Invesco

2023 Macro Market Outlook

May 2023

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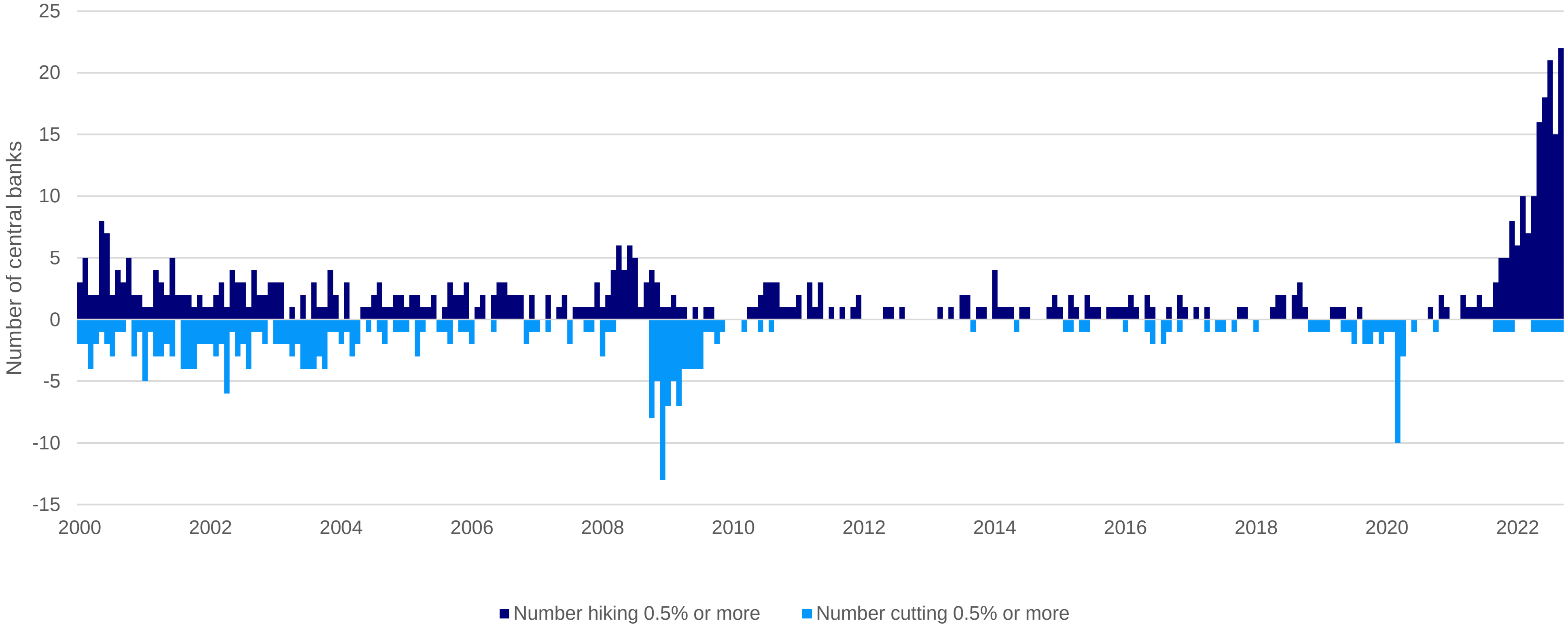
"Central banks around the world have been raising interest rates this year with a degree of synchronicity not seen over the past five decades…"

The World Bank
September 15, 2022

In stark contrast to 2020 when almost all central banks were loosening policy, almost all central banks are tightening policy via increases in policy rates

Global central banks are tightening aggressively

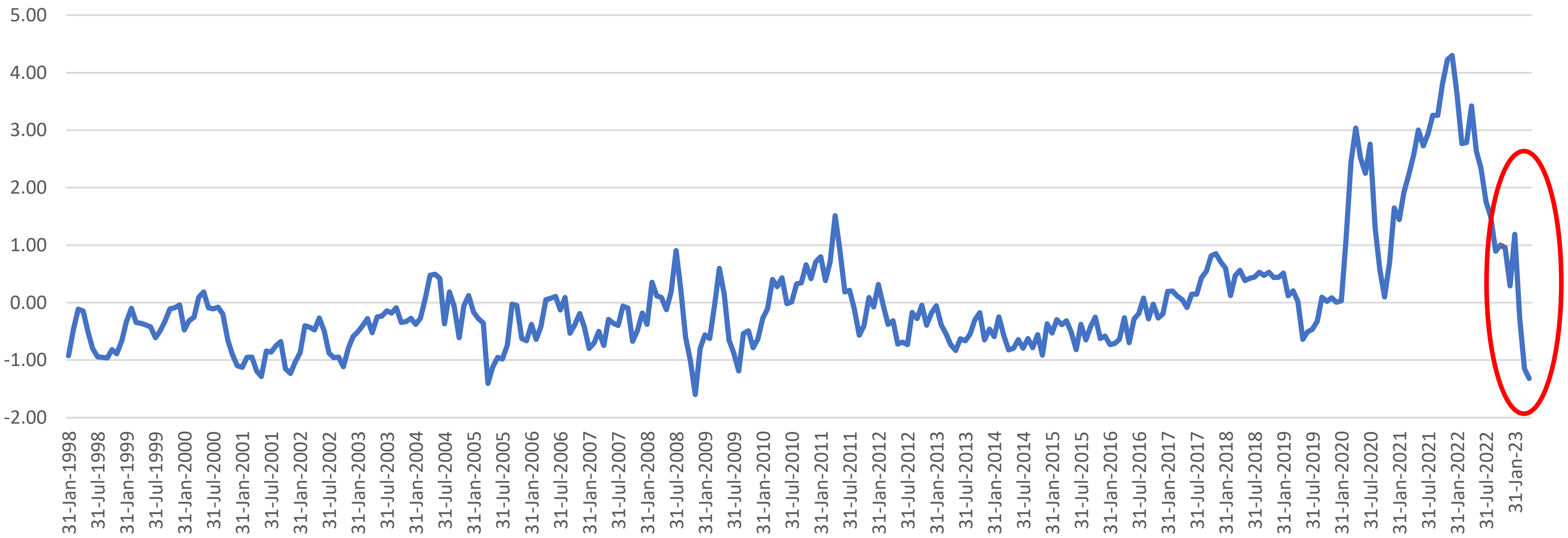


Note: Number of central banks among 38 leading central banks.
Source: Macrobond and Bank for International Settlements, 30 September 2022.

Path of Inflation

Global Inflation Pressures

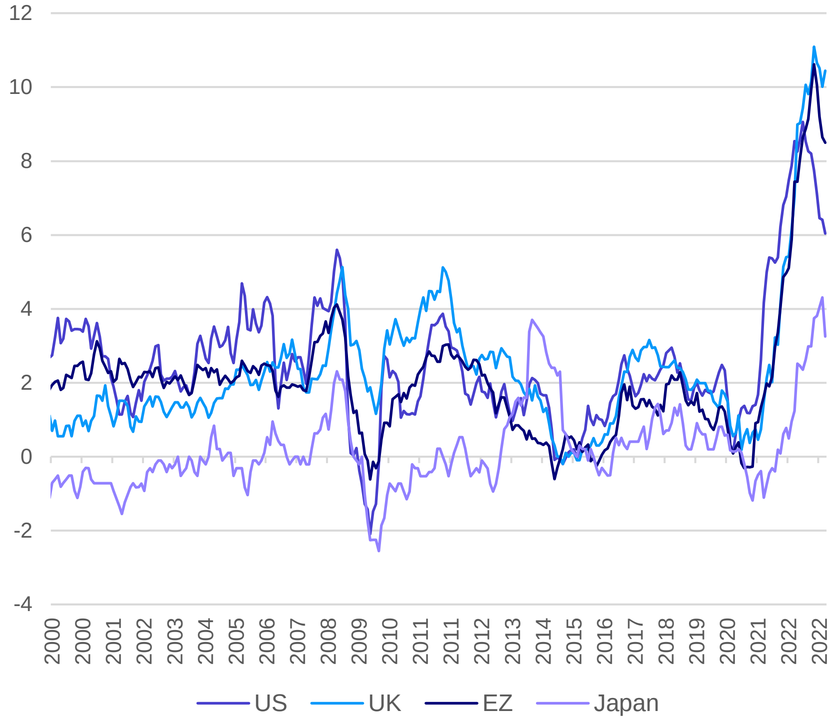
Global Supply Chain Pressure Index



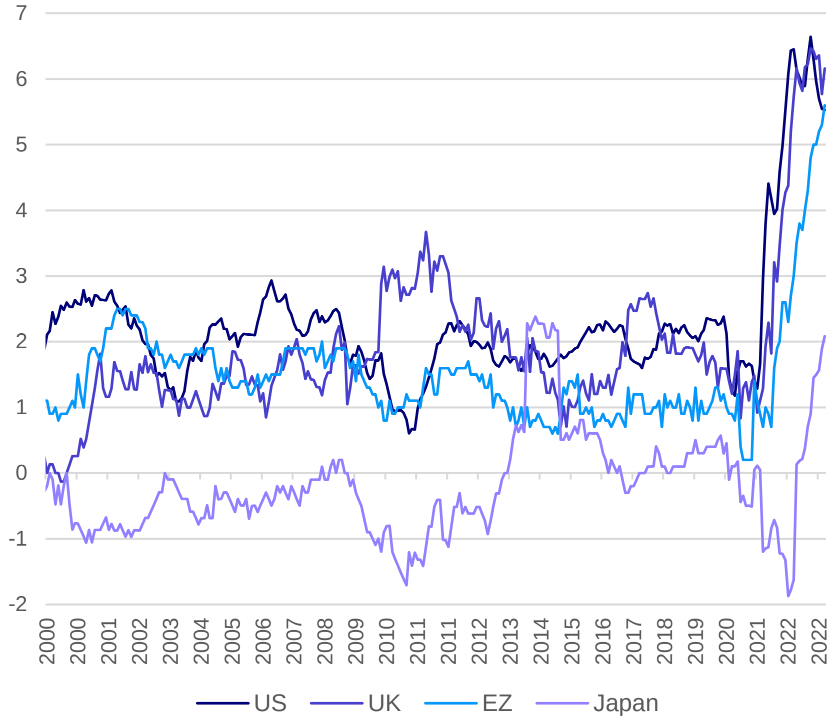
Source: NY Fed Global Supply Chain Pressure Index, May 8, 2023.

Developed markets headline and core inflation

US/EZ/UK headline CPI past its peak? %



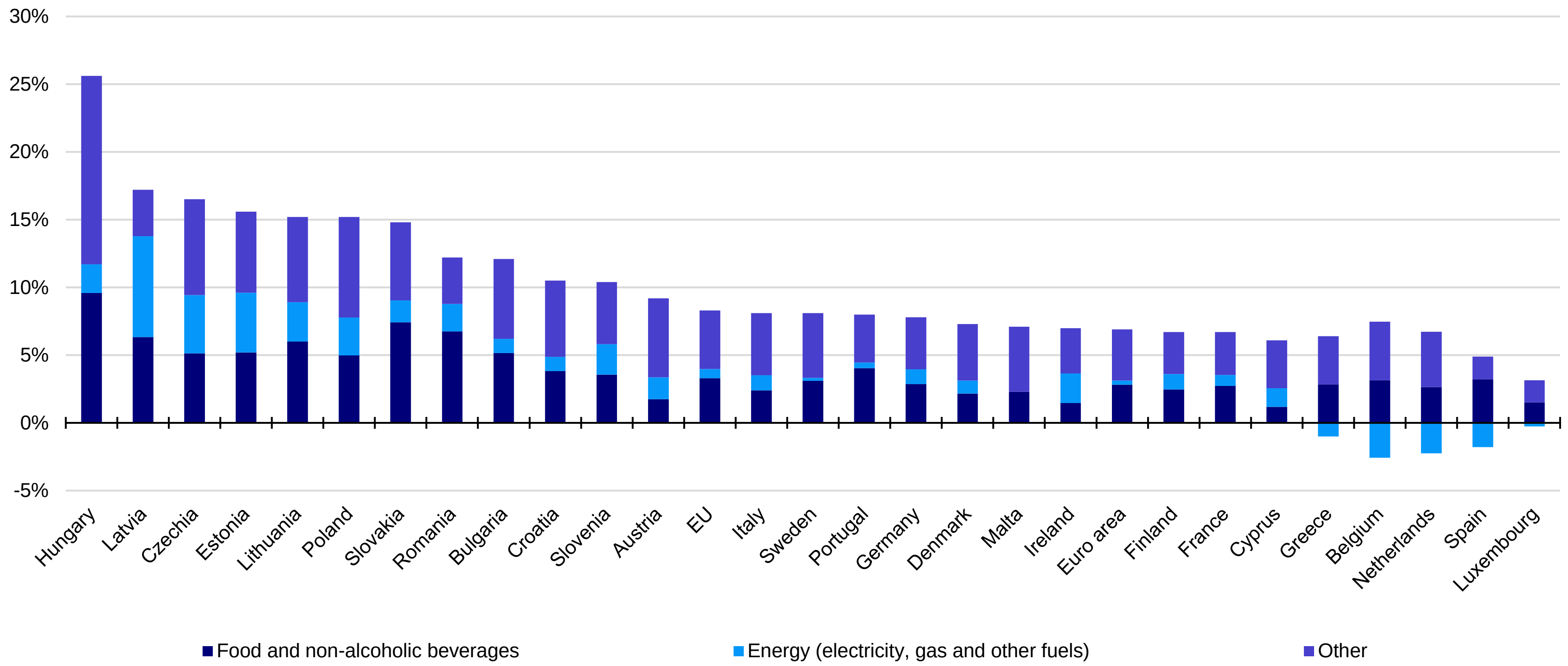
EZ, Japan core inflation still rising, %



Source: Bloomberg, Macrobond, Invesco. Monthly data to Feb 2023, as of March 29, 2023.

Inflation rates still largely depend on commodity prices in the EU

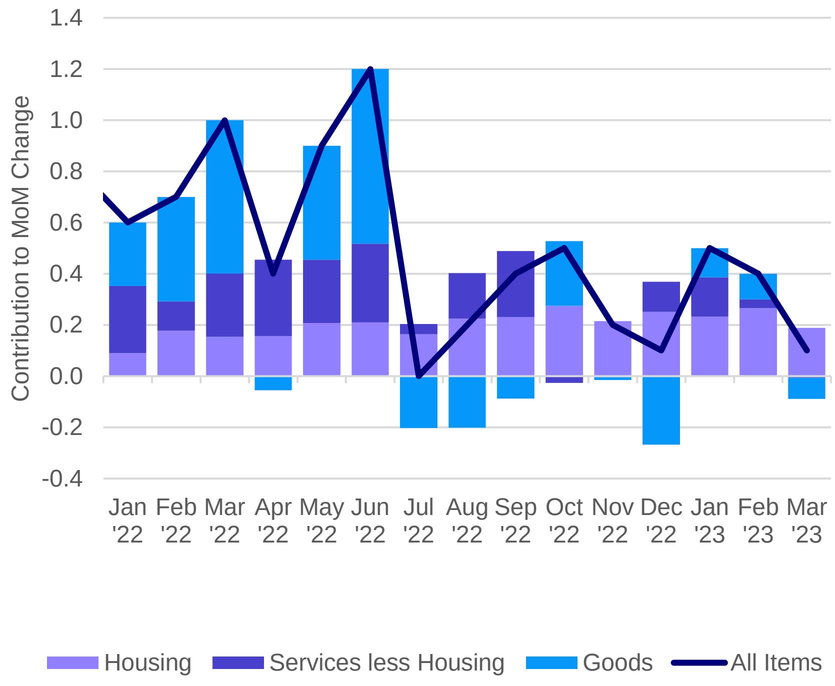
European Union annual consumer price inflation rates in March 2023



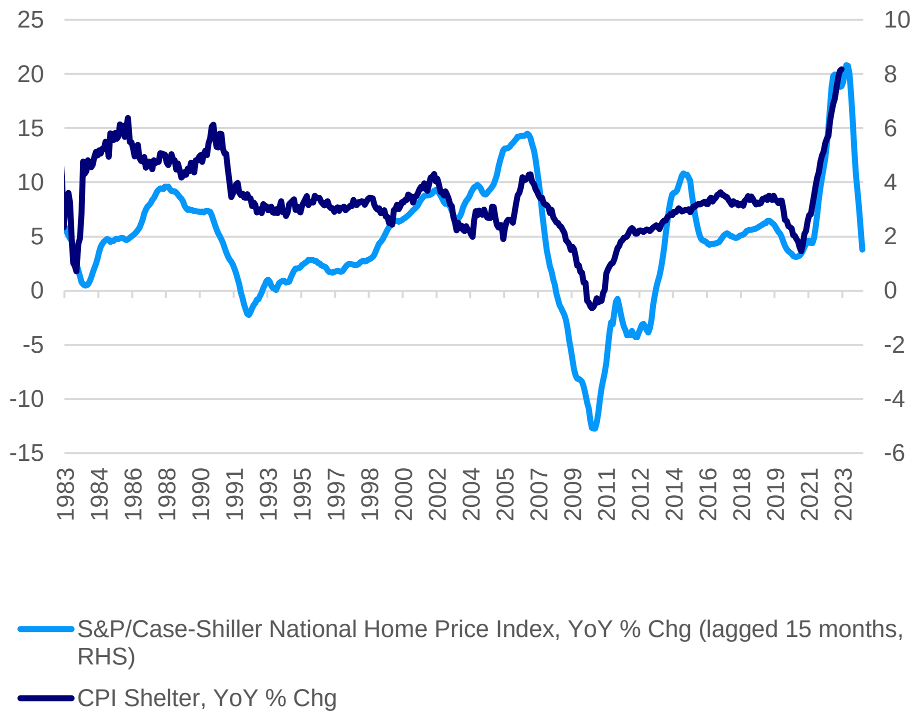
Notes: Data as of 4 May 2023. The chart shows the contributions to the annual consumer price inflation rates for March 2023 in European Union countries from food and non-alcoholic beverages and energy (electricity, gas and other fuels). Other includes all other categories that comprise the total consumer price inflation basket. We use 2023 inflation basket weights to calculate contributions.
Source: Eurostat and Invesco

The direction of US inflation

US CPI, Contributions to MoM % Change



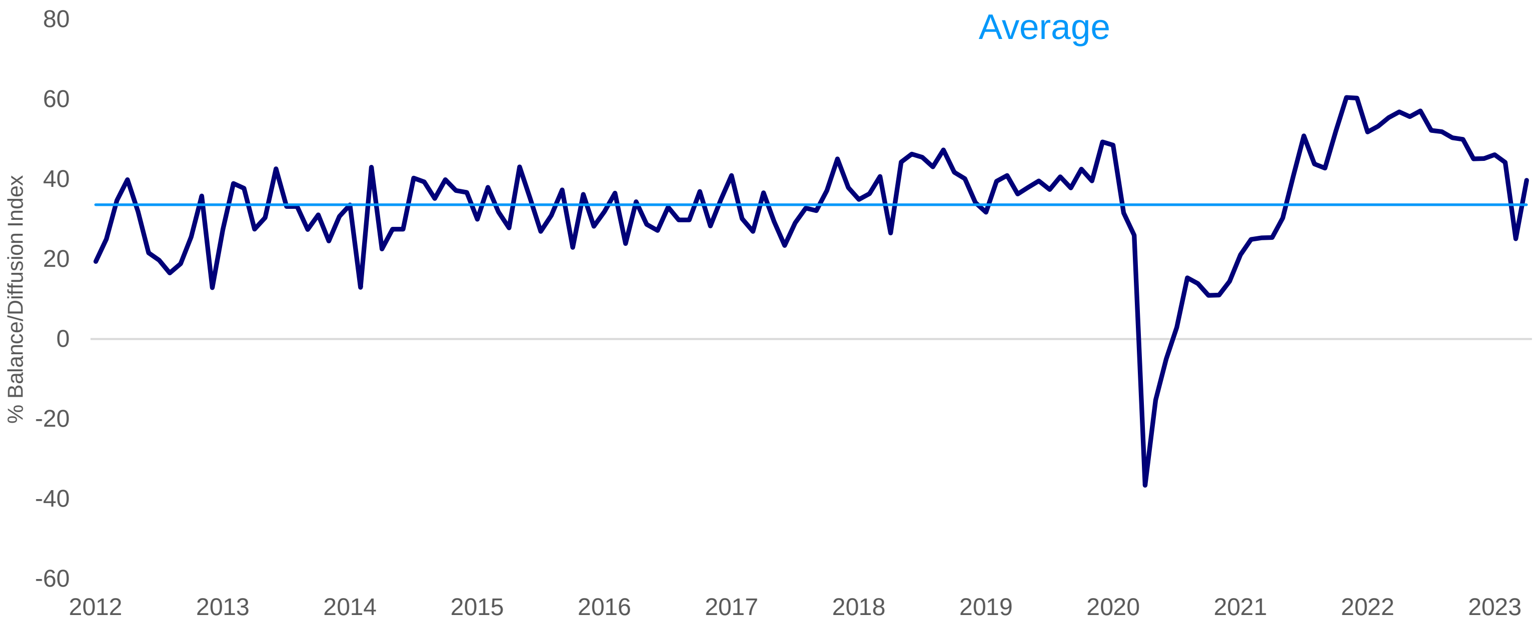
Shelter Component vs. Home Prices



Sources: Invesco and Macrobond, as of 14 April 2023.

US Services Inflation

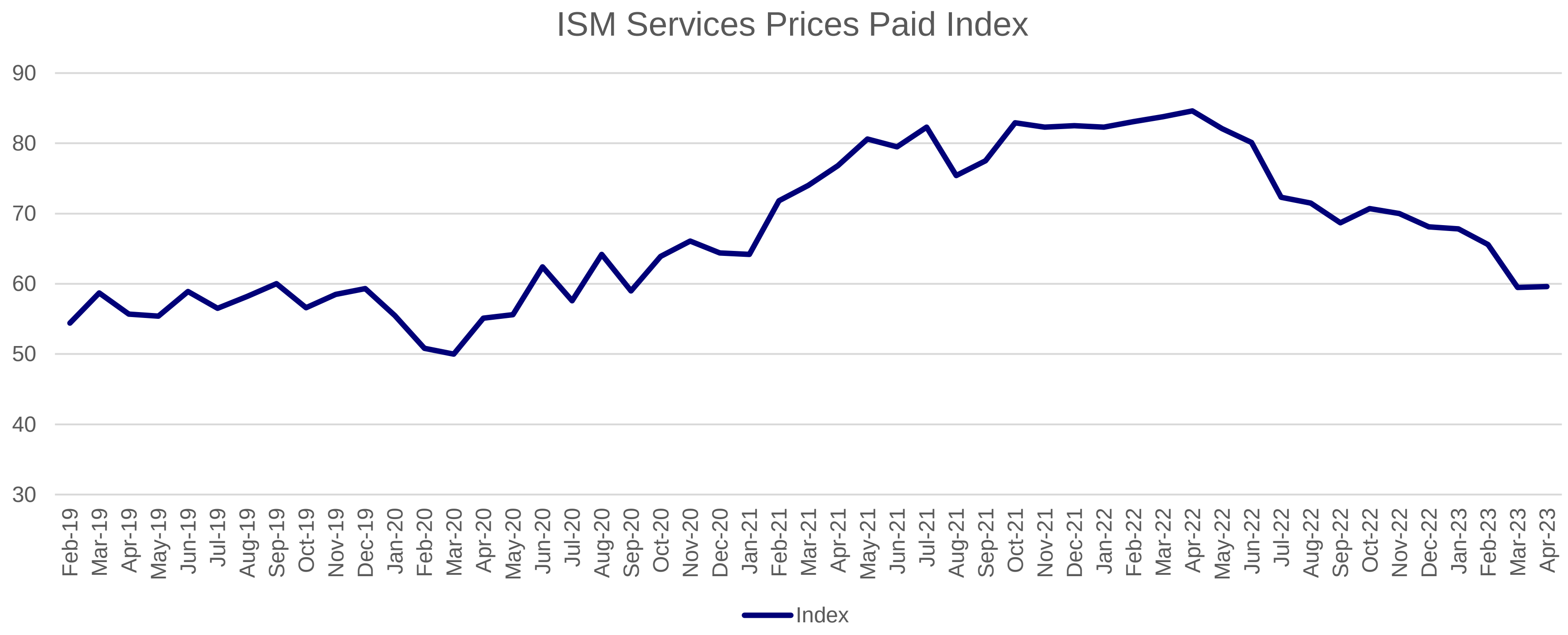
Philly Fed Non-Manufacturing Wages and Benefits Cost Diffusion Index, SA



Source: Institute for Supply Management and Philadelphia Federal Reserve, April 25, 2023.

US Services Inflation

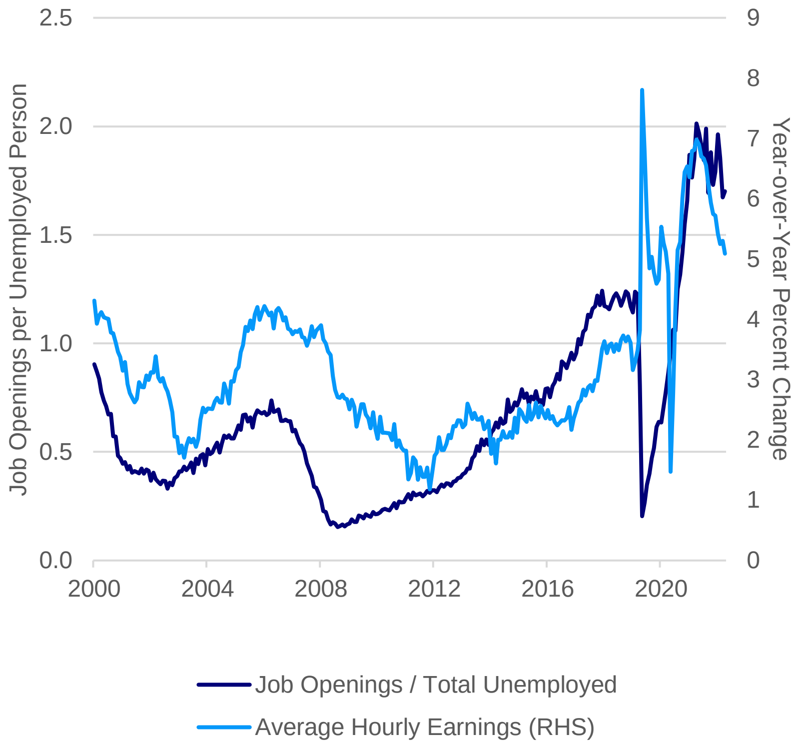
ISM Services Prices Paid Sub-Index



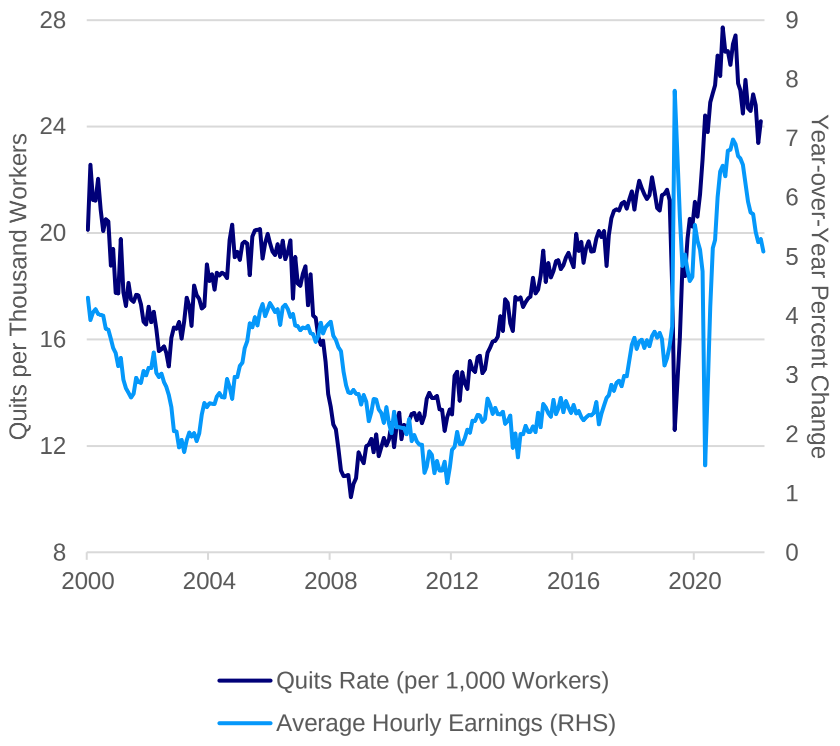
Source: Institute for Supply Management, May 3, 2023

The US Labor Market

Fewer job openings is usually good news for inflation

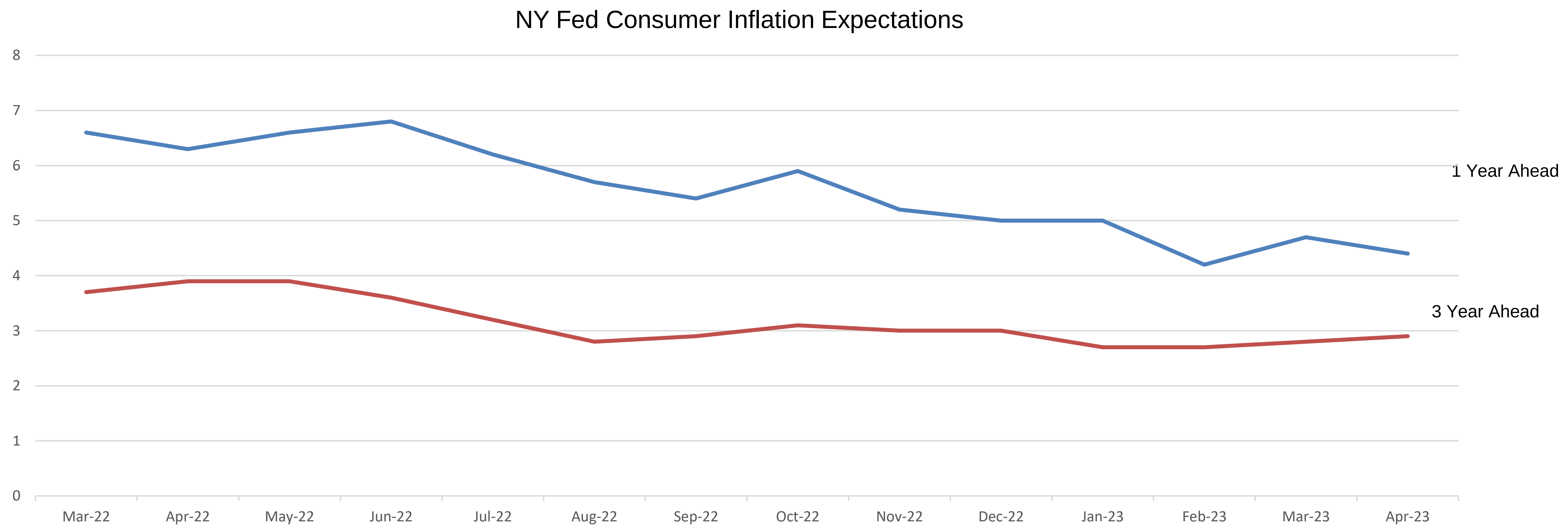


…and quits rate appears to be leading the way



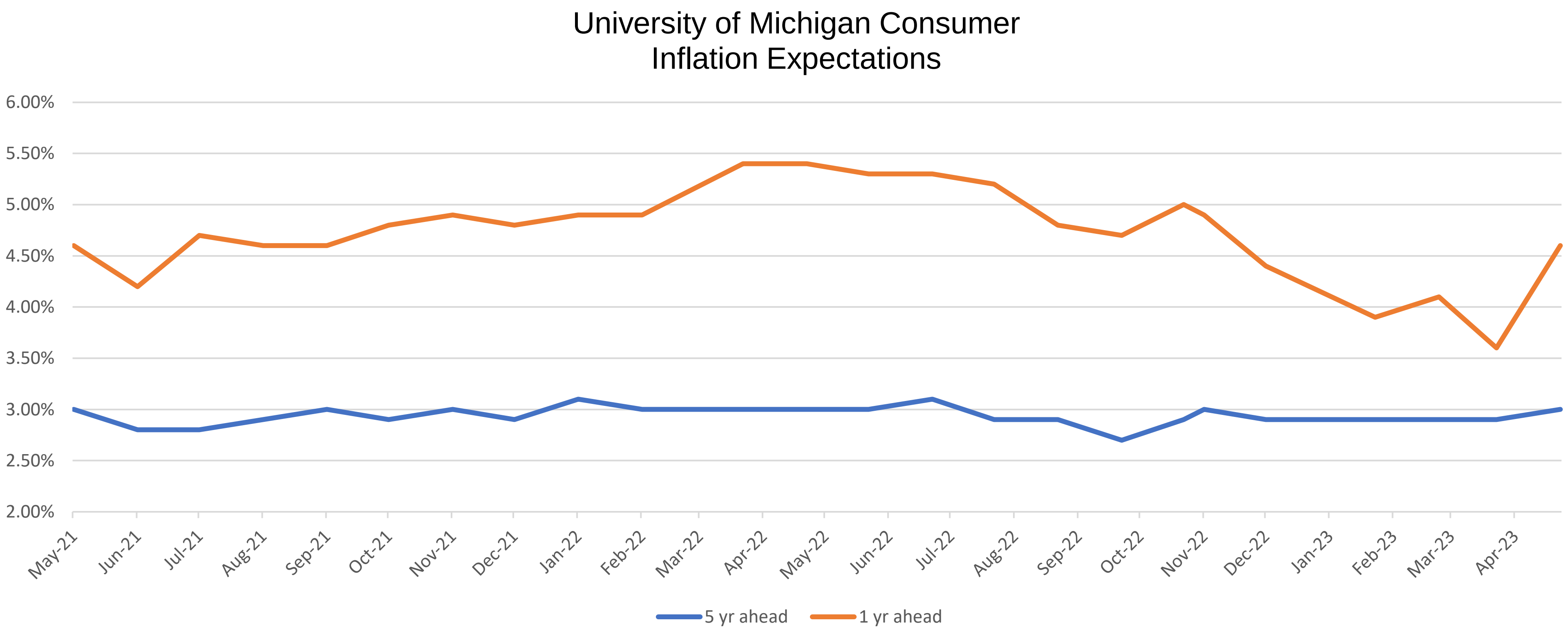
Sources: Macrobond and Invesco, as of 7 April 2023. Average hourly earnings are based on non-farm production & non-supervisory workers. Quits rate is adjusted for labor force size.

US Consumer inflation expectations



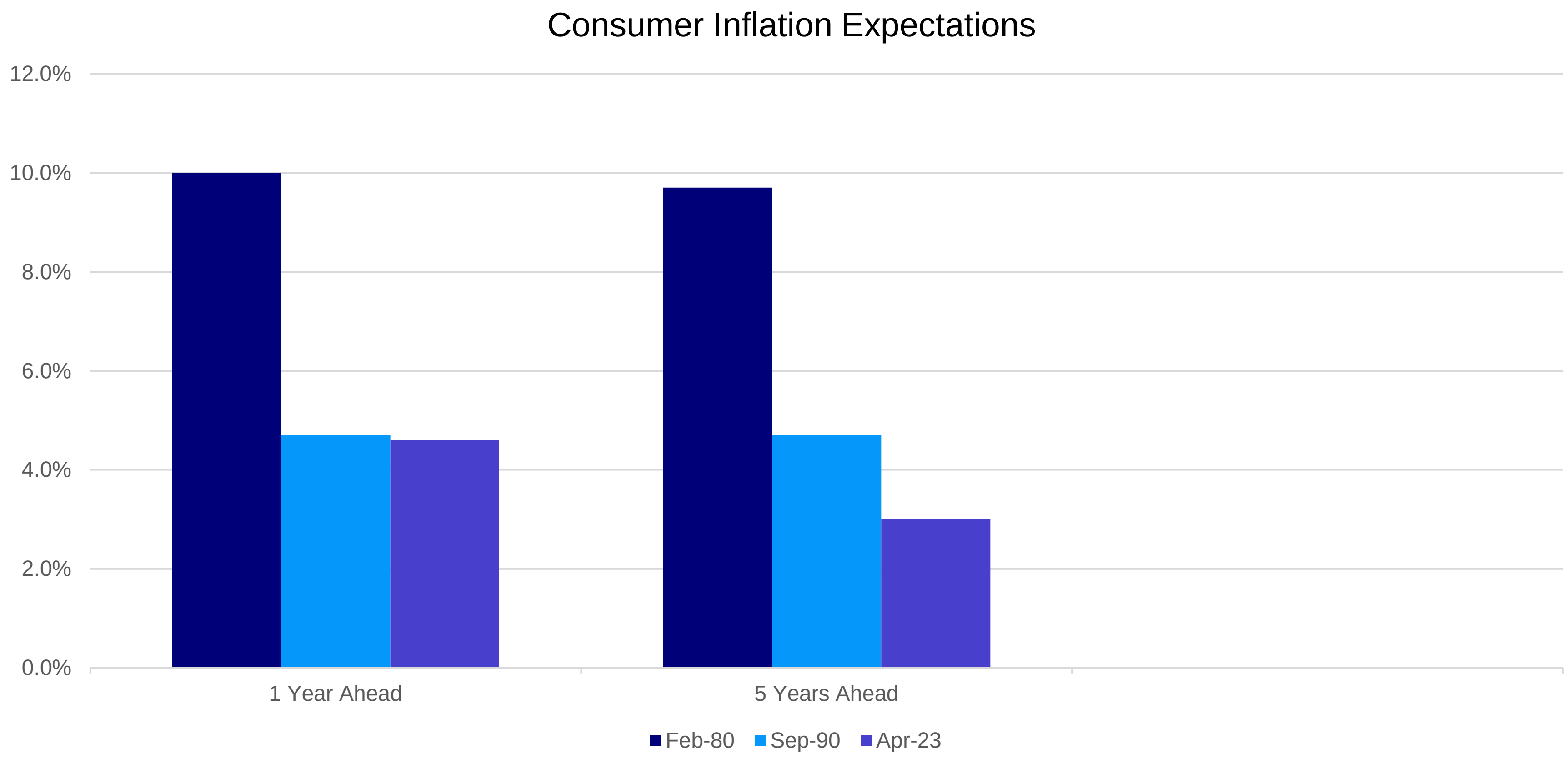
Source: Federal Reserve Bank of NY, May 8, 2023.

US Consumer inflation expectations



Source: University of Michigan Survey of Consumers, April 28, 2023

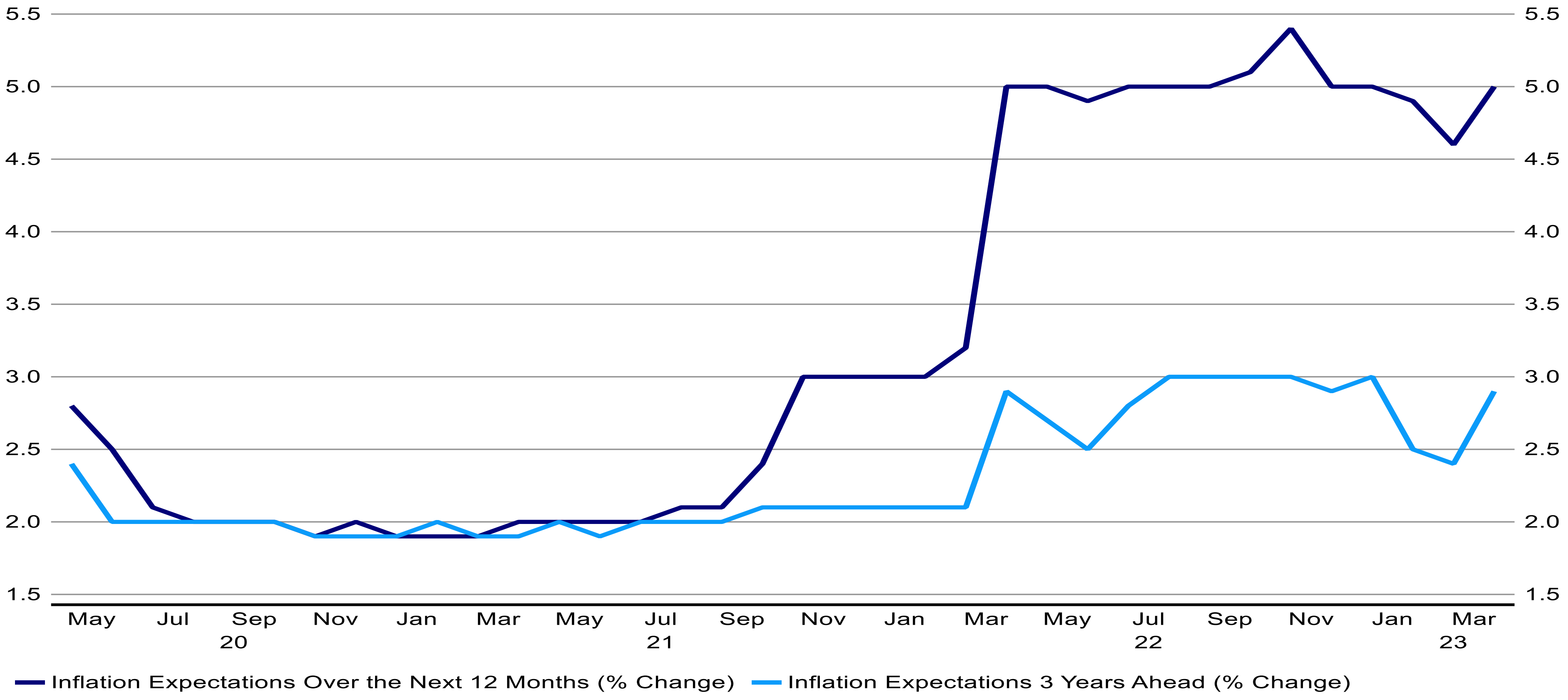
A historical perspective on US consumer inflation expectations



Source: University of Michigan Survey of Consumer Expectations, February 1980, September 1990 and April 2023.

Euro area medium-term consumers inflation

EURO AREA: CONSUMER INFLATION EXPECTATIONS (%)

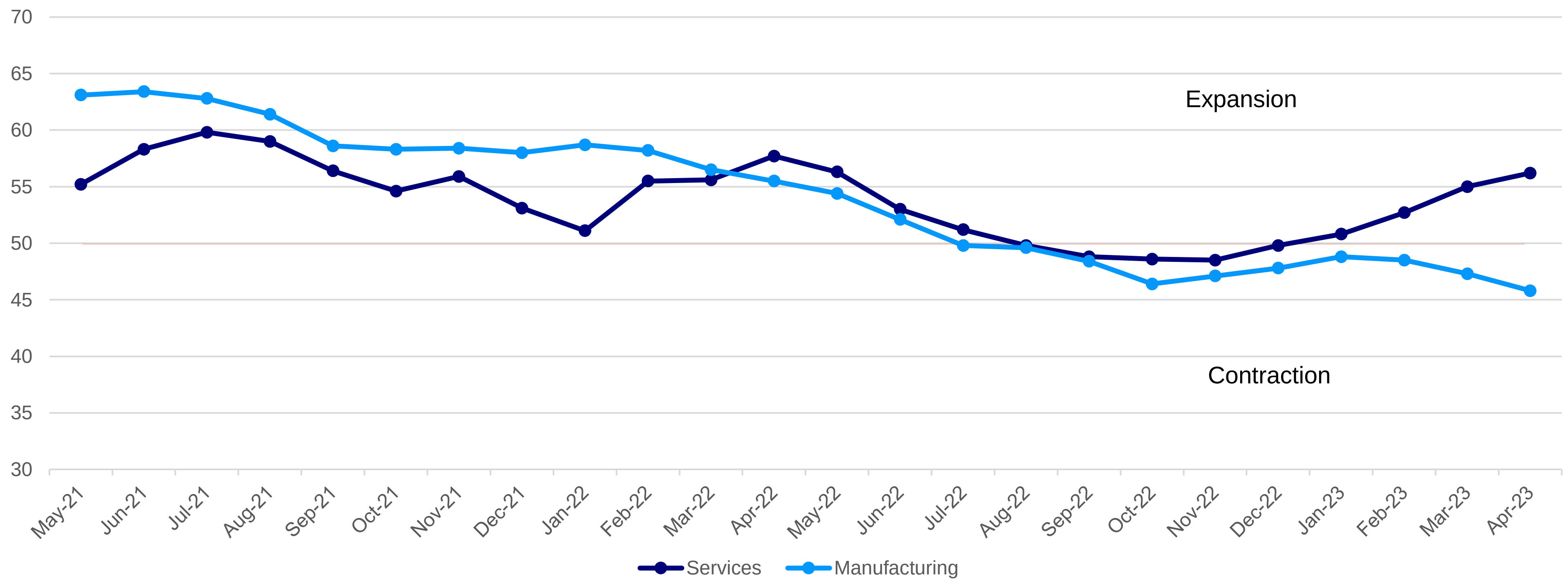


Source: European Central Bank as of March 2023

The Real Economy

Euro Area Leading Economic Indicators

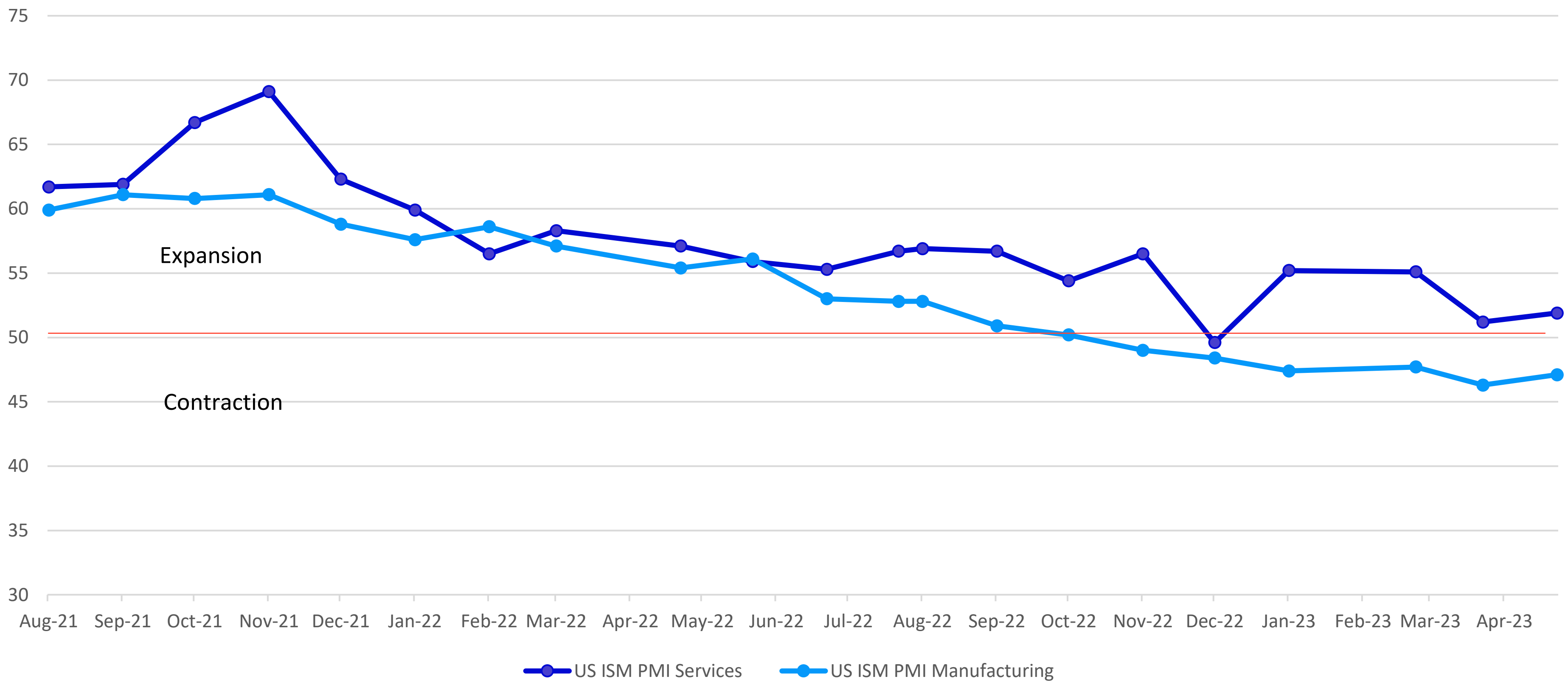
Euro Area Manufacturing and Services Activity



Source: HCOB Eurozone Manufacturing PMI as of May 4, 2023; Services PMI as of May 4, 2023.

US Leading Economic Indicators

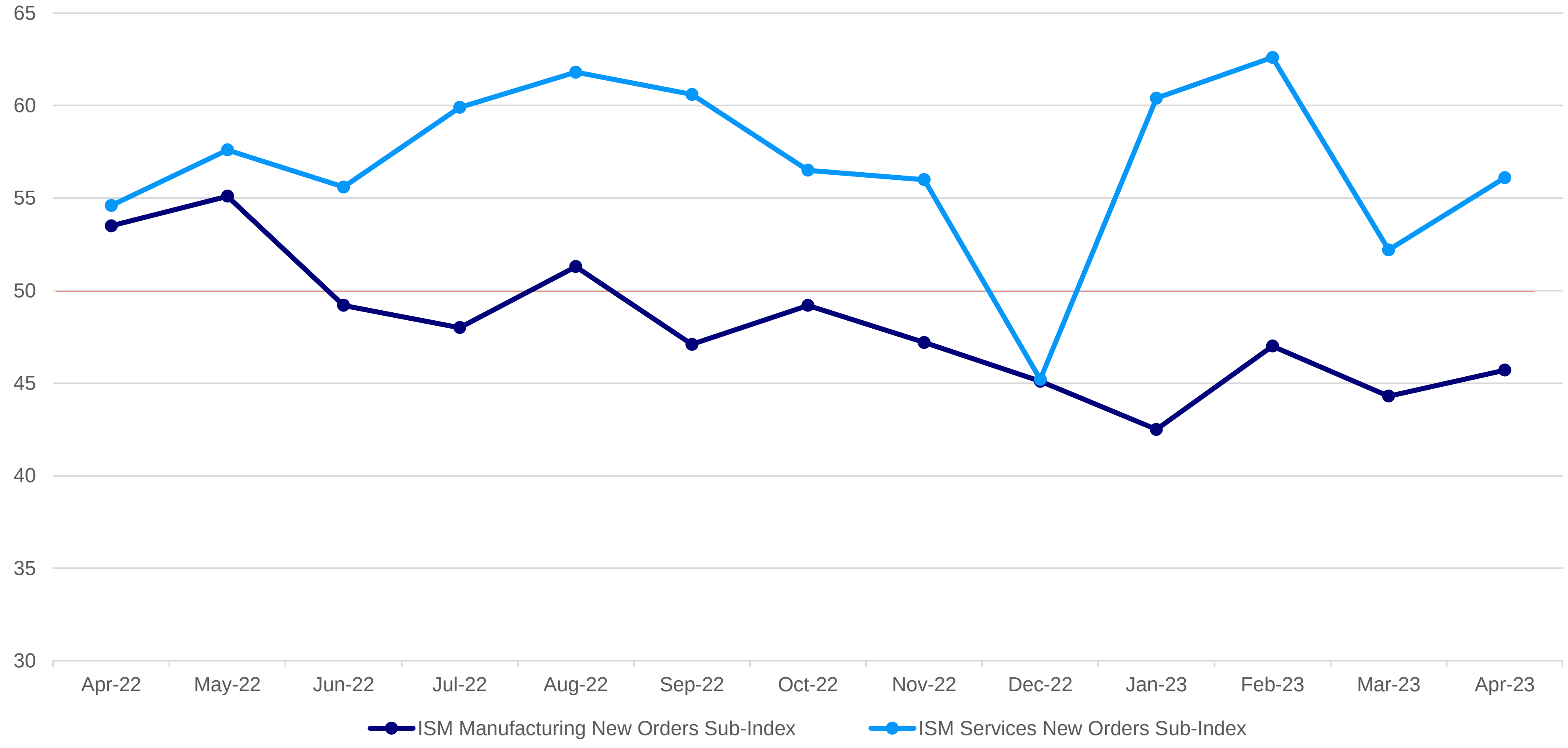
Manufacturing and Services Activity



Source: Institute for Supply Management. Manufacturing PMI as of May 1, 2023. Non-Manufacturing PMI as of May 3, 2023.

US Leading Economic Indicators

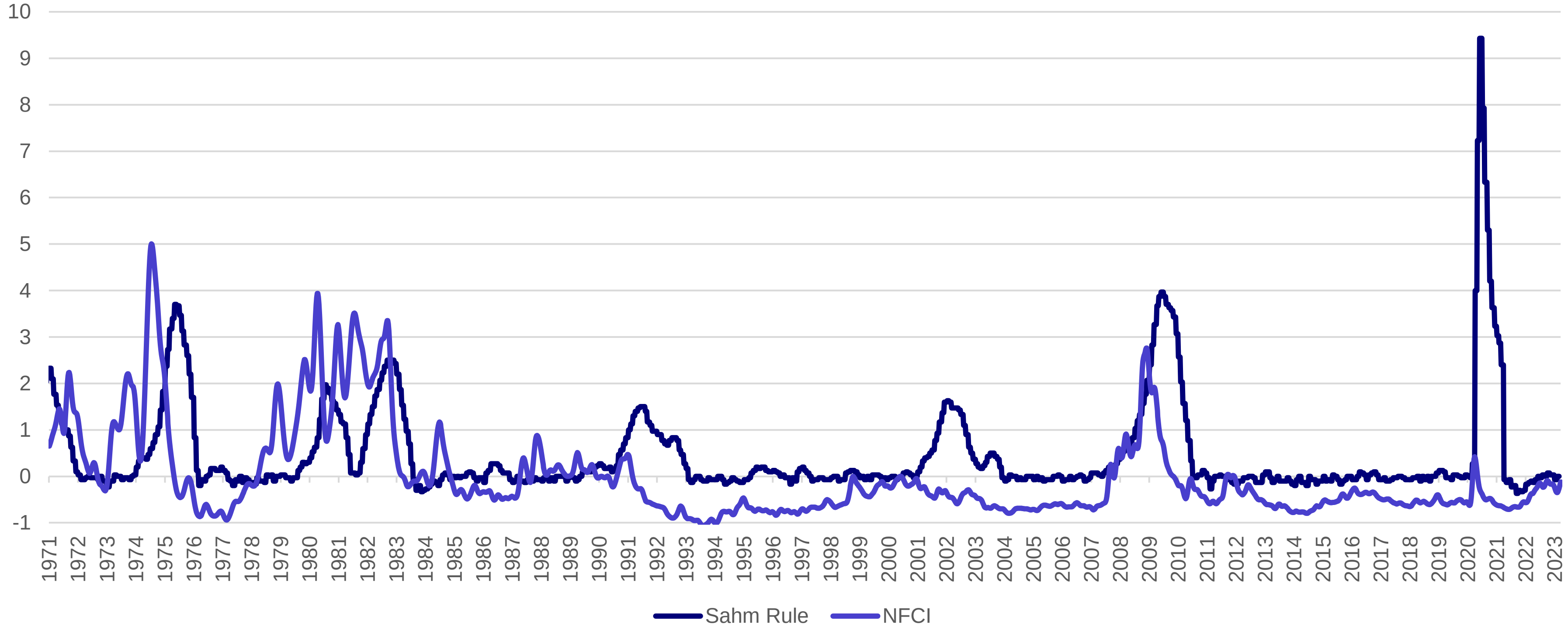
Manufacturing and Services New Orders Indexes



Source: Institute for Supply Management. Manufacturing PMI as of May 1, 2023. Non-Manufacturing PMI as of May 3, 2023.

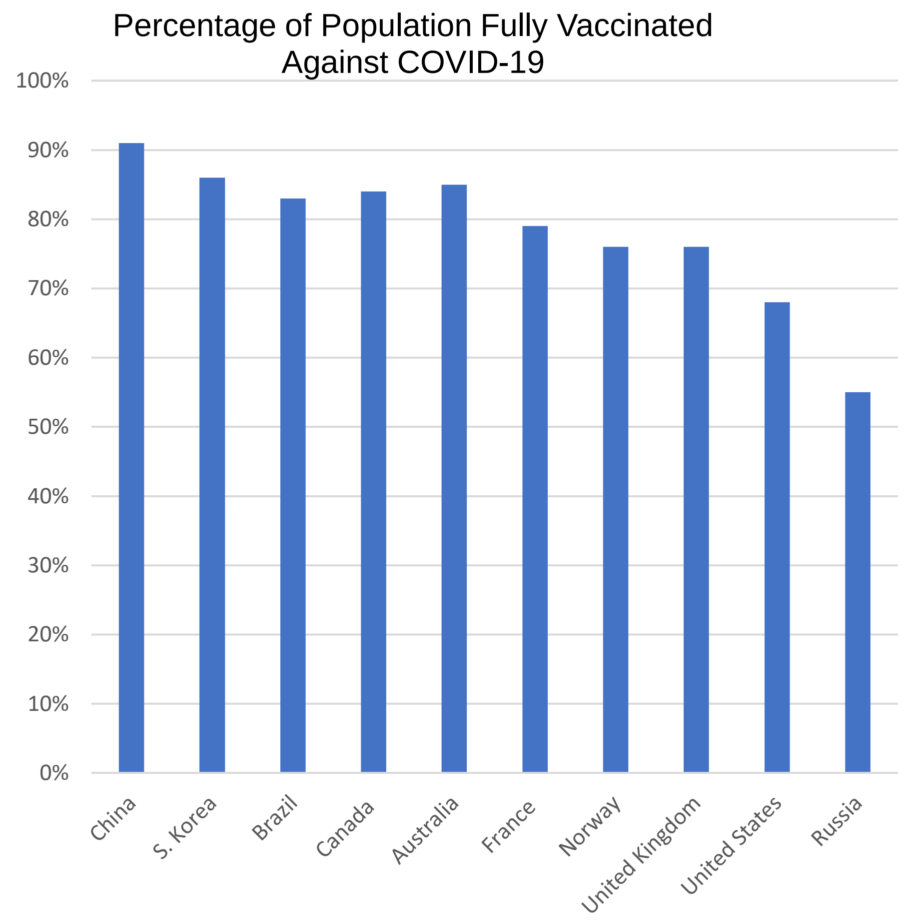
Financial markets vs. labor markets

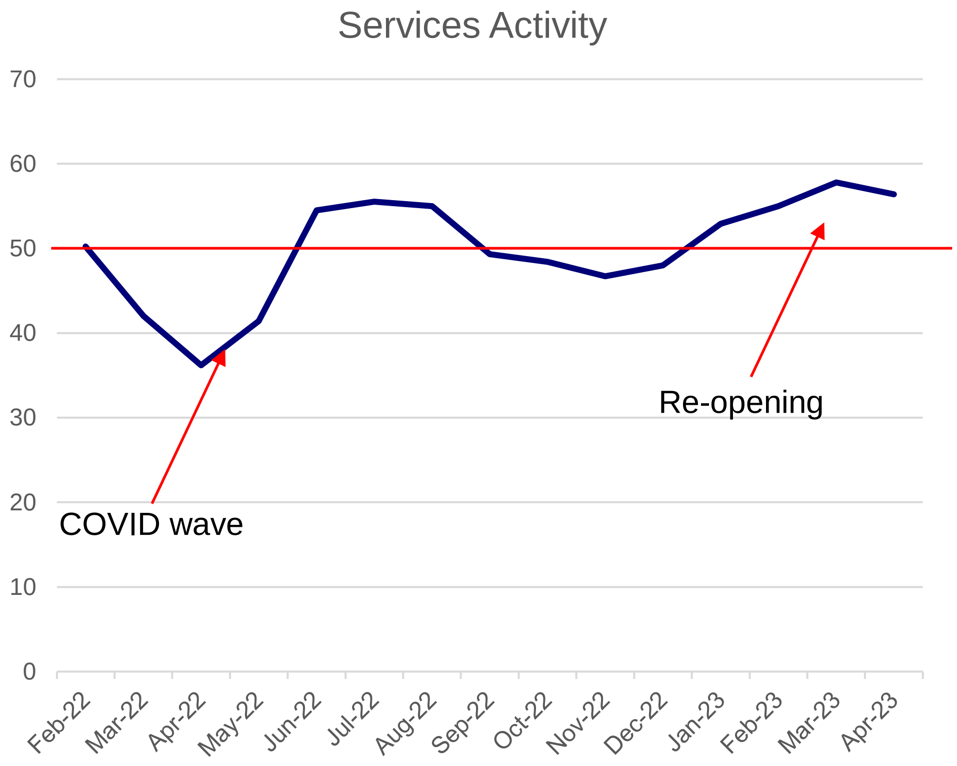
US financial stress usually precedes labor market stress and recession (index levels)



Note: Sahm Rule recession indicator – empirical finding that modern US recessions have always followed whenever the U3 headline unemployment rate has risen by 50bps above its three-month moving average. NFCI – Chicago Fed National Financial Conditions Index, which includes risk premiums, financial flow and stress indicator such as repo fails. Source: Sahm Rule – St. Louise Fed; NFCI – Chicago Fed Macrobond, Invesco. Respectively weekly and monthly data to 20 March 2023 as of March 31, 2023.

Upside Risk: China Re-Opening
Policy related to COVID-19 and property sector are likely to set the tone for 2023



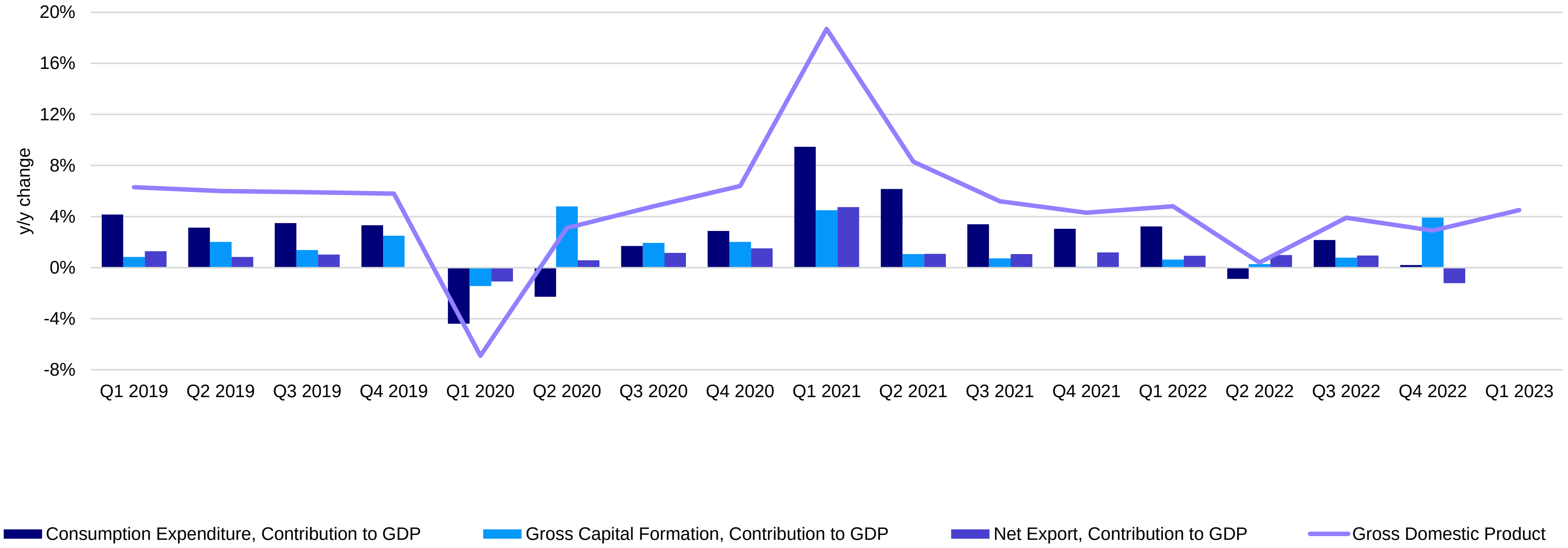


Source: NY Times World Vaccination Tracker, as of January 1, 2023

Source: China Caixin Services PMI, as of May 5, 2023

China's Q1 GDP Growth Beat Expectations

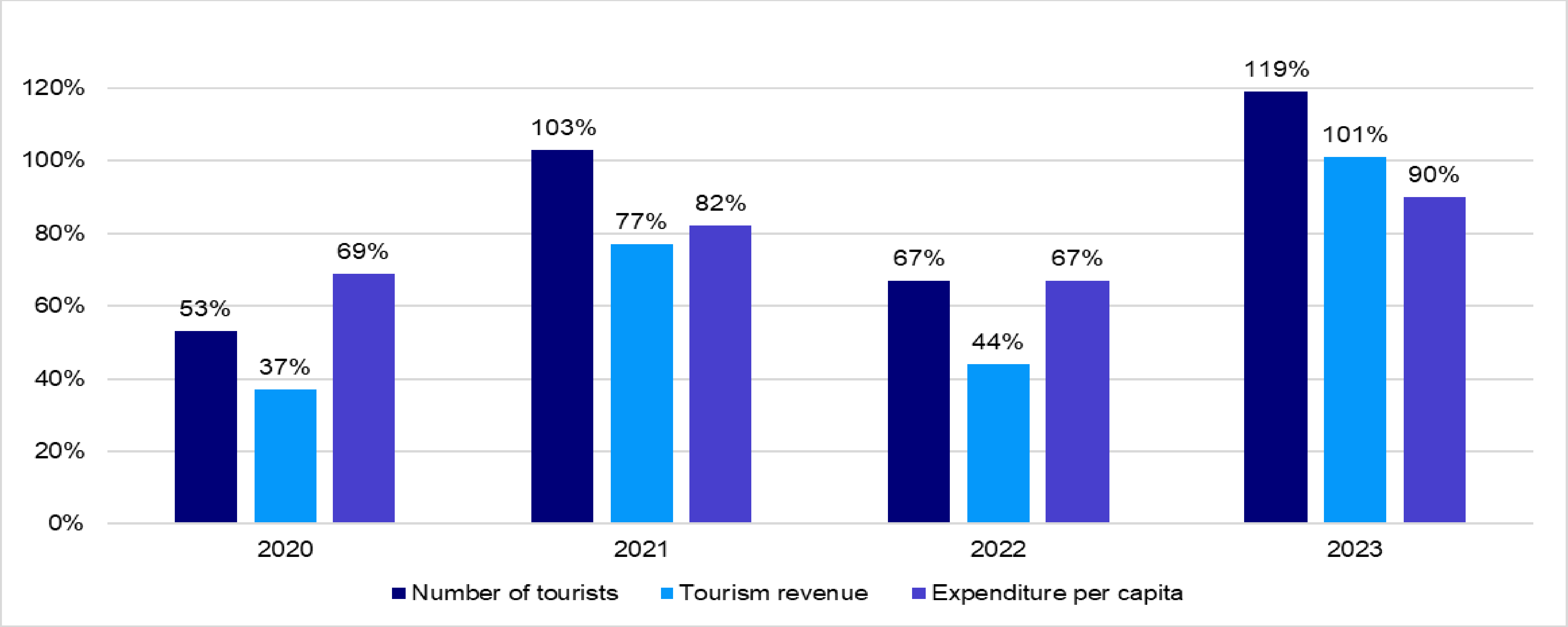
China GDP contributions (quarter)



Source: China National Bureau of Statistics (NBS). Data as of March 2023.

China's strong though uneven growth recovery year-to-date

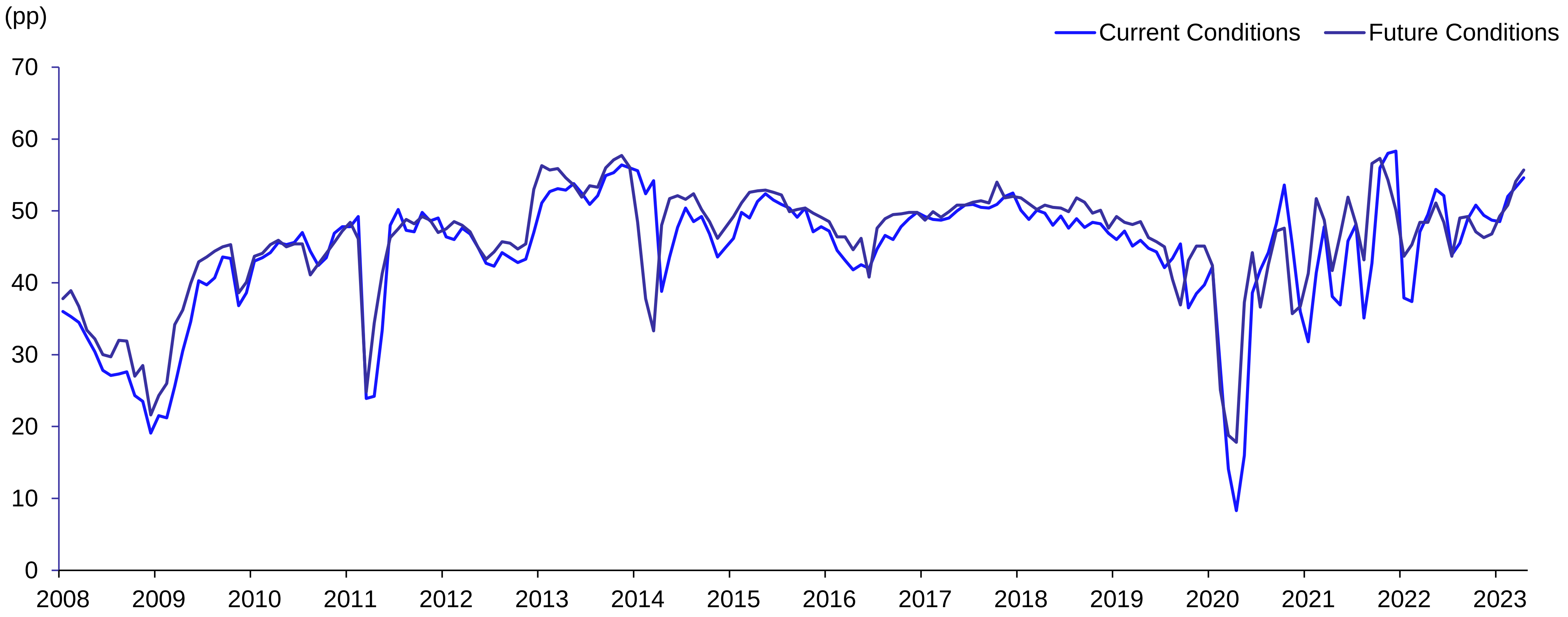
Labor Day holiday tourism (as a % of 2019)



Source: China Ministry of Culture and Tourism, JPM and Invesco. Data as of 5 May 2023.

Japan’s domestic demand is gaining momentum

Japan’s Economy Watchers Survey: Diffusion Index

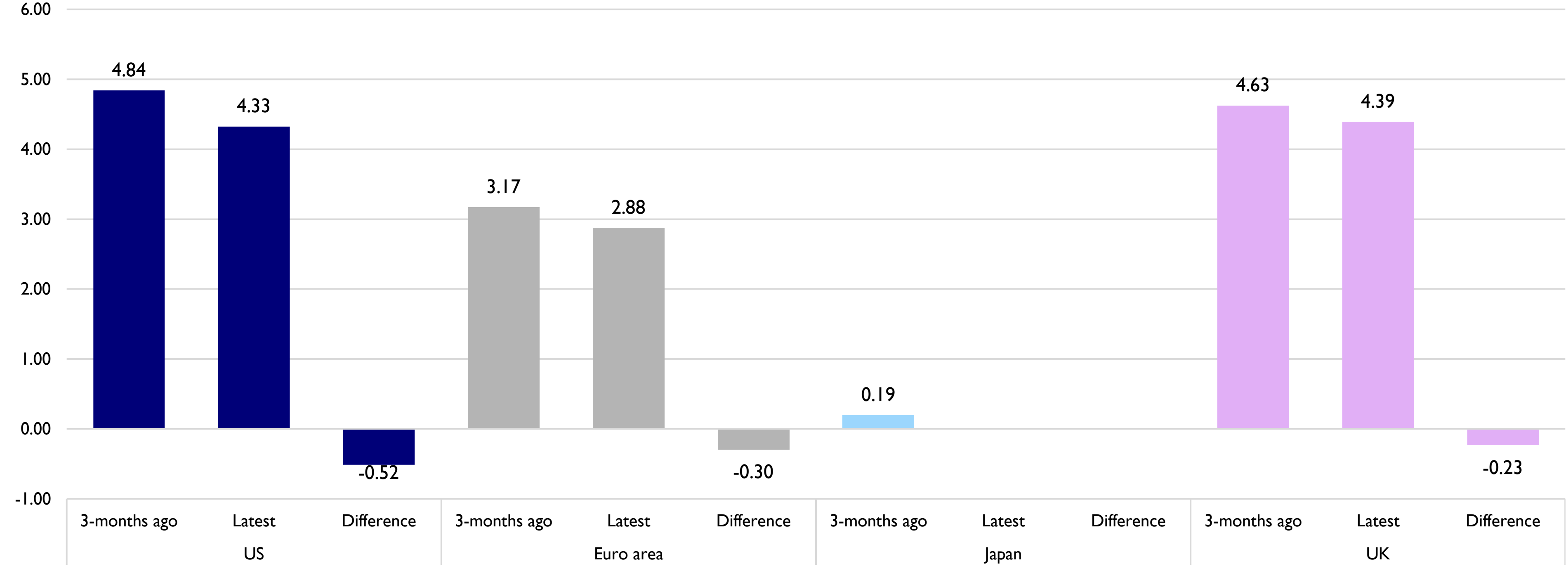


Source: Invesco from CEIC

The Path of Monetary Policy

Expectations for central bank policy rates

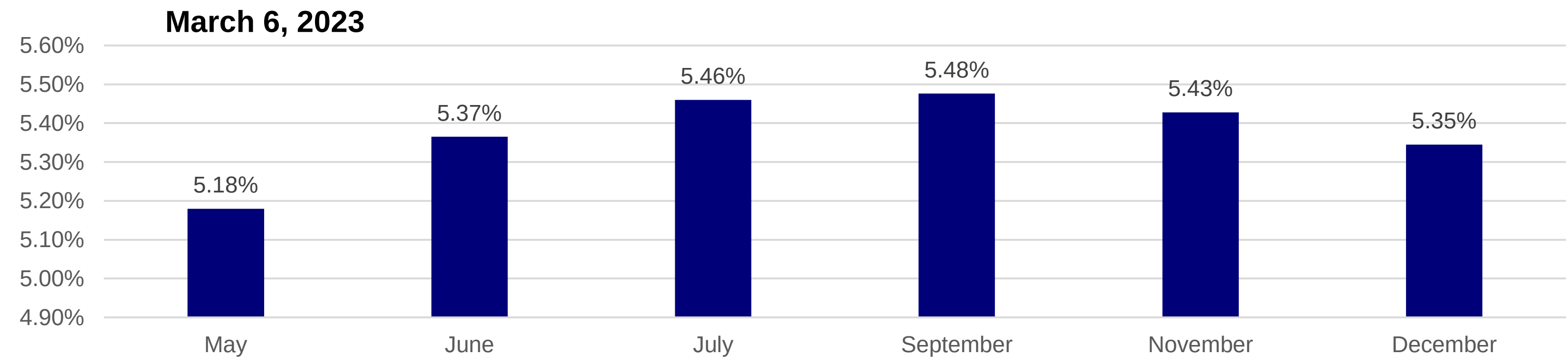
2023 year-end policy rates futures pricing (%)

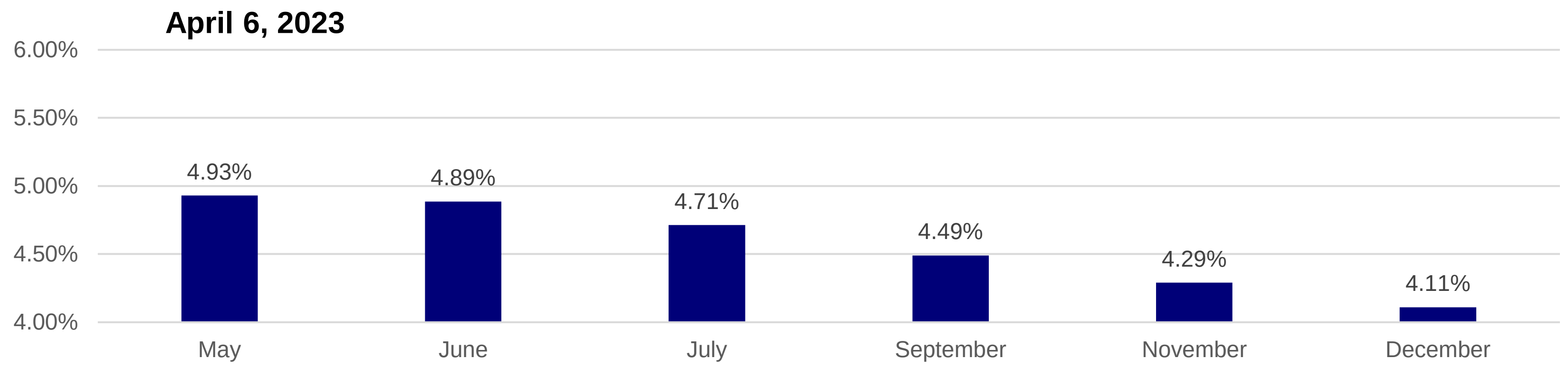


Source: Chicago Board of Trade, EUREX, Tokyo Financial, NYSE Euronext, Refinitiv as of March 30, 2023

Changing expectations for Fed policy

Fed Funds Implied Rates: March 6, 2023 vs. April 6, 2023





Source: Bloomberg, 4/6/23. Based on Fed Funds futures.

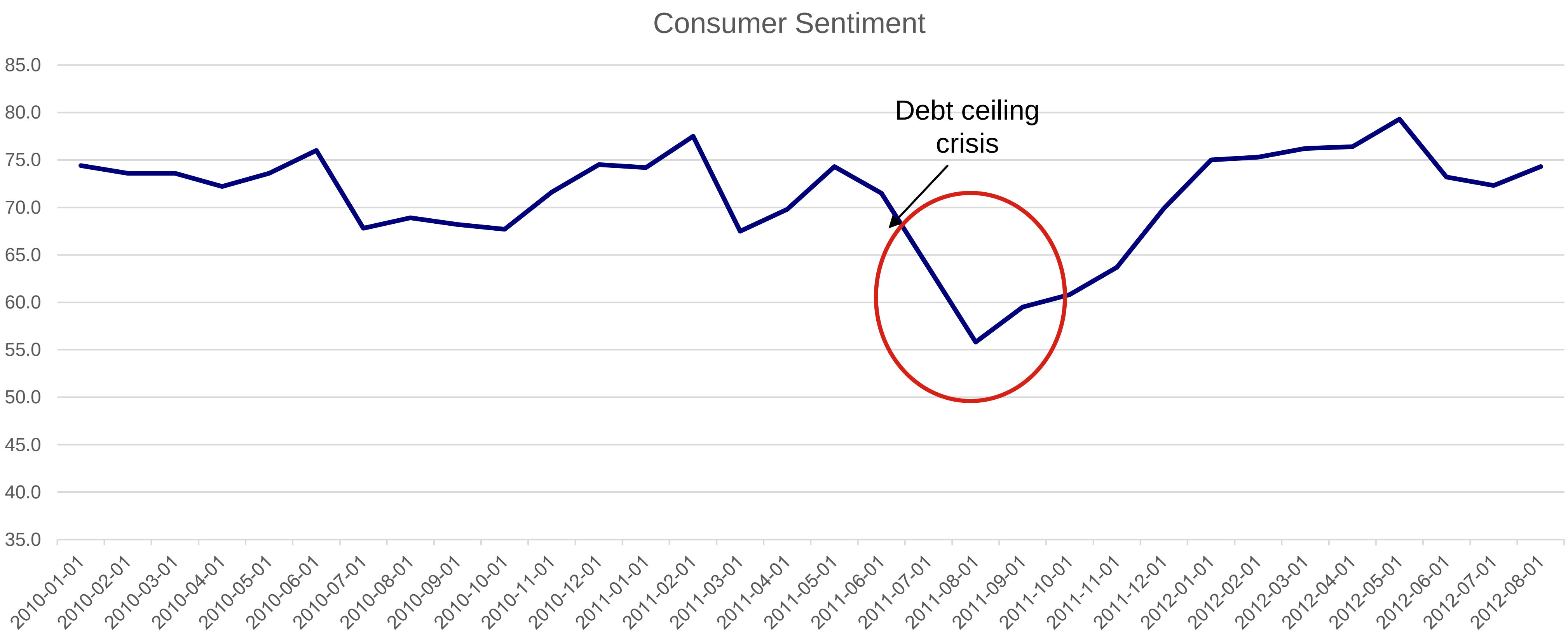
The Bank of Canada Playbook: A Conditional Pause

"With today's modest increase, we expect to pause rate hikes while we assess the impacts of the substantial monetary policy tightening already undertaken. To be clear, this is a conditional pause—it is conditional on economic developments evolving broadly in line with our MPR outlook. If we need to do more to get inflation to the 2% target, we will."

-Bank of Canada Governor Tiff Macklem
Monetary Policy Report Press Conference Opening Statement, January 25, 2023

US Debt Ceiling

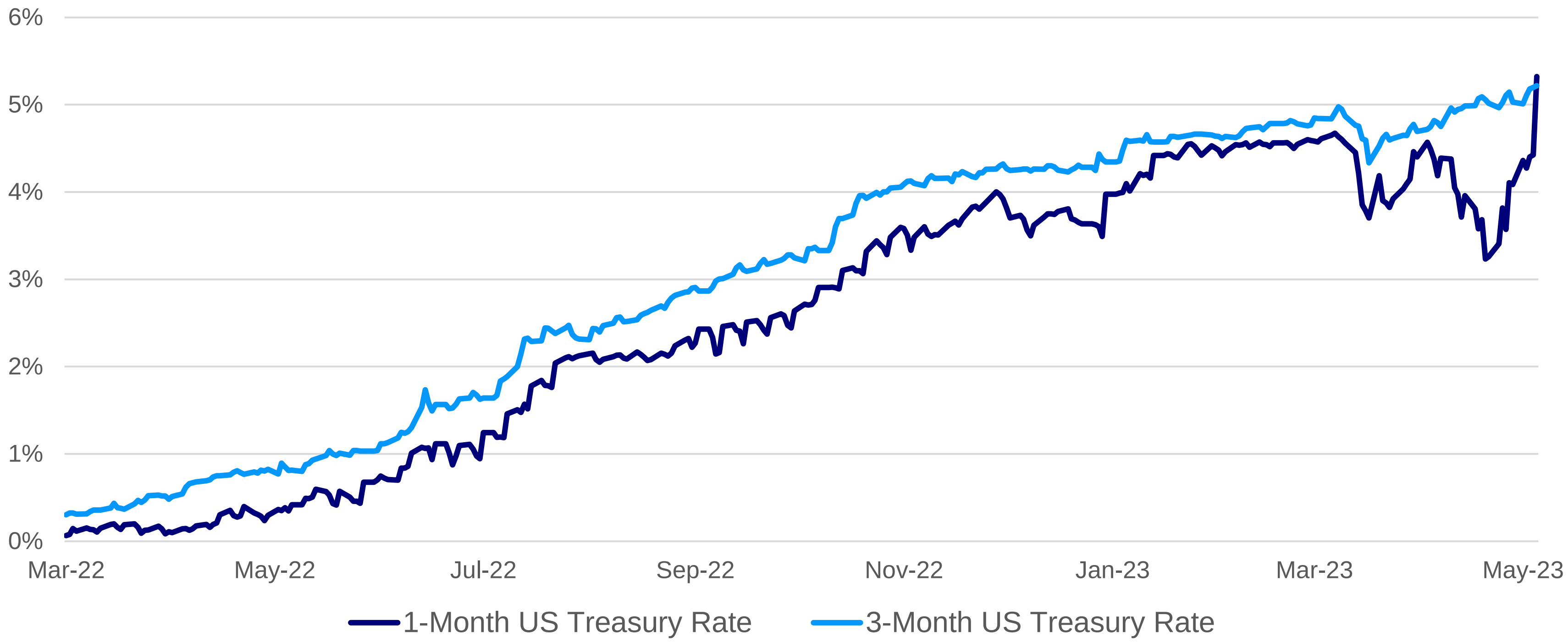
US Consumer Sentiment and the US Debt Ceiling Showdown



Source: University of Michigan Survey of Consumers, May 12, 2023.

US Debt ceiling anxiety rising

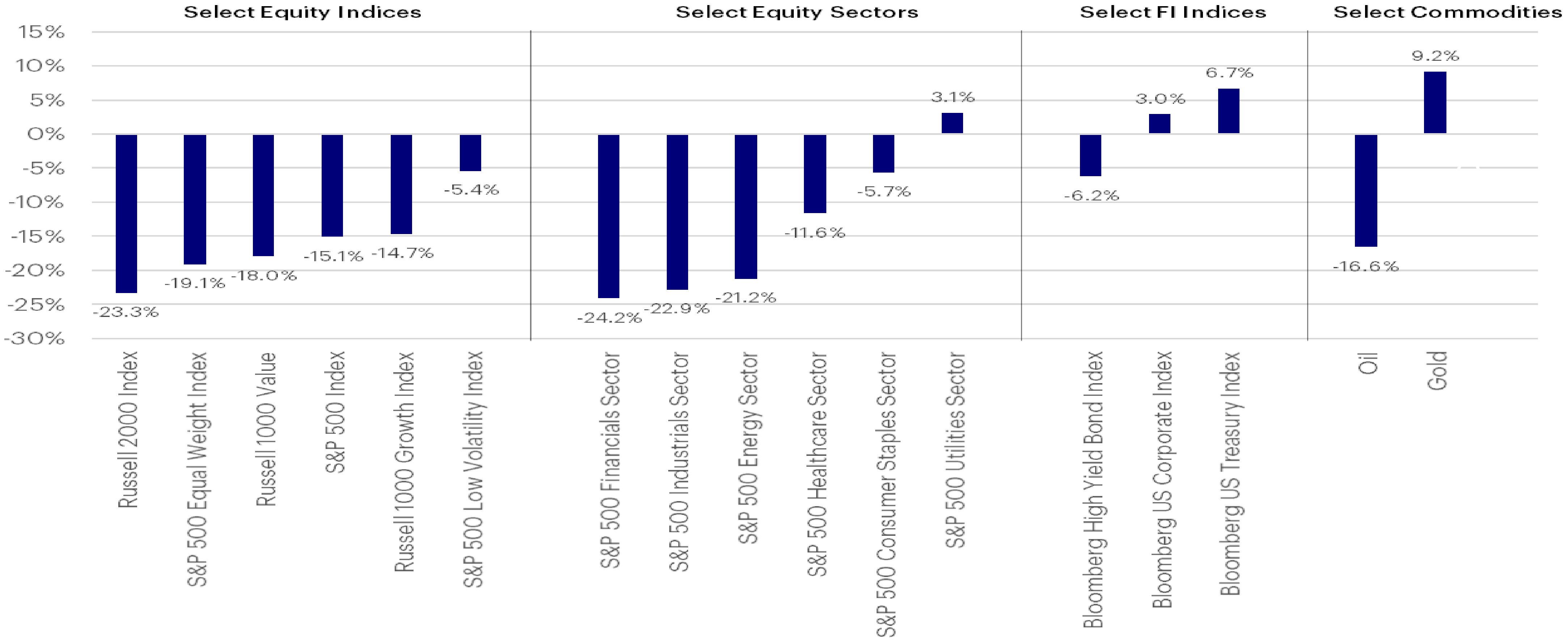
US Treasury Rates: 1-Month and 3-Month



Source: Bloomberg, 5/5/23

Downside Risk: US Debt Ceiling

Asset Class Returns for Last Debt Ceiling Crisis, July – September 2011



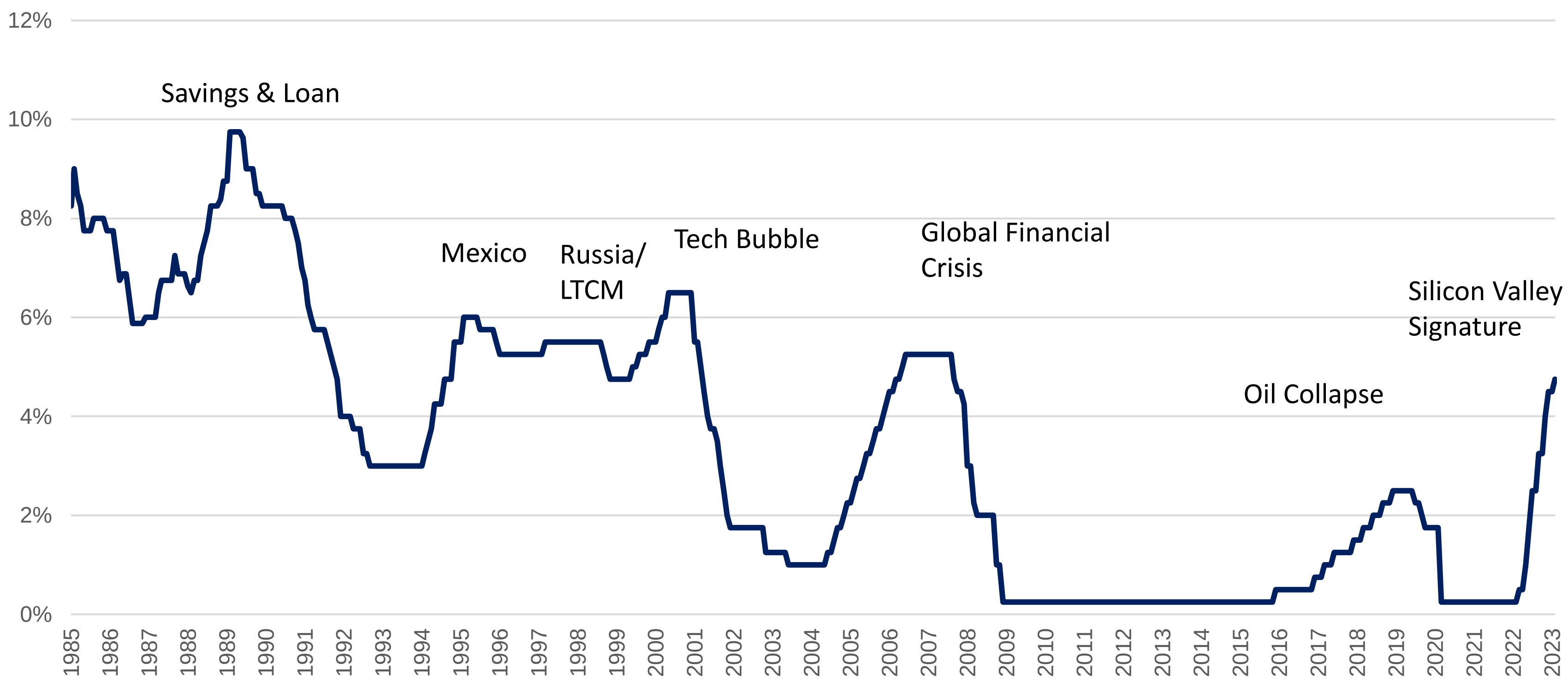
Source: Bloomberg.

Oil is represented by the price per barrel of US West Texas Intermediate Crude. Gold is based on the spot price in US dollar per troy ounce.
Past performance is not indicative of future results. An investment cannot be made directly into an index.

Banking Stress

Monetary Policy Tightening and Financial Crises

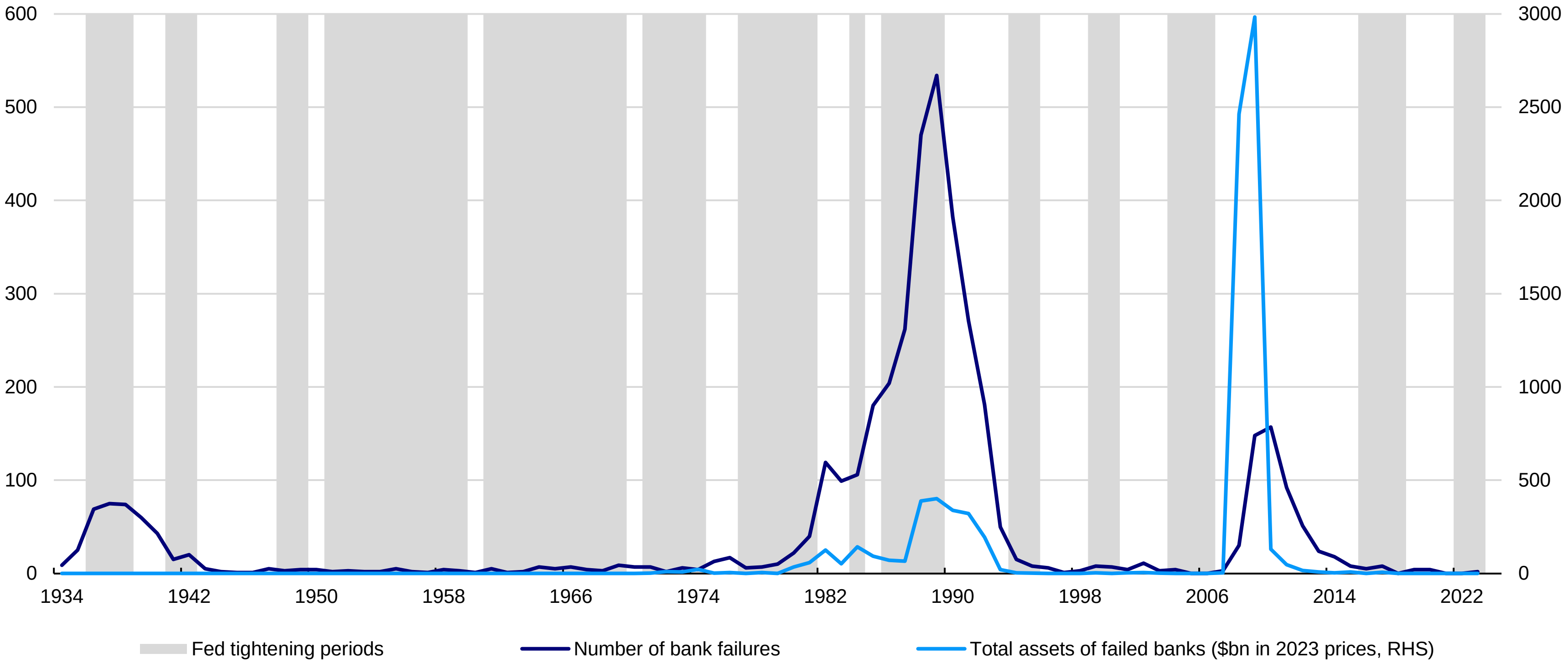
Fed Funds Rate



Source: Bloomberg, US Federal Reserve, 2/28/23.

Historical Perspective on US Bank Failures

Bank failures in the US and Federal Reserve monetary tightening periods since 1934

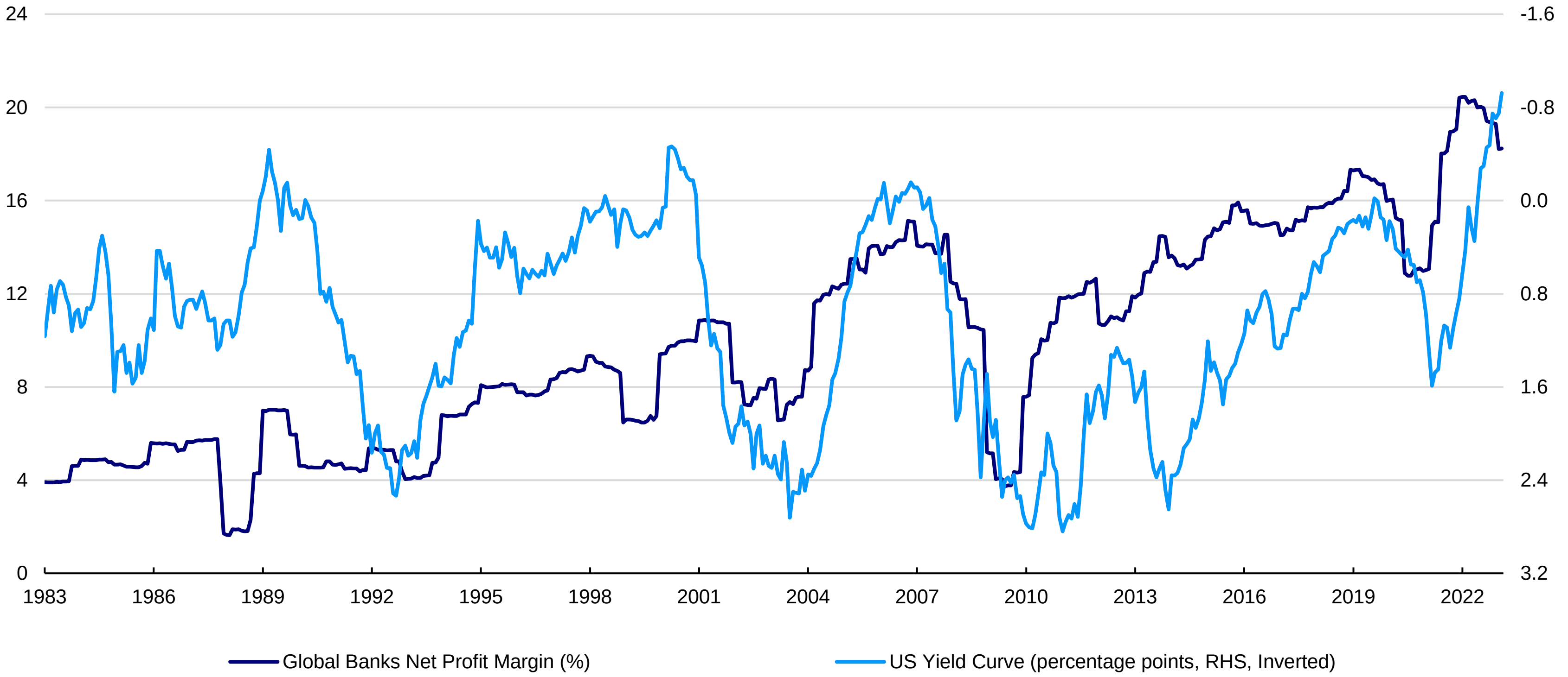


- Monetary tightening does not automatically lead to financial crises; it is necessary, but not sufficient.
- There were only three periods between 1934 and 2022 when rate rises were followed by systemic financial crises.
- The large number of bank failures in the 1930s and 1980s were manageable due to their relatively small size in terms of total assets. What made the GFC in 2008 so dangerous was not the number of banks that experienced difficulties, but their importance to the functioning of financial markets.

Note: Data as of 21st March 2023. The chart shows the total number of bank failures per year since 1934 in the United States based on Federal Deposit Insurance Corporation data and the total assets of those banks. Total assets are expressed in 2023 prices by deflating with the US consumer price index. Shaded areas indicate years during which the US Federal Reserve raised its target rates or their equivalents.
Source: Federal Deposit Insurance Corporation, Global Financial Data, Refinitiv Datastream, Invesco

Bank Profitability

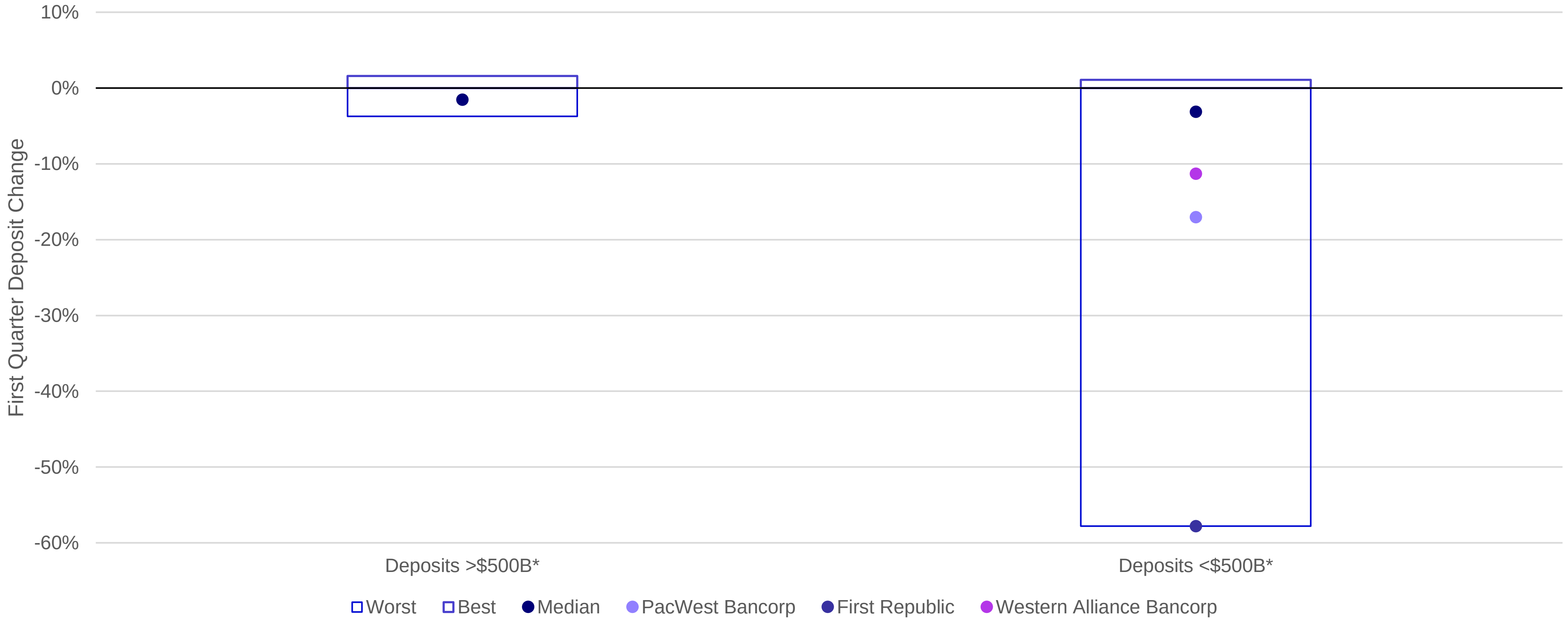
Global banks sector net profit margin vs US yield curve



Notes: Data as of February 28, 2023. **Past performance is no guarantee of future results.** We use the Datastream World Banks Index to represent the global banks sector. The yield curve is calculated using the redemption yield on the 10-year minus the 2-year Datastream United States Treasury Benchmark Bond.
Source: Refinitiv Datastream and Invesco

A closer look at US regional banks

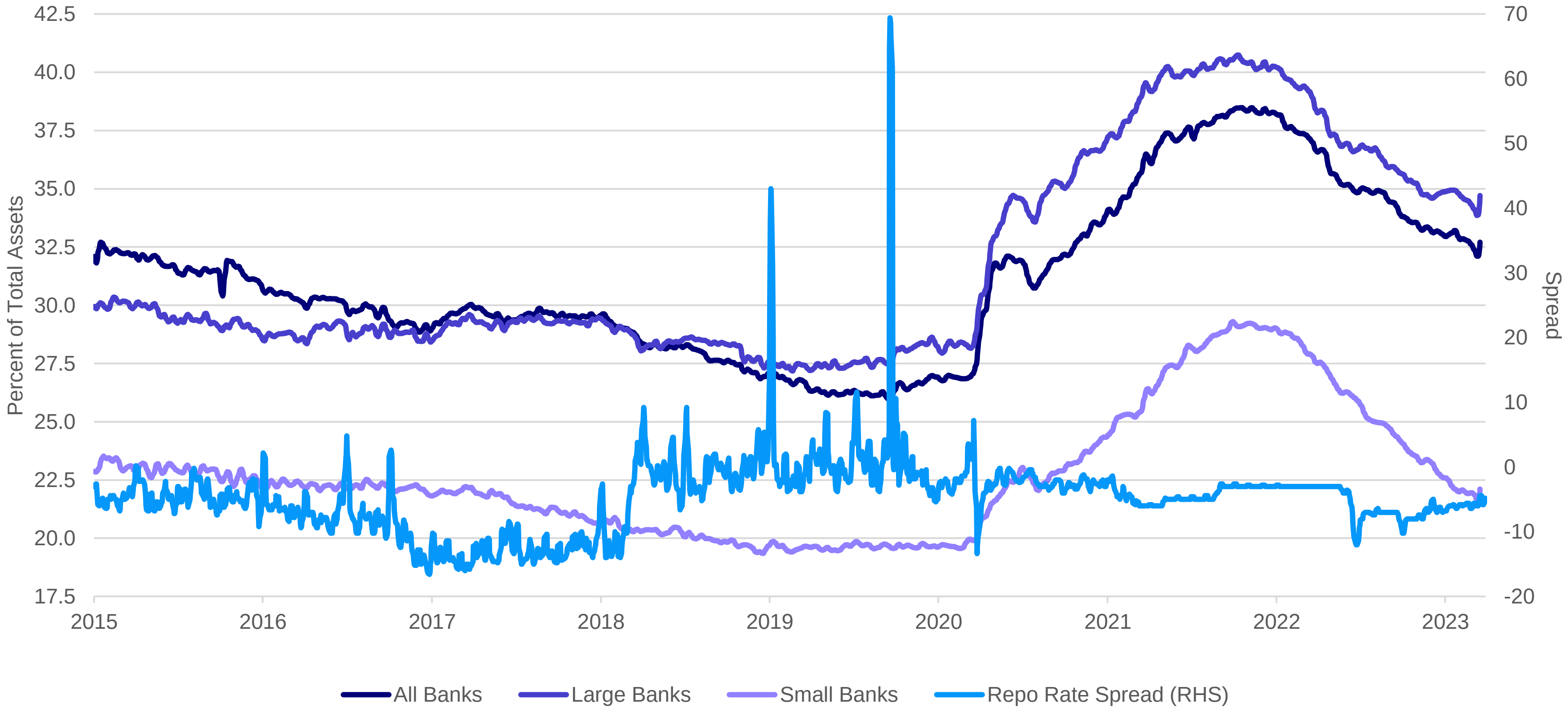
Deposit flows since the start of 2023



Source: Bloomberg, as of April 27, 2023

Commercial bank liquidity in the US

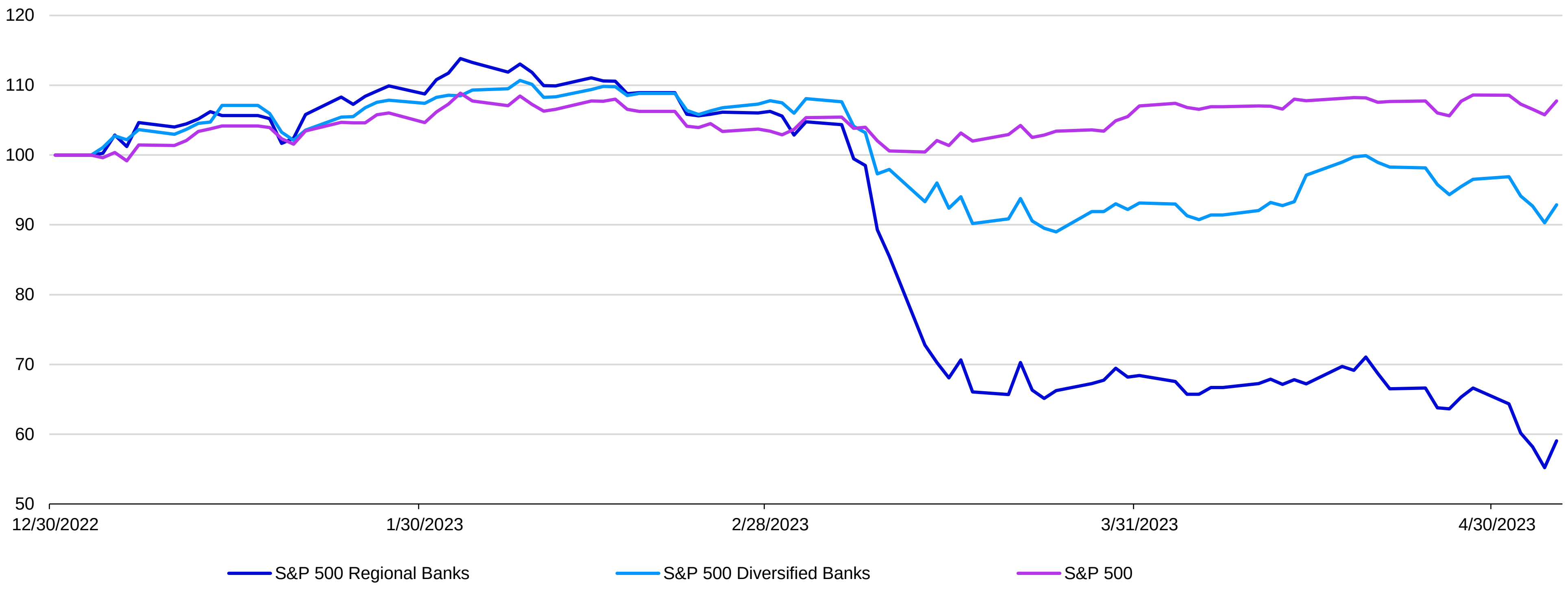
US Commercial Banks, Holdings of High-Quality Liquid Assets (% of Total Assets)



Source: Federal Reserve H8 Release, Federal Reserve Bank of New York, as of March 28, 2023.

US bank share price weakness confined largely to regional banks

US bank share price performance during 2023

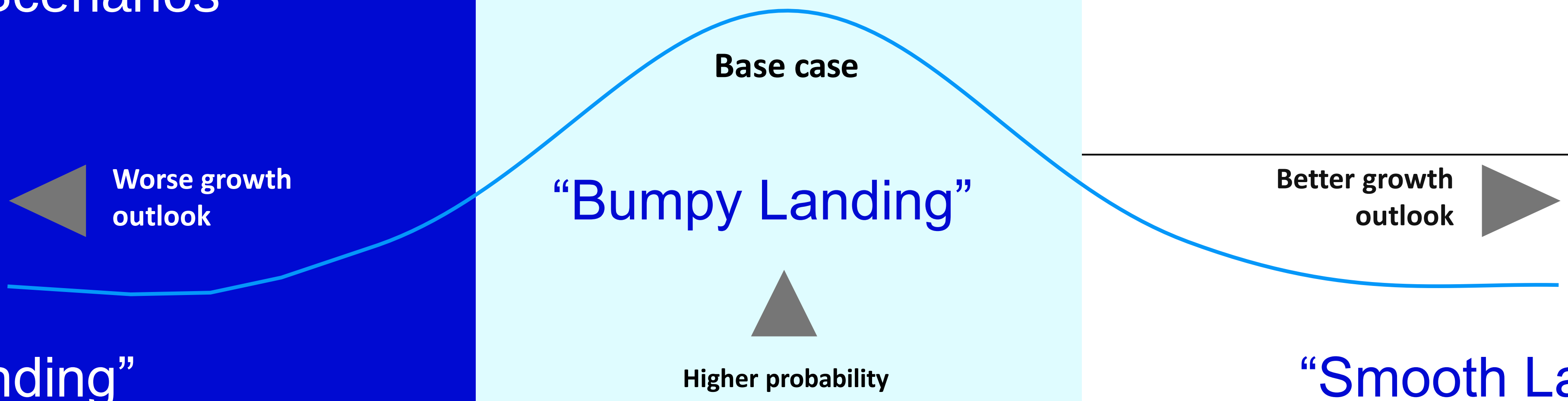


Note: **Past performance is no guide to future results**. Daily data from 30 December 2022 to 5 May 2023.
Source: Refinitiv Datastream and Invesco Global Market Strategy Office

Investment Thoughts & Views

There is no guarantee these views will come to pass.

Possible Scenarios



“Hard Landing”

Lagged effects of policy tightening and/or credit pullback due to bank crises curtail economic activity, resulting in a stronger hit to growth than in our base case. In this scenario, we expect a recession to emerge first in the US, with likely spill-over effects on European growth as policy effects also begin to take their toll on growth there. Inflation falls meaningfully towards the 2% level as price pressures continue to fade while activity also recedes. China and EMs would likely see lower growth through trade effects but avoid recession, all else being equal.

“Smooth Landing”

Policy tightening impacts growth less than expected in our base case while still achieving a better alignment of aggregate demand with supply. The resolution of these imbalances enables inflation to fall towards but above 2% in the US, with inflation in the Eurozone falling but less quickly than in the US. The resolution of the inflation question allows the cycle to continue, though at a below trend pace of growth. China and EMs would likely benefit marginally, all else being equal.

For illustrative purposes only.

Favored Assets in the Period Ahead Depending on Scenario

Hard Landing Scenario

A stronger hit to growth, with recession first in the US, with likely spillover effects on Europe. Inflation falls further; China and EMs suffer via trade effects but avoid recession, all else being equal. We look to more defensive plays to outperform.

Our favorite picks…

- Cash
- Fixed Income: Long duration sovereigns
- Equities: Defensive equities, such as consumer staples, health care
- Currencies: Non-USD, non-commodity currencies such as CHF, JPY
- Commodities: Gold

Bumpy Landing Scenario

Growth below trend and slowing over near-term, but recovery to unfold late in the second half of this year. Fed to pause tightening now, potentially cutting rates as soon as end of this year. Eurozone and UK to follow similar outlook but with a lag, and ECB and BoE to continue rate hikes. China to continue reopening, with services leading the recovery and manufacturing faring worse due to weaker global backdrop.

Our favorite picks…

- Fixed Income: High quality corporate and structured credit
- Equities:
    - Asia (especially China)
    - Growth and quality
    - Technology, consumer products & services
- Currencies: EUR, CHF and JPY

Smooth Landing Scenario

Tightening impacts growth less than expected, with inflation following a pattern similar to base case. Inflation in the Eurozone falls but less quickly than in the US. Cycle continues, though at a below trend pace of growth. China and EMs benefit marginally, all else being equal. We look to more mid-cycle plays to outperform.

Our favorite picks…

- Fixed Income: High yield credit
- Equities
    - Europe and emerging markets
    - Value and small caps
    - Basic resources, industrials
- Currencies: AUD, CAD
- Commodities: Industrial commodities, especially metals

Source: Invesco, as of 22 May 2023.

Stock performance in the aftermath of tightening cycles

S&P 500 Index: Returns following the end of tightening cycles

End of Fed Hiking Cycle	Fed Funds Rate	1 year after	2 years after (annualized)	3 years after (annualized)
Aug 1984	11.75%	18.2%	28.3%	30.3%
Feb 1989	9.75%	18.9%	16.72%	16.5%
Feb 1995	6.00%	35.6%	30.3%	31.9%
May 2000	6.50%	-10.6%	-12.2%	-10.9%
Jul 2006	5.25%	16.1%	1.6%	-6.1%
Dec 2018	2.50%	31.5%	24.7%	26.0%

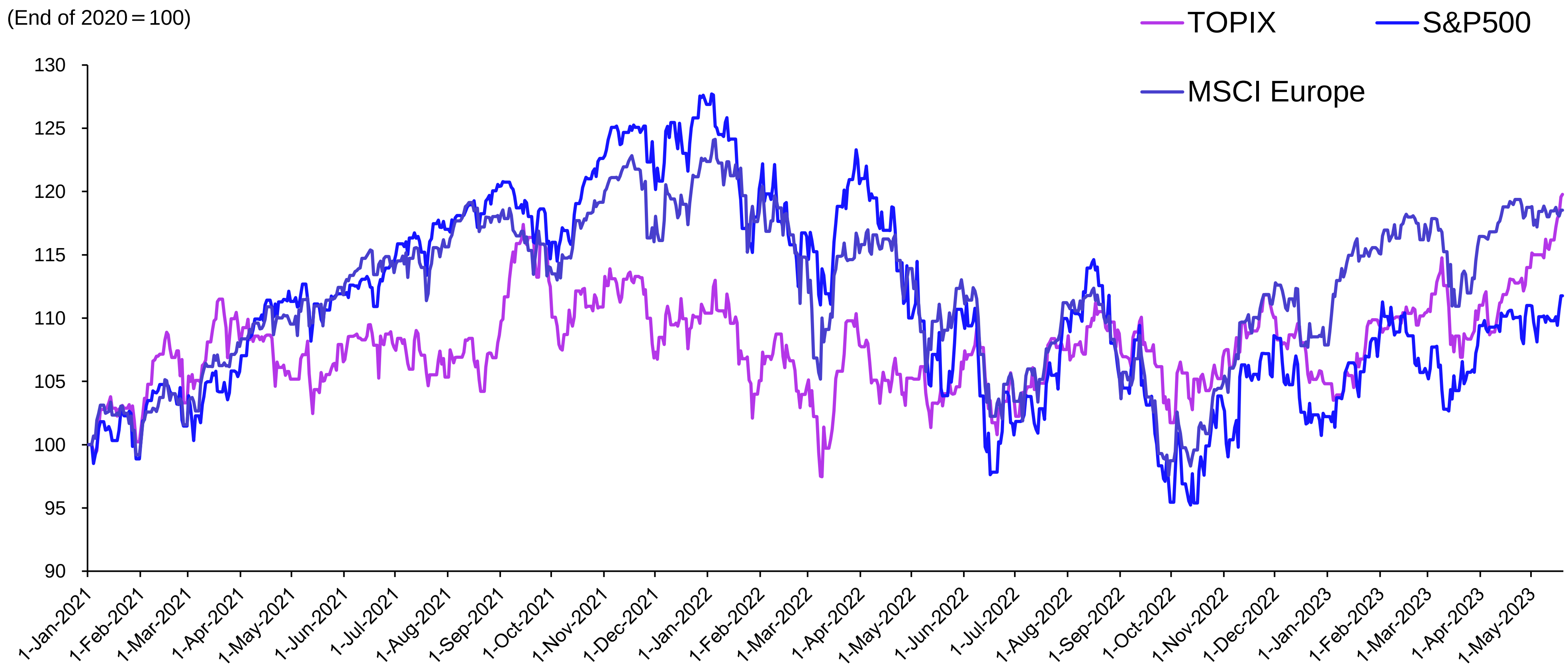
Source: US Federal Reserve, 3/31/23. As represented by the S&P 500 Index. Indices cannot be purchased directly by investors. **Past performance does not guarantee future results.**

China Equities: Re-Opening Excitement Easing

Source: Bloomberg, as May 19. 2023

Japan equities exhibit a surprisingly strong momentum

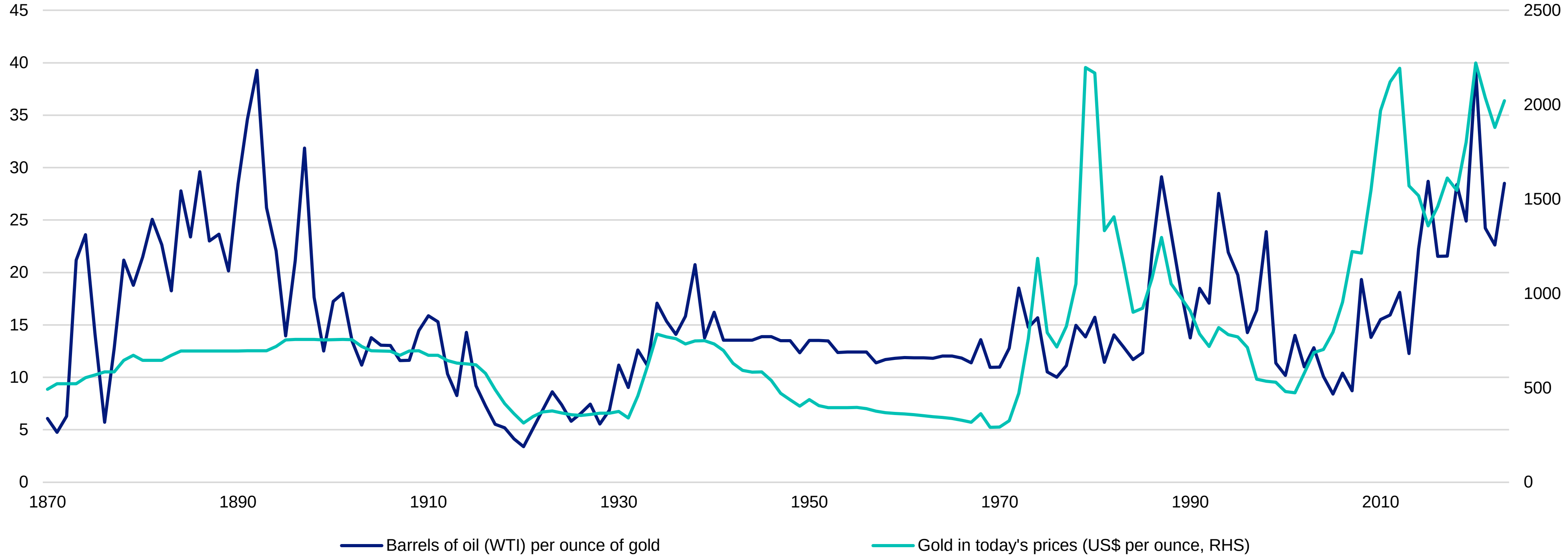
Major stock indices for Japan, US and Europe



Source：Invesco from Bloomberg

Gold prices have risen

Gold is towards the upper end of its historical range in real terms



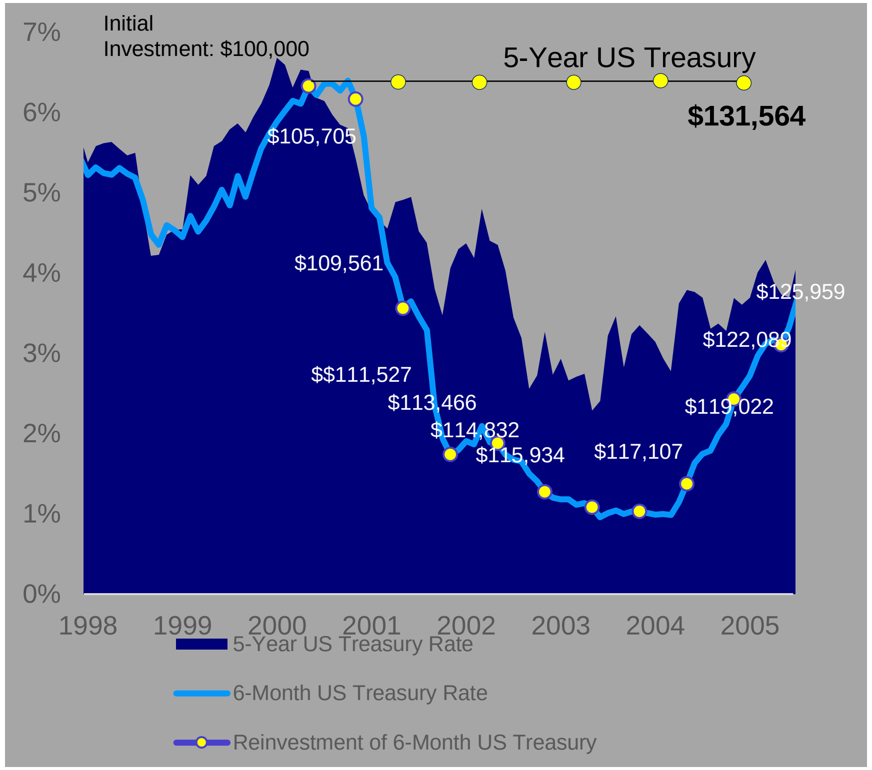
Note: **Past performance is no guarantee of future returns**. Annual data from 1870 to 2023 (as of 11 May 2023). “Gold in today’s prices” rebases the price of gold into 2023 prices using US consumer prices (as of April 2023).
Source: Global Financial Data, Refinitiv Datastream and Invesco Global Market Strategy Office

Reinvestment risk: Locking in longer-term rates could be a better strategy

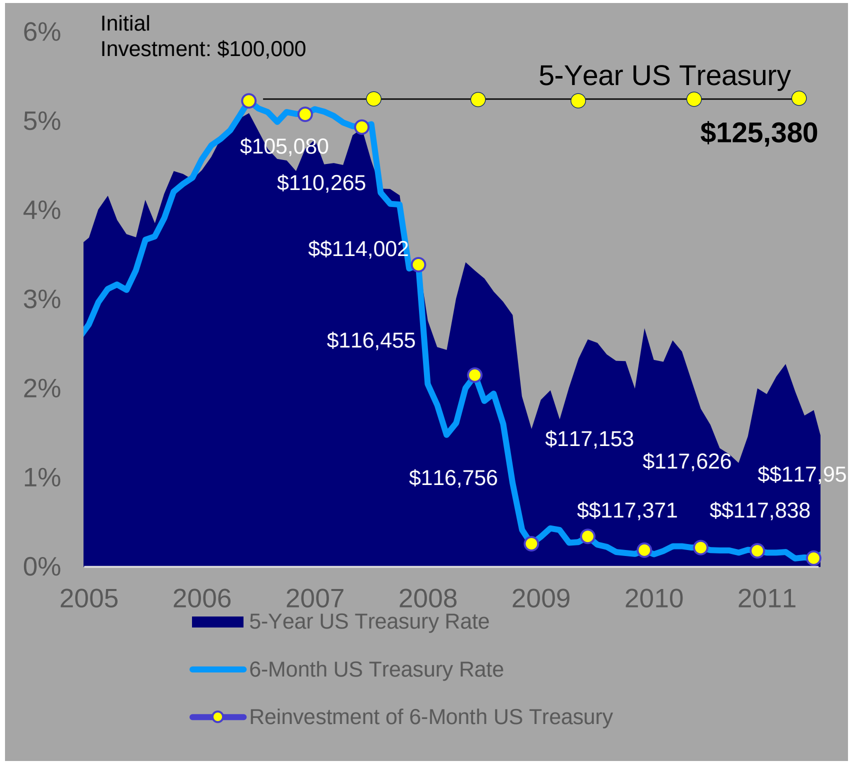
Among the biggest challenges of investing in short-term income securities is the reinvestment risk, the probability that an investor will not be able to reinvest cash flows, such as coupon payments, at a rate equal to their current return.

The charts look at two examples (May 2000 and June 2006) when short-term interest rates were as attractive as long-term interest. In both instances, investing in the 5-year US Treasury and "locking in" the yield was a better approach than taking advantage of the elevated short-term yield only to then reinvest at lower rates as short-term yields declined.

6-Month US Treasury Rate and 5-Year US Treasury Rate Example: May 2000



6-Month US Treasury Rate and 5-Year US Treasury Rate Example: June 2006



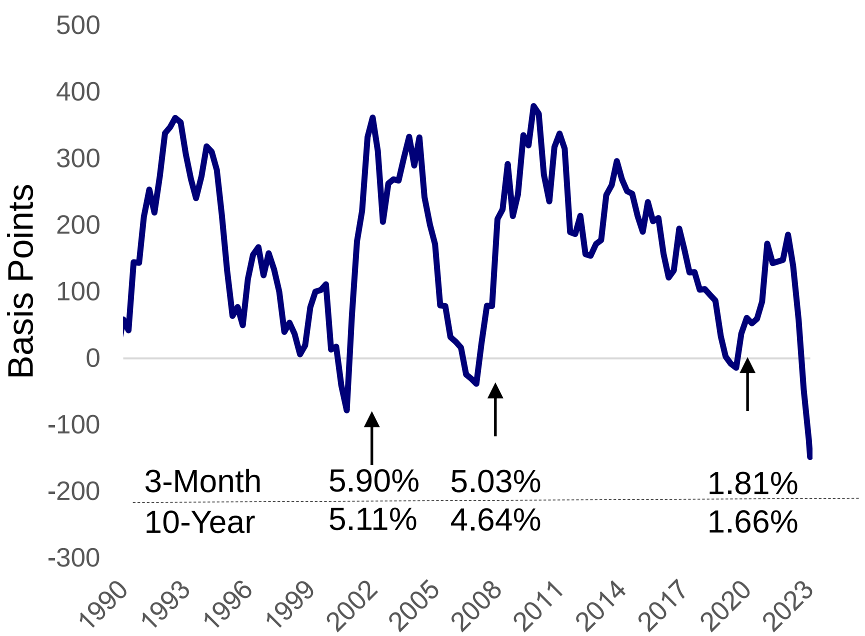
Source: Bloomberg, 12/31/22. For illustrative purpose only. **Past performance does not guarantee future results.**

Duration: Long-term bonds have tended to outperform short-term bonds following a peak inversion in the US Treasury yield curve

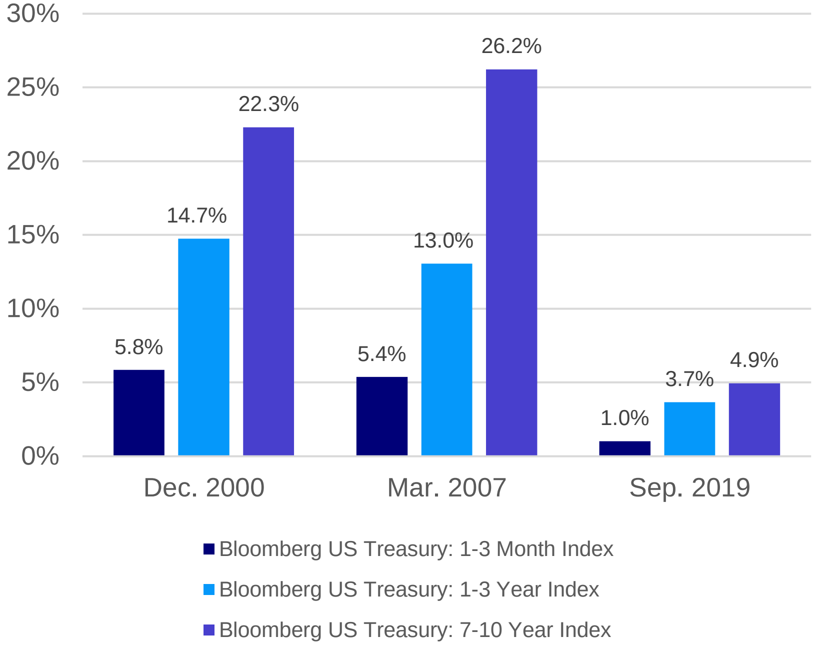
An inversion of the yield curve, meaning that short-term interest rates are higher than long-term interest rates tends to prompt investors to invest in shorter-term securities.

However, the chart on the right shows that intermediate- and longer-term government bonds have outperformed shorter-bonds in the last three instances following the peak yield curve inversion.

US Treasury Yield Curve
10-Year US Treasury Rate minus 3-Month US Treasury Rate



Short-Term and Long-Term US Treasury Bonds Cumulative Performance: 2 Years After Peak Inversion



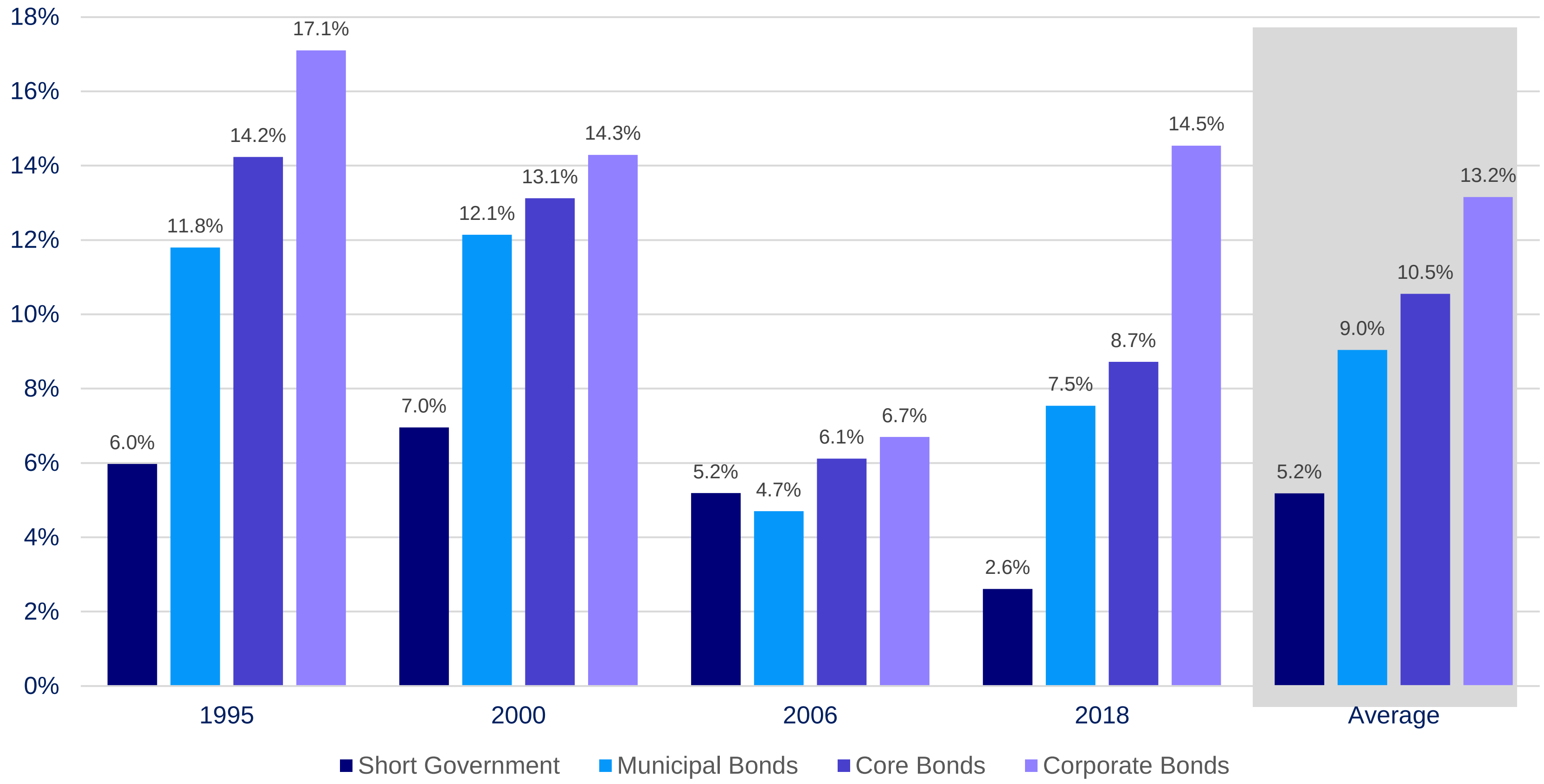
Source: Bloomberg, 4/30/23. Past performance does not guarantee future results

Credit/Munis: Have tended to perform well in the aftermath of rate hikes

It's not just intermediate- and long-term government bonds that have tended to outperform following an inversion (or in the case of 1995 a near inversion) of the yield curve.

The yield curve has tended to normalize (short rates fall below long rates) in the immediate aftermath of interest rate hikes by the US Federal Reserve. Over the next year, short-term bonds have tended to underperform municipal bonds, core bonds, and corporate bonds.

Select Bond Indices: 1-Year Returns following the end of rate hikes

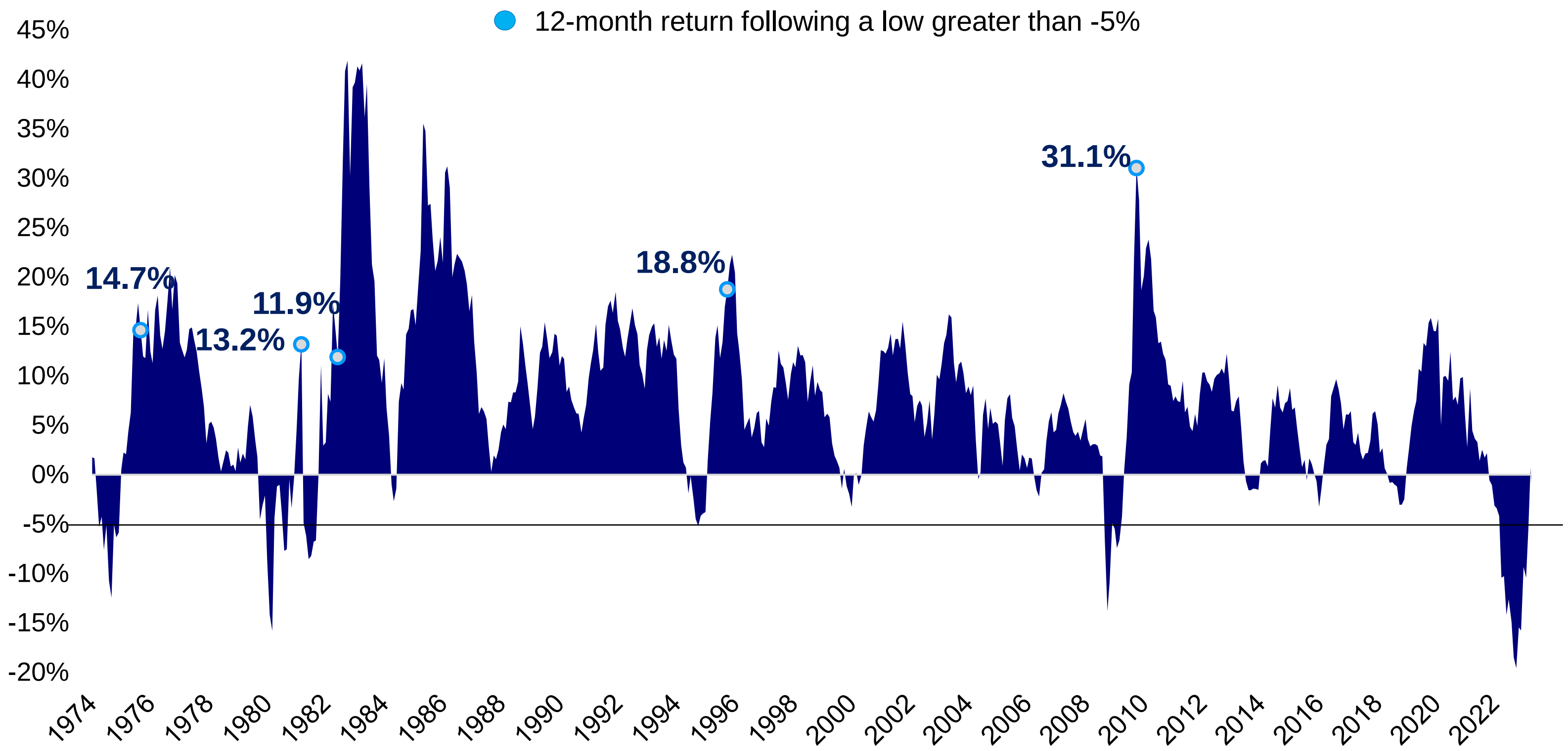


Source: Bloomberg, 4/30/23. Short government bonds is represented by the S&P 0-1 Year US Treasury Index. Municipal bonds is represented by the Bloomberg US Municipal Bond Index. Core Bonds is represented by the Bloomberg US Aggregate Bond Index. Corporate bonds is represented by the Bloomberg US Corporate Bond Index. Indices cannot be purchased directly by investors. **Past performance does not guarantee future results.**

Credit: Downturns in corporate bonds have historically represented buying opportunities

In fact, downturns in corporate bonds, which have typically occurred during periods of monetary policy tightening, have historically represented buying opportunities over the next year.

Bloomberg US Corporate Bond Index – Rolling 12-month returns in the 12 months following a low greater than -5%



Sources: Macrobond, Bloomberg. As of April 21, 2023. Historical analysis reviews Bloomberg US Corporate Index annualized rolling 12-month total return data dating back to index inception (1/31/1973). Grey highlights signify the 12 months following the 12-month annualized low greater than -5%. The Bloomberg US Corporate Bond Index measures the investment grade, fixed-rate, taxable corporate bond market. It includes USD denominated securities publicly issued by US and non-US industrial, utility, and financial issuers. An investment cannot be made in an index. Past performance is not a guarantee of future results.

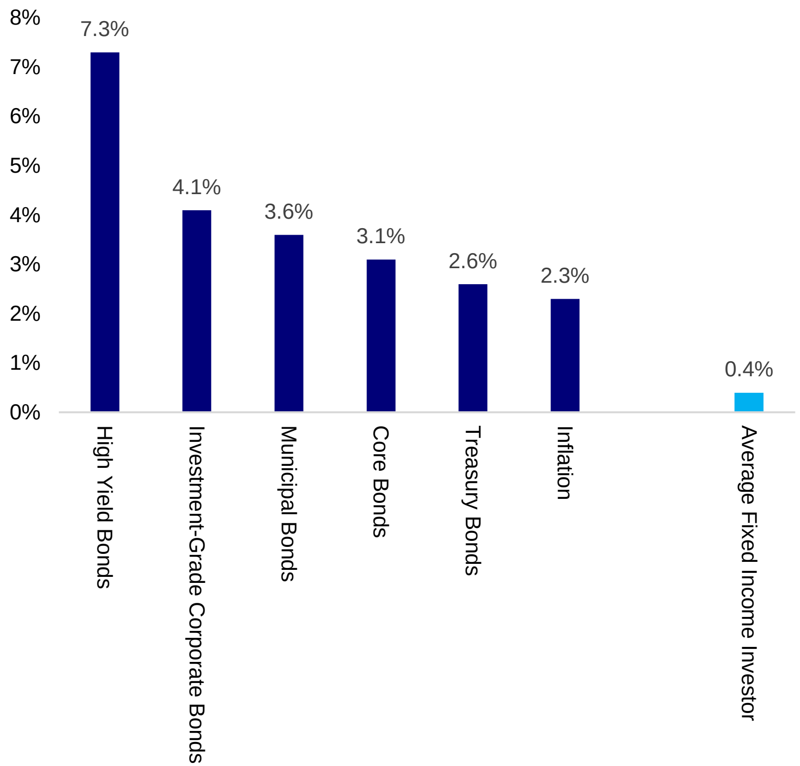
Timing the market has rarely worked

Finally, we remind investors of the folly of trying to time the fixed income markets.

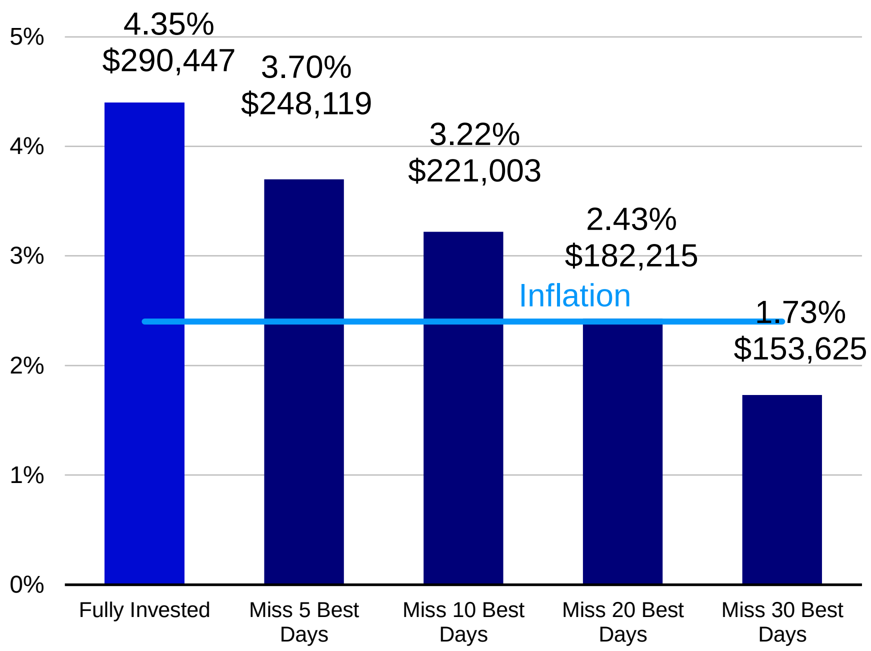
Historically, the average fixed income investors has meaningfully underperformed other fixed income investments and failed to keep pace with inflation.

Missing even the best days in the core bond market has significantly reduced returns over time.

20-Year Annualized Return (2002-2022)



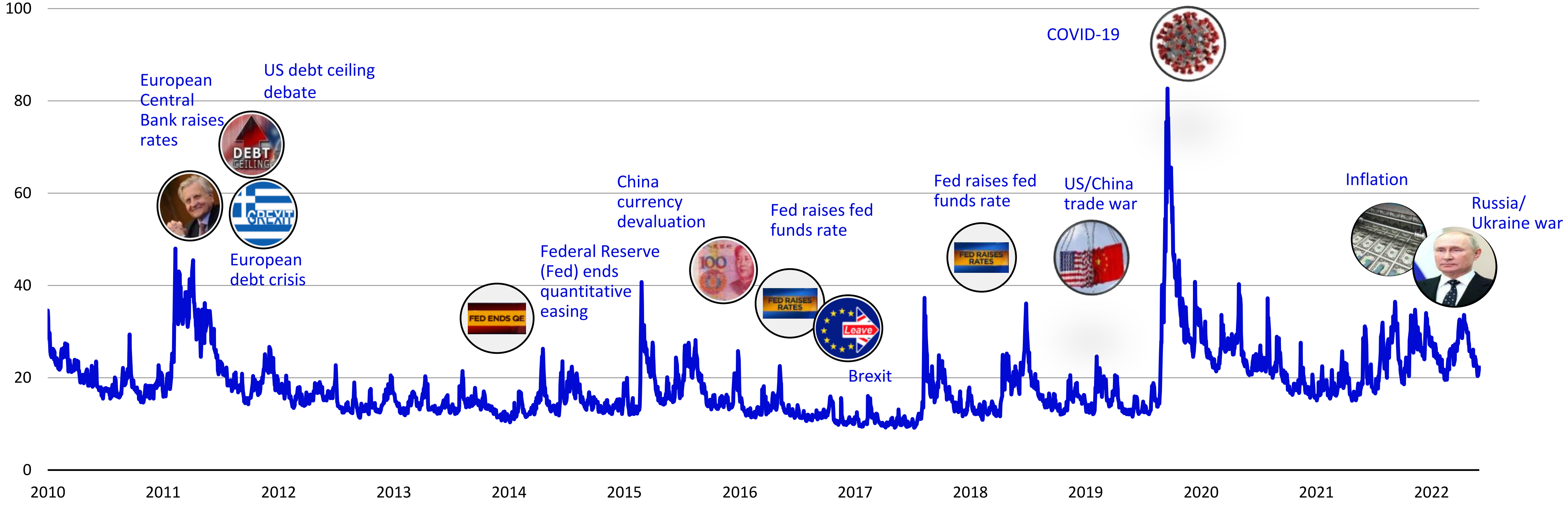
Bloomberg US Aggregate Bond Index Annualized Return and Growth of $100K (1998-2022)



Source: Bloomberg, 12/31/22. Average asset allocation investor return is based on an analysis by DALBAR, Inc., which utilizes the net of aggregate mutual fund sales, redemptions and exchanges each month as a measure of investor behavior. Indices shown are as follows: Bloomberg US High Yield Corporate Bond Index, Bloomberg US Corporate Bond Index, Bloomberg Municipal Bond Index, Bloomberg US Aggregate Bond Index, Bloomberg US Treasury Index. Inflation is measured by Consumer Price Index.
Indices are unmanaged and cannot be purchased directly by investors. Index performance is shown for illustrative purposes only and does not predict or depict the performance of any investment. **Past performance does not guarantee future results.**

Remember: Volatility is almost always the result of policy uncertainty

Chicago Board Options Exchange Volatility Index (VIX)



Source: Bloomberg, 11/28/22. The Chicago Board Options Exchange Volatility Index (VIX) is a financial benchmark designed to be an up-to-the-minute market estimate of the expected volatility of the S&P 500 Index and is calculated by using the midpoint of real-time S&P 500 Index option bid/ask quotes. An investment cannot be made into an index. **Past performance does not guarantee future results.**

Index definitions

The Consumer Price Index (CPI) is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services. Core CPI is the same measure, but with food and energy goods and services removed from the basket.

The Bloomberg US Aggregate Bond Index is an index of US Government and corporate bonds that includes reinvestment of dividends.

The Bloomberg US Corporate High Yield Bond Index covers the universe of fixed rate, non-investment-grade debt.

The Bloomberg US Municipal Bond Index is a rules-based, market-value-weighted index engineered for the long-term tax-exempt bond market and includes bonds rated investment-grade by at least two of the three major rating agencies (Moody's, S&P and Fitch).

The Bloomberg US Treasury Index is an unmanaged index of public obligations of the US Treasury with remaining maturities of one year or more.

The Bloomberg 1-3 Month US Treasury Index is an unmanaged index of public US Treasury obligations with remaining maturities of one to three months.

The Bloomberg 1-3 Year US Treasury Index is an unmanaged index of public US Treasury obligations with remaining maturities of one to three years.

The Bloomberg 7-10 Year US Treasury Index is an unmanaged index of public US Treasury obligations with remaining maturities of seven to ten years.

S&P U.S. Treasury Bond 0-1 Year Index is designed to measure the performance of U.S. Treasury bonds maturing in 0 to 1 years.

The S&P 500® Index is a capitalization-weighted index of 500 stocks intended to be a representative sample of leading companies in leading industries within the US economy. Index includes reinvestment of dividends but does not include fees, expenses, or taxes.

Indexes are unmanaged and cannot be purchased directly by investors. Index performance is shown for illustrative purposes only and does not predict or depict the performance of any investment. Past performance does not guarantee future results.

Important information

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This is being provided for informational purposes only and does not constitute a recommendation of any investment strategy for a particular investor. Investors should consult a financial professional before making any investment decisions if they are uncertain whether an investment is suitable for them.

Risks:

- All investing involves risk, including the risk of loss. In general, stock values fluctuate, sometimes widely, in response to activities specific to the company as well as general market, economic and political conditions.
- Treasury securities are backed by the full faith and credit of the US government as to the timely payment of principal and interest.
- The risks of investing in securities of foreign issuers can include fluctuations in foreign currencies, political and economic instability, and foreign taxation issues.

All data provided by Invesco unless otherwise noted.

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Thank you

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