WEALTH ADVISORS

TRUST MATTERS.

March 2023

Point of View – Economy – Markets

Important Information

The views and opinions expressed are those of the speaker and are subject to change based on factors such as market and economic conditions. These views and opinions are not an offer to buy a particular security and should not be relied upon as investment advice. Past performance cannot guarantee comparable future results.

Important Information

Performance quoted is past performance and cannot guarantee comparable future results; current performance may be higher or lower.

Results shown assume the reinvestment of dividends.

An investment cannot be made directly in an index.

Investments with higher return potential carry greater risk for loss.

Investing in small companies involves greater risks not associated with investing in more established companies, such as business risk, significant stock price fluctuations and illiquidity.

Foreign securities have additional risks, including exchange rate changes, political and economic upheaval, the relative lack of information about these companies, relatively low market liquidity and the potential lack of strict financial and accounting controls and standards.

Investing in emerging markets involves greater risk than investing in more established markets such as risks relating to the relatively smaller size and lesser liquidity of these markets, high inflation rates, adverse political developments and lack of timely information.

Fluctuations in the price of gold and precious metals often dramatically affect the profitability of the companies in the gold and precious metals sector. Changes in political or economic climate for the two largest gold producers, South Africa and the former Soviet Union, may have a direct effect on the price of gold worldwide.

Bank Term Funding Program

March 12, 2023

Federal Reserve Board announces it will make available additional funding to eligible depository institutions to help assure banks have the ability to meet the needs of all their depositors

For release at 6:15 p.m. EDT

Share

To support American businesses and households, the Federal Reserve Board on Sunday announced it will make available additional funding to eligible depository institutions to help assure banks have the ability to meet the needs of all their depositors. This action will bolster the capacity of the banking system to safeguard deposits and ensure the ongoing provision of money and credit to the economy.

The Federal Reserve is prepared to address any liquidity pressures that may arise.

The additional funding will be made available through the creation of a new Bank Term Funding Program (BTFP), offering loans of up to one year in length to banks, savings associations, credit unions, and other eligible depository institutions pledging U.S. Treasuries, agency debt and mortgage-backed securities, and other qualifying assets as collateral. These assets will be valued at par. The BTFP will be an additional source of liquidity against high-quality securities, eliminating an institution's need to quickly sell those securities in times of stress.

Source: Federal Reserve, March 12, 2023.

Economic fallout

THE WALL STREET JOURNAL.

Estimates of just how much any credit contraction could reduce hiring, economic activity and inflation were "rule-of thumb guesswork, almost, at this point. But we think it's potentially quite real, and that argues for being alert as we go forward," Mr. Powell said at a news conference after the conclusion of the Fed's policy meeting. Later, he said, "it could easily have a significant macroeconomic effect."

Source: *The Wall Street Journal.* "Fed Boosts Rates Amid Bank Turmoil", by Nick Timiraos. March 23, 2023.

Economic fallout

Source: *CNBC* live, March 22, 2023.

Economic fallout

THE WALL STREET JOURNAL.

Banking Mess Raises Recession Risk

Main Street businesses and American families are likely to find it harder to get a loan because of turmoil in the banking industry, denting economic growth and raising the risk of a recession.

Smaller banks are likely to respond by tightening standards and slowing lending to raise capital ratios, said Torsten Slok, chief economist at Apollo Global Management Inc., a private-equity firm. "If it's suddenly much harder to get an auto loan, a consumer loan, a mortgage for commercial real estate simply because smaller regional banks have to reorganize balance sheets," Mr. Slok said, "then you run the risk that many people won't get the financing to buy that car, to buy that washer, and that corporate lending takes a hit."

Goldman Sachs economists increased the probability that the economy enters a recession in the next 12 months to 35%, from 25% before the SVB failure.

Source: *The Wall Street Journal.* "Banking Mess Raises Recession Risk", by Gwynn Guilford. March 20, 2023.

Federal Reserve

Central tendency forecast – GDP estimates shaved

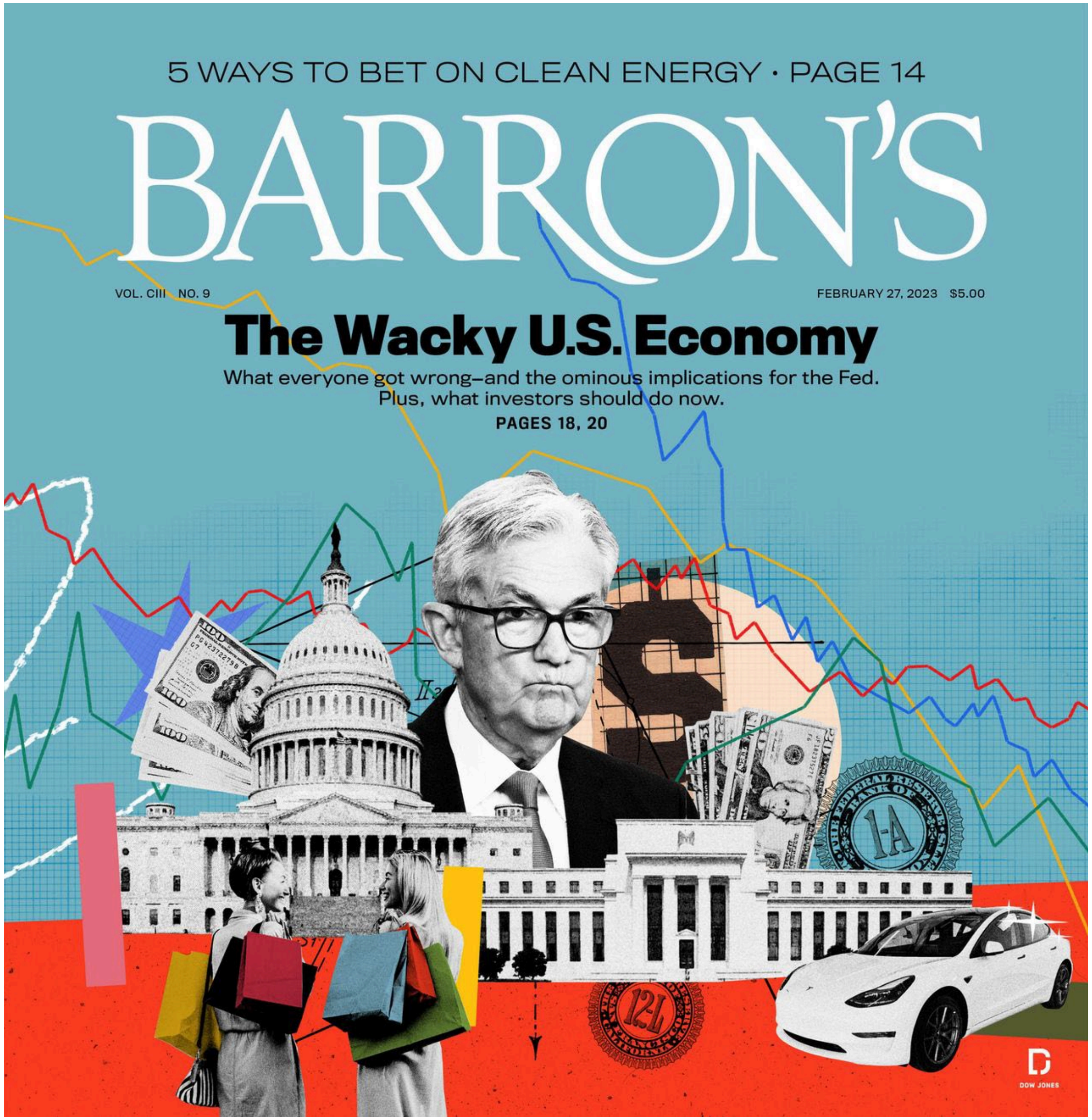
For release at 2:00 p.m., EDT, March 22, 2023

Table 1. Economic projections of Federal Reserve Board members and Federal Reserve Bank presidents, under their individual assumptions of projected appropriate monetary policy, March 2023

Percent

Variable	Median[1]				Central Tendency[2]				Range[3]			
	2023	2024	2025	Longer run	2023	2024	2025	Longer run	2023	2024	2025	Longer run
Change in real GDP	0.4	1.2	1.9	1.8	0.0–0.8	1.0–1.5	1.7–2.1	1.7–2.0	-0.2–1.3	0.3–2.0	1.5–2.2	1.6–2.5
December projection	0.5	1.6	1.8	1.8	0.4–1.0	1.3–2.0	1.6–2.0	1.7–2.0	-0.5–1.0	0.5–2.4	1.4–2.3	1.6–2.5
Unemployment rate	4.5	4.6	4.6	4.0	4.0–4.7	4.3–4.9	4.3–4.8	3.8–4.3	3.9–4.8	4.0–5.2	3.8–4.9	3.5–4.7
December projection	4.6	4.6	4.5	4.0	4.4–4.7	4.3–4.8	4.0–4.7	3.8–4.3	4.0–5.3	4.0–5.0	3.8–4.8	3.5–4.8
PCE inflation	3.3	2.5	2.1	2.0	3.0–3.8	2.2–2.8	2.0–2.2	2.0	2.8–4.1	2.0–3.5	2.0–3.0	2.0
December projection	3.1	2.5	2.1	2.0	2.9–3.5	2.3–2.7	2.0–2.2	2.0	2.6–4.1	2.2–3.5	2.0–3.0	2.0
Core PCE inflation[4]	3.6	2.6	2.1		3.5–3.9	2.3–2.8	2.0–2.2		3.5–4.1	2.1–3.1	2.0–3.0	
December projection	3.5	2.5	2.1		3.2–3.7	2.3–2.7	2.0–2.2		3.0–3.8	2.2–3.0	2.0–3.0	
Memo: Projected appropriate policy path												
Federal funds rate	5.1	4.3	3.1	2.5	5.1–5.6	3.9–5.1	2.9–3.9	2.4–2.6	4.9–5.9	3.4–5.6	2.4–5.6	2.3–3.6
December projection	5.1	4.1	3.1	2.5	5.1–5.4	3.9–4.9	2.6–3.9	2.3–2.5	4.9–5.6	3.1–5.6	2.4–5.6	2.3–3.3

Source: Federal Reserve, March 22, 2023.



Source: *Barron's*, February 27, 2023.

The Split-Personality Economy

Bad news

- LEI down again
- Inverted yield curve
- Weak manufacturing PMI
- Cooling retail sales
- Weak housing starts

Good news

- Strong hiring data
- Snap-back in the services PMI
- Strong Q4 GDP
- Strong February car sales
- Oil down
- Consumers still have cash
- Strong corporate balance sheets
- Strong bank capital
- Inflation is moderating

The Split-Personality Economy

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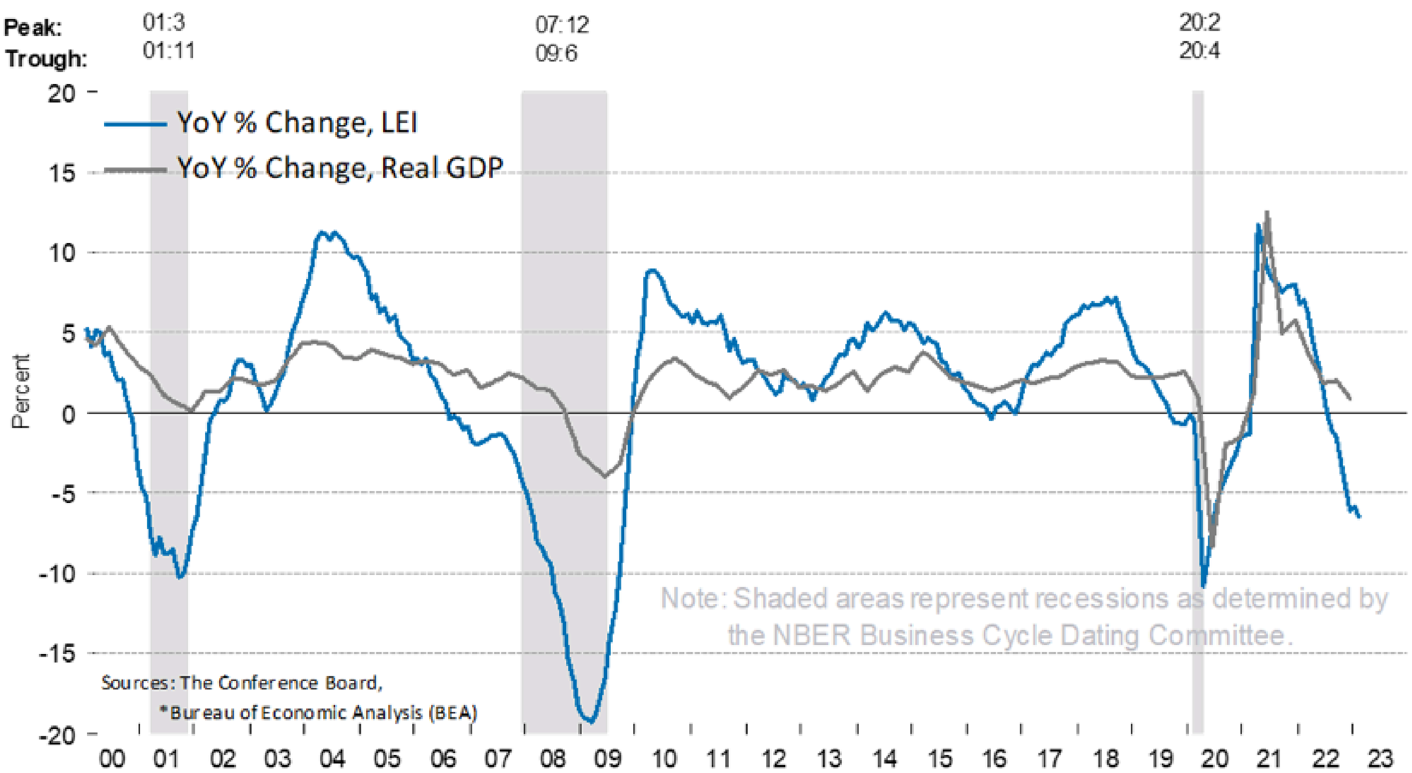
Economic data

U.S. index of leading economic indicators – signaling recession



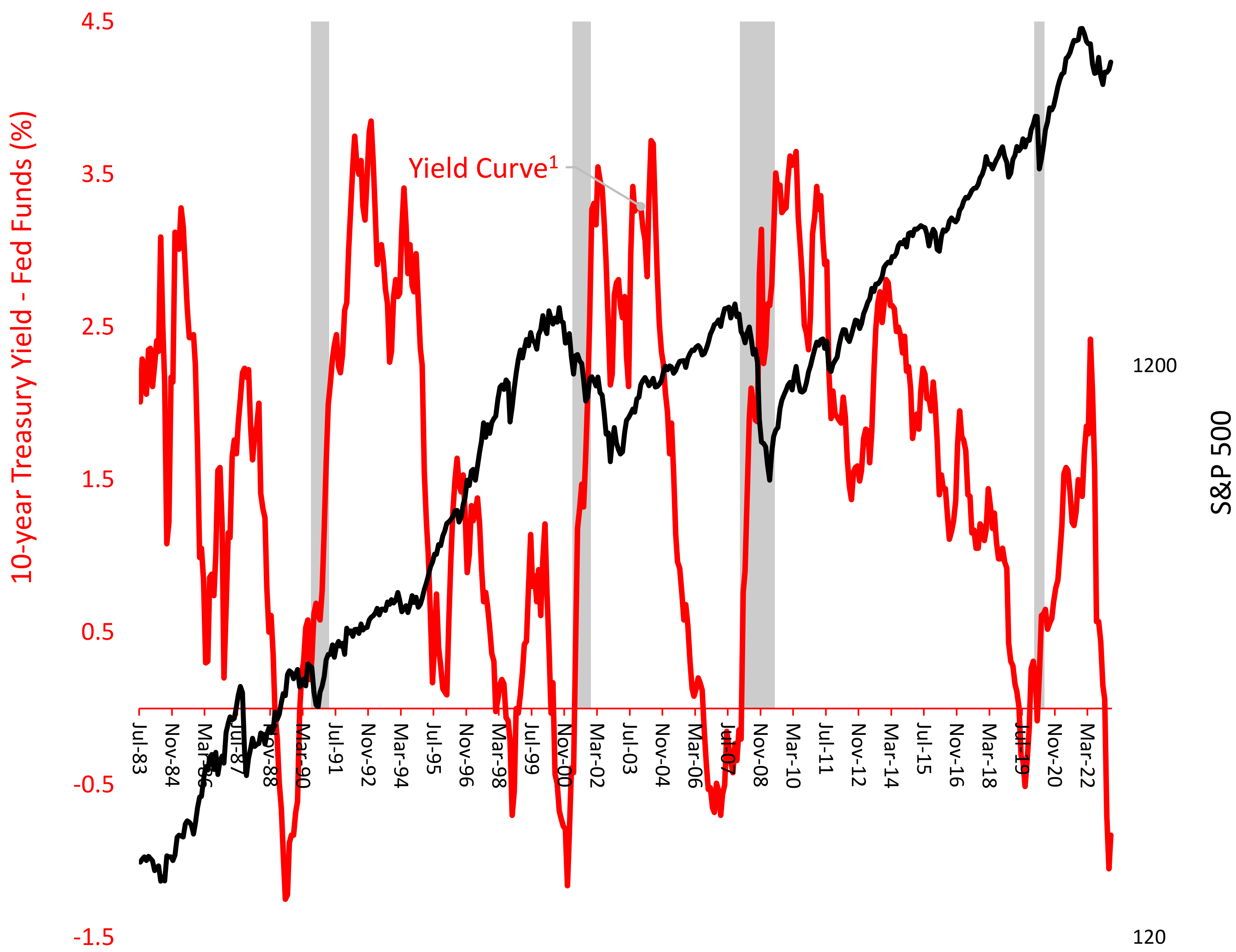
"The LEI for the US fell again in February, marking its eleventh consecutive monthly decline. … Overall, The Conference Board forecasts rising interest rates paired with declining consumer spending will most likely push the US economy into recession in the near term."

This chart shows how the LEI has definitively rolled over well in advance of the last recessions.

The Conference Board Leading Economic Index® (LEI) components: 1) average weekly hours worked, manufacturing; 2) average weekly initial unemployment claims; 3) manufacturers' new orders – consumer goods and materials; 4) ISM index of new orders; 5) manufacturers' new orders, nondefense capital goods; 6) building permits – new private housing units; 7) stock prices, S&P 500; 8) Leading Credit Index™; 9) interest rate spread; 10-year Treasury minus fed funds; 10) index of consumer expectations.
Source: ©The Conference Board. Data through February released March 17, 2023.

Federal Reserve policy

Yield curve vs. the S&P 500



When the yield curve has inverted the economy has usually turned down into recession with a lag of a year or more.

Today, the yield curve is inverted.

Sources: NBER, Federal Reserve and Standard & Poor's. Data through February 2023.

[1]The interest rate on the 10-year Treasury bond (long term) minus the fed funds rate (short term).

Retail sales

THE WALL STREET JOURNAL.

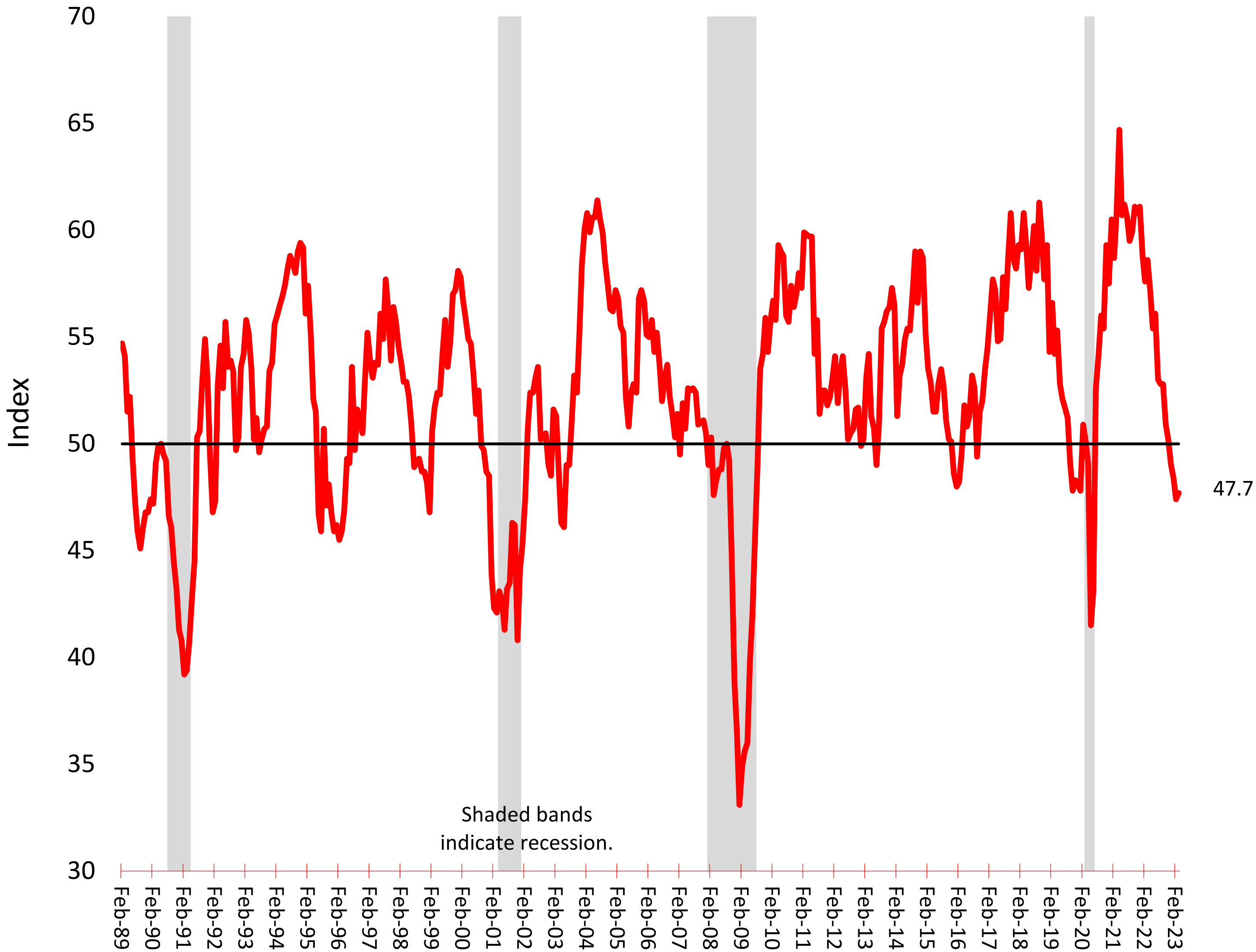
U.S. Economy Shows Signs of Cooling

Retail spending fell and price pressures eased in February, but Fed’s focus has shifted.

A drop in retail sales and easing price pressures in February offered preliminary signs of a cooling economy as the spread of financial turmoil on Wall Street called into question whether the Federal Reserve would continue raising interest rates.

Source: *The Wall Street Journal.* “U.S. Economy Shows Signs of Cooling”, by Harriet Torry, Sarah Nassauer and Nick Timiraos. March 16, 2023.

ISM manufacturing PMI



February at 47.7.

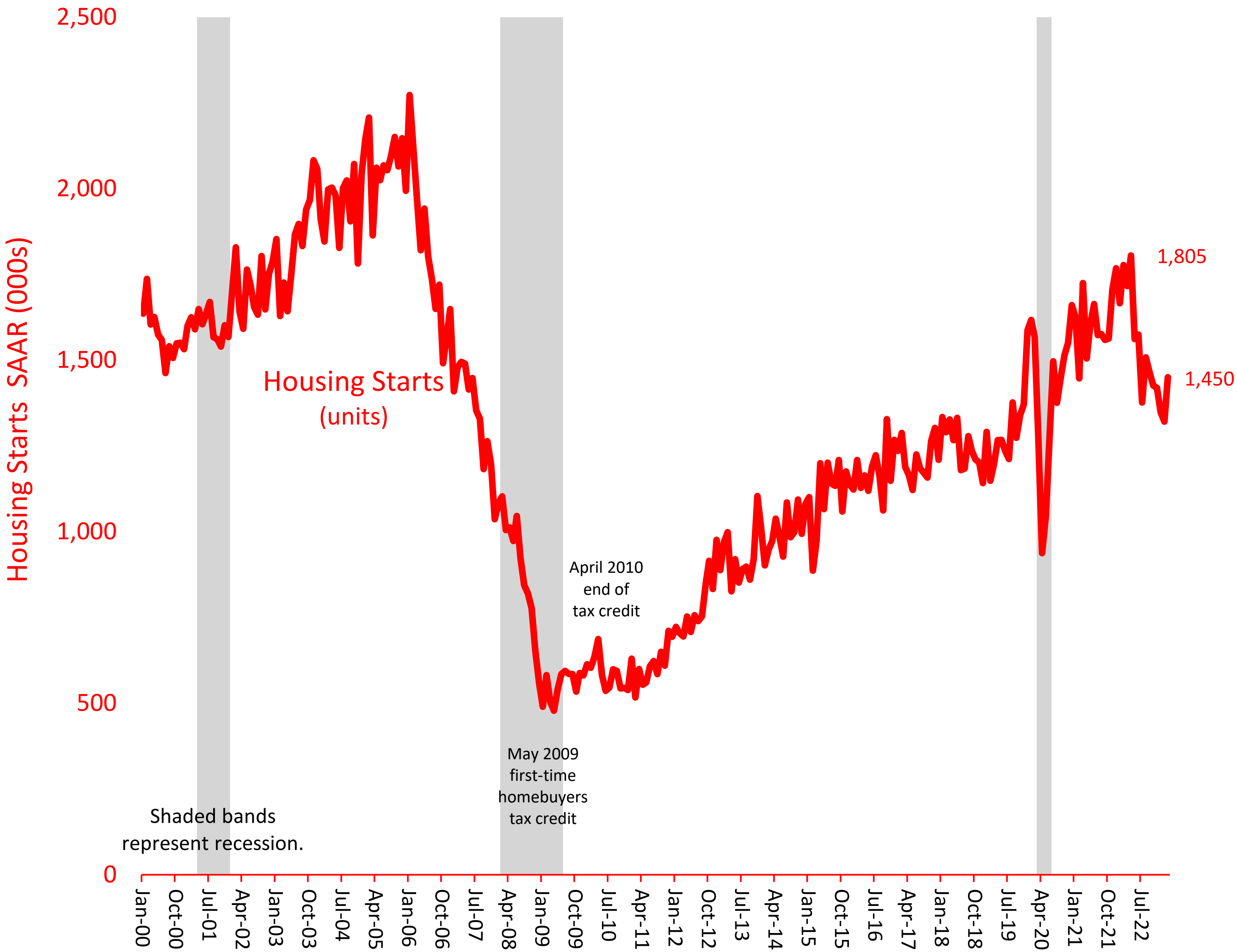
February new orders 47.0, up from 42.5.

Note the historic volatility in the manufacturing PMI.

Note how this indicator has slumped well below 50 even during periods of strong economic expansion, eg. 1995, 1999, 2003, 2013, 2016.

Source: Copyright 2023, Institute for Supply Management. Data through February 2023.
ISM: “A reading above 50 percent indicates that the manufacturing economy is generally expanding; below 50 percent indicates that it is generally contracting. A Manufacturing PMI® above 48.7 percent, over a period of time, generally indicates an expansion of the overall economy.”

Housing starts



1.450 million in February.

February permits at 1.524 million.

"Housing starts also remain(ed) well below the projected rate of 1.6 to 1.8 million that is consistent with long-term demographics and the replacement of the existing housing stock (Herbert, McCue, and Spader 2016)." [1]

Sources: BEA and U.S. Census Bureau. Data through February 2023.

[1] *Economic Report of the President*, Council of Economic Advisors, February 2018

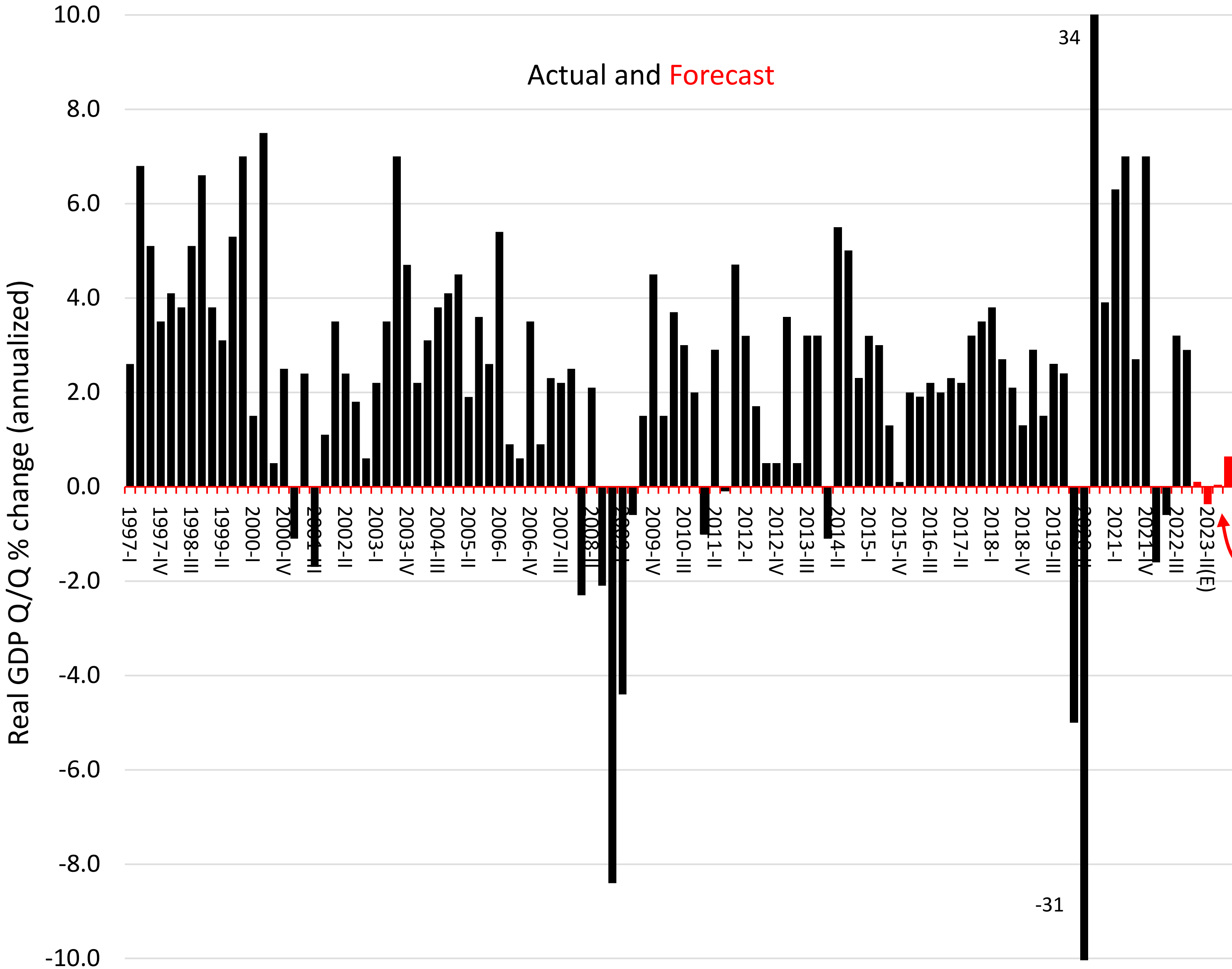
The Split-Personality Economy

Good news

- Strong hiring data
- Snap-back in the services PMI
- Strong Q4 GDP
- Strong February car sales
- Oil down
- Consumers still have cash
- Strong corporate balance sheets
- Strong bank capital
- Inflation is moderating

Consensus GDP forecast

GDP



The 60 economists surveyed in January <u>see mild contraction ahead,</u> but no recession.

Mild contraction forecasted in second quarter of 2023.

Sources: Bureau of Economic Analysis, actual quarterly data through December 2022. *The Wall Street Journal* survey released January 2023.

Net new job formation

THE WALL STREET JOURNAL.

Hiring, Economy Show Surprising Resilience

Robust hiring in February added to recent evidence the economy got off to a strong start this year, despite rising interest rates aimed at slowing growth and high inflation.

Source: *The Wall Street Journal.* "Hiring, Economy Show Surprising Resilience", by Sarah Chaney Cambon. March 11-12, 2023.

GDP forecast

Atlanta Fed's GDPNow forecast

Latest estimate: 3.2 percent — March 16, 2023

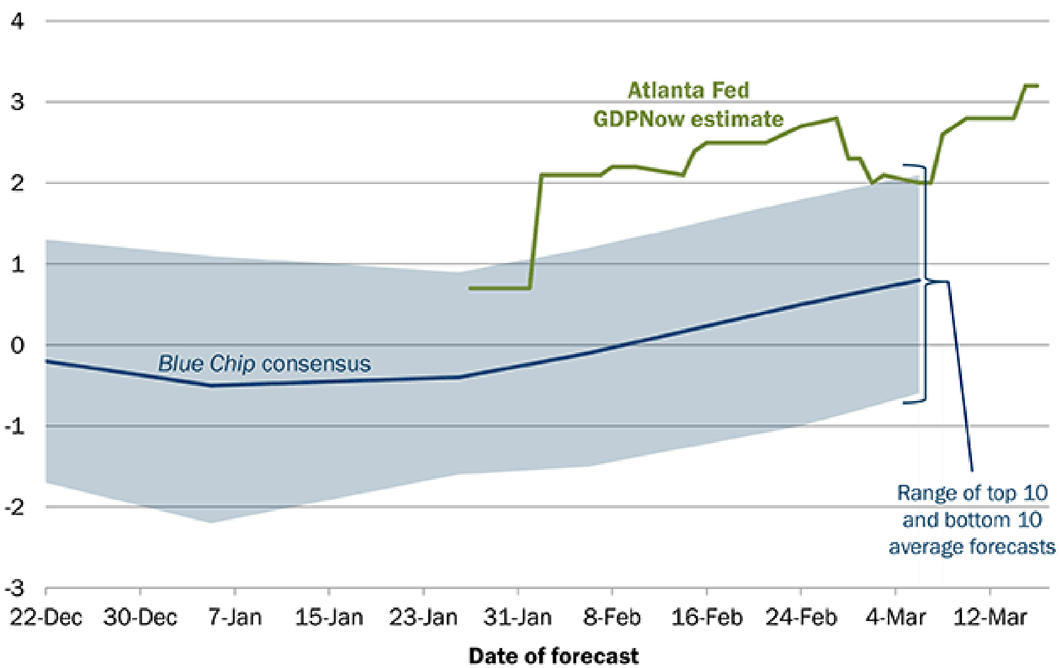
The GDPNow model estimate for real GDP growth (seasonally adjusted annual rate) in the first quarter of 2023 is **3.2 percent** on March 16, unchanged from March 15 after rounding. After this morning's releases from the US Census Bureau and the US Bureau of Labor Statistics, an increase in the nowcast of first-quarter real net exports was offset by a decrease in the nowcast of first-quarter real residential investment growth.

*The next GDPNow update is **Friday, March 24**. Please see the "Release Dates" tab below for a list of upcoming releases.*

GDPNow is much higher than Blue Chip consensus.

Evolution of Atlanta Fed GDPNow real GDP estimate for 2023: Q1

Quarterly percent change (SAAR)



Actual fourth quarter GDP growth: +2.9%

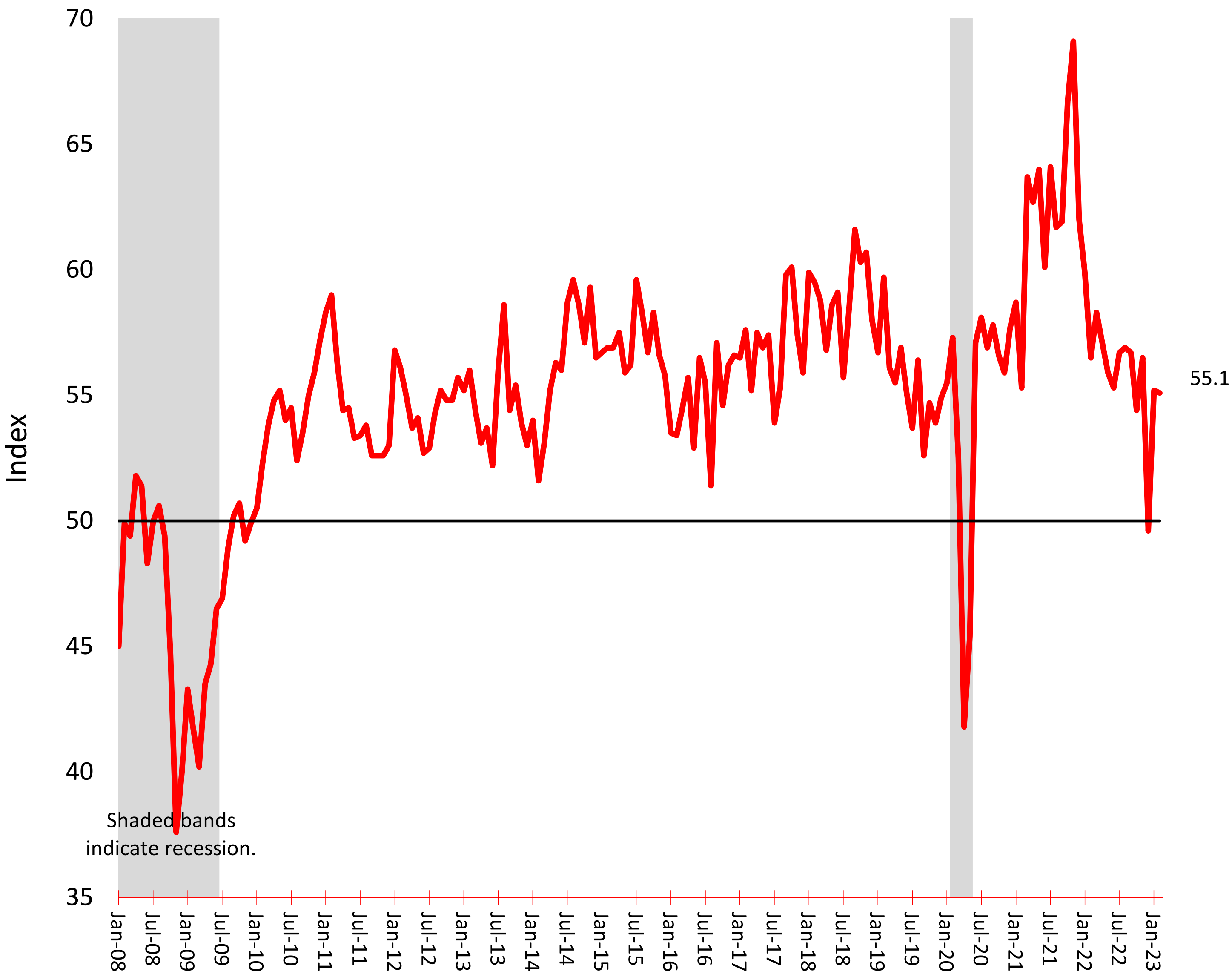
Sources: *Blue Chip Economic Indicators* and *Blue Chip Financial Forecasts*

Note: The top (bottom) 10 average forecast is an average of the highest (lowest) 10 forecasts in the *Blue Chip* survey.

Source: Federal Reserve Bank of Atlanta, March 16, 2023.

Economic data

ISM services PMI



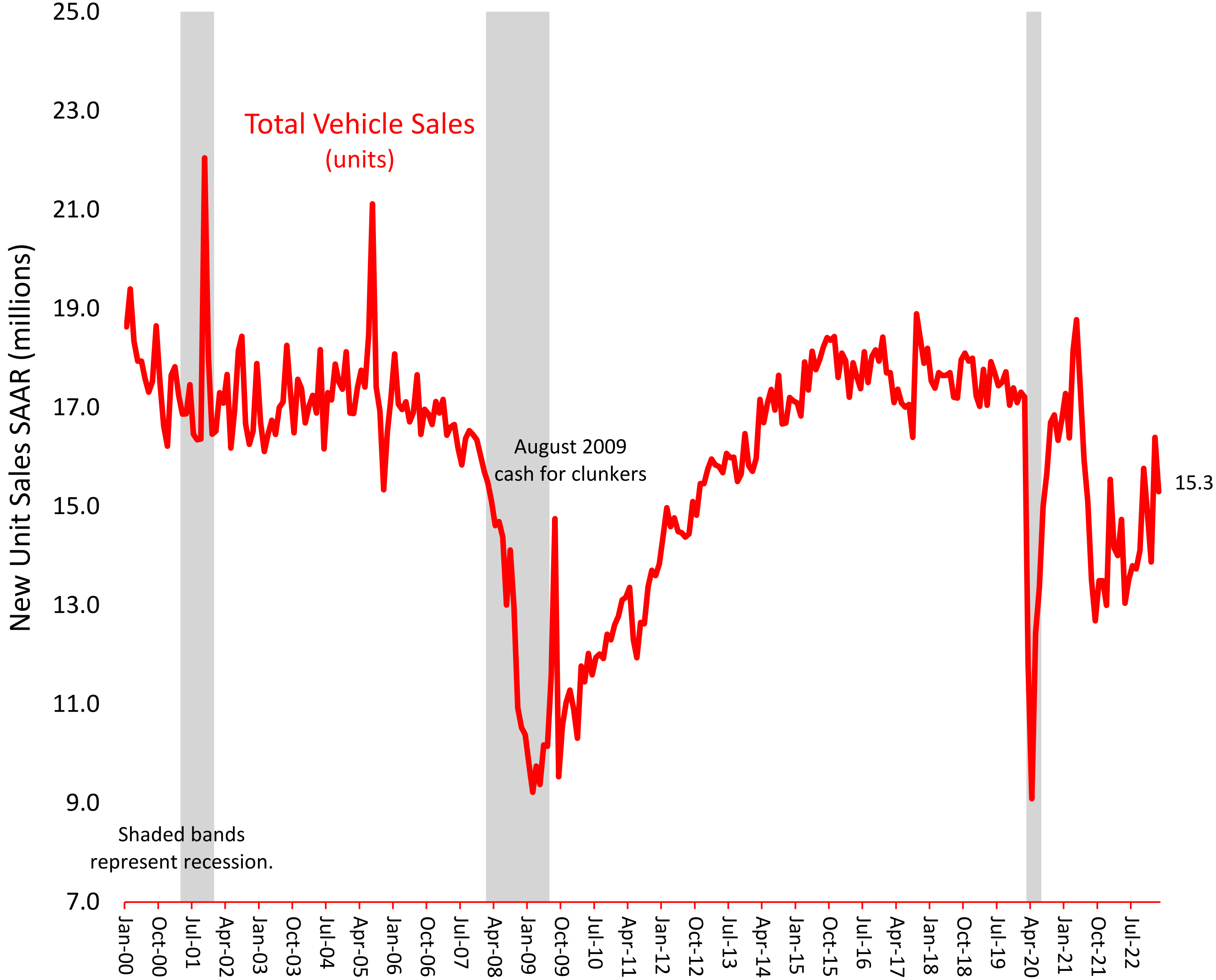
February at 55.1.

February new orders 62.6.

Services comprise 89% of the U.S. economy[1] and 91% of total nonfarm jobs.

Source: Copyright 2023, Institute for Supply Management; data through February 2023. This data series was created in 2008. ISM: “A reading above 50 percent indicates that the services sector economy is generally expanding; below 50 percent indicates that it is generally contracting.” “A Services PMI® above 50.1 percent, over time, generally indicates an expansion of the overall economy.” [1]Value added as a percent of GDP.

Vehicle sales

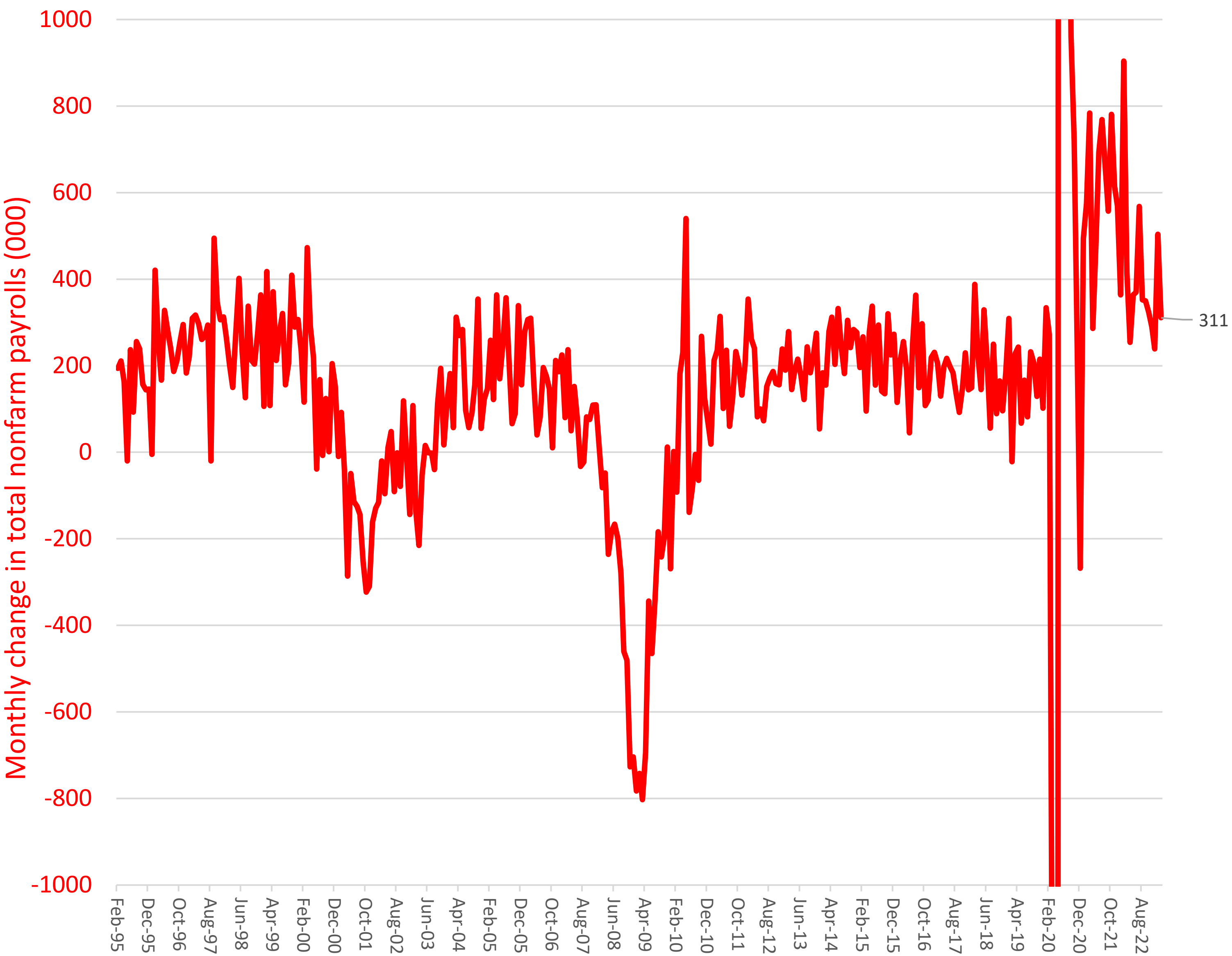


Car sales recovering.

Sources: BEA. Data through February 2023.

Economic data

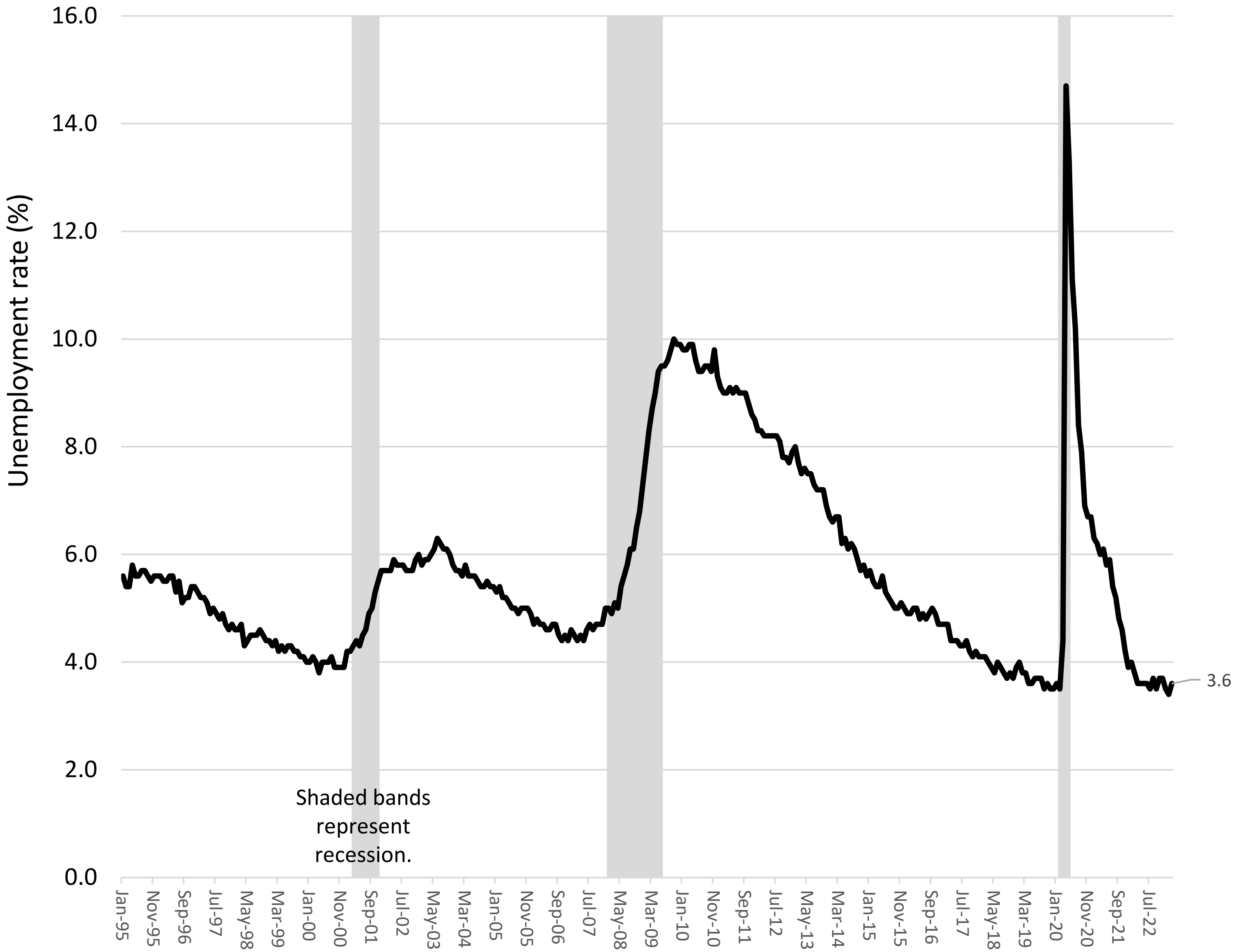
Net new job formation



311,000 jobs gained in February on the establishment survey.

Source: Bureau of Labor Statistics. Data through February 2023.

Unemployment rate

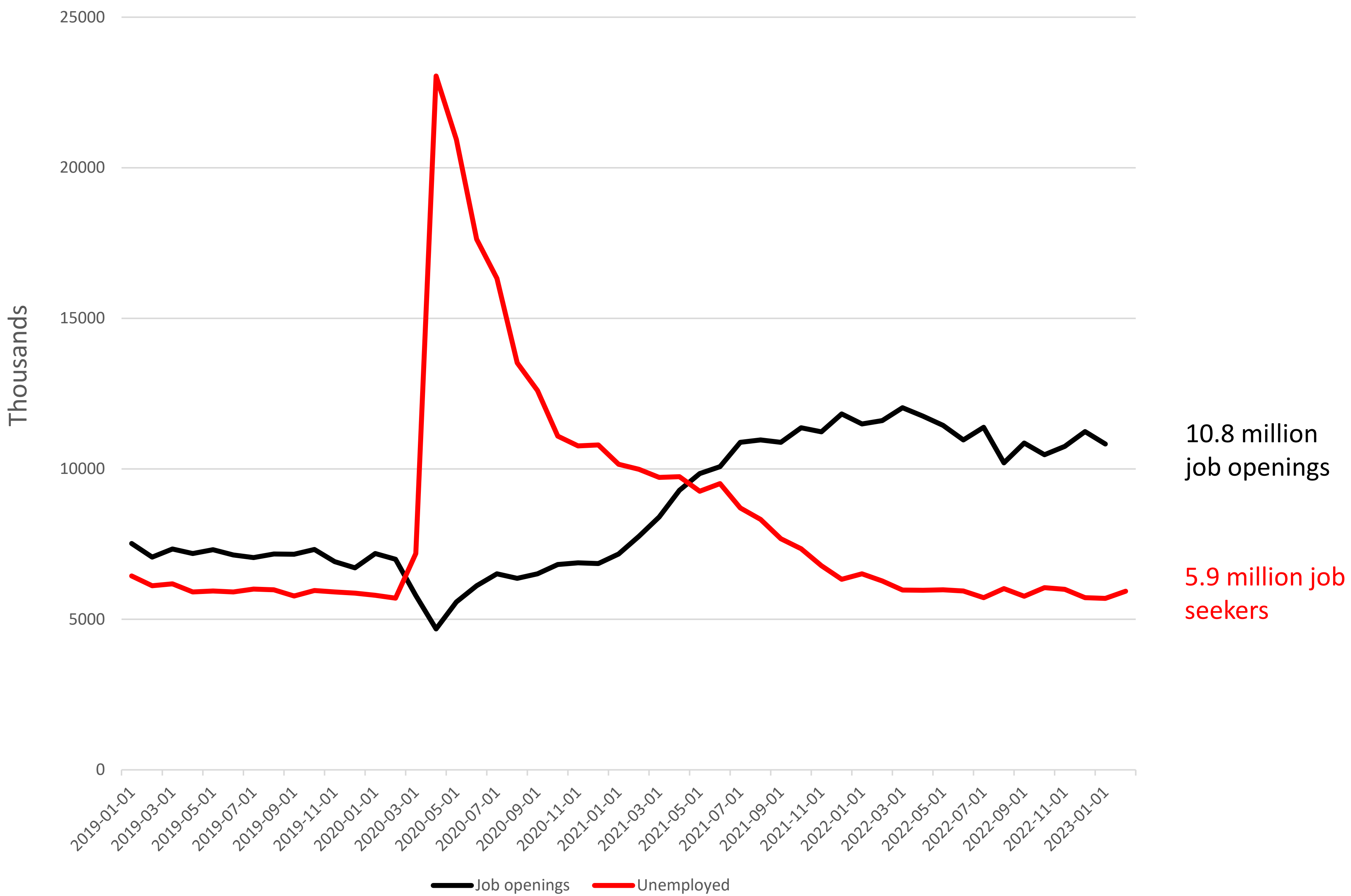


3.6% in February.

Source: Bureau of Labor Statistics. Data through February 2023.

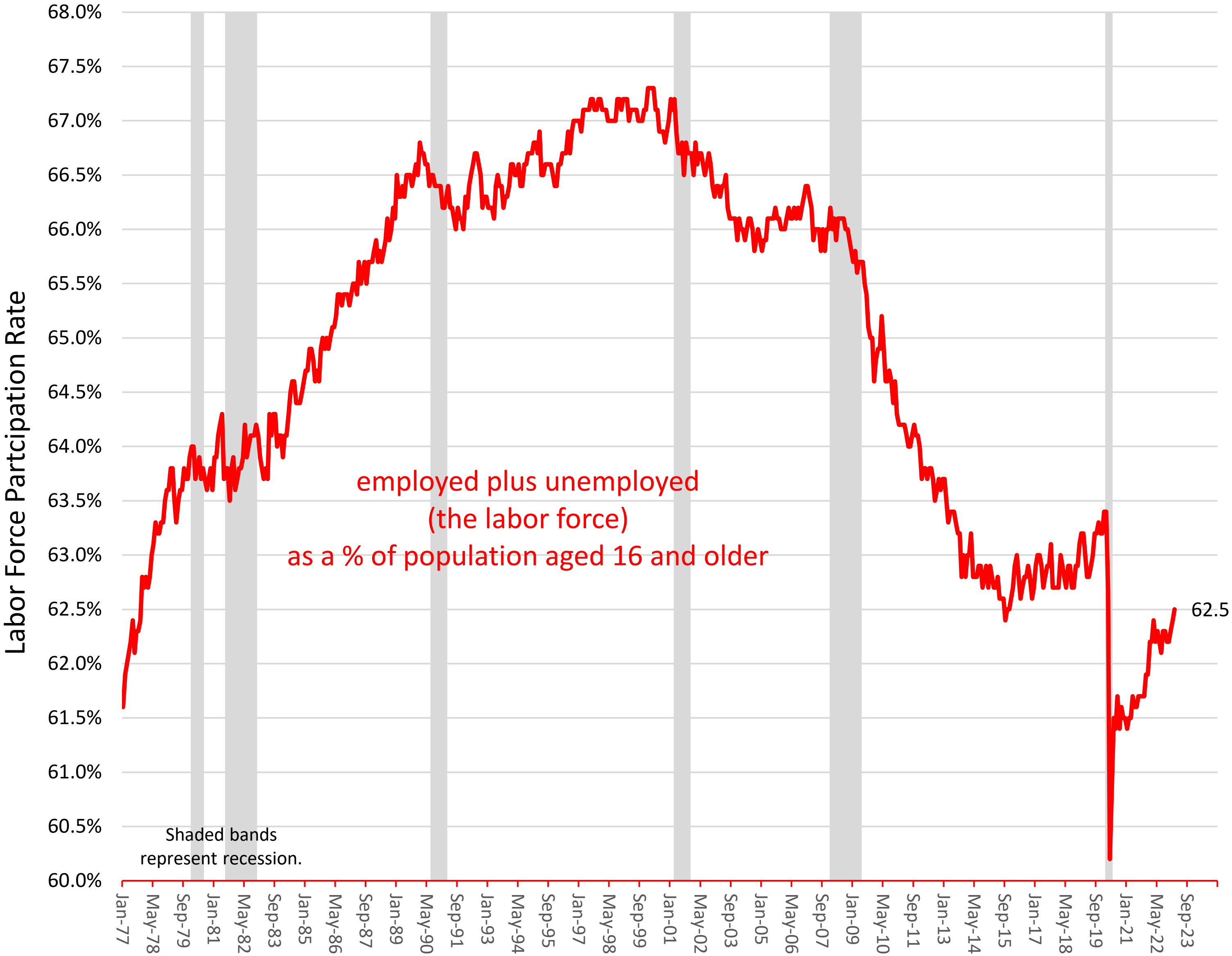
Economic data

Job openings vs. unemployed job seekers



Source: Bureau of Labor Statistics. Data through January 2023 for job openings, February 2023 for unemployed.

Labor force participation rate[1] – hit by Covid



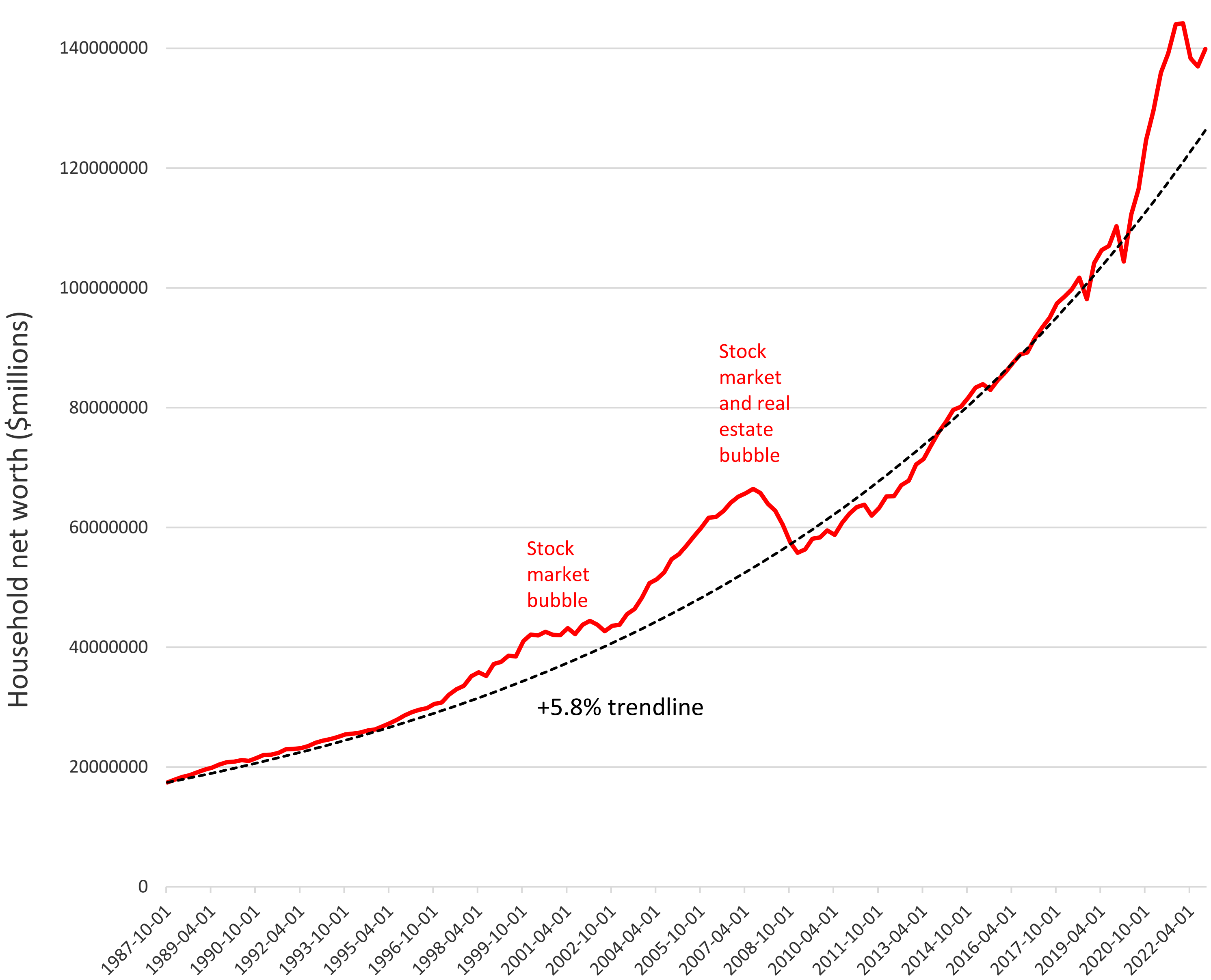
Americans were joining and staying in the labor force in increasing numbers … until Covid-19.

A reduction in immigration and a surge in retirements have subtracted from the labor force.

Source: BLS. Data through February 2023.

[1]Labor force participation rate: the proportion of the civilian noninstitutional population 16 years of age and older either at work or actively seeking work.

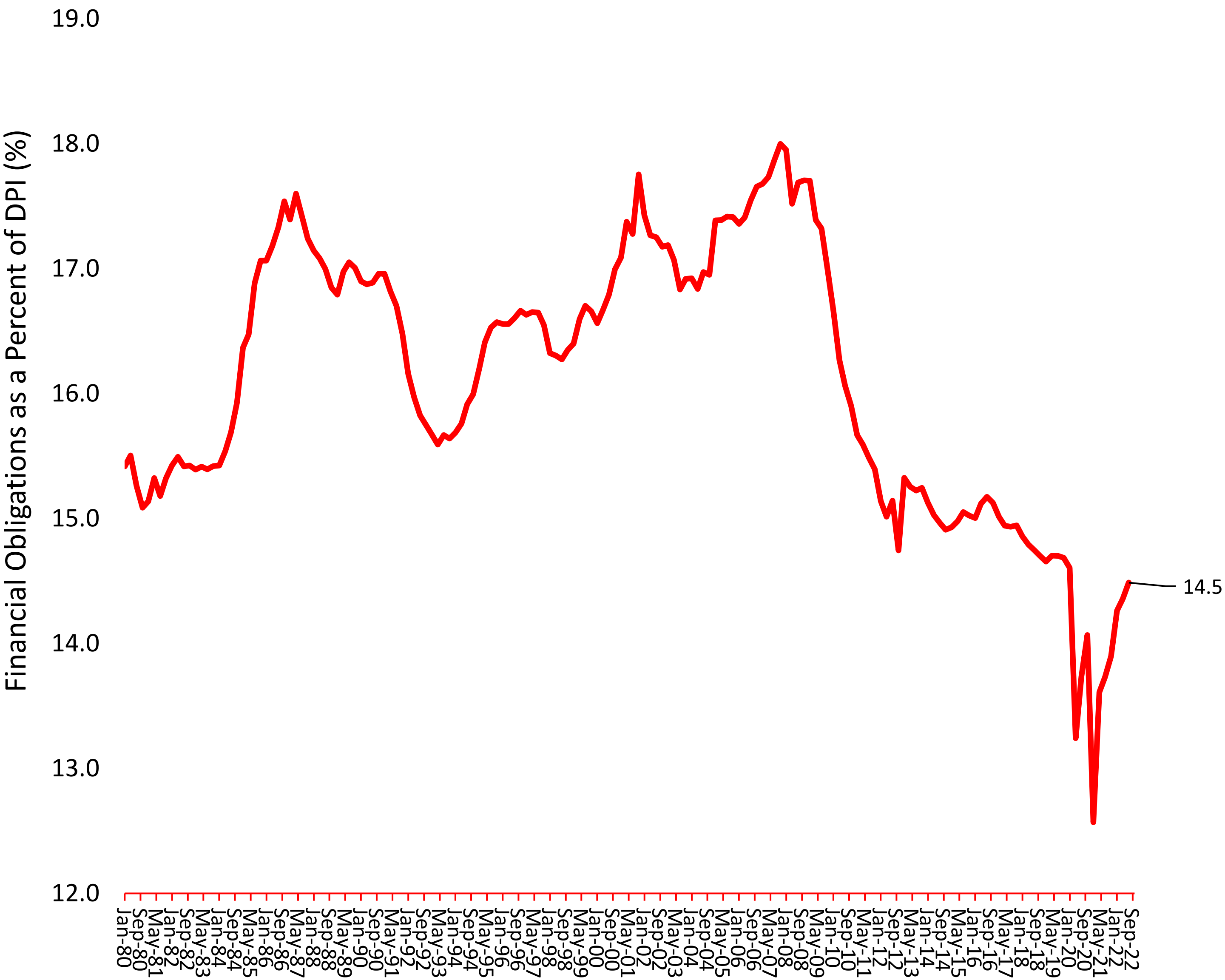
Household net worth – the wealth effect



Household net worth surged.

Source: Federal Reserve, FRBSL. Quarterly data through December 2022, released March 9, 2023.

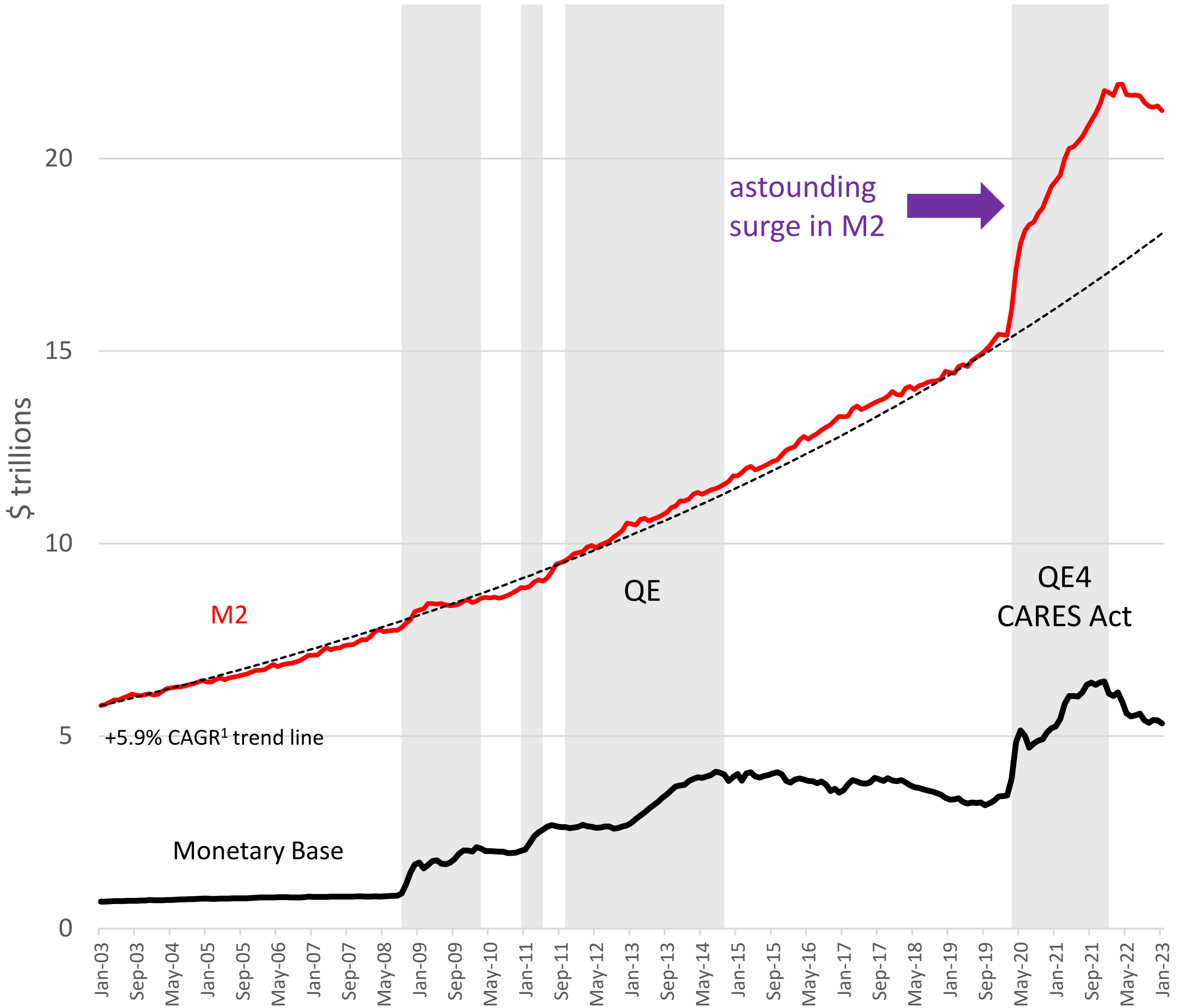
Financial obligations ratio



This measure shows that percent of monthly after-tax income that the average household pays for fixed recurring monthly obligations, such as a mortgage, car payment, utilities, real estate taxes, etc.

Source: Federal Reserve. Quarterly data through September 2022.

The monetary base and the money supply



M2: currency held by the public plus checking, savings and money market accounts.

A quadrupling of the monetary base with QE did not affect M2 growth. The CARES Act and subsequent stimulus did … by putting money directly into consumers' and businesses' accounts.

Monetary base: currency in circulation plus reserve balances (deposits held by banks in their accounts at the Federal reserve).

Source: Federal Reserve, statistical release H.6. Data through January 2023.
[1]CAGR = compound annual growth rate.

Consumers' cash balances declining

THE WALL STREET JOURNAL.

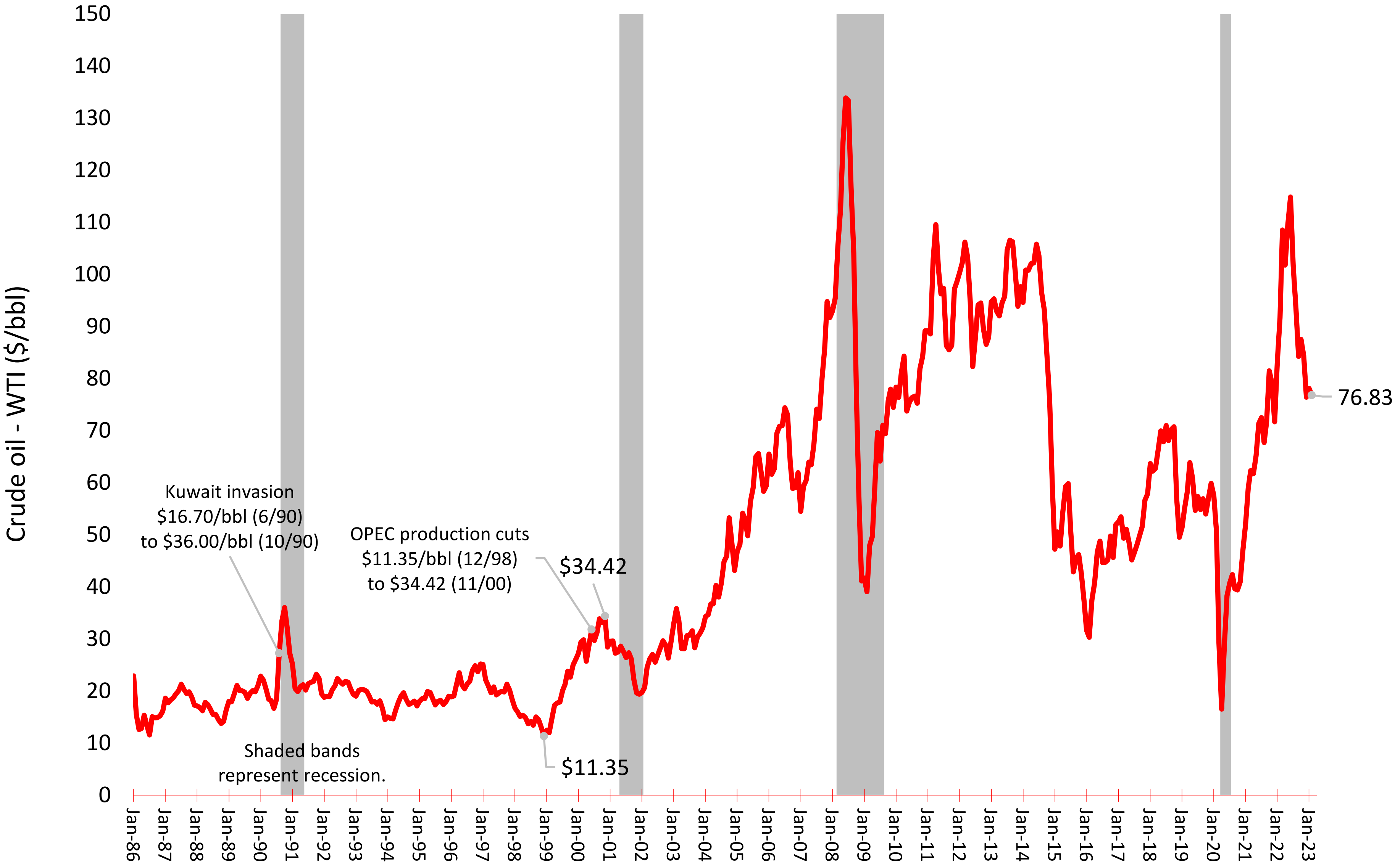
As Savings Shrink, Spending at Risk

It is the $1.7 trillion question for the U.S. economy: How long can the savings consumers built up during the pandemic keep their spending going?
The answer: about nine to 12 more months.

Economists estimate that headed into the third quarter of this year, households still had about $1.2 trillion to $1.8 trillion in "excess savings"—the amount above what they would have saved had there been no pandemic.

Source: *The Wall Street Journal*, "As Savings Shrink, Spending at Risk", Harriet Torry. November 21, 2022.

WTI spot crude oil prices



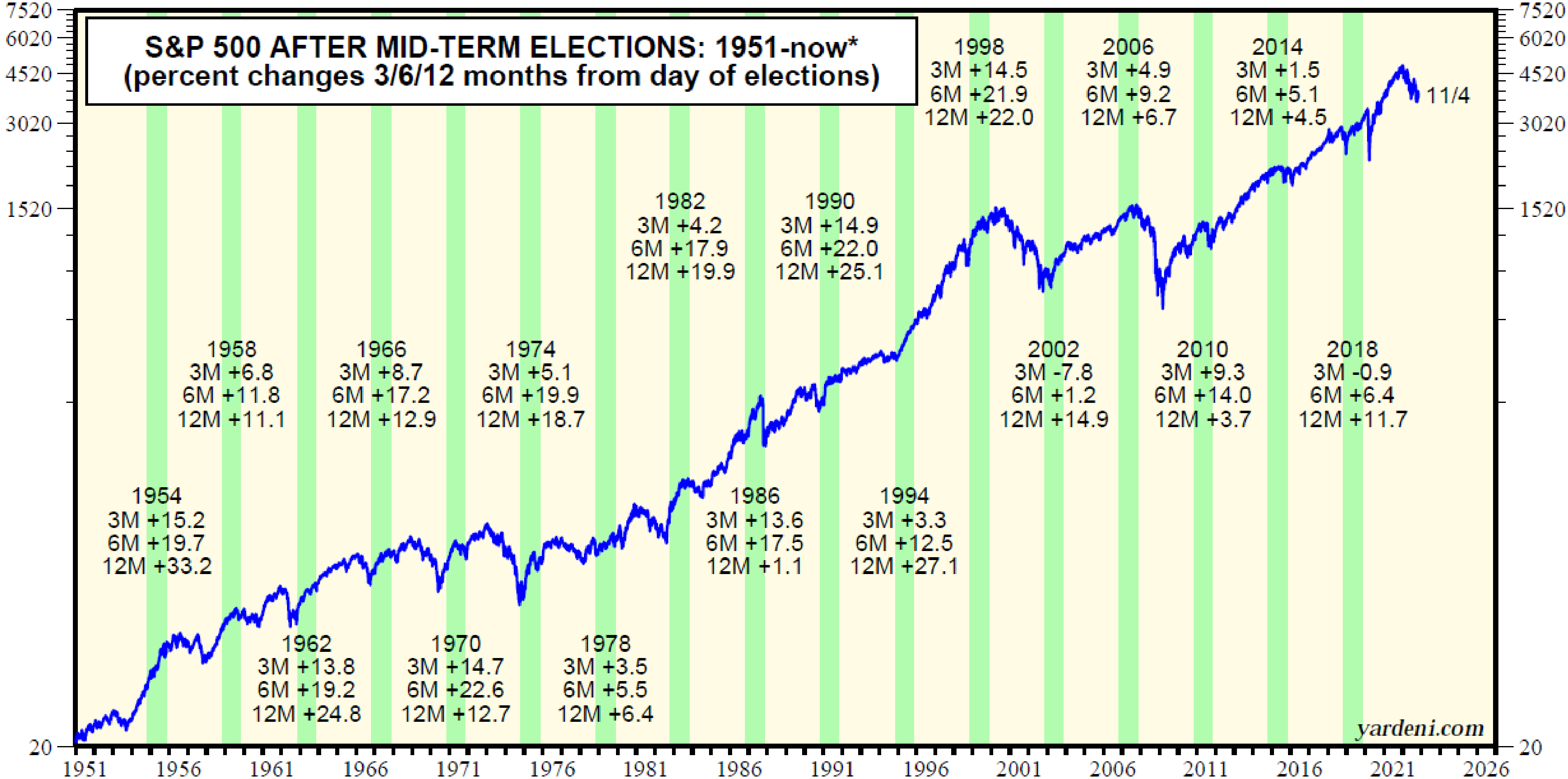
Source: U.S. Energy Information Agency. Data through February 2023.

Stock Market

- mid-term election years
- bear market
- stocks vs. recessions
- “parabolic” is normal
- 2023/2024 earnings estimates
- P/E multiple

S&P 500 and mid-term elections

Figure 3.

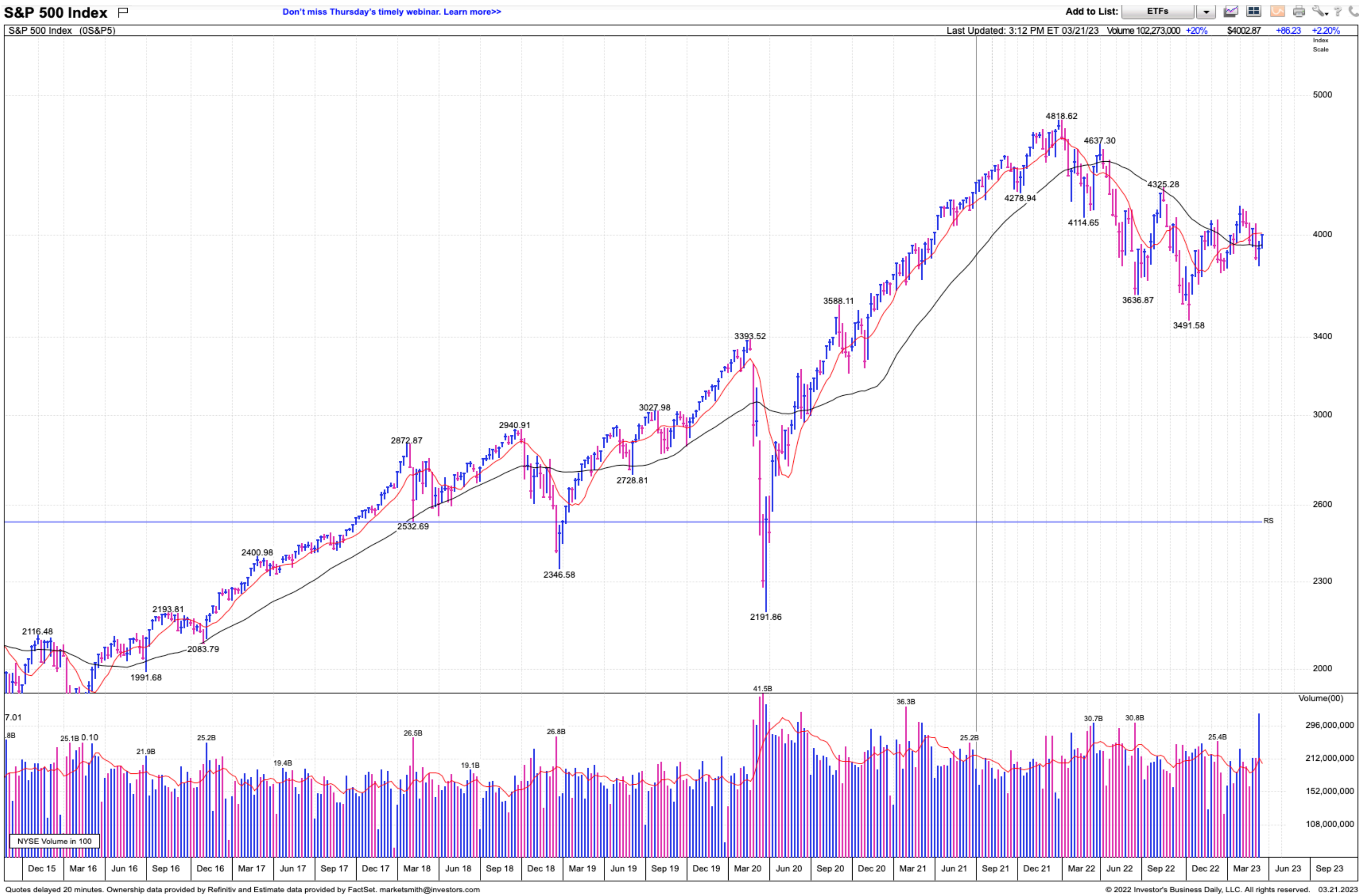


* S&P 500 up (down) during 12-month span following election day in green (red) shaded area. Prior to 1969, markets were closed on election day, therefore used "latest close" for those dates.
Source: Haver Analytics, Standard & Poor's, YRI calculations.

Source: Yardeni Research, Inc., with permission. November 6, 2022.

Stock market

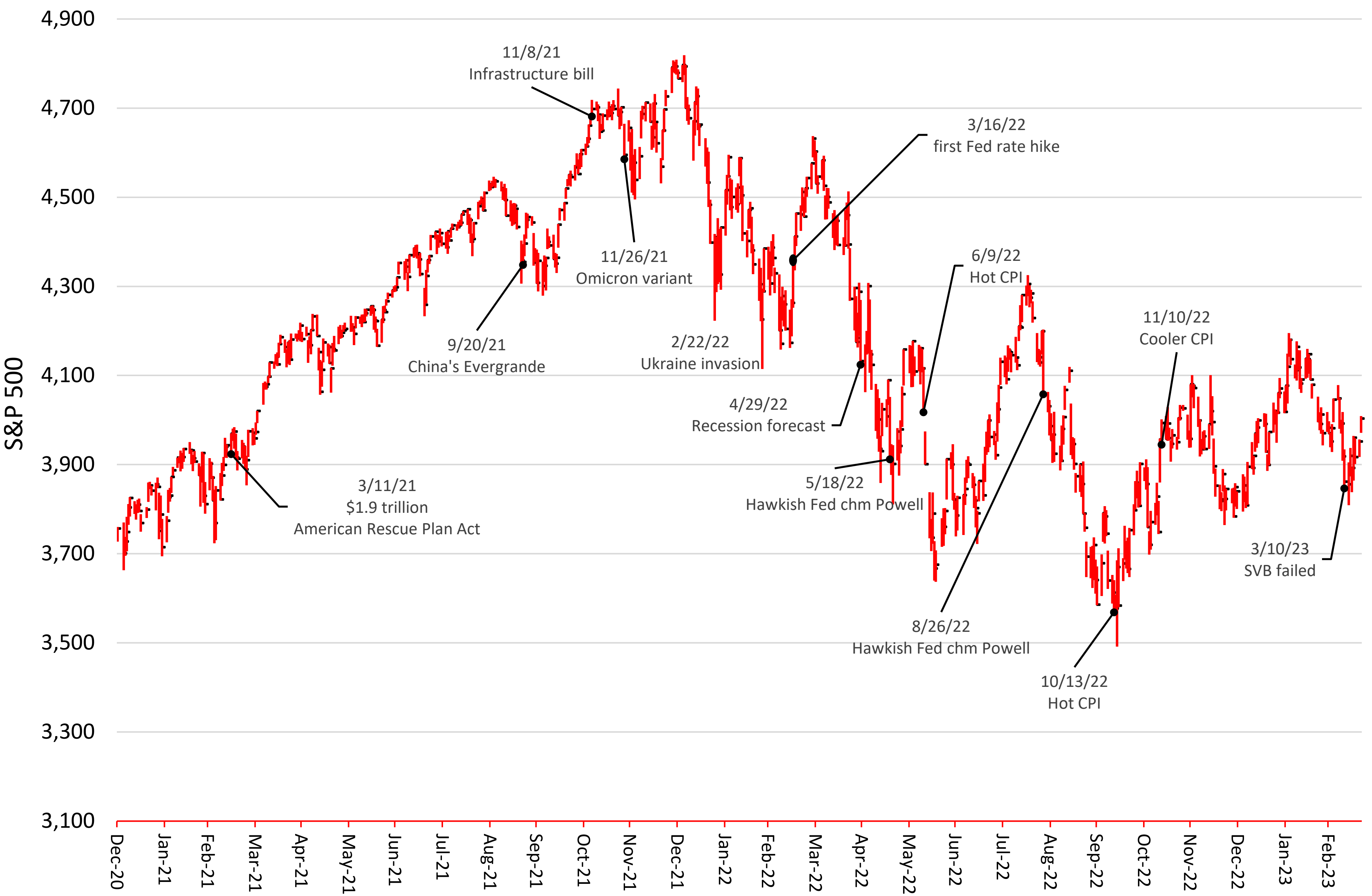
S&P 500



Source: Standard & Poor's and MarketSmith, Inc. Data through March 21, 2023.

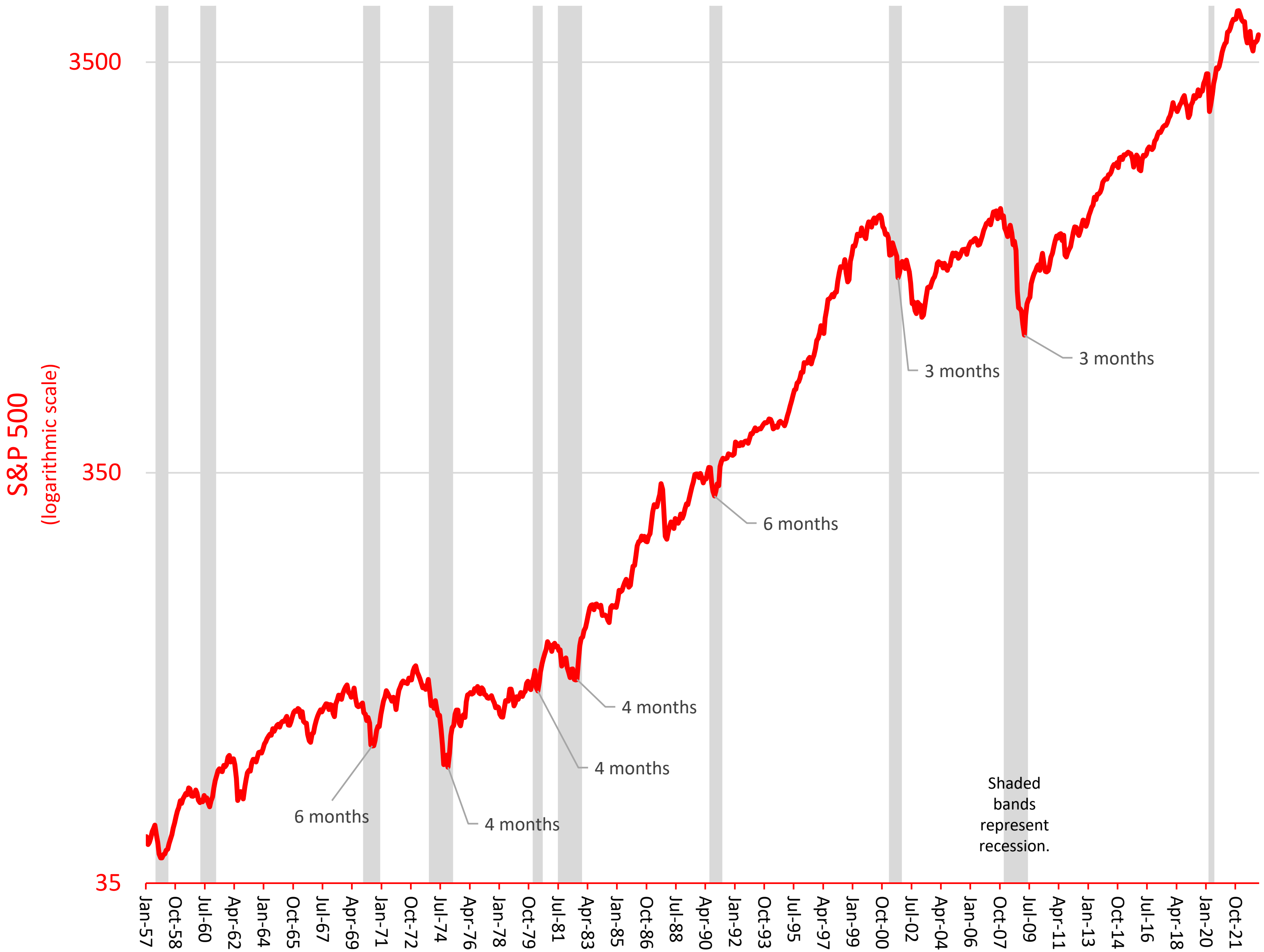
Stock market

S&P 500



Source: Standard & Poor's. Data through March 21, 2023.

S&P 500 vs. recessions

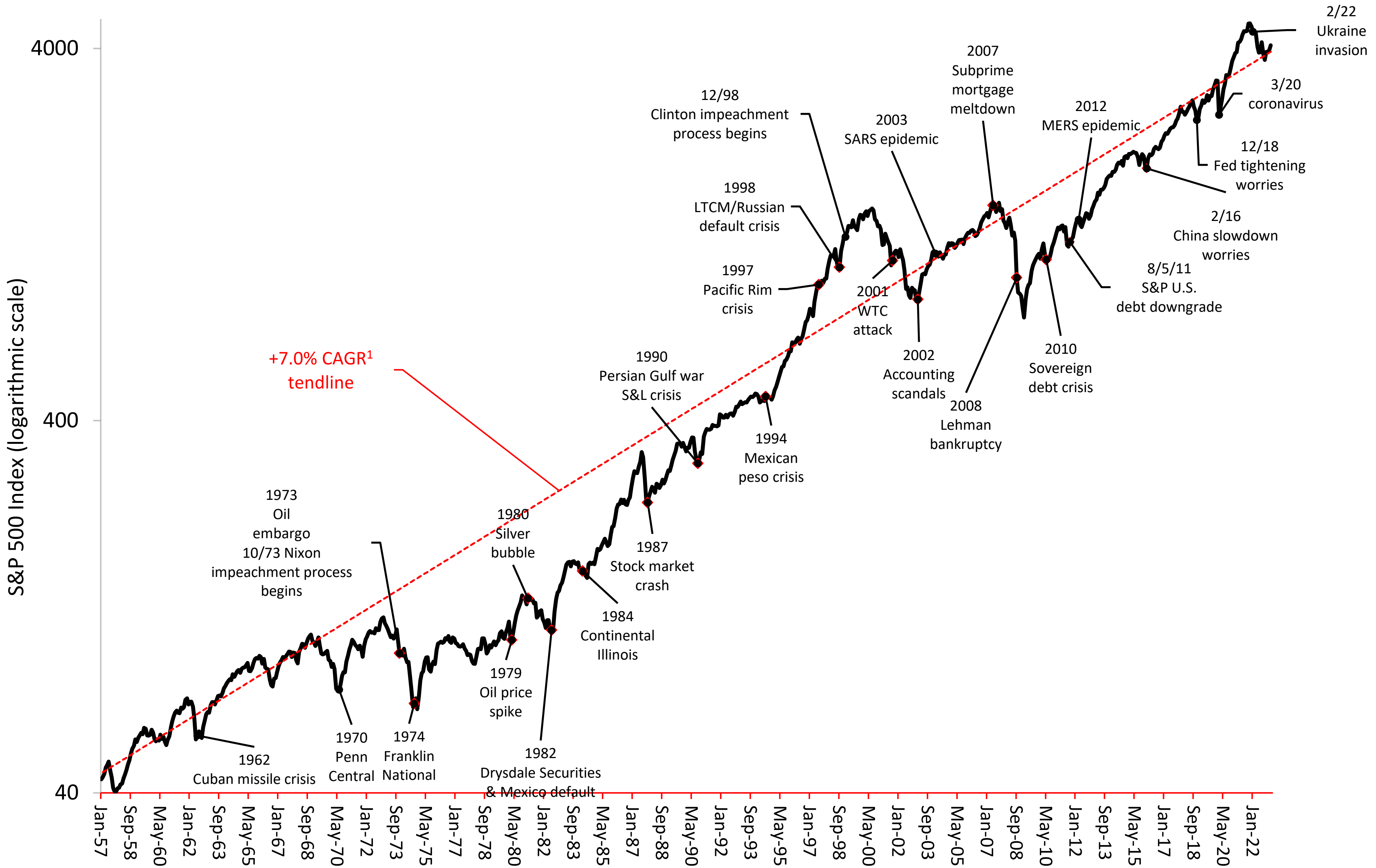


Big declines are associated with recessions.

Stocks often bottom months before recession-end.

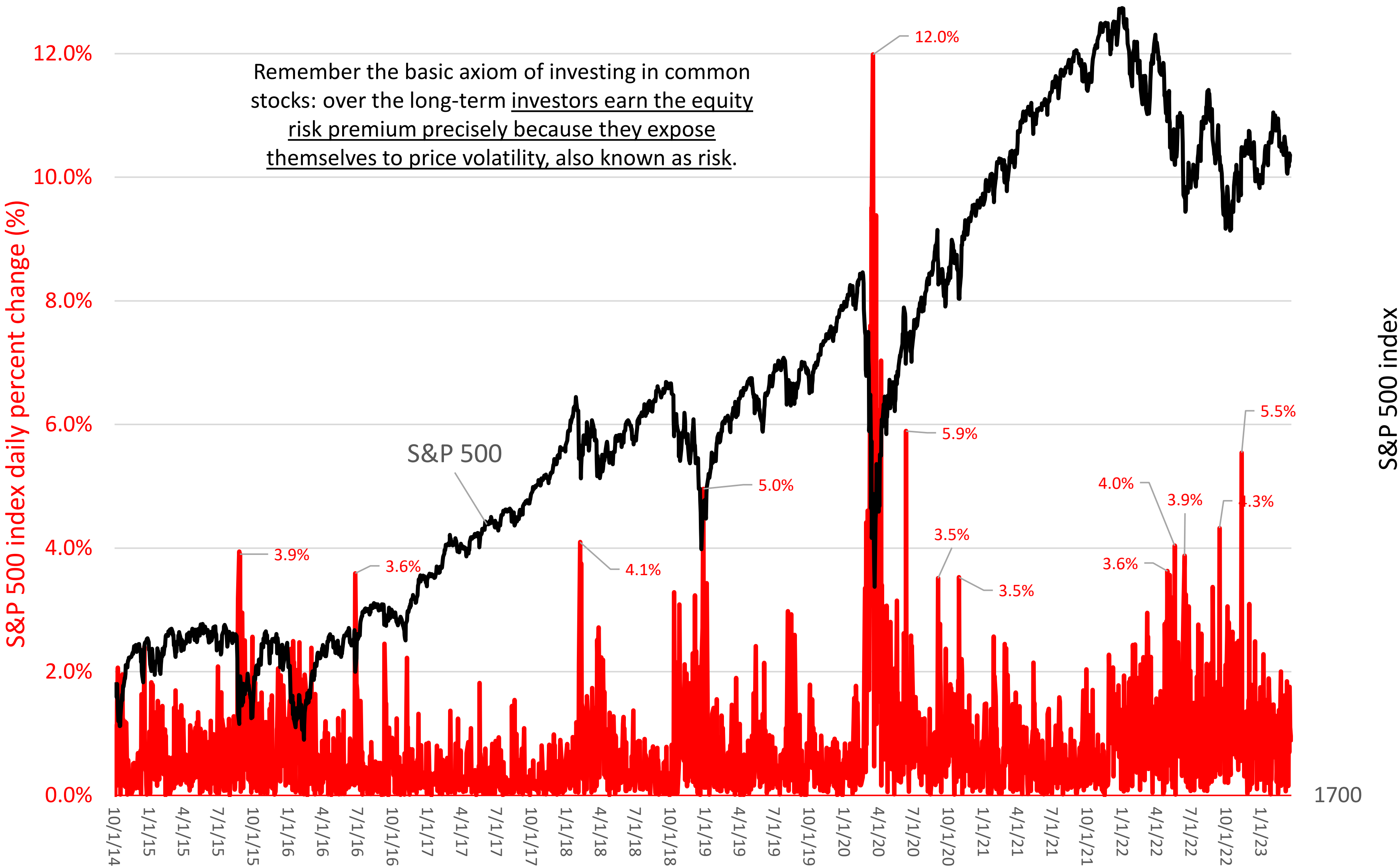
Source: Standard and Poor's Corporation, National Bureau of Economic Research. Data through February 2023.

S&P 500 and crises



Source: Standard and Poor's. Data through February 2023. [1] Compound annual growth rate.

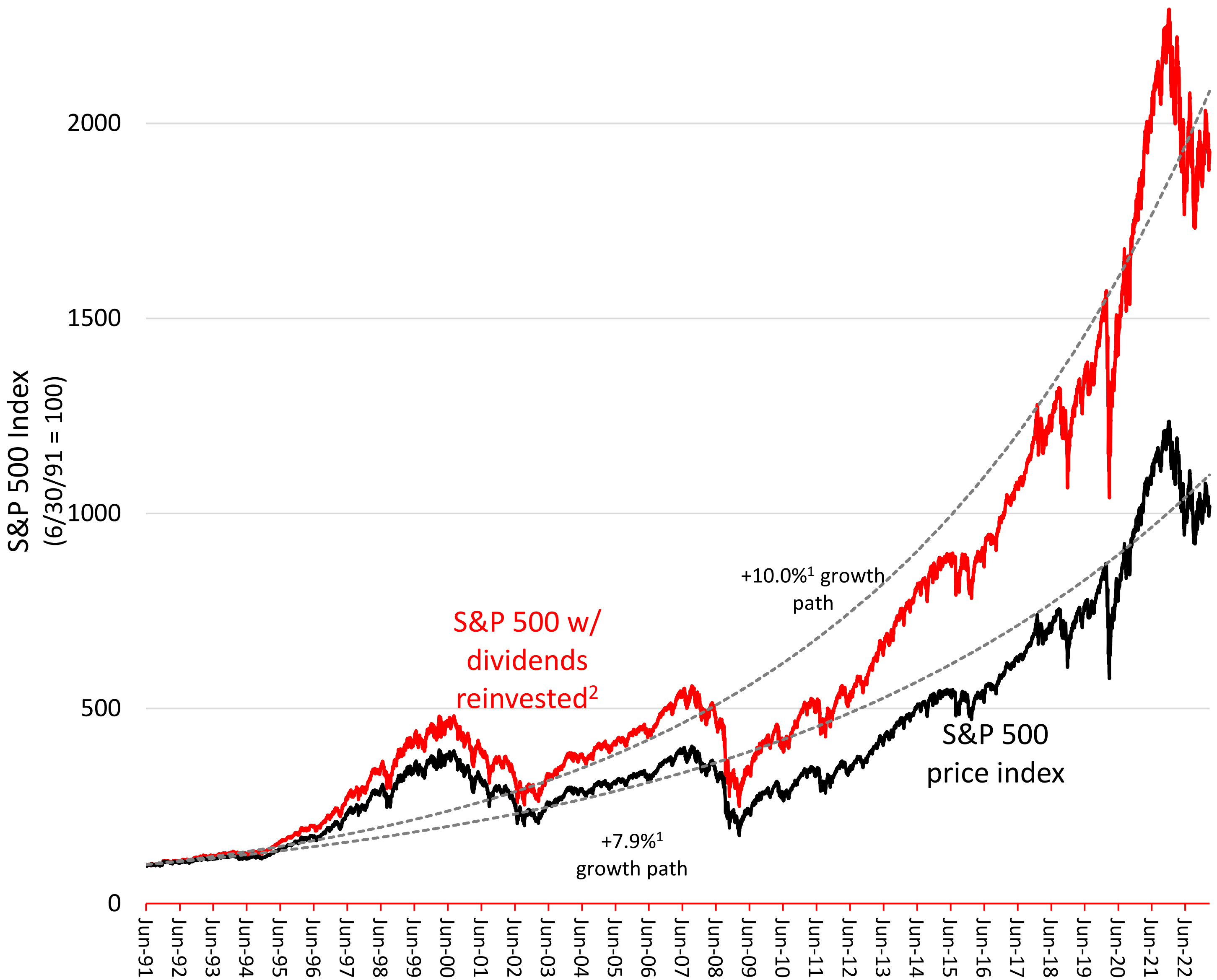
S&P 500 volatility



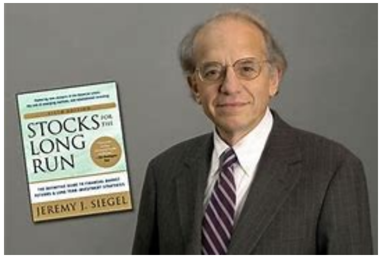
Source: Standard & Poor's, data through March 20, 2023.

Stock market arithmetic

Total return = 7.9% earnings-driven price + 2.1% dividends reinvested



+10% per year S&P 500 total return over the last 30 years is in line with the stock market's long-term returns going back to 1926, or back even further to 1871.[3]



Source: Standard and Poor's. Data through March 20, 2023.[1] Compound annual growth rate. [2] S&P 500 total return index.
[3] per Professor Jeremy Siegel's seminal *Stocks for the Long Run*, first published in 1994.

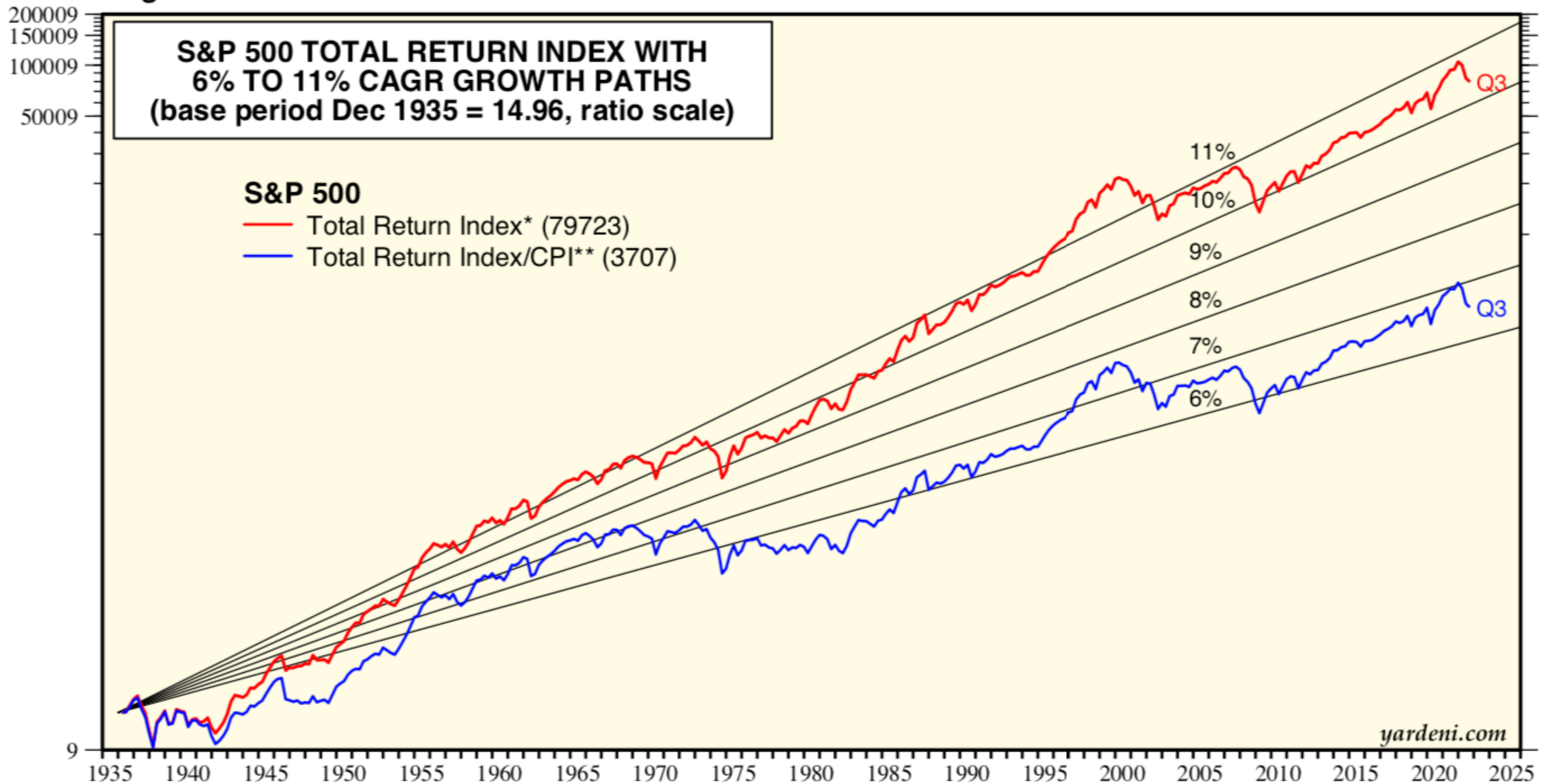
Stock market arithmetic

Total return = 7.9% earnings-driven price + 2.1% dividends reinvested

Source: Standard and Poor's. Data through March 20, 2023. [1] Compound annual growth rate. [2] S&P 500 total return index.

Total return and real total return

Figure 6.



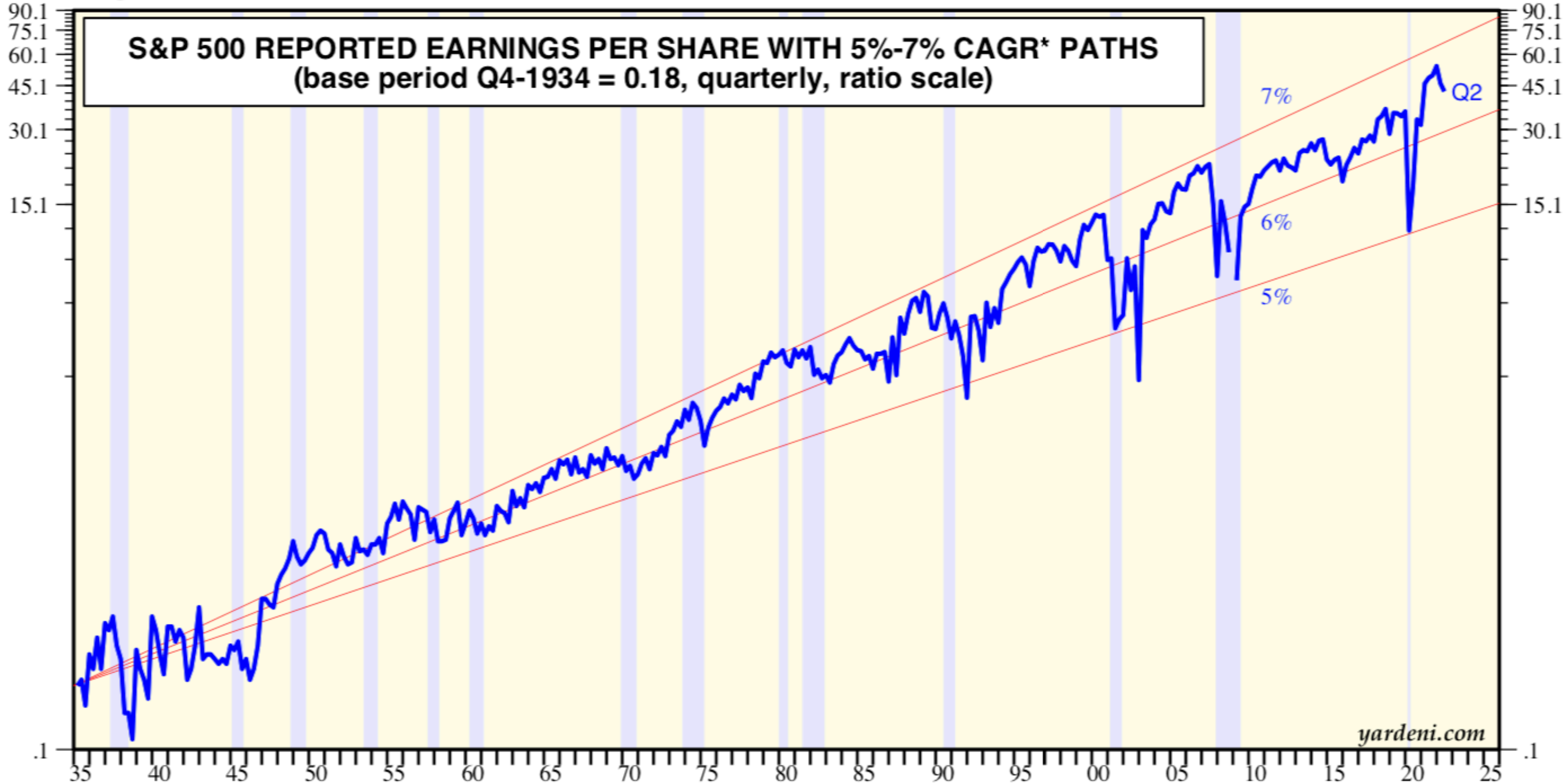
* Includes reinvested dividends.
** Using last month of quarter CPI. Compounded monthly using base value.
Source: Standard & Poor's.

Source: Yardeni Research, Inc., with permission.

Stock market arithmetic

85 years of S&P 500 earnings growth

Figure 9.

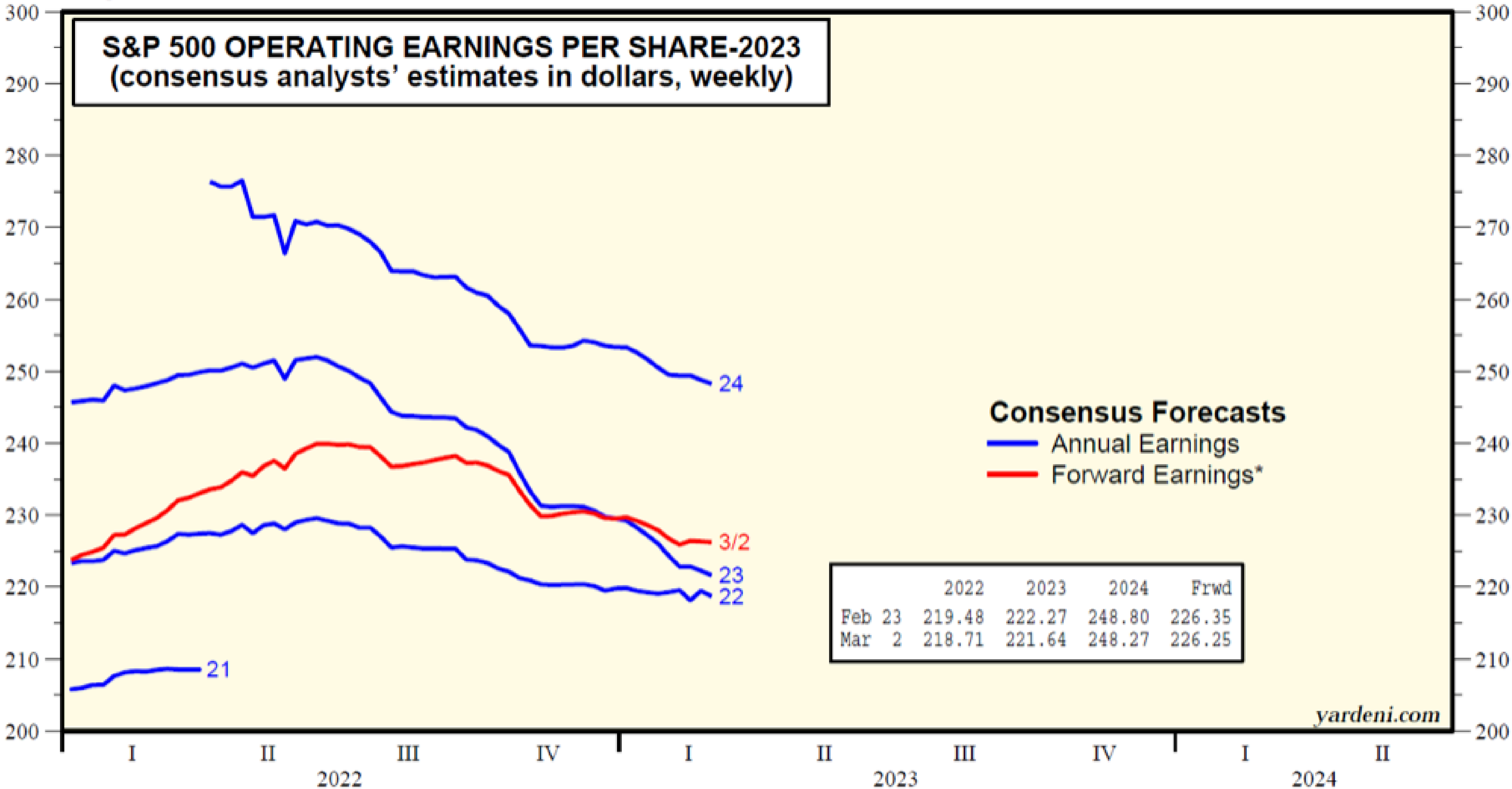


* Compounded annual growth rate from base value using monthly data. Q4-2008 not shown because of large negative value.
Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
Source: Standard & Poor's.

Source: Yardeni Research, Inc. with permission.

S&P earnings estimates

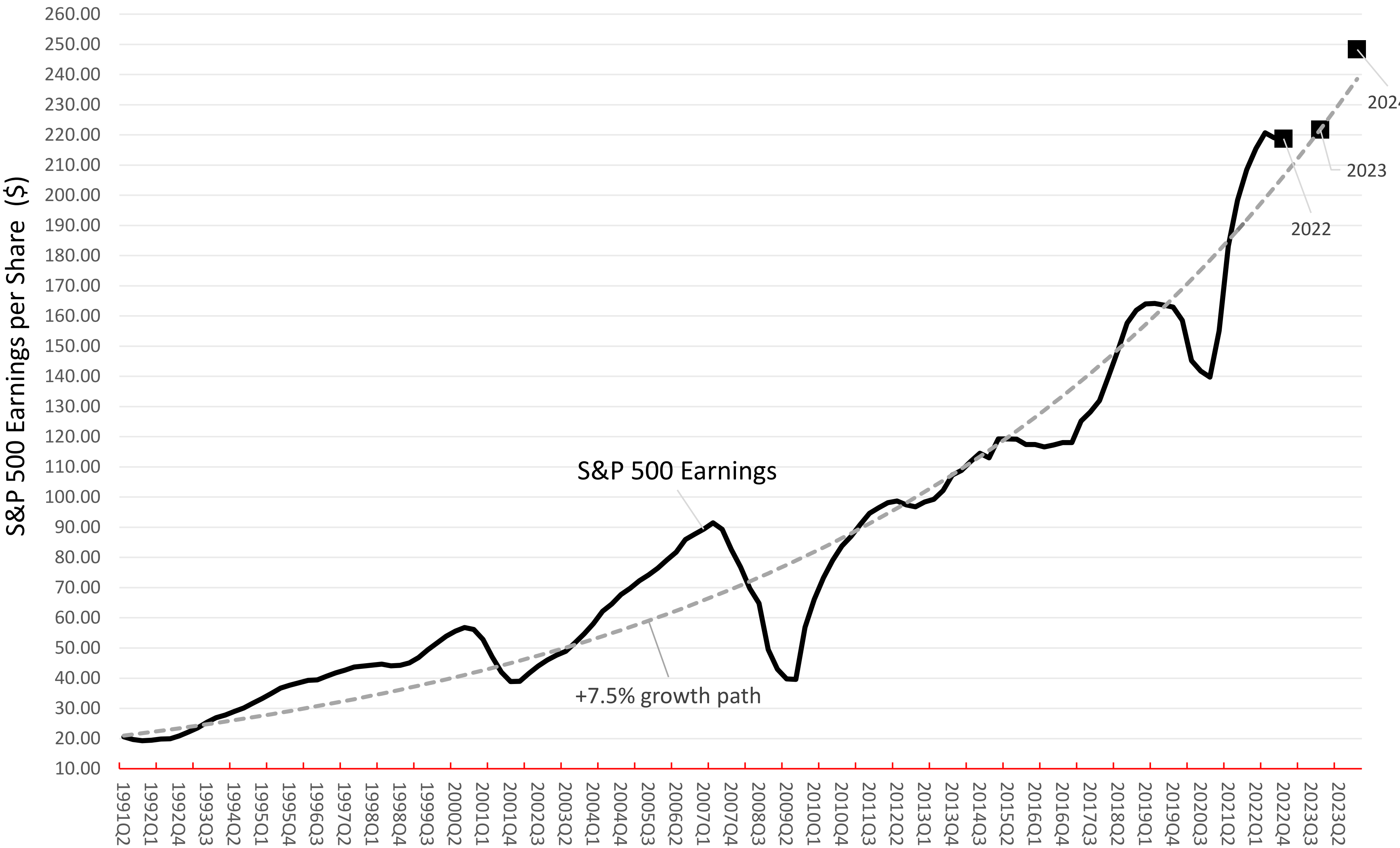
Figure 20.



* Time-weighted average of the consensus estimates for current and next year.
Source: I/B/E/S data by Refinitiv.

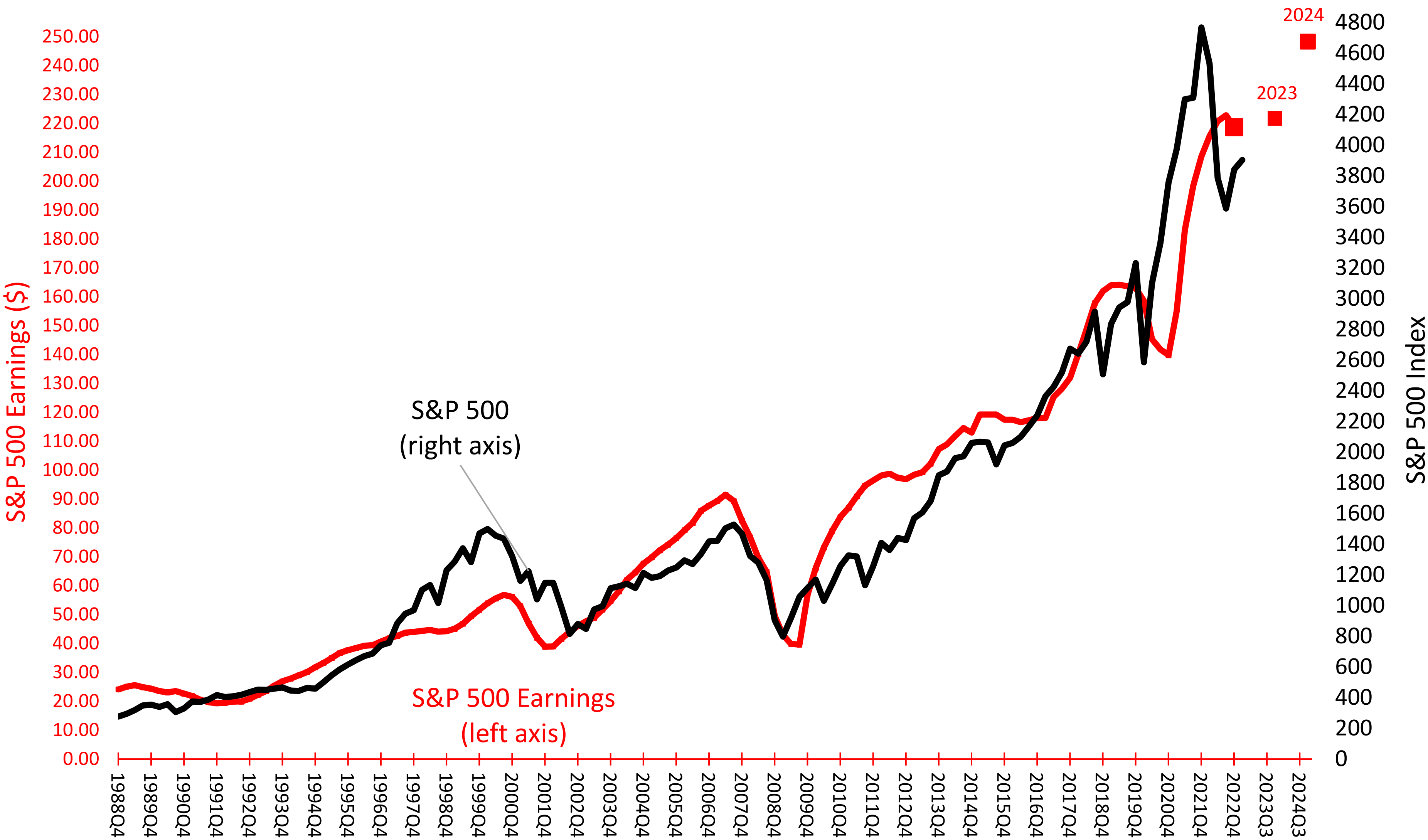
Source: Yardeni Research, Inc., with permission. March 8, 2023.

S&P 500 earnings – actual and I/B/E/S estimates



2022 (estimated), 2023 (estimated) and 2024 (estimated) bottom-up S&P 500 operating earnings per share as of March 2, 2023: for 2022(e), $218.71; for 2023(e), $221.64; for 2024(e), $248.27. Sources: Yardeni Research, Inc. and Thomson Reuters I/B/E/S for actual and estimated operating earnings from 2015. Standard and Poor's for actual operating earnings data through 2014.

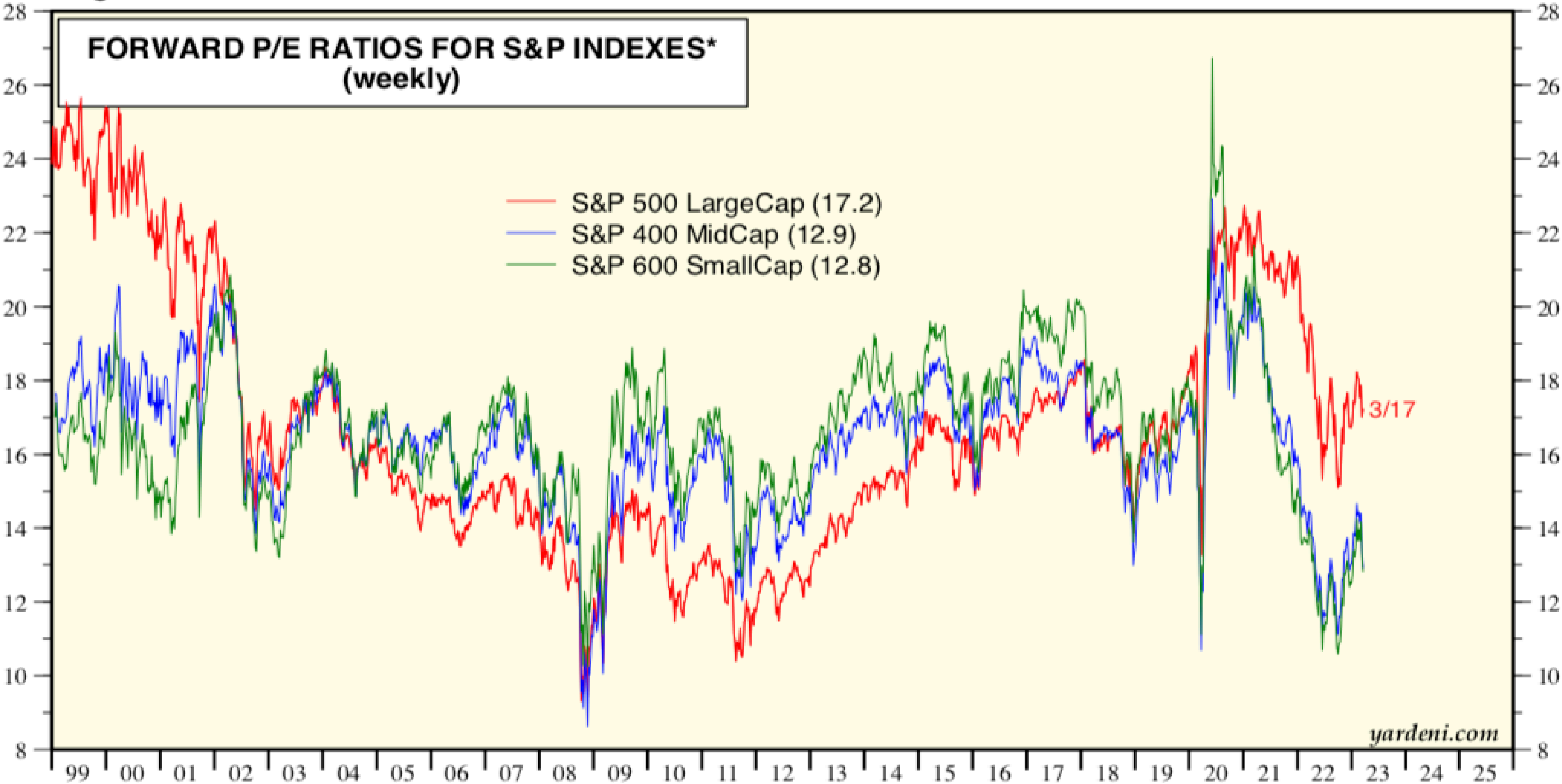
S&P 500 vs. actual and I/B/E/S estimated earnings



2022 (estimated), 2023 (estimated) and 2024 (estimated) bottom-up S&P 500 operating earnings per share as of March 2, 2023: for 2022(e), $218.71; for 2023(e), $221.64; for 2024(e), $248.27. Sources: Yardeni Research, Inc. and Thomson Reuters I/B/E/S for actual and estimated operating earnings from 2015. Standard and Poor's for actual operating earnings data through 2014; index price data through March 14, 2023.

S&P 500 index forward P/E ratio

Figure 16.

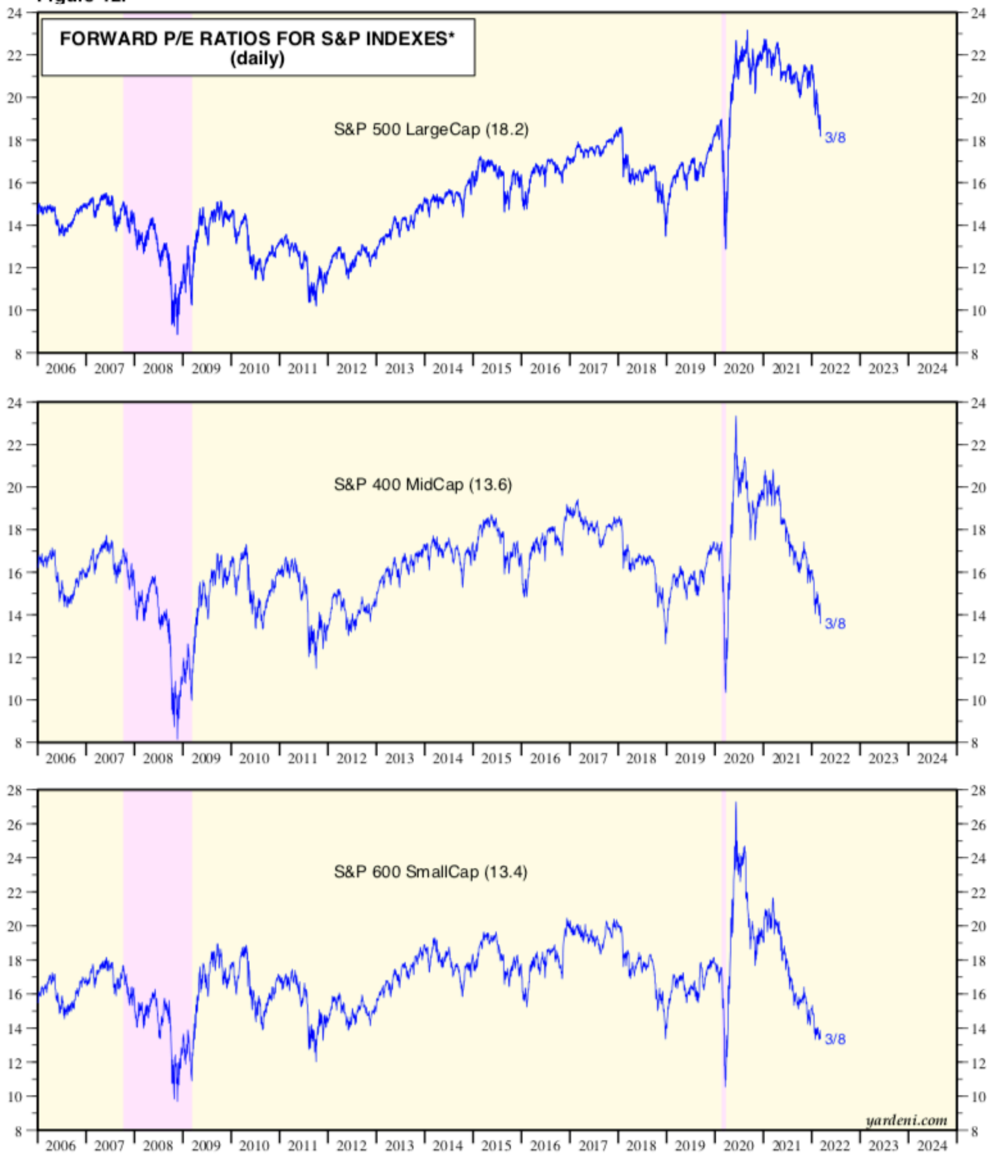


* Price divided by 52-week forward consensus expected operating earnings per share.
Source: I/B/E/S data by Refinitiv.

Source: Yardeni Research, Inc., with permission, March 21, 2023.

S&P 500 index forward P/E ratio

Figure 12.



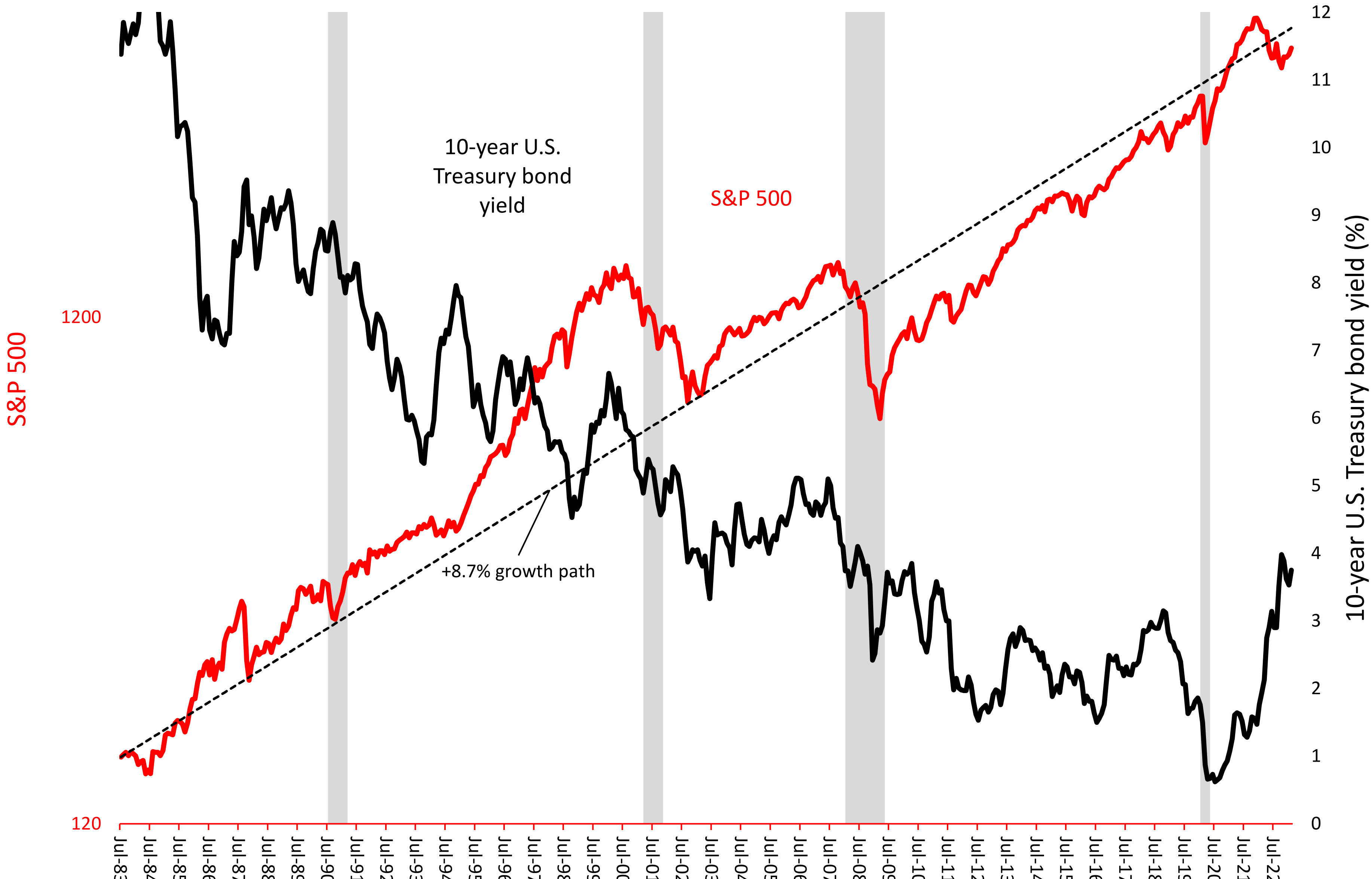
* Price divided by 52-week forward consensus expected operating earnings per share.
Source: I/B/E/S data by Refinitiv and Standard & Poor's.

Source: Yardeni Research, Inc., with permission, March 9, 2023.

Bond Yields

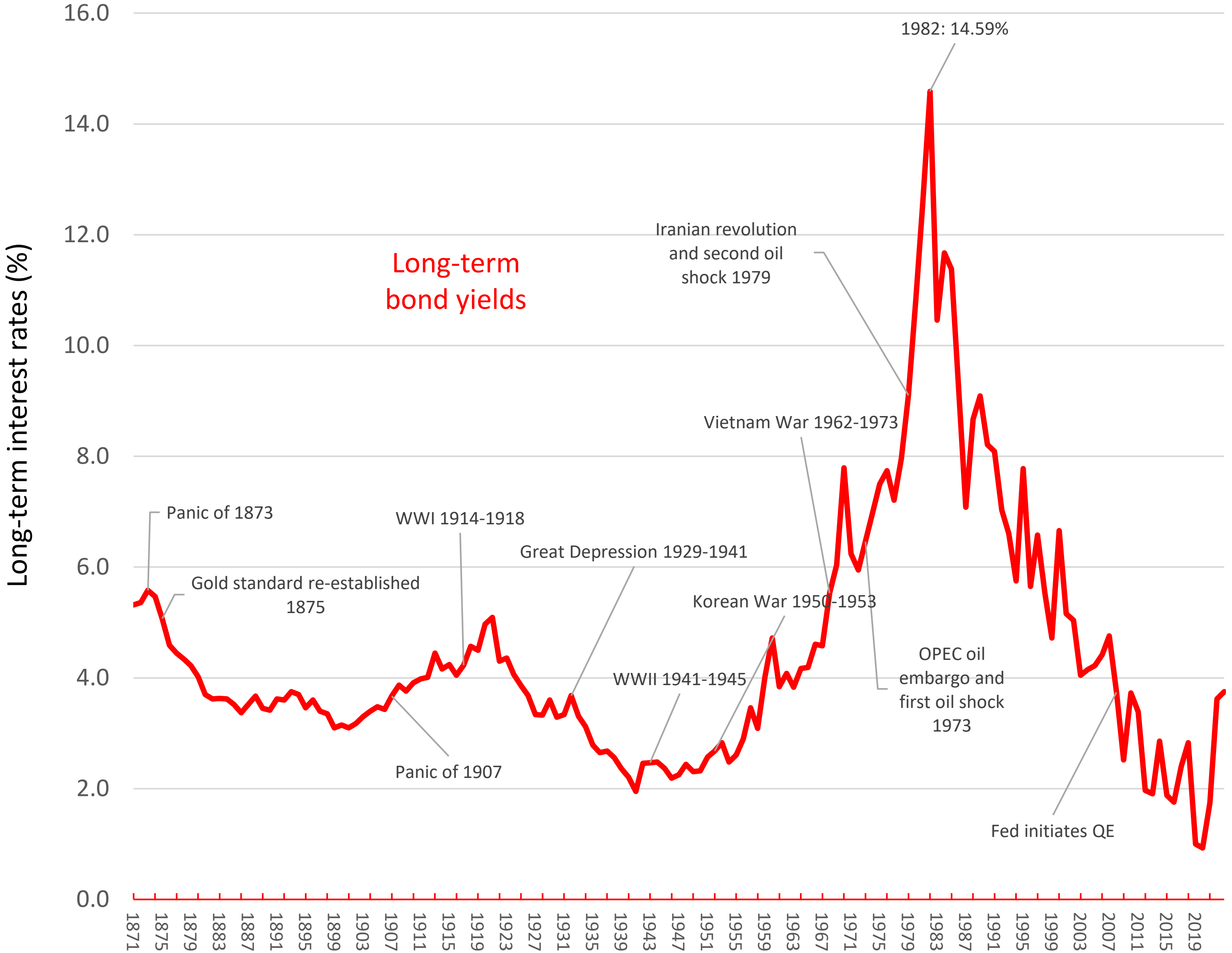
- Normal yields by historic comparison

S&P 500 vs. 10-year U.S. Treasury bond yield



Sources: Federal Reserve, Standard & Poor’s. Data through February 2023.

U.S. Treasury bond yields



Rising from the lowest long-term interest rates in U.S. history.

Source: Online Data Robert Shiller, data through 2016; 10-year U.S. Treasury bond yield data from 2017; data through February 2023.

Quarter-point hike on March 22, 2023

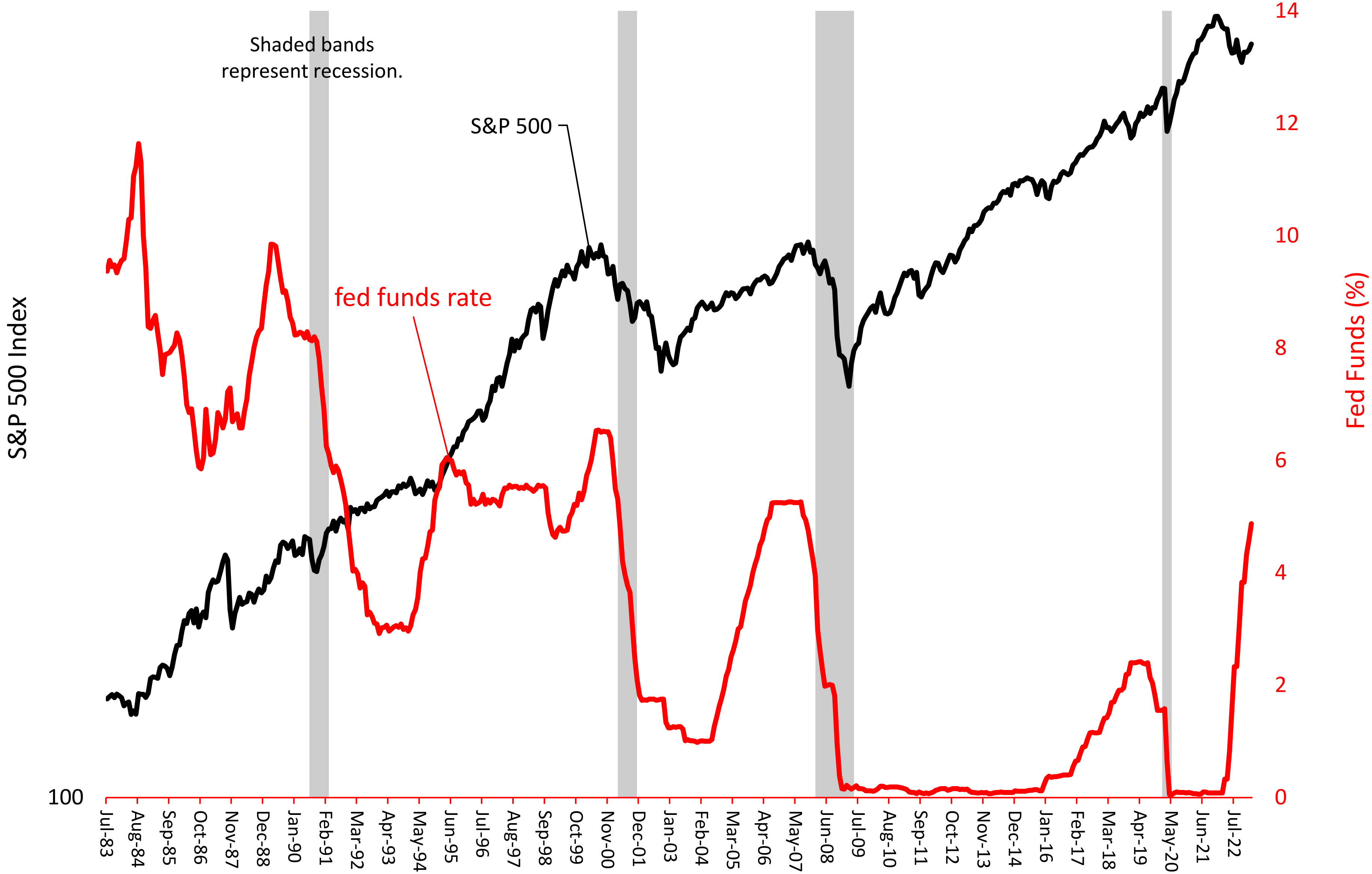
THE WALL STREET JOURNAL.

Fed Boosts Rates Amid Bank Turmoil

Quarter-point increase comes with signal that
hikes could end sooner than recently expected.

Source: *The Wall Street Journal.* “Fed Boosts Rates Amid Bank Turmoil”, by Nick Timiraos. March 23, 2023.

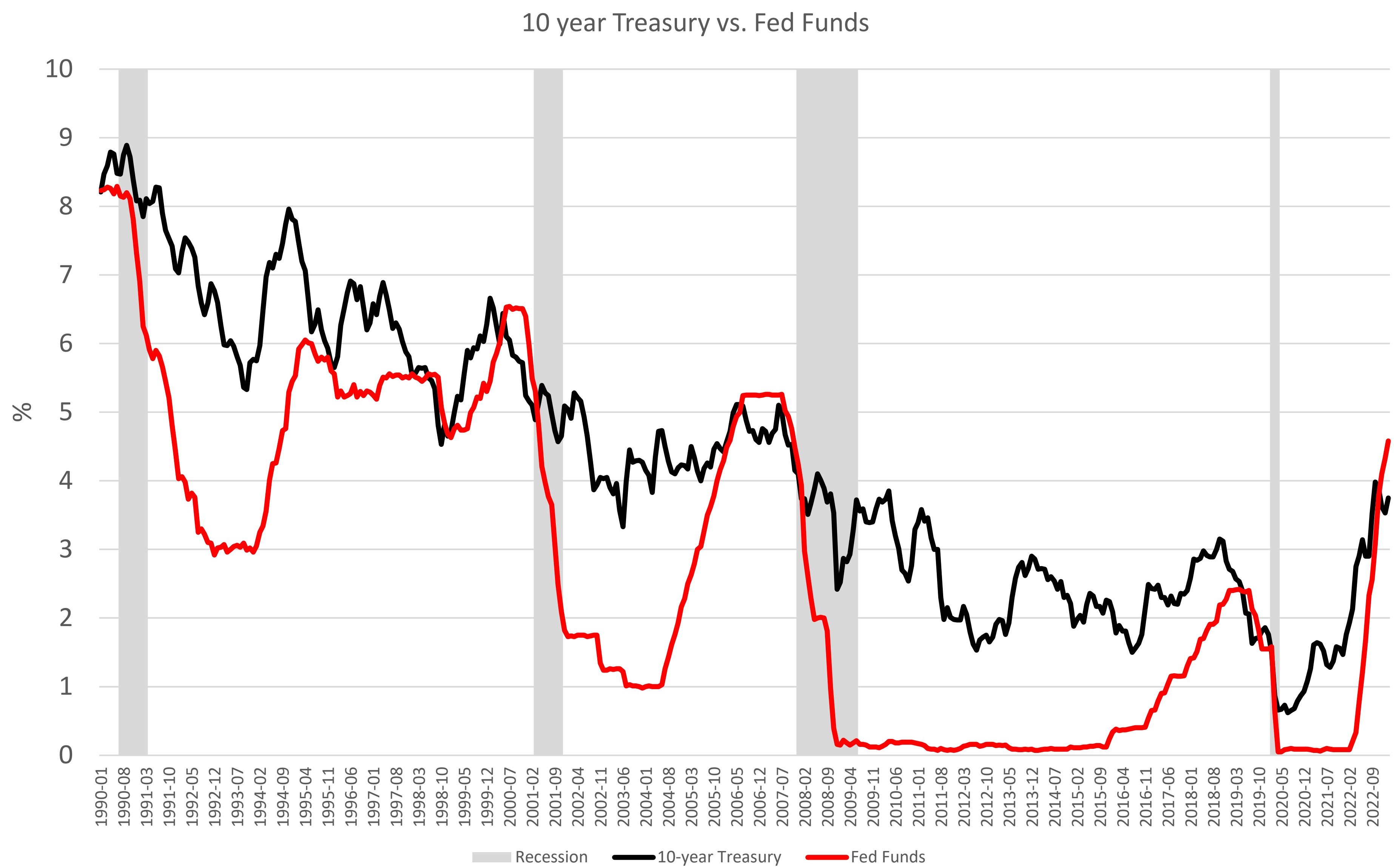
S&P 500 vs. fed funds rate



Sources: Federal Reserve, Standard & Poor's. Data through February 2023.

Stock market

10-year Treasury yield vs. fed funds rate



Source: Federal Reserve. Data through February 2023.

Central tendency forecast

For release at 2:00 p.m., EDT, March 22, 2023

Table 1. Economic projections of Federal Reserve Board members and Federal Reserve Bank presidents, under their individual assumptions of projected appropriate monetary policy, March 2023

Percent

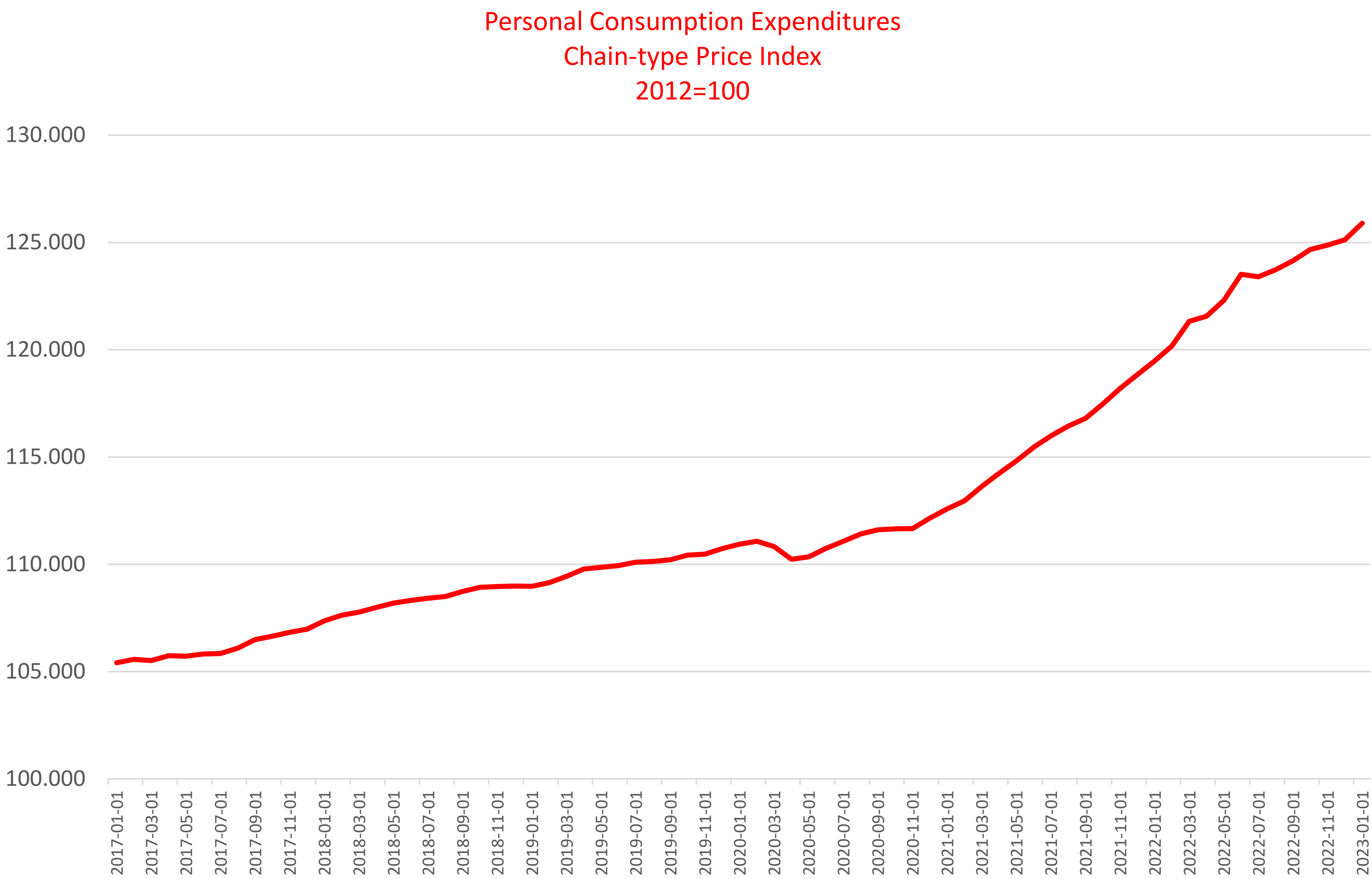
Variable	Median[1]				Central Tendency[2]				Range[3]			
	2023	2024	2025	Longer run	2023	2024	2025	Longer run	2023	2024	2025	Longer run
Change in real GDP	0.4	1.2	1.9	1.8	0.0–0.8	1.0–1.5	1.7–2.1	1.7–2.0	-0.2–1.3	0.3–2.0	1.5–2.2	1.6–2.5
December projection	0.5	1.6	1.8	1.8	0.4–1.0	1.3–2.0	1.6–2.0	1.7–2.0	-0.5–1.0	0.5–2.4	1.4–2.3	1.6–2.5
Unemployment rate	4.5	4.6	4.6	4.0	4.0–4.7	4.3–4.9	4.3–4.8	3.8–4.3	3.9–4.8	4.0–5.2	3.8–4.9	3.5–4.7
December projection	4.6	4.6	4.5	4.0	4.4–4.7	4.3–4.8	4.0–4.7	3.8–4.3	4.0–5.3	4.0–5.0	3.8–4.8	3.5–4.8
PCE inflation	3.3	2.5	2.1	2.0	3.0–3.8	2.2–2.8	2.0–2.2	2.0	2.8–4.1	2.0–3.5	2.0–3.0	2.0
December projection	3.1	2.5	2.1	2.0	2.9–3.5	2.3–2.7	2.0–2.2	2.0	2.6–4.1	2.2–3.5	2.0–3.0	2.0
Core PCE inflation[4]	3.6	2.6	2.1		3.5–3.9	2.3–2.8	2.0–2.2		3.5–4.1	2.1–3.1	2.0–3.0	
December projection	3.5	2.5	2.1		3.2–3.7	2.3–2.7	2.0–2.2		3.0–3.8	2.2–3.0	2.0–3.0	
Memo: Projected appropriate policy path												
Federal funds rate	5.1	4.3	3.1	2.5	5.1–5.6	3.9–5.1	2.9–3.9	2.4–2.6	4.9–5.9	3.4–5.6	2.4–5.6	2.3–3.6
December projection	5.1	4.1	3.1	2.5	5.1–5.4	3.9–4.9	2.6–3.9	2.3–2.5	4.9–5.6	3.1–5.6	2.4–5.6	2.3–3.3

Source: Federal Reserve, March 22, 2023.

Inflation

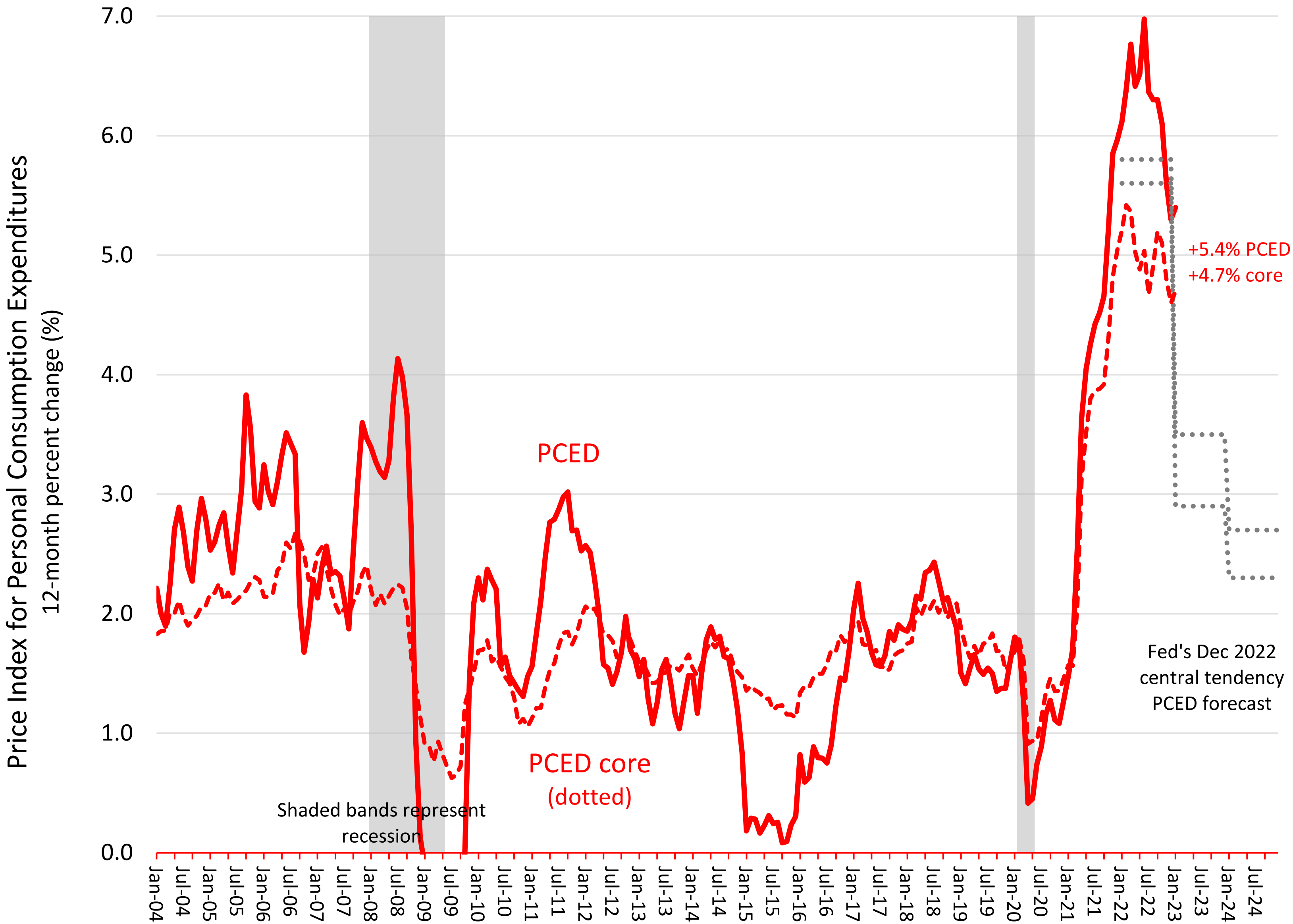
- Year-over-year headline PCED +5.4%, +4.7% core
- M2 driving inflation
- inflation expectations (TIPS spread) falling

PCED – headline



Source: NBER, Federal Reserve Bank of St. Louis. Data through January 2023.

PCED – headline and core



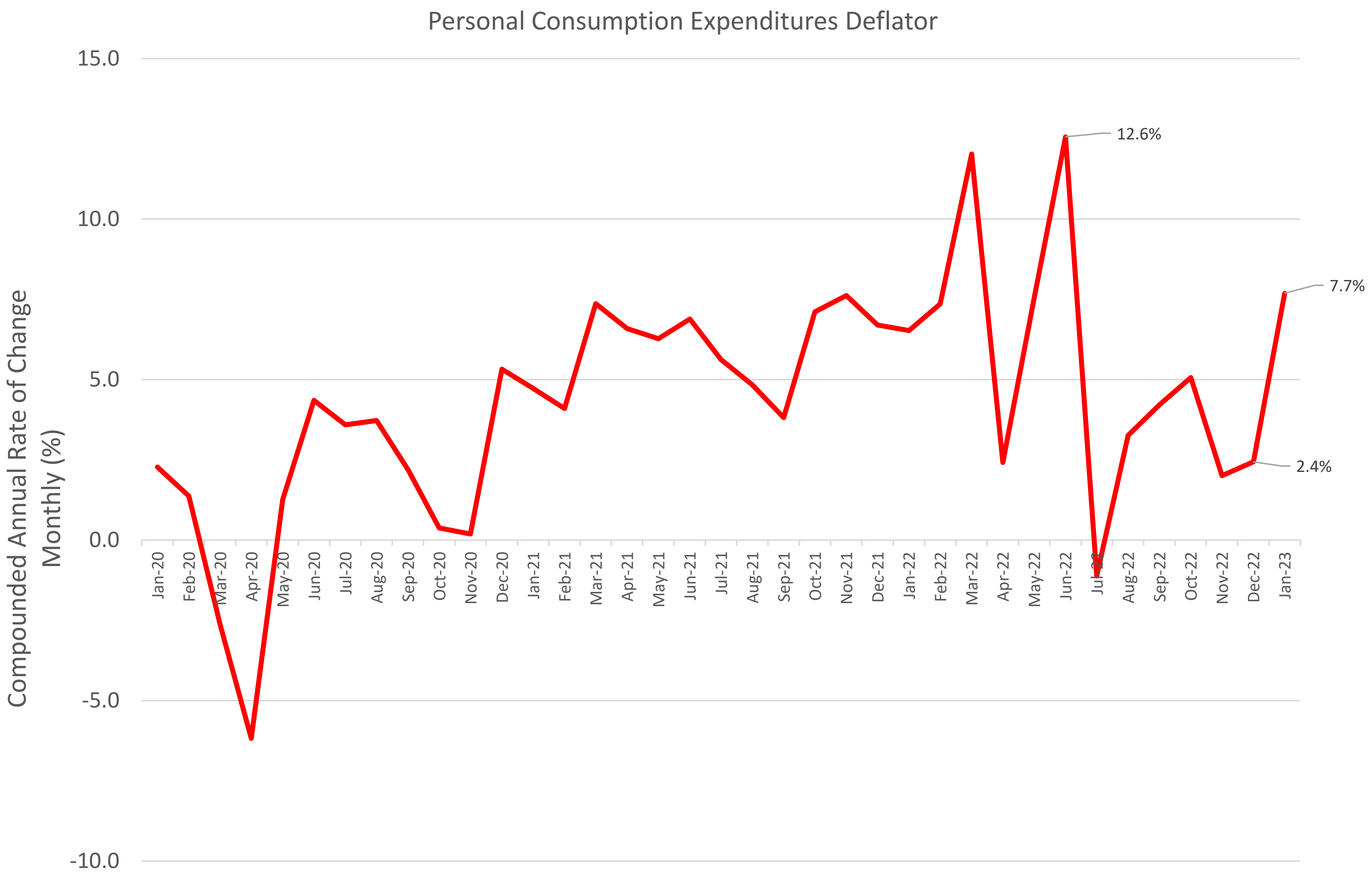
Inflation peaked, following the post-Covid surge.

January uptick.

Source: NBER, Federal Reserve Bank of St. Louis. Data through January 2023.

Inflation

PCED – monthly rate of change annualized

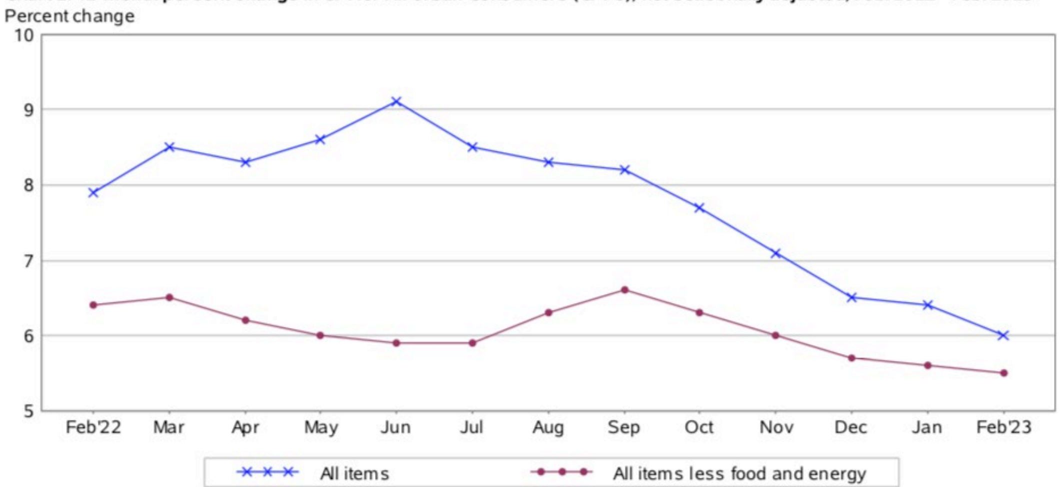


Source: Federal Reserve Bank of St. Louis. Data through January 2023.

Inflation

CPI – headline and core

Chart 2. 12-month percent change in CPI for All Urban Consumers (CPI-U), not seasonally adjusted, Feb. 2022 - Feb. 2023



Up +6.0% y/y in February.

Up +5.5% y/y in February.

Table A. Percent changes in CPI for All Urban Consumers (CPI-U): U.S. city average

	Seasonally adjusted changes from preceding month							Un-adjusted 12-mos. ended Feb. 2023
	Aug. 2022	Sep. 2022	Oct. 2022	Nov. 2022	Dec. 2022	Jan. 2023	Feb. 2023	
All items	0.2	0.4	0.5	0.2	0.1	0.5	0.4	6.0
Food	0.8	0.8	0.7	0.6	0.4	0.5	0.4	9.5
Food at home	0.8	0.7	0.5	0.6	0.5	0.4	0.3	10.2
Food away from home[1]	0.9	0.9	0.9	0.5	0.4	0.6	0.6	8.4
Energy	-3.9	-1.7	1.7	-1.4	-3.1	2.0	-0.6	5.2
Energy commodities	-8.0	-4.1	3.7	-2.1	-7.2	1.9	0.5	-1.4
Gasoline (all types)	-8.4	-4.2	3.4	-2.3	-7.0	2.4	1.0	-2.0
Fuel oil[1]	-5.9	-2.7	19.8	1.7	-16.6	-1.2	-7.9	9.2
Energy services	1.8	1.2	-0.7	-0.6	1.9	2.1	-1.7	13.3
Electricity	1.2	0.8	0.5	0.5	1.3	0.5	0.5	12.9
Utility (piped) gas service	3.5	2.2	-3.7	-3.4	3.5	6.7	-8.0	14.3
All items less food and energy	0.6	0.6	0.3	0.3	0.4	0.4	0.5	5.5
Commodities less food and energy commodities	0.4	0.0	-0.1	-0.2	-0.1	0.1	0.0	1.0
New vehicles	0.8	0.7	0.6	0.5	0.6	0.2	0.2	5.8
Used cars and trucks	-0.2	-1.1	-1.7	-2.0	-2.0	-1.9	-2.8	-13.6
Apparel	0.3	0.0	-0.2	0.1	0.2	0.8	0.8	3.3
Medical care commodities[1]	0.2	-0.1	0.0	0.2	0.1	1.1	0.1	3.2
Services less energy services	0.6	0.8	0.5	0.5	0.6	0.5	0.6	7.3
Shelter	0.7	0.7	0.7	0.6	0.8	0.7	0.8	8.1
Transportation services	1.0	1.9	0.6	0.3	0.6	0.9	1.1	14.6
Medical care services	0.7	0.8	-0.4	-0.5	0.3	-0.7	-0.7	2.1

Source: BLS. Data through February 2023.

Month-over-month readings

THE WALL STREET JOURNAL.

The Fed Now Has a Good Chance at a Soft Economic Landing

Calling “ongoing” rate hikes “appropriate” displays no recognition whatsoever that inflation has crumbled, or in the committee’s far-too-modest words, “ has eased somewhat.”

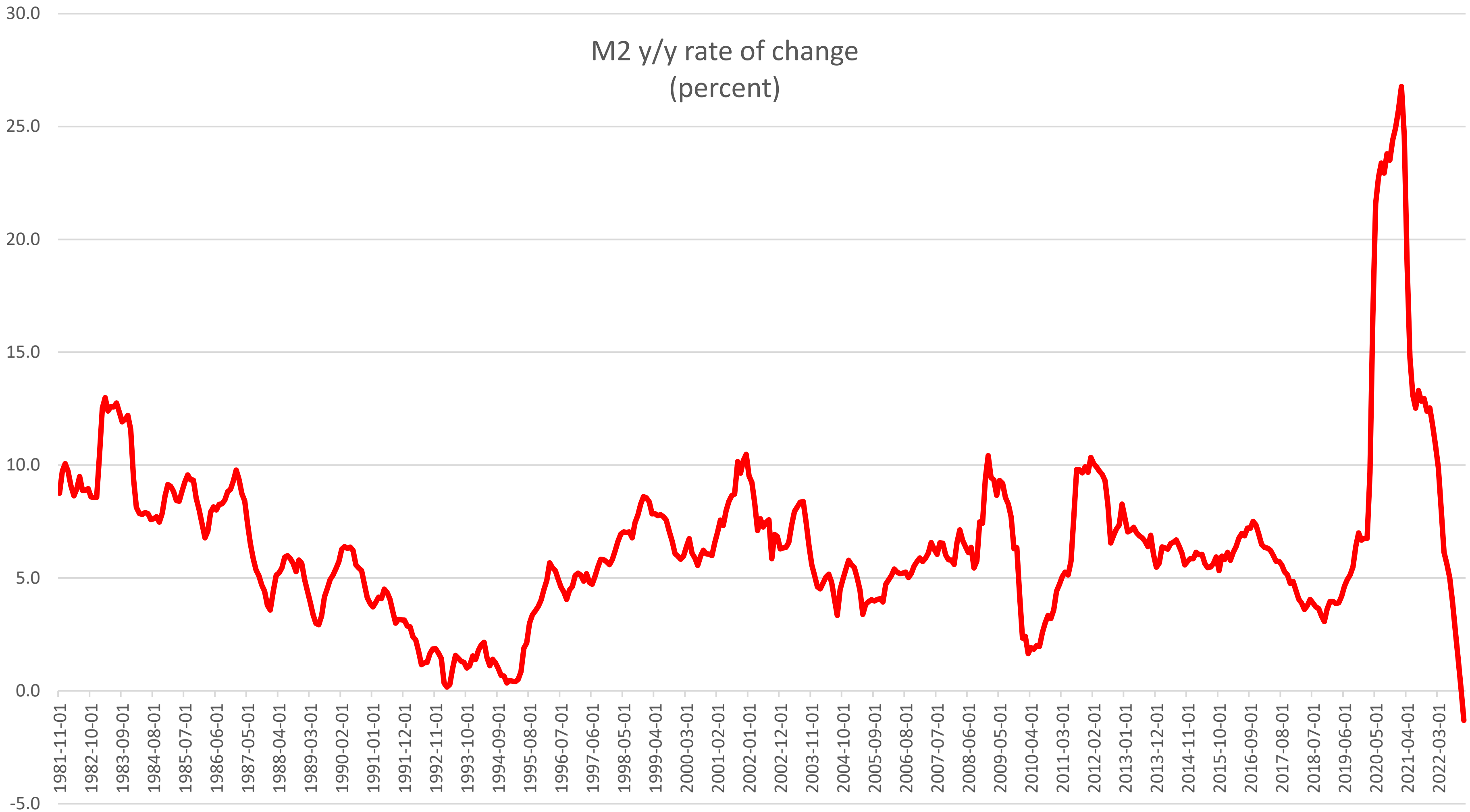
Somewhat? In truth, the first and second halves of 2022 were like two different worlds in terms of inflation. The most stunning example is the behavior of the overall consumer price index. While this measure of inflation isn’t the Fed’s favorite (more on that shortly), it gets vastly more public attention than any other measure. The CPI rose at an 11.1% annual rate in the first half of 2022 and a 1.9% annual rate in the second half. No, that is not a typo—a tad under 2%.

Yet the FOMC statement virtually ignored this important fact. Why?

One possible reason may be that the Fed’s 2% inflation target applies not to the CPI but to the deflator for personal consumption expenditures— a wonkish point, but it’s true. However, PCE inflation also crumbled— from 8% in the first half of 2022 to 2.1% in the second.

Source: *The Wall Street Journal*, February 9, 2023. Opinion section. Author: Alan S. Blinder.

The money supply – y/y rate of change



 Source: Federal Reserve Bank of St. Louis. Data through December 2022.

M2 vs. inflation

THE WALL STREET JOURNAL.

Why Inflation Is on the Way Down

Yet the relationship between money-supply growth, as measured by M2 and subsequent inflation has been statistically near-perfect in the pandemic era, with a 13-month lag. Year-over-year M2 growth began to accelerate during the pandemic recession in April 2020, and core inflation started to accelerate 13 months later, in May 2021. M2 growth peaked at a history making, off-the-charts 27% in February 2021, and core CPI peaked 13 months later, in March 2022. Both M2 growth and core CPI have been falling every month since their respective peaks.

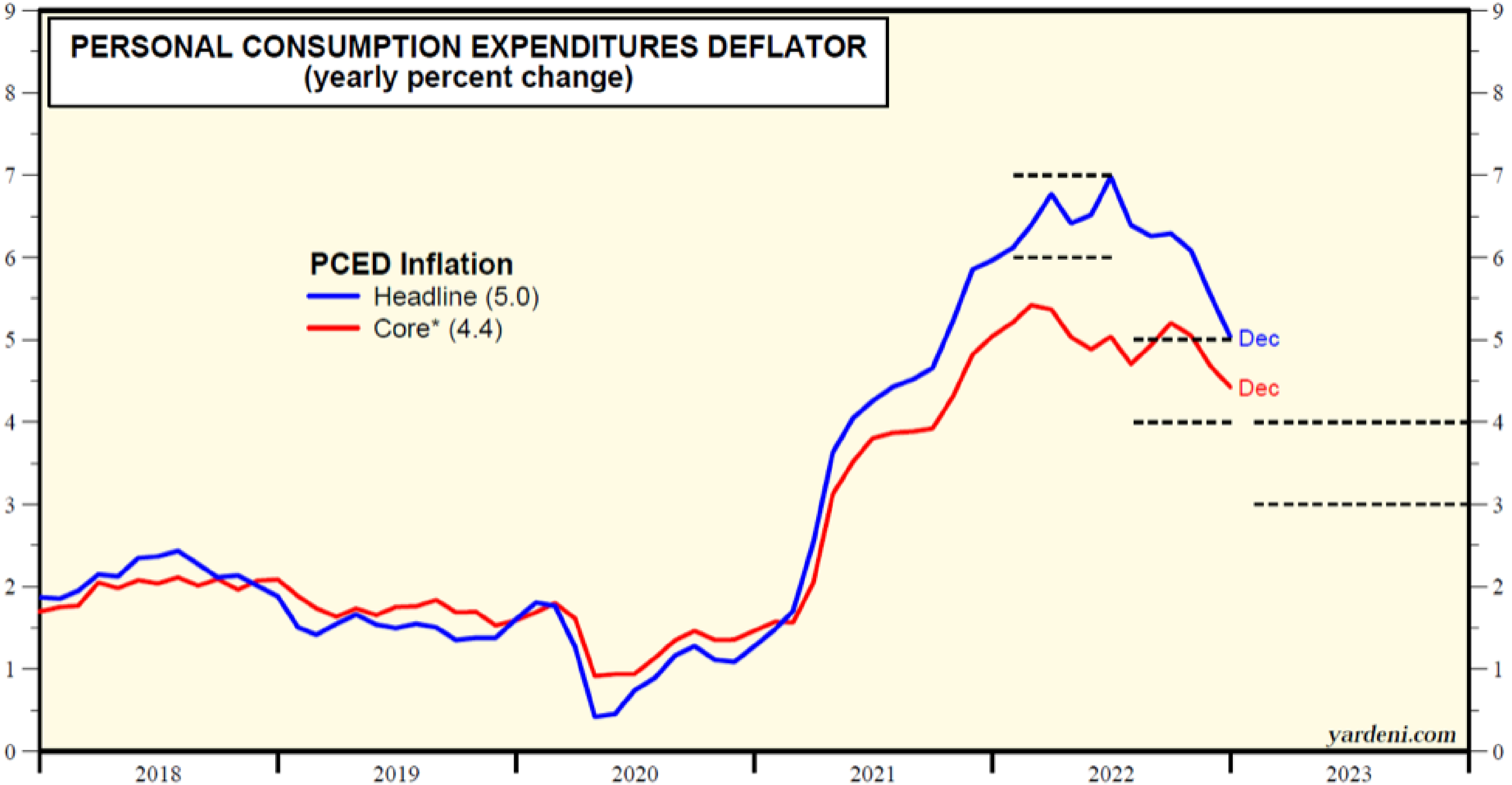
Experience is proving, 40 years after Friedman taught Volcker, that inflation is still a monetary phenomenon.

If the relationship with inflation continues, core inflation will be at only 2.3% in 13 months, in June 2023.

Source: *The Wall Street Journal*, July 26, 2022. Opinion section. Author: Donald L. Luskin.

Ed Yardeni's inflation forecast

Figure 25.



* Excluding food & energy.
Note: Dashed ranges are YRI forecasts for headline PCED inflation rate.
Source: Bureau of Economic Analysis.

Source: Yardeni Research, Inc., with permission, January 30, 2022.

Inflation expectations

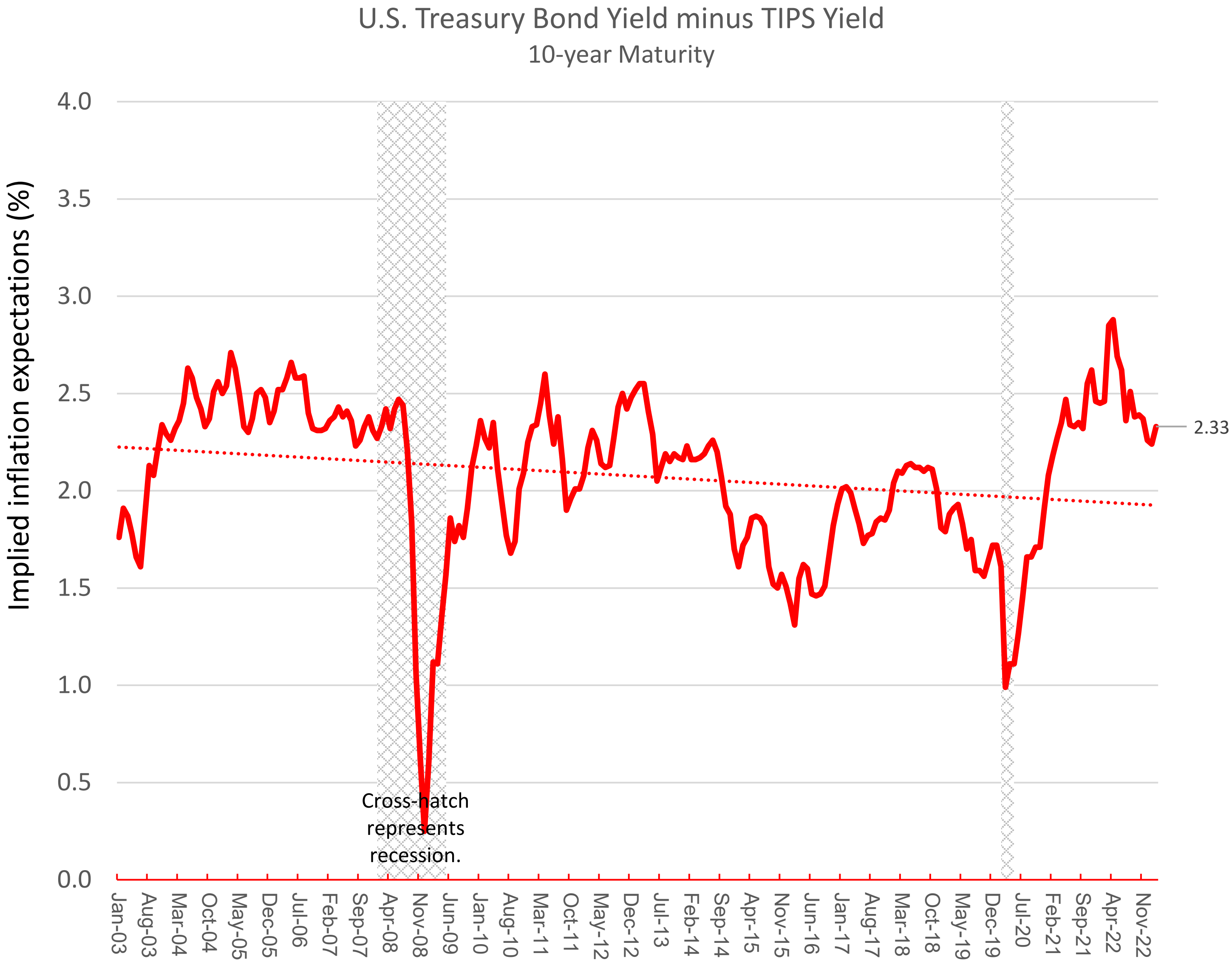
Inflation expectations

Median one-, three-, and five-year ahead expected inflation rate

Consumers expect substantially moderating inflation.

Source: Federal Reserve Bank of New York, *Survey of Consumer Expectations*. Data through January 2022.

Inflation expectations



The difference between the nominal 10-year Treasury bond yield and the TIPS yield gives the market's opinion for a 10-year inflation forecast.

It had been trending lower for 15 years but has moved higher post-Covid.

Source: Federal Reserve. Data through February 2023.

Federal government debt

THE WALL STREET JOURNAL.

Default on U.S. Debt Is Impossible

In reality, the U.S. *can't* default on its debt.
Section 4 of the 14th Amendment is unequivocal on that point: "The validity of the public debt of the United States, authorized by law, . . . shall not be questioned." This provision was adopted to ensure that the federal debts incurred to fight the Civil War couldn't be dishonored by a Congress that included members from the former Confederate states.

The Public Debt Clause isn't limited to Civil War debts. As the Supreme Court held in *Perry v. U.S.* (1935), it covers all sovereign federal debt, past, present and future.

Those who warn of default confuse debt payments with other spending obligations.

There's no question enough money would be available: The government collects roughly $450 billion a month in tax revenue, more than enough to cover the $55 billion or so in monthly debt service.

Source: *The Wall Street Journal*, "Default on U.S. Debt Is Impossible", by David B. Rivkin Jr. and Lee A Casey. February 21, 2023.

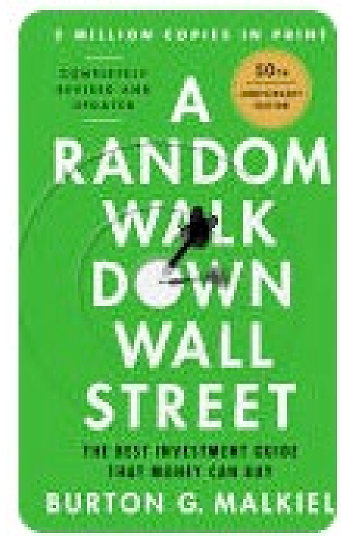
Active vs. passive

BARRON'S

Barron's: Do you still think your hypothetical chimpanzee is better than the experts?

Burton Malkiel: I believe more strongly in my hypothesis today than I did 50 years ago.
… year after year two-thirds of the active managers are outperformed by a simple index fund. And the one-third that win in one year aren't the same as the one-third that win in the next year.
When you compound the returns over 10 years, or 20 years, these Spiva[1] reports show that 90% of the active managers are outperformed by a simple index fund. The same results hold in international markets and the bond market.
I'm not saying that no one can outperform. But when you try to go active, you are much more likely to be in the 90% of the distribution where you underperform, rather than the 10% where you outperform.

Burton G. Malkiel
Princeton professor and author



Source: *Barron's*, "50 Years On, He Still Favors Index Funds", February 13, 2023.
[1] S&P indices versus active management.

Modern Portfolio Theory

Wall Street strategists' dismal track record with their S&P 500 sector recommendations illustrates how extremely difficult it is to systematically add α with tactical asset allocation – ie. trying to guess which sectors, styles, markets (foreign vs. domestic) or asset classes (eg. stocks, bonds, commodities, gold, etc.) are going to outperform and which are going to lag. In my opinion, MPT is still the best investing mousetrap yet devised.

"Your mother called to remind you to diversify."

Modern Portfolio Theory

Figure 1. Efficient frontier

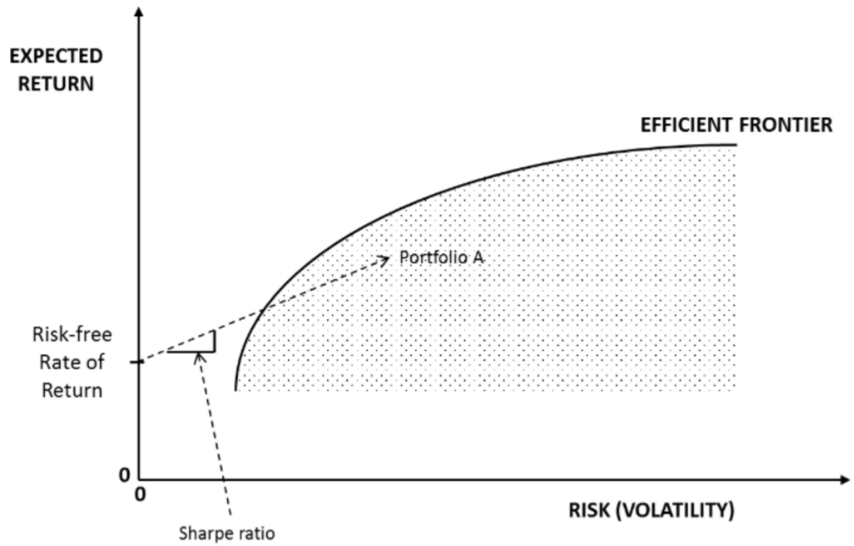
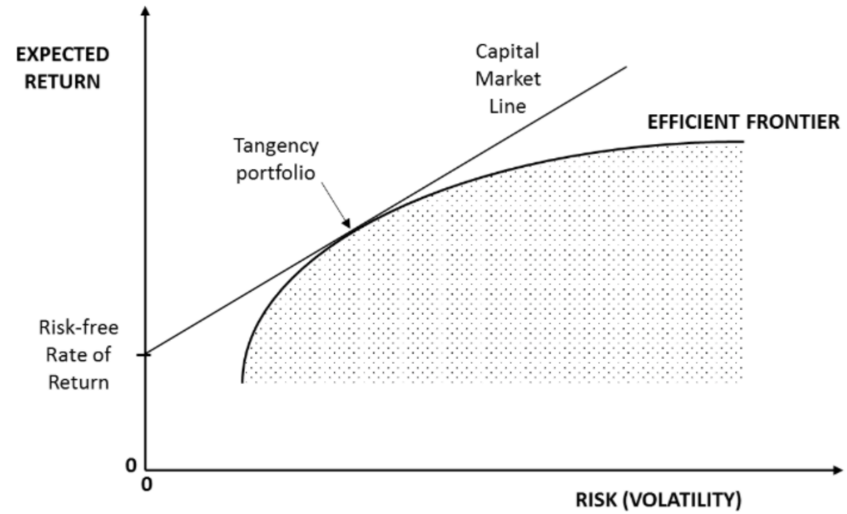


Figure 2. The capital market line



The dots under the curve in Figure 1 represent "inefficient" portfolios – some are even single stocks. Each one can be diversified further, either to reduce volatility without reducing expected return, or to increase expected return without increasing volatility. The ones that can't be so diversified any further lie on the efficient frontier.

Each portfolio has a "Sharpe ratio," named after Markowitz's successor in the development of portfolio theory, William F. Sharpe. The Sharpe ratio (see Figure 1) is the ratio of expected return (over and above the risk-free rate) to "risk," i.e. volatility (standard deviation of returns). Note that the inefficient Portfolio A's Sharpe ratio is lower than that of a portfolio on the efficient frontier above it.

The next step in the theory was to realize that the portfolio with the highest Sharpe ratio is the "tangency portfolio" – see Figure 2. The tangency portfolio is the portfolio at the intersection of a line drawn from the risk-free security that is tangent to the efficient frontier. This line is called the capital market line.

Any portfolio on the capital market line can be obtained by combining the risk-free asset with the tangency portfolio. Therefore, a portfolio on that line is *more* efficient than a portfolio on the efficient frontier. (For the upper right-hand part of that line, you have to assume that not only can you invest at the risk-free rate, you can also borrow at it.)

So it matters what the tangency portfolio is. If you make the assumption that all publicly available information is known to all investors, and that markets are in equilibrium, this leads to the conclusion that the tangency portfolio is the capitalization-weighted market portfolio. This is not in the least surprising – indeed it is trivial – since in equilibrium all investors, all with the same knowledge, will invest their risk assets in the same portfolio. And the only way they can all do that is if it is the market portfolio. It was this insight that originally brought forth the idea of creating capitalization-weighted index funds to mimic the market.

Source: The Myths and Fallacies about Diversified Portfolios, by Michael Edesses, January 9, 2017.

Modern Portfolio Theory = Asset Allocation

Modern portfolio theory was introduced by Harry Markowitz with his paper "Portfolio Selection," which appeared in the 1952 *Journal of Finance*.

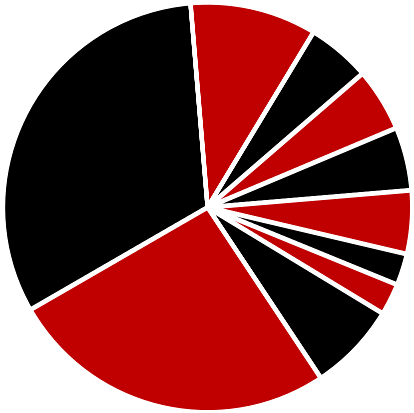
Thirty-eight years later, he shared a Nobel Prize with Merton Miller and William Sharpe for what has become a broad theory for portfolio selection.

<u>Modern Portfolio Theory</u>

Diversify

Optimize

Rebalance



Asset allocation and diversification do not guarantee a profit or eliminate the risk of loss.
Source: Riskglossary.com

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The opinions expressed are those of the author, are based on current market conditions and are subject to change without notice.

These materials may contain statements that are not purely historical in nature but are "forward-looking statements." These include, among other things, projections, forecasts, estimates of income, yield or return or future performance targets. These forward-looking statements are based upon certain assumptions, some of which are described herein. Actual events are difficult to predict and may substantially differ from those assumed. All forward-looking statements included herein are based on information available on the date hereof and Fritz Meyer assumes no duty to update any forward-looking statement. Accordingly, there can be no assurance that estimated returns or projections can be realized, that forward-looking statements will materialize or that actual returns or results will not be materially lower than those presented.

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