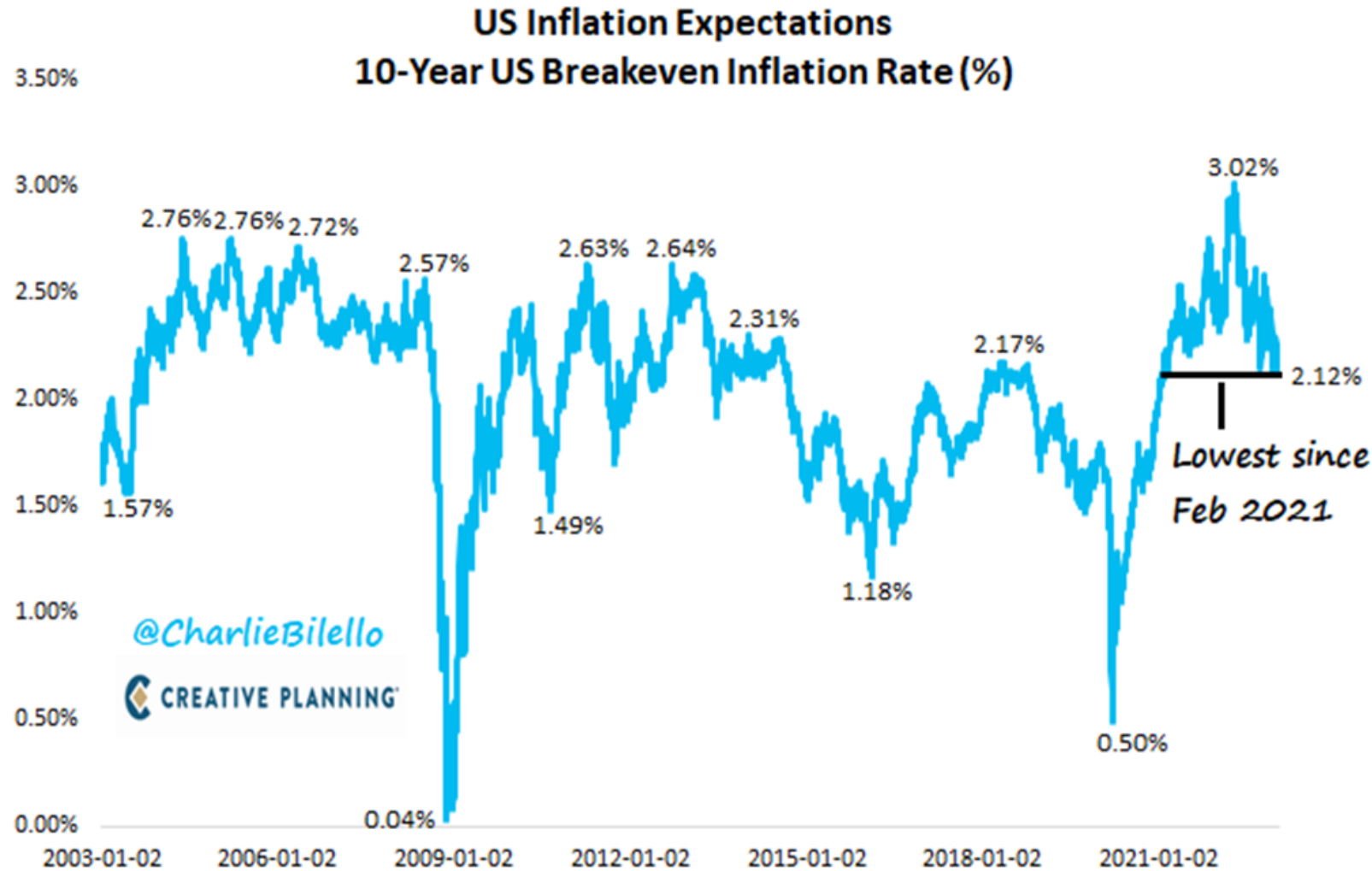


Higher Prices Not Just Food and Energy

PCE Excluding Food and Energy



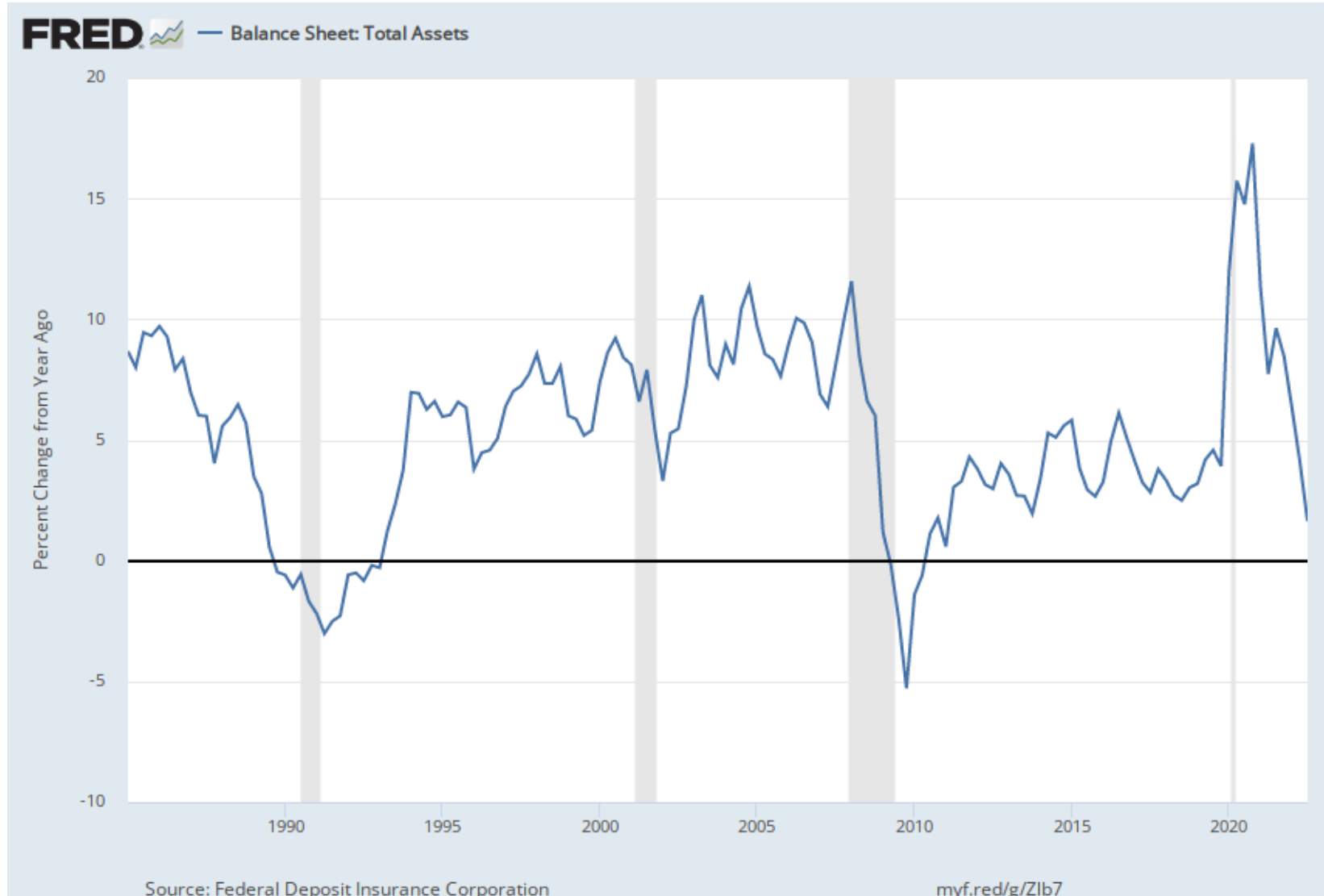
What are Markets saying about inflation?



- .. Expected future inflation falling rapidly as well



Fed's "Grand Experiment" Continues Now Rapidly Draining Liquidity



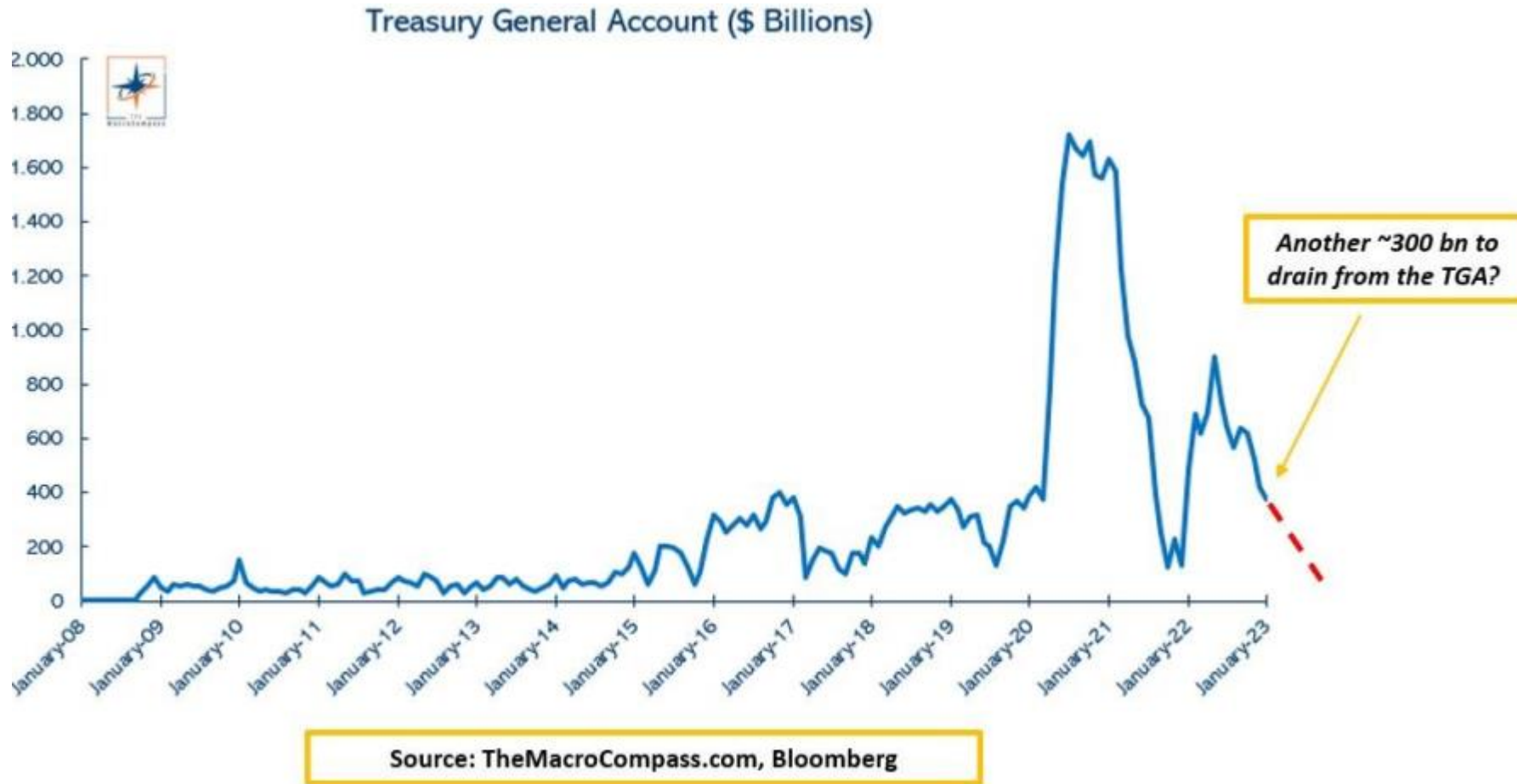
- Quantitative Tightening (QT)
- What will impact be on economy and markets?

Source: Federal Deposit Insurance Corporation

myf.red/g/ZIb7

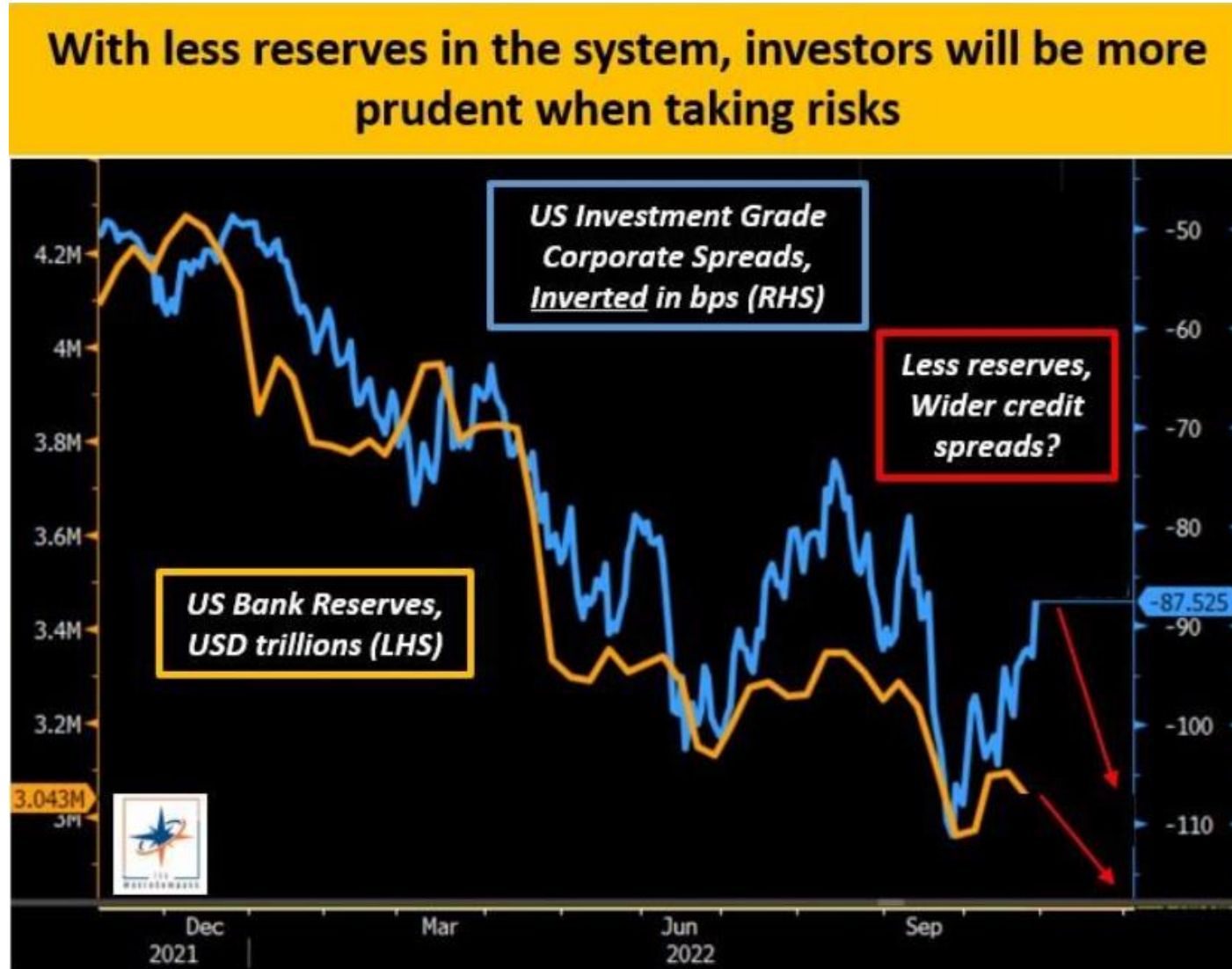


Treasury is Dampening the Liquidity Drain, for Now



- UST removing \$300B from the TGA, softening the negative impact of QT
- How much longer can TGA dampen the blow?
- Will this lead to a nasty surprise reduction in liquidity (bank reserves)?

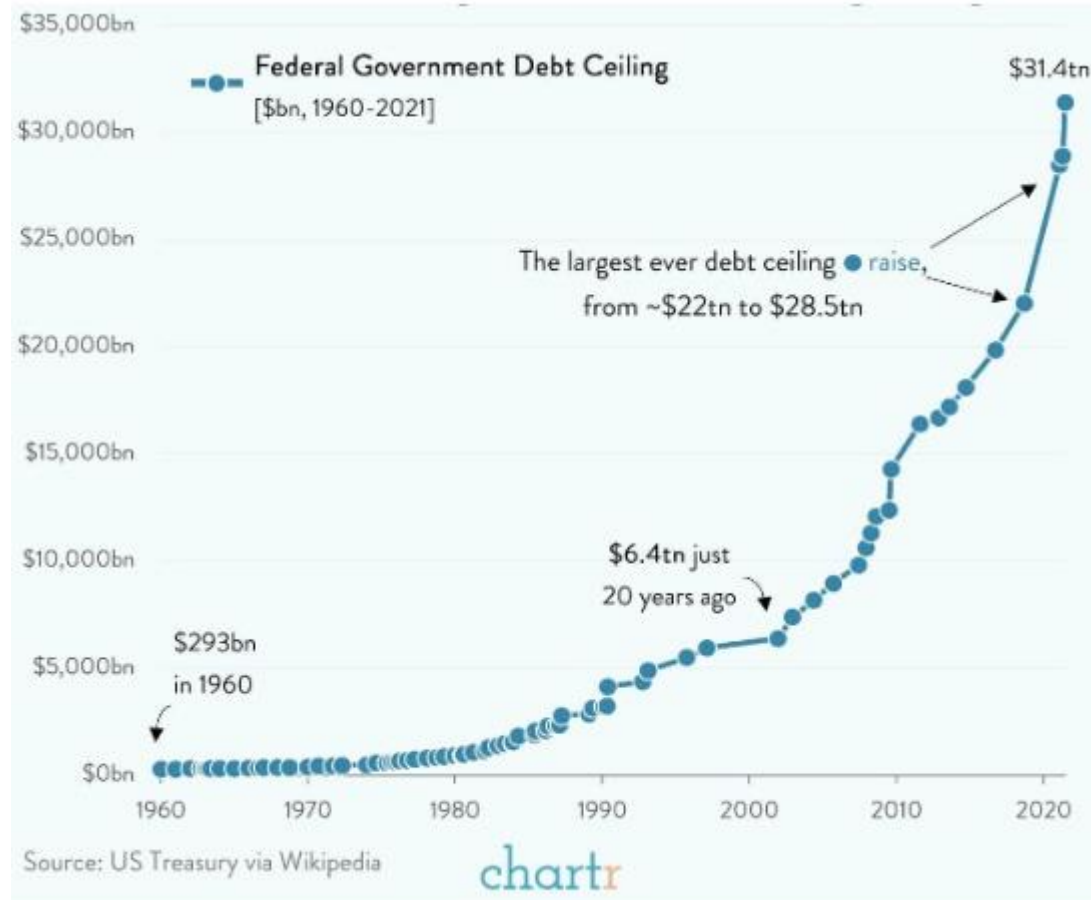
Will Investor Risk Appetite Fade as FRB Removes Liquidity?



- Will risk appetite among investors wane?

Another Debt Ceiling Crisis?

A History of the US Debt Ceiling



- The U.S. federal government has reached its debt ceiling.
- The cost of insuring against a U.S. default has jumped.
- Will the U.S. actually default?
- What are consequences for the markets?



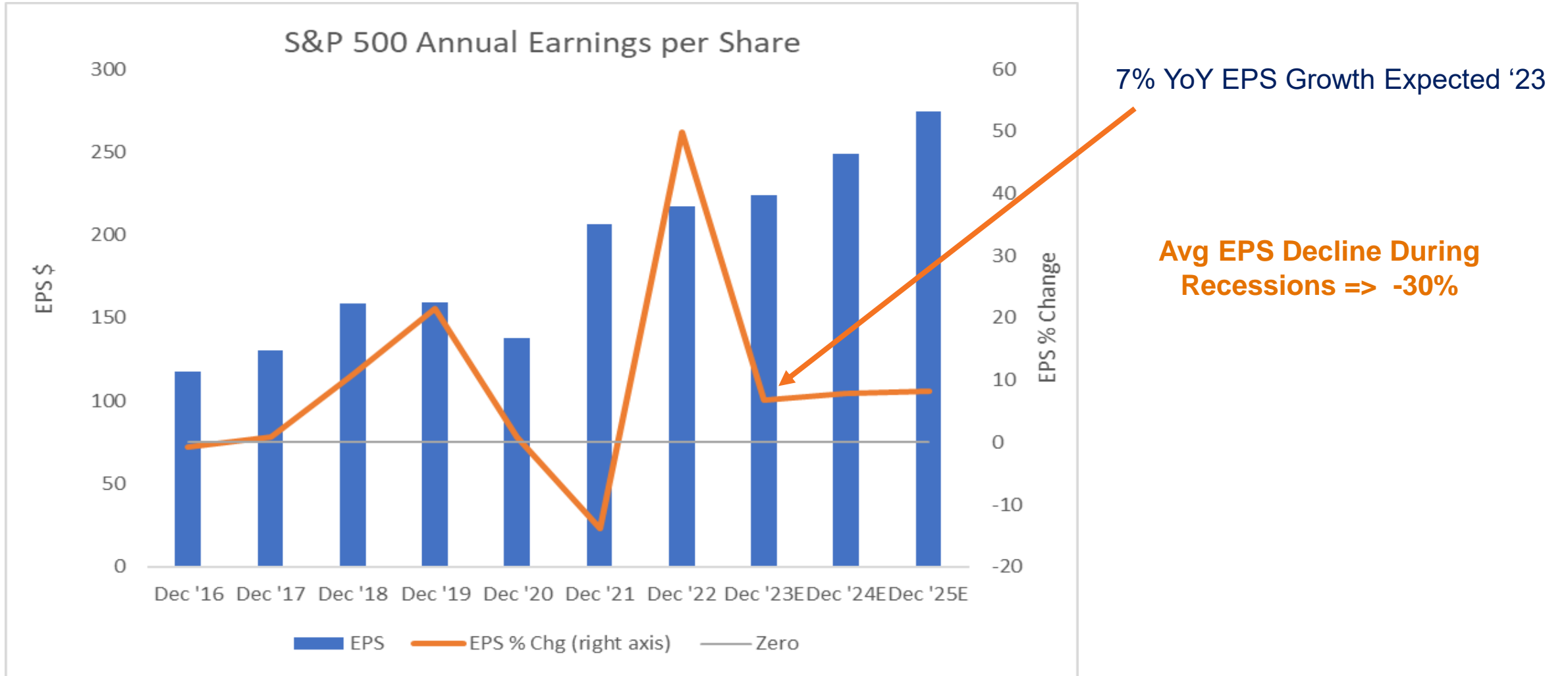
Debt Ceiling Crisis: What is Market Saying?

1- year US Treasury Credit Default Swaps



- Previous debt ceiling events have always made headlines, but they have never had a major impact on **medium/long-term** stock performance.
- In episodes of debt ceiling debate, including 1995, 2011 and 2013, markets reached higher levels in the 12 months following the debt ceiling resolution.
- Markets are driven more by economic fundamentals and earnings than by the vagaries of U.S. politics.

Corporate Earnings Slowing, More to Come?



Source: Factset, data pulled Jan 28, 2023



Whenever you invest, you are at risk of loss of principal as the market fluctuates. Past performance is not indicative of future results. Purchases are subject to suitability. This requires a review of an investor's objective, risk tolerance, and time horizons. Investing always involves risk and possible loss of capital.

Corporate Earnings During Recessions

In a recession, earnings decline for 5 quarters and on average by 30%



| Economic Peak Month | Economic Trough Month | Quarters of EPS Decline | EPS Change |
|------------------------|--------------------------|----------------------------|------------|
| August-57 | April-58 | 4 | -17,0% |
| April-60 | February-61 | 7 | -11,7% |
| December-69 | November-70 | 5 | -12,9% |
| November-73 | March-75 | 4 | -14,8% |
| January-80 | July-80 | 4 | -4,6% |
| July-81 | November-82 | 4 | -19,1% |
| July-90 | March-91 | 10 | -36,7% |
| March-01 | November-01 | 5 | -54,0% |
| December-07 | June-09 | 7 | -91,9% |
| February-20 | April-20 | 4 | -32,5% |

Average # of Quarters EPS Declined

5,4

Average EPS Decline

-29,5%

Average Decline During Recessions -
30%

Source: TheMacroCompass.com



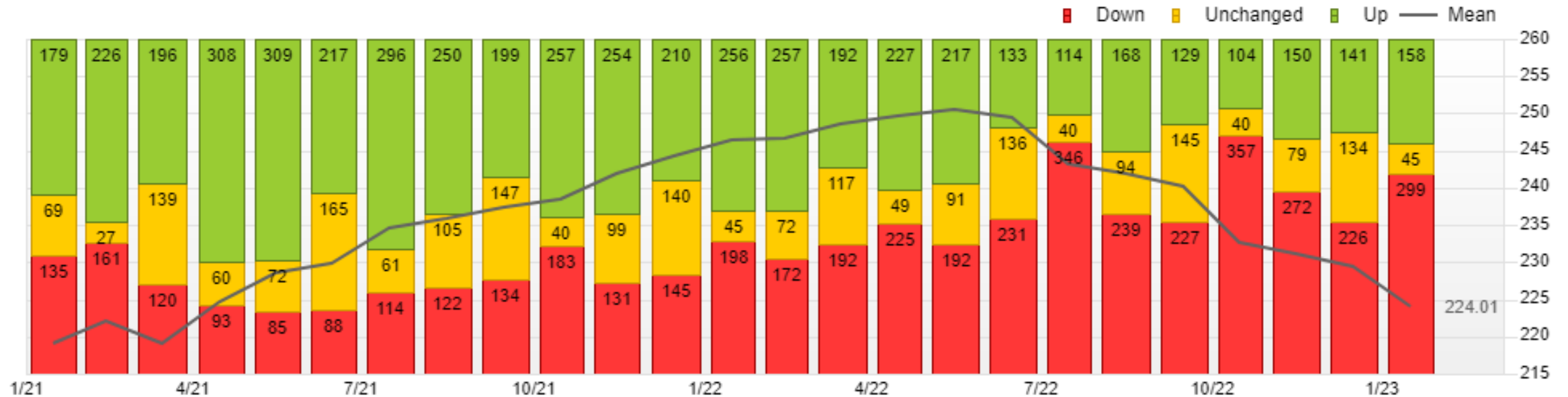
Forecasted Earnings Falling Since Mid-2022

S&P 500 (SP50)

\$4,070.56

[Key Statistics](#)

[FactSet Market Aggregates](#)



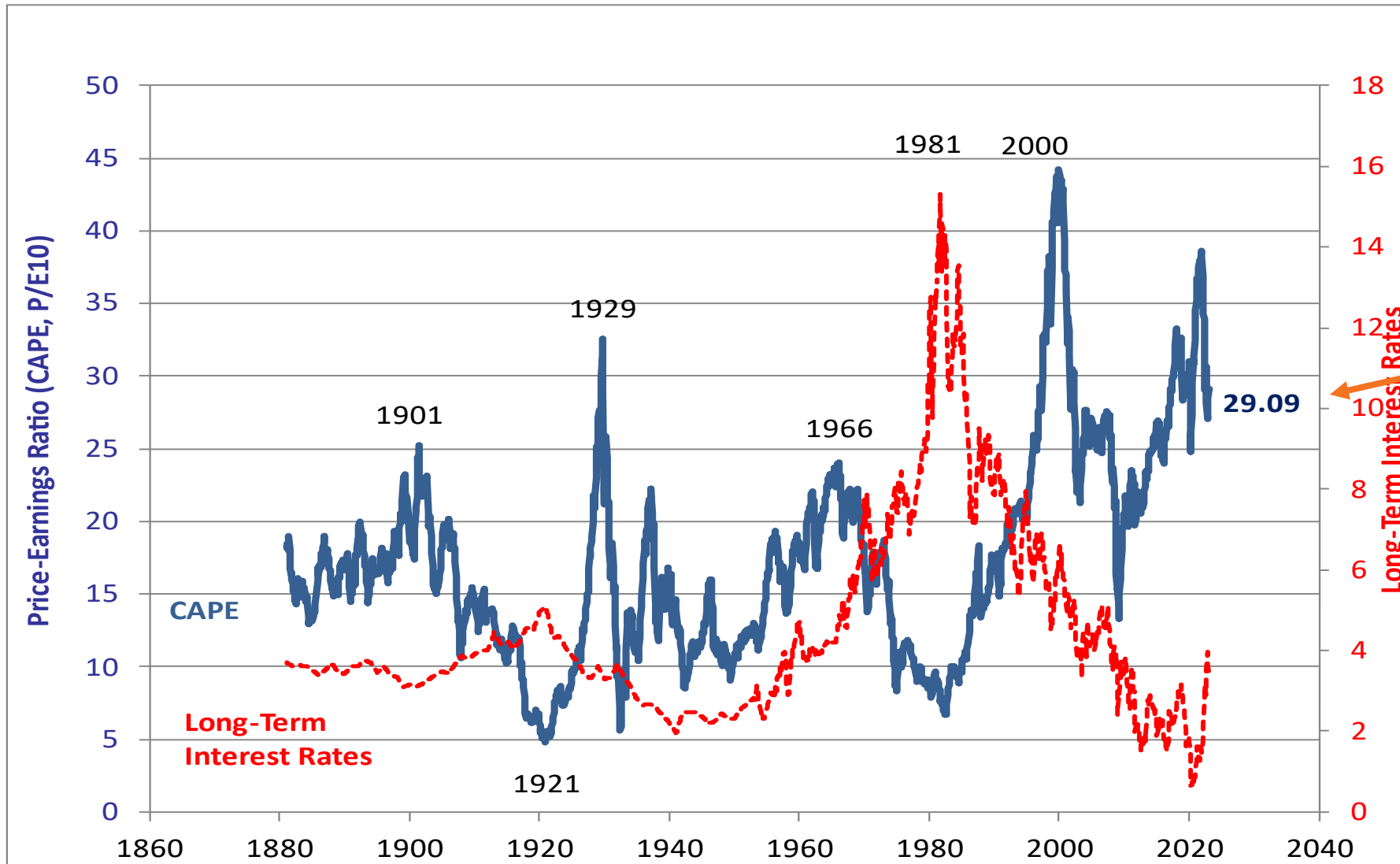
- EPS estimates continue to fall
- Down revisions on the rise

Source: Factset, data pulled Jan 28, 2023



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Current Market Valuation (Shiller P/E)



Market CAPE valuation falling back to earth

But is still elevated

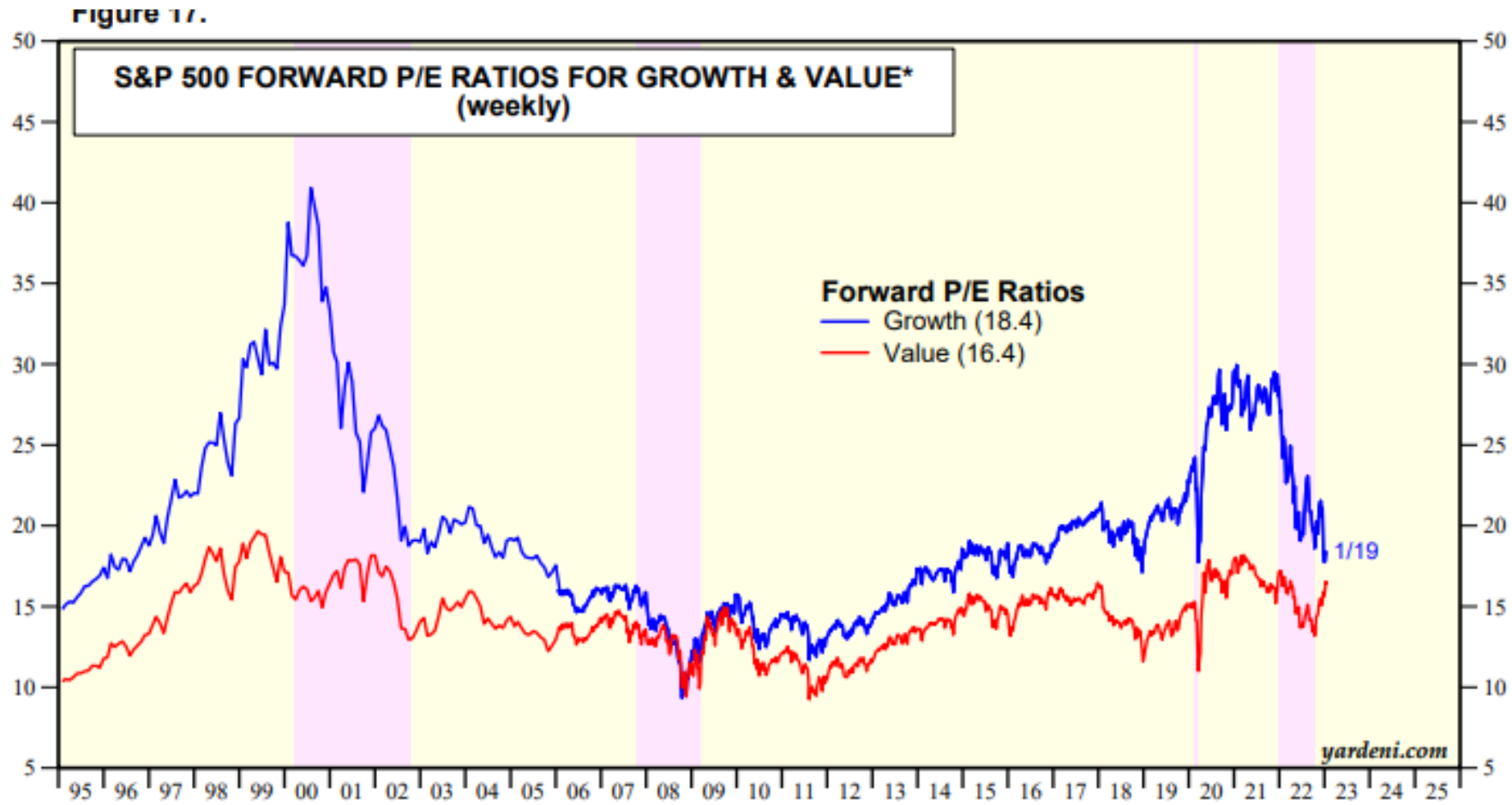
Source: Robert Shiller website



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Growth vs Value P/E Valuation

Relative Valuation of Growth vs Value



* Price divided by 12-month (52-week) forward consensus expected operating earnings per share. Monthly data through December 2005, weekly thereafter.
Note: Shaded red areas are S&P 500 bear market declines of 20% or more. Yellow areas are bull markets.
Source: I/B/E/S data by Refinitiv .

Source: yardeni.com.

