

Macro/Market Outlook

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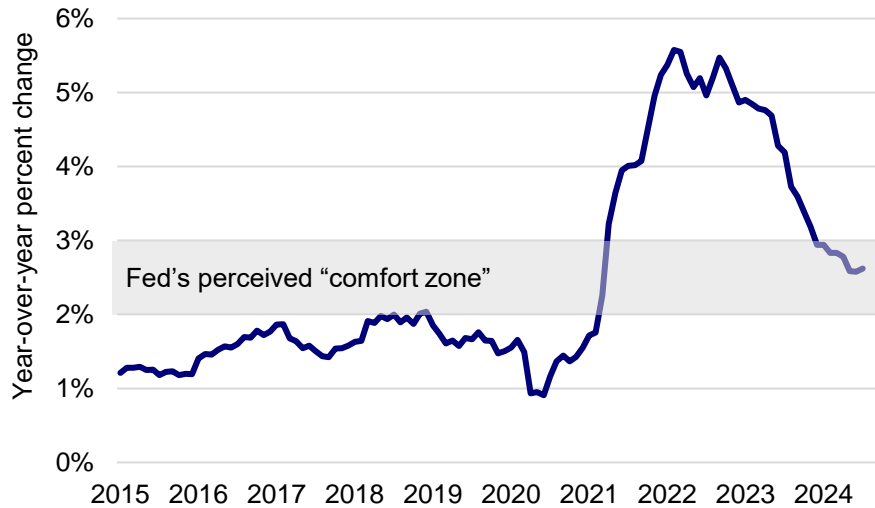
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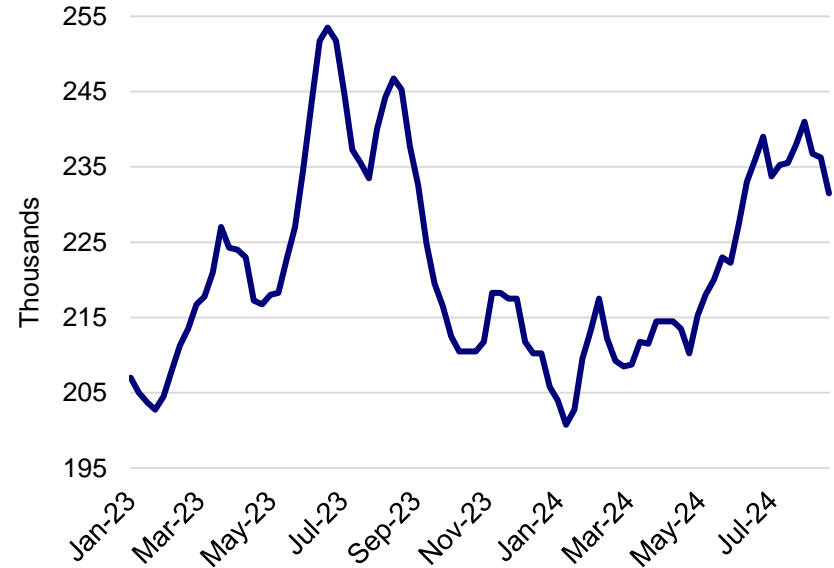
Path of Inflation

Inflation has reverted to the “comfort zone”, while signs of modest weakness in the job market have appeared

Core Personal Consumption Expenditure



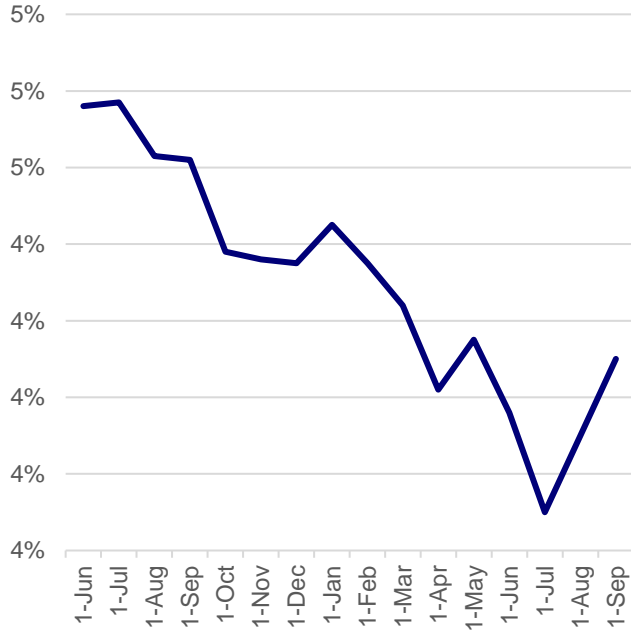
US Initial Jobless Claims (4-Week Moving Average)



Sources: Bloomberg L.P., 8/31/24. US Department of Labor, 8/31/24. Jobless claims, historically a leading indicator of the economy, remain very low. This suggests that the Federal Reserve will feel that they are accomplishing, at least for the time being, their dual mandate of price stability and full employment. The Core Personal Consumption Expenditures Price Index is the preferred inflation gauge of the Federal Reserve.

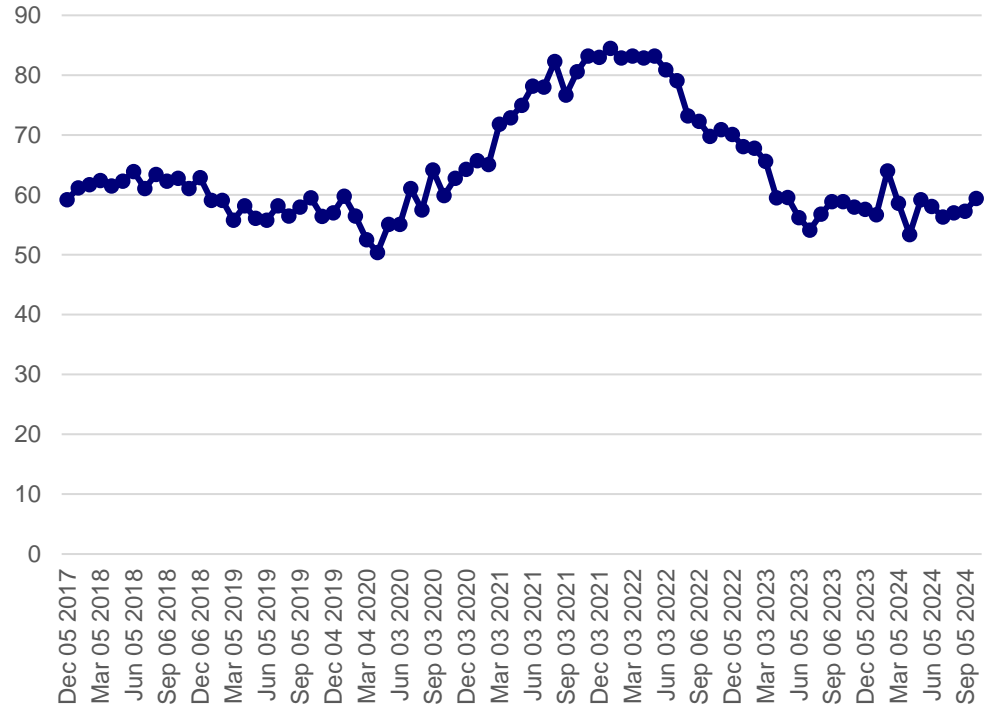
Other inflation measures

US average hourly earnings y/y



Source: US Bureau of Labor Statistics, as of October 4, 2024.

ISM Services Prices Paid



Source: Institute for Supply Management, as of October 3, 2024.

Market inflation expectations are well anchored

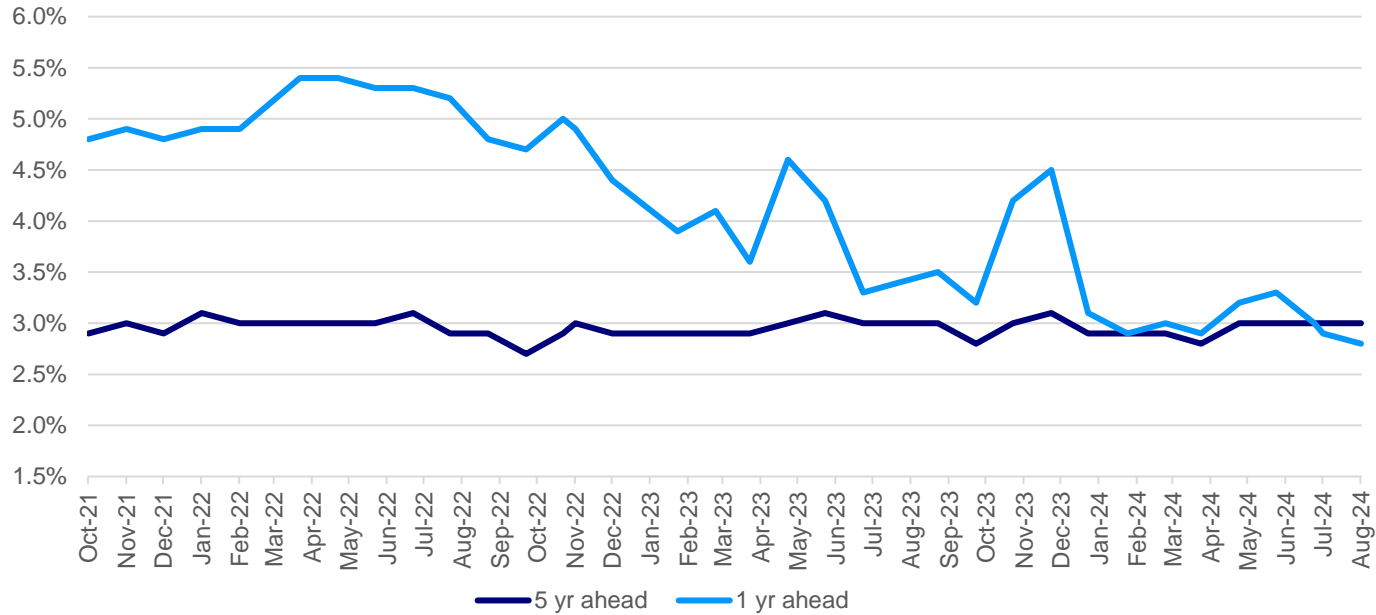
5-Year US Treasury Inflation Breakeven (%)



Source: Bloomberg, as of September 13, 2024.

US consumer inflation expectations

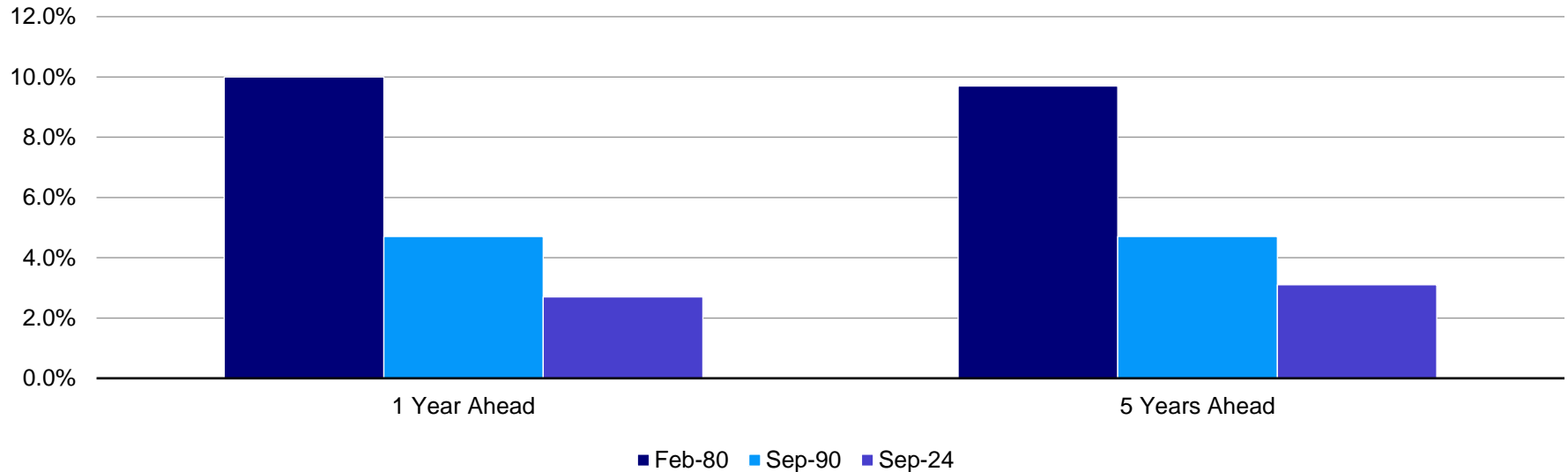
University of Michigan Inflation Expectations, 1 and 5 years ahead



Source: University of Michigan Survey of Consumers, as of 27 September 2024.

A historical perspective on US consumer inflation expectations

Median Consumer Inflation Expectations



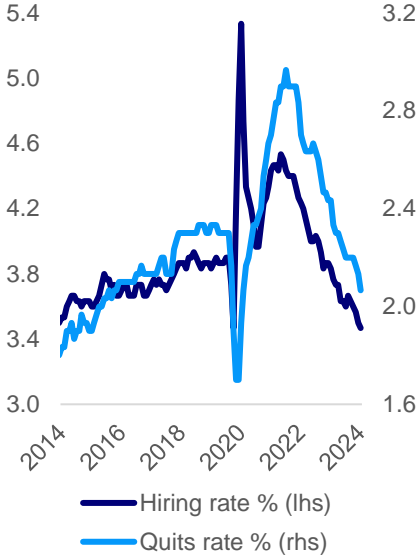
Source: University of Michigan Survey of Consumer Expectations, February 1980, September 1990 and September 2024.



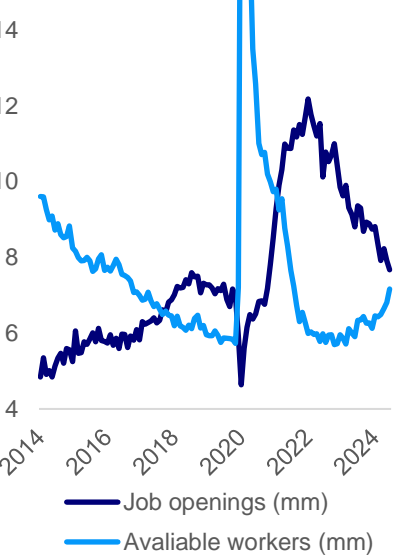
The Real Economy

A snapshot of the US labor market

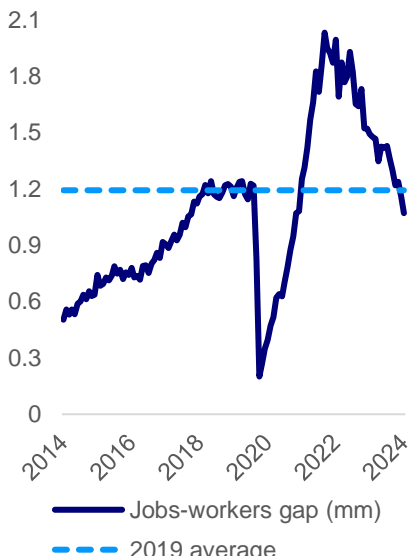
Hiring and quits rates have declined



Job openings have fallen & unemployment has risen



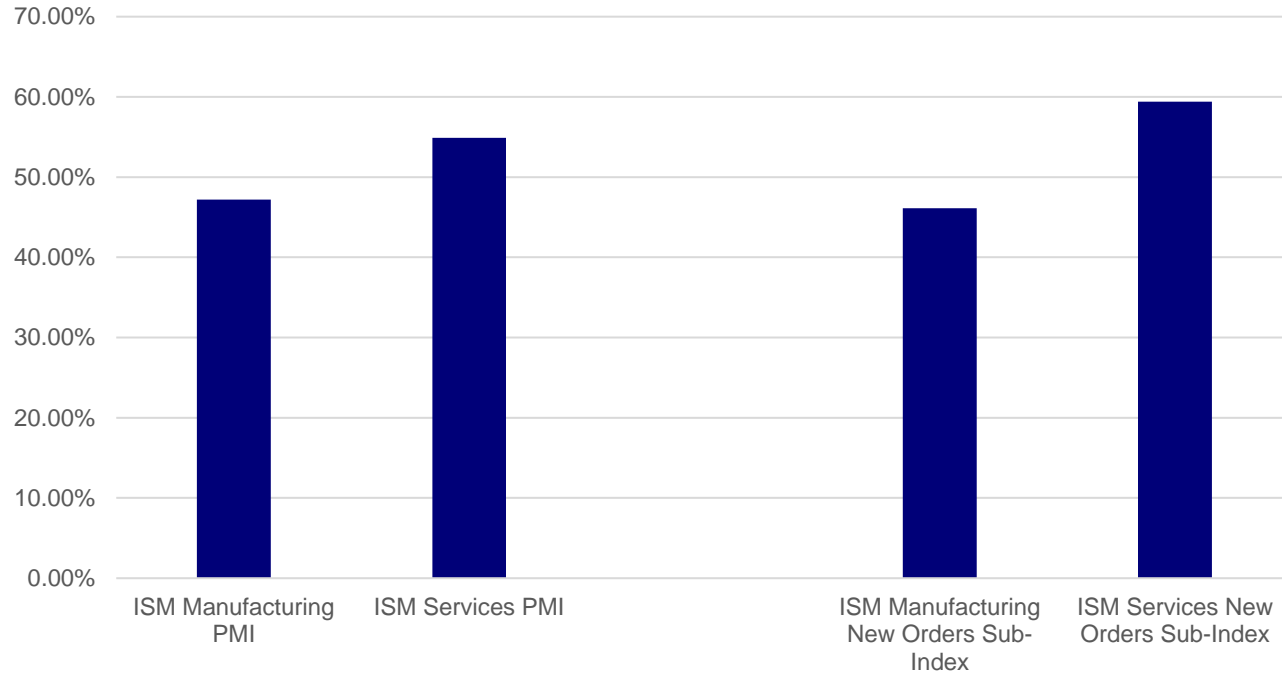
Labor market's rebalanced to pre-pandemic levels



Sources: Federal Reserve Economic Database (FRED), monthly total nonfarm hires, total nonfarm quits, total nonfarm job openings, and the unemployment level from July 2014 through July 2024, as of 6 September 2024. Hiring and quits rates are calculated as the number of quits/hires during an entire month as a percentage of total employment. The jobs-workers gap is total nonfarm job openings divided by the unemployment level. The unemployment level equals “available workers”. All charts are in millions (mm). Federal Reserve (Fed).

Bifurcated US Economy

Manufacturing and Services



Sources: DataStream and Invesco as at 1 and 3 October 2024.

Cracks in the Economy

“During the quarter, higher interest rates and greater macroeconomic uncertainty pressured consumer demand more broadly, resulting in weaker spend.”

- Home Depot CEO Ted Decker

“...we're lowering prices. For the quarter, both Walmart US and Sam's Club US were slightly deflationary overall.”

- Walmart CEO Doug McMillion

“Well, in our consumer base of 60 million customers spending every week, what you're seeing is they're spending at a rate of growth of this year over last year, for July and August so far, about 3%. That is half the rate it was last year at this time. And so the consumer has slowed down. They have money in their accounts, but they're depleting a little bit. They're employed, they're earning money, but if you look at – they've really slowed down...(the Fed has) told people rates probably aren't going to go up, but if they don't start taking them down relatively soon, you could dispirit the American consumer. Once the American consumer really starts going very negative, then it's hard to get them back. And on the commercial side, the higher rate environment is slowing down commercial progress, so corporations aren't using their lines of credit. Middle markets, small businesses, they've gone backwards in the use of lines of credit.”

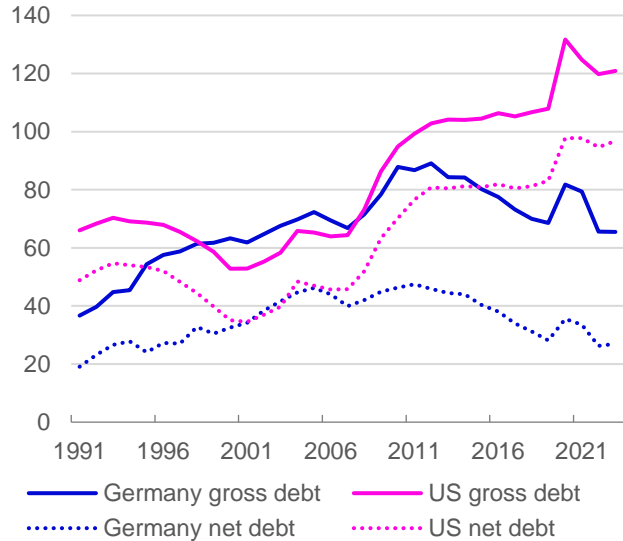
- Bank of America CEO Brian Moynihan

“Our borrower is struggling with high inflation and cost of living, and now more recently, a weakening employment picture.”

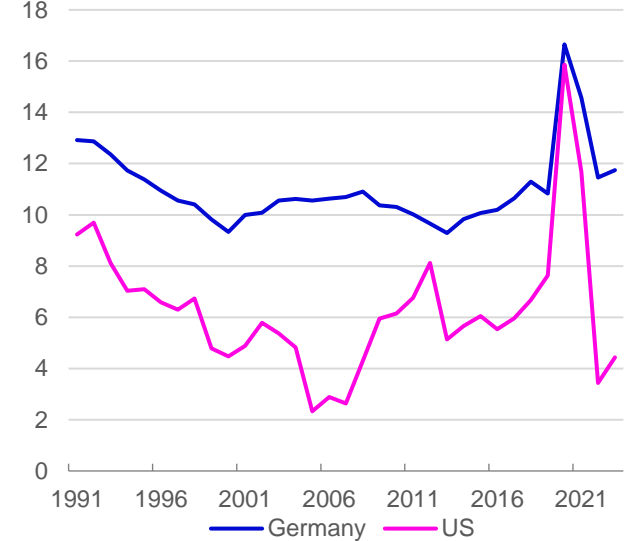
-Ally CFO Russell Hutchinson

What's been driving the US economy?

Government debt (% of GDP)



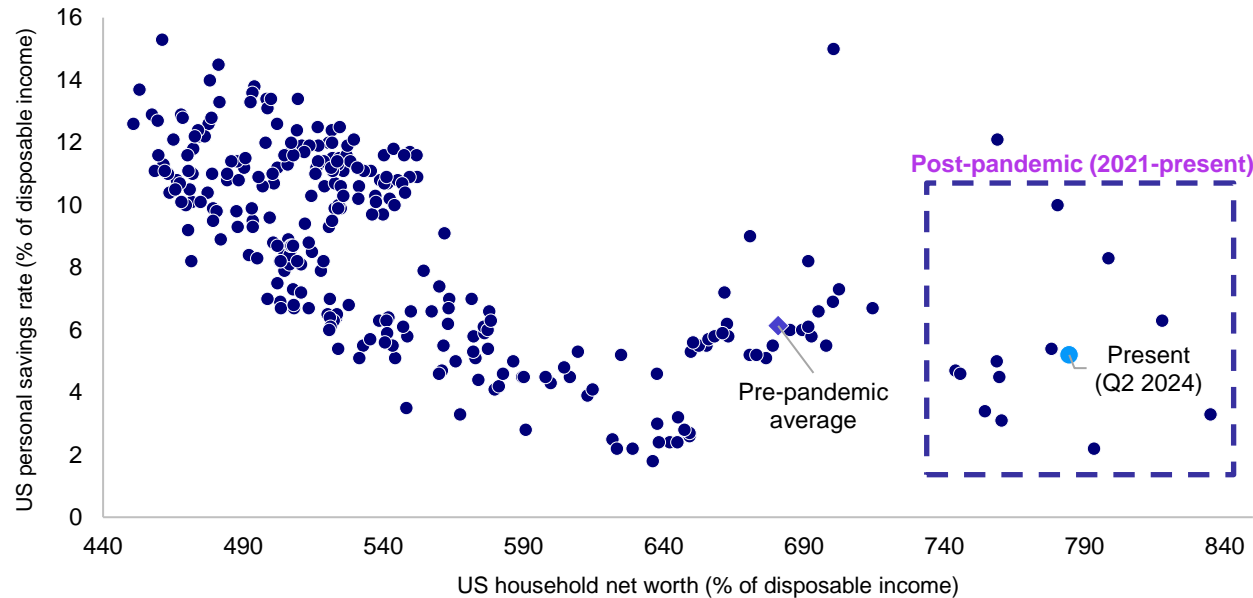
Household savings rate (%)



Notes: Annual data from 1991 to 2023 as estimated by the OECD. Left hand chart refers to general government financial liabilities. Right hand chart shows the net savings ratio of households and non-profit institutions.
Source: OECD, LSEG Datastream and Invesco Global Market Strategy Office.

Strong household balance sheets support continued consumer spending and the US economy

Quarterly US personal savings rate & US household net worth, % of disposable income



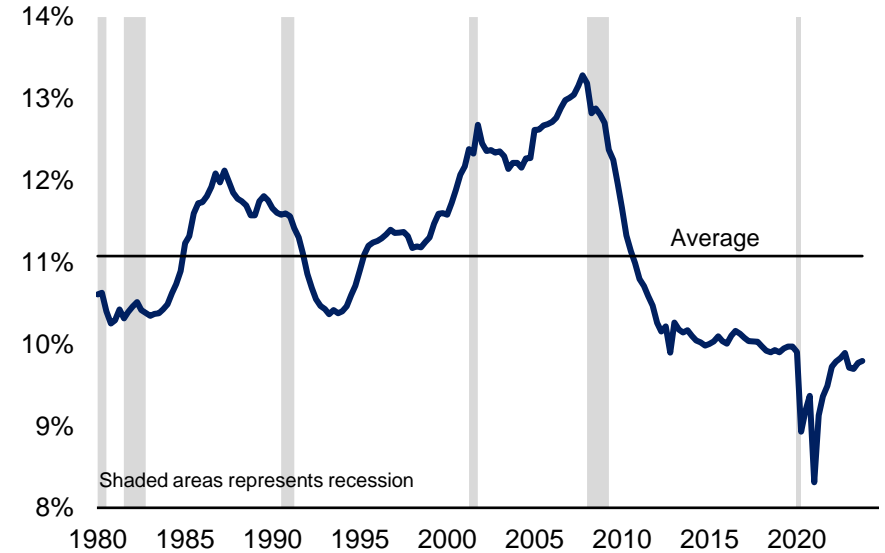
Sources: Bloomberg, Federal Reserve Economic Database, and Bureau of Economic Research, quarterly data from Q4 1951 through Q2 2024 (most recent date data was available), as of 18 October 2024. Data for Q1 2021 and Q2 2020 were excluded from the chart as outliers. "Pre-pandemic average" is measured over the 5 years prior to Q1 2020.

The debt picture

Debt and liabilities of nonfinancial corporate businesses



Household debt service and principal payments as a percentage of income



Source: Board of Governors of the Federal Reserve System, as of 7 June 2024.

AI may make us more productive

Information and communication technology revolution of 1995-2005 may serve as guide

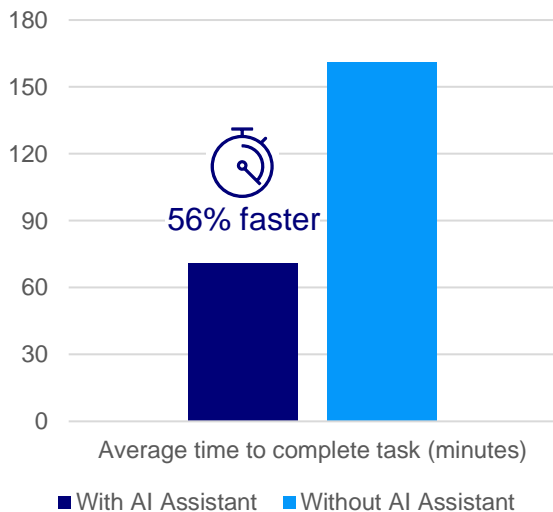
Productivity, roughly speaking, measures the output each worker produces for every hour worked. Increases in productivity have historically been associated with major technological change, such as the invention of the assembly line, automobile, and computers.

AI, especially generative AI, may be the next driver of productivity increases. In one example, Github—a code collaboration and repository website—paired developers with an AI coding assistant. Those using the AI system performed the given task 56% faster than the control group—a remarkable difference that translates into more productive workers.

We believe that, as generative AI is integrated into various aspects of the economy, productivity growth may see a revival similar to what was last witnessed in the 1995 to 2005 period in the US, when the information communication technology revolution took place, which saw productivity rises at a rate three times that of recent decades.

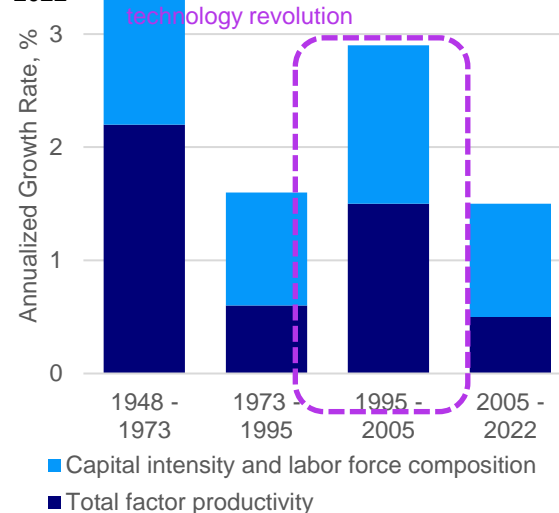
GitHub's CoPilot Coding Assistant

Time for professional programmer to complete task



US Labor Productivity Growth

Components of labor productivity growth, 1948 to 2022



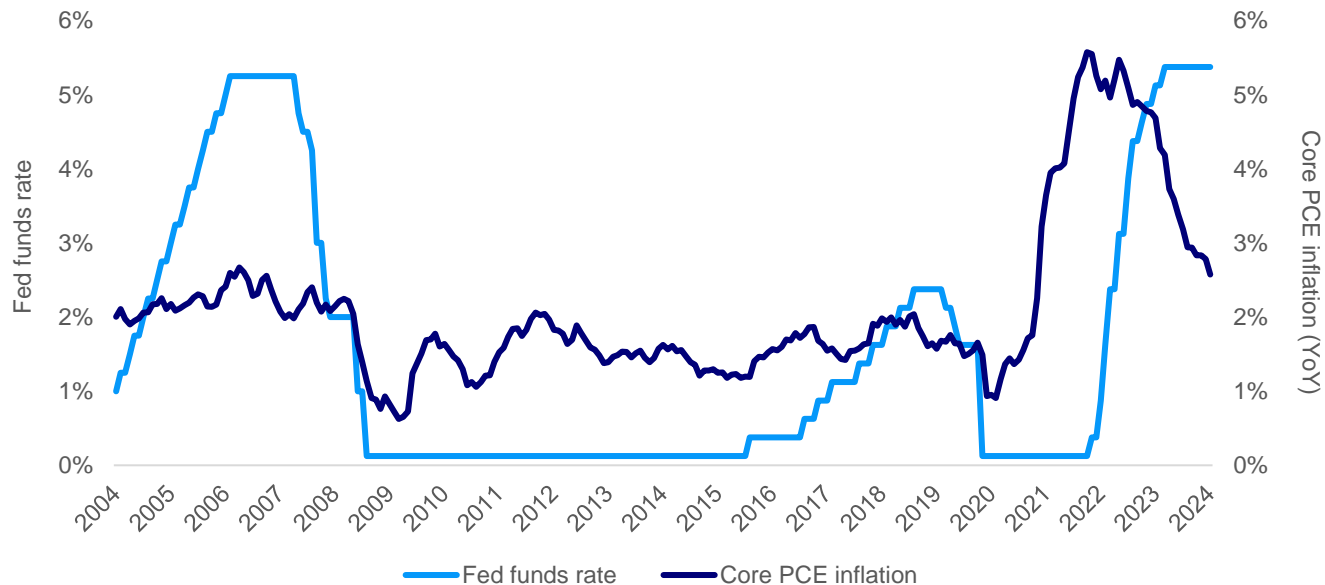
Sources: Macrobond, Github: *Research: quantifying GitHub Copilot's impact on developer productivity and happiness* from 7 September 2022; Bureau of Labor Statistics, and Brookings Institution, as of 19 May 2023.



The Path of Monetary Policy

Monetary policy was very restrictive

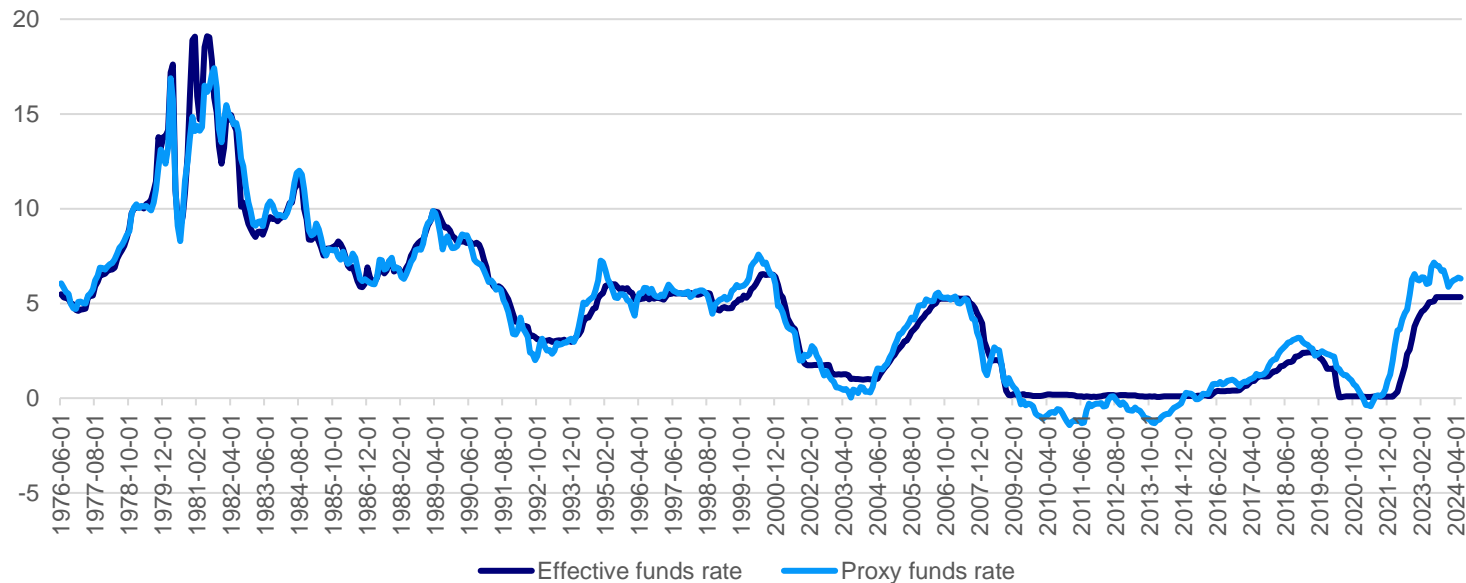
Federal funds rate vs. core PCE inflation



Sources: Bloomberg, monthly federal funds (fed funds) target rate mid point range and core personal consumption expenditures (PCE) price index year over year (YoY) percent change, from 31 May 2004 to 31 May 2024, as of 28 June 2024.

Monetary policy conditions were even tighter when factoring in quantitative tightening

The “proxy” fed funds rate and the effective fed funds rate (%)



Source: San Francisco Fed as of 6/30/24.

The “proxy fed funds rate” is calculated by factoring in additional monetary policy tools, such as forward guidance or changes in the balance sheet, that can affect financial conditions. The San Francisco Fed has translated those combined policies into an analogous level of the fed funds rate.

Case study: The 1994-1995 “soft landing”

1994-1995



Length of tightening cycle	12 months
Change in interest rates	+ 300 basis points
S&P peak to trough return during tightening cycle	-8.7%
Months until easing began	5 months
1-year return post last hike	+37.9%
1-year return post first cut	+21.4%

2022-Current



Length of tightening cycle	16 months
Change in interest rates	+ 500 basis points
S&P peak to trough return during tightening cycle	-25.4%
Months until easing began	TBD
Since last hike	+15.7% (as of 3/24)
1-year return post first cut	TBD

S&P 500 returns source: Bloomberg L.P., 3/29/24. Peak fed funds rate source: US Federal Reserve and Bloomberg L.P., 3/29/24. Peak fed funds rate Jul. 2023 is based on Fed funds implied futures, financial contracts that represent the market’s opinion of where the fed funds rate will be at a specified point in the future. The fed funds rate is the rate at which banks lend balances to each other overnight. Indexes cannot be purchased directly by investors. Market returns are based on the S&P 500 Index. **Past performance does not guarantee future results.**

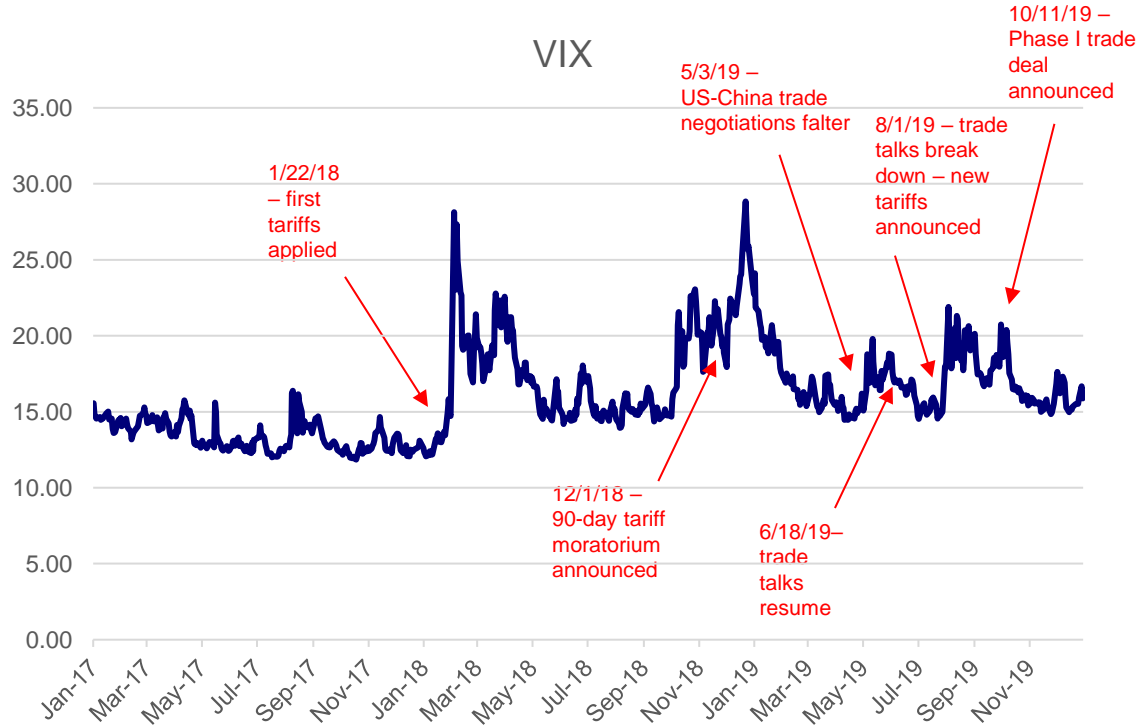


Election Topics

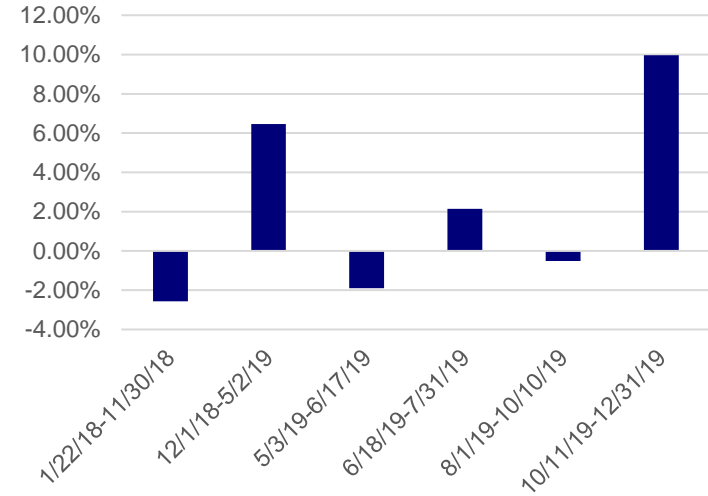


Spotlight on tariffs

Trade wars increased volatility and exerted downward pressure on markets



S&P 500 Index performance during phases of the 2018 trade war



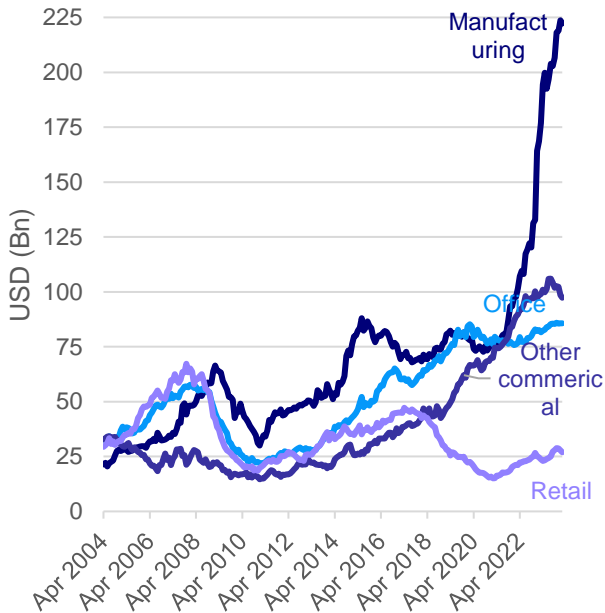
Source: Bloomberg and Invesco Global Market Strategy Office, as of 8/20/24. **Past performance is no guarantee of future results.**



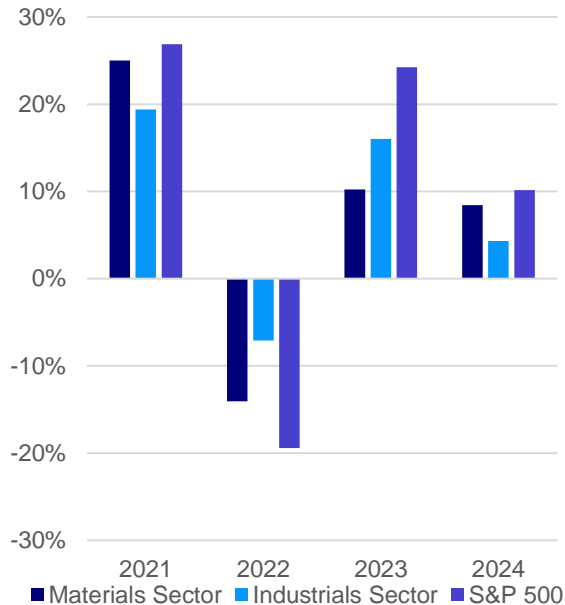


Spotlight on industrial policy

US construction spending in nonresidential structures



Sector performance



Sources: left chart - DataStream, monthly data as of April 24, 2024; right chart – Bloomberg, as of July 31, 2024. Retail is the sum of multi-retail, shopping centers, and shopping malls. Other commercial is commercial less retail. Sector performance represents price returns. **Past performance is no guarantee of future results.**

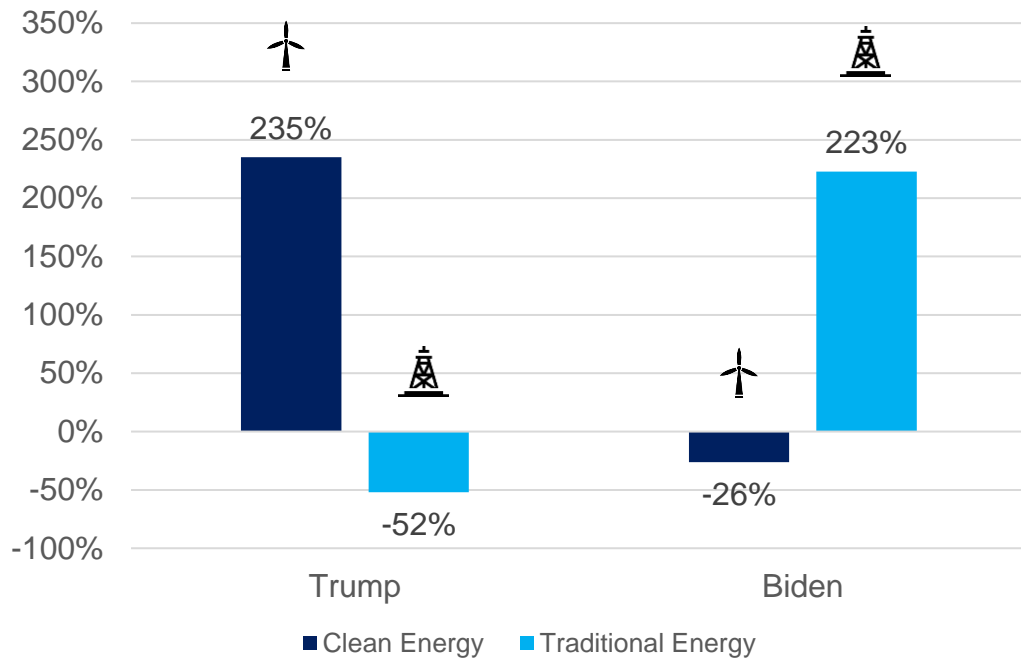


- Three major fiscal programs have driven Biden’s industrial policy:
 1. The Bipartisan Infrastructure Act: Signed into law on Nov. 15, 2021
 2. The CHIPS and Science Act: Signed into law on Aug. 9, 2022.
 3. The Inflation Reduction Act: Signed into law on Aug. 16, 2022.
- The CHIPS and Science Act in particular helped prompt a surge in building in the US manufacturing sector over the last year.
- However, the impact of this legislation on the performance of the materials and industrials sectors has been mixed.
- These programs could result in less foreign direct investment from the US, and more firms moving operations to the US.



Spotlight on Energy

NASDAQ Clean Edge Green Energy Index vs. S&P Oil, Gas, and Consumable Fuels Index



What powers energy prices?

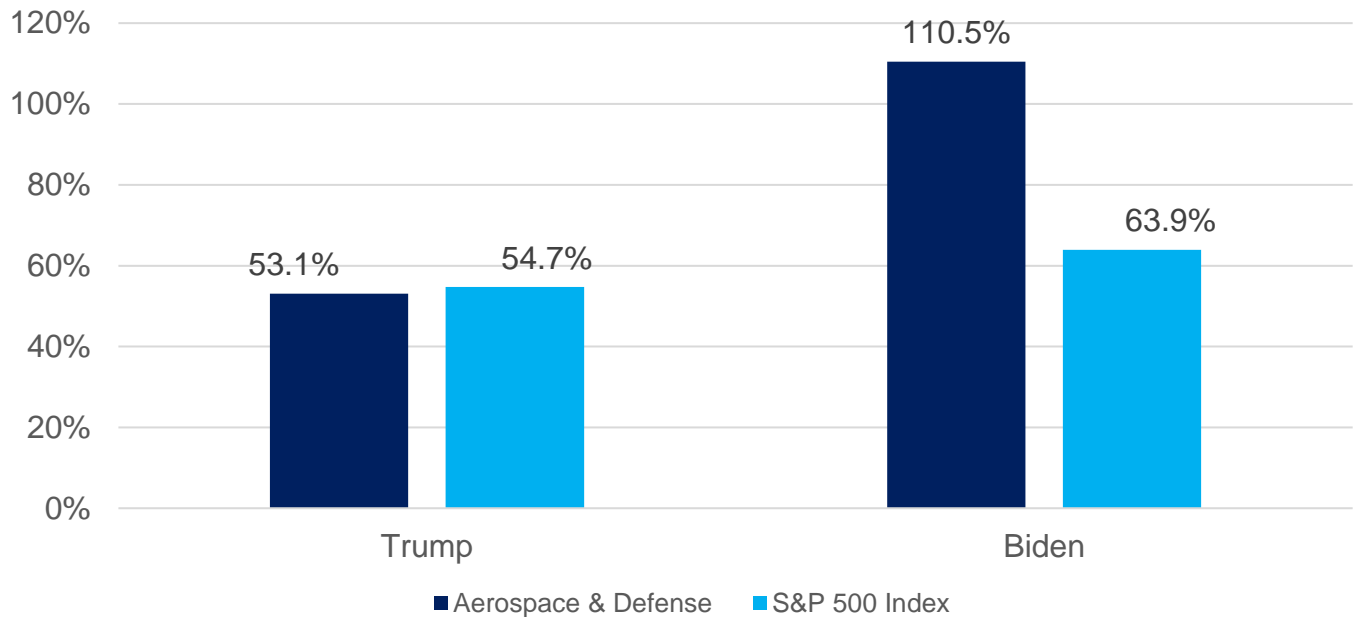
Clean energy outperformed traditional energy during the Trump administration — a reminder that factors other than the president’s policy agenda often drive performance. During Trump’s term, one such factor was the pandemic, which resulted in a precipitous decline in commodity prices and a sharp decline in interest rates that likely benefited clean energy businesses. And during the Biden Administration, despite the policy push for clean energy, the Russia-Ukraine war had the more prominent influence on oil prices.

Source: Bloomberg, 7/31/24 The NASDAQ Clean Edge Green Energy Index is designed to measure the performance of companies in clean energy industries. The S&P 500 Oil, Gas, and Consumable Fuels Index is a GICS level 3 index, representing the oil, gas, and consumable fuels industries within the S&P 500 Energy sector. An investment cannot be made in an index. **Past performance does not guarantee future results.**



Spotlight on Defense

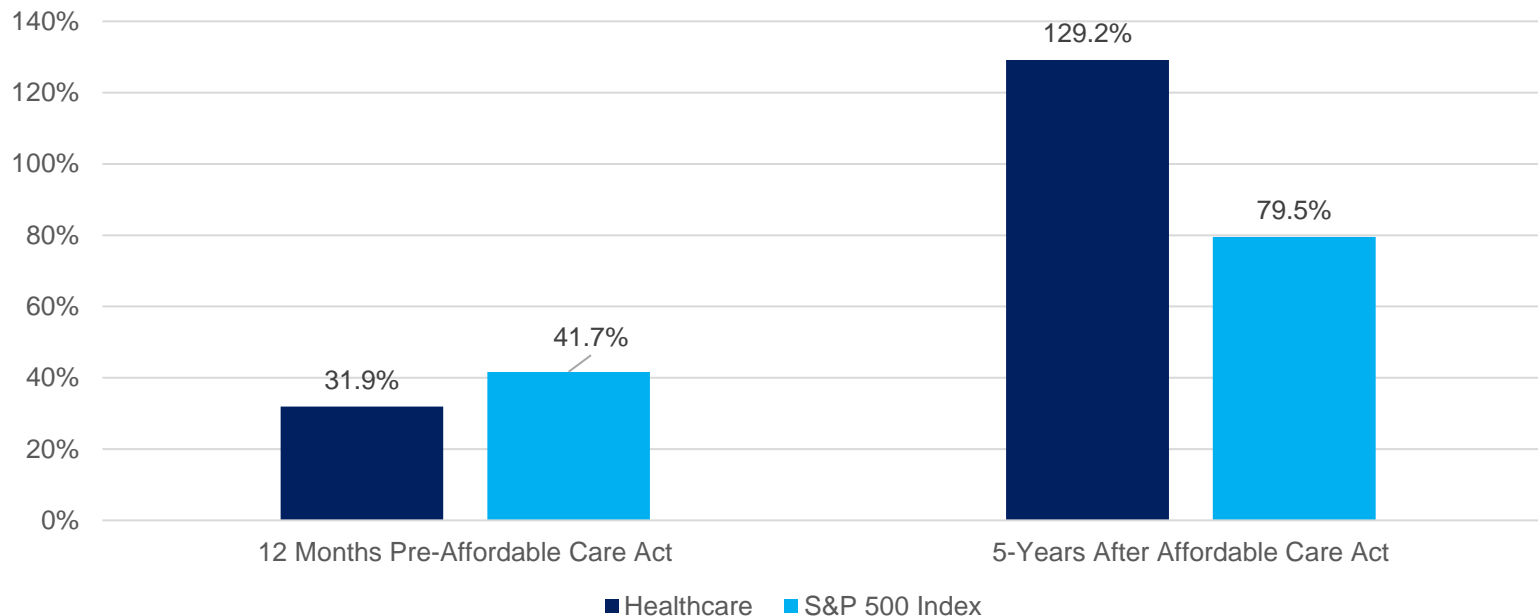
S&P Aerospace & Defense Select Industry Index vs. S&P 500 Index



Source: Bloomberg, 7/31/24. The S&P Aerospace & Defense Select Industry Index comprises stocks from the S&P 500 Index that are classified in the GICS Aerospace & Defense sub-industry. Indices cannot be purchased directly by investors. **Past performance does not guarantee future results.**



Spotlight on Healthcare

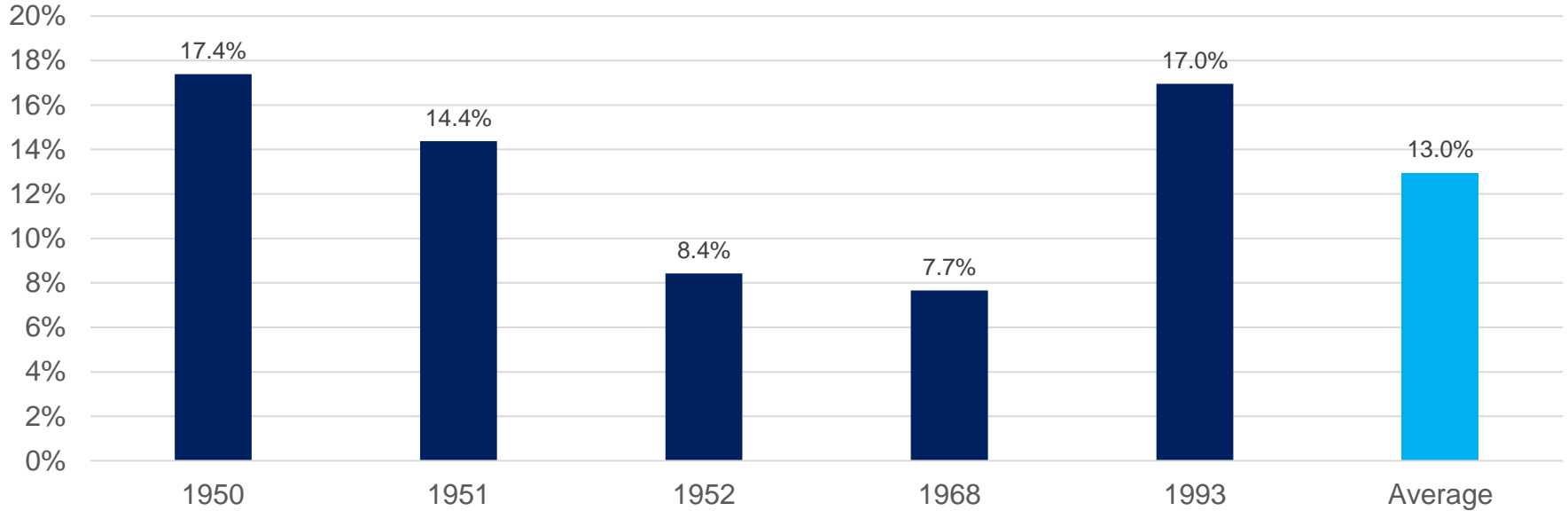


Source: Bloomberg, 7/31/24. The S&P 500 Health Care comprises those companies included in the S&P 500 that are classified as members of the GICS health care sector. Indices cannot be purchased directly by investors. **Past performance does not guarantee future results.**



Spotlight on corporate tax impact on stock market

S&P 500 Index: Annual Returns in Years the US Corporate Tax Rate Increased

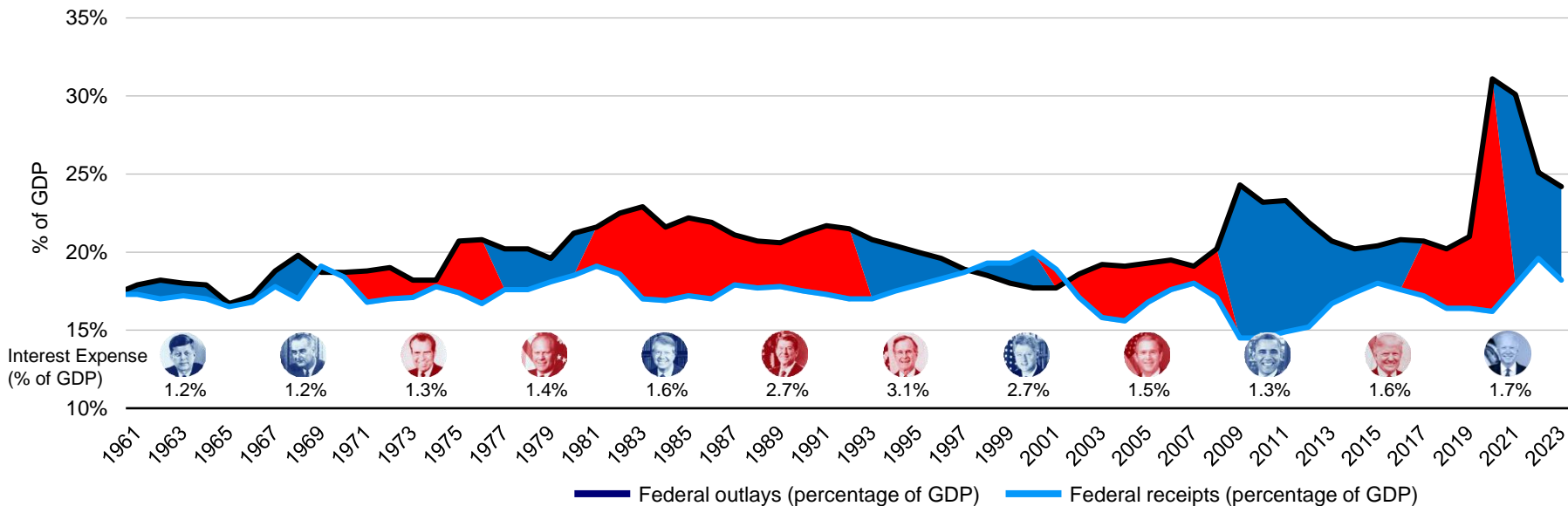


Source: US Department of Treasury, Bloomberg. Indices cannot be purchased directly by investors. **Past performance does not guarantee future results.**



Spotlight on US debt

Federal outlays and receipts as a percentage of GDP

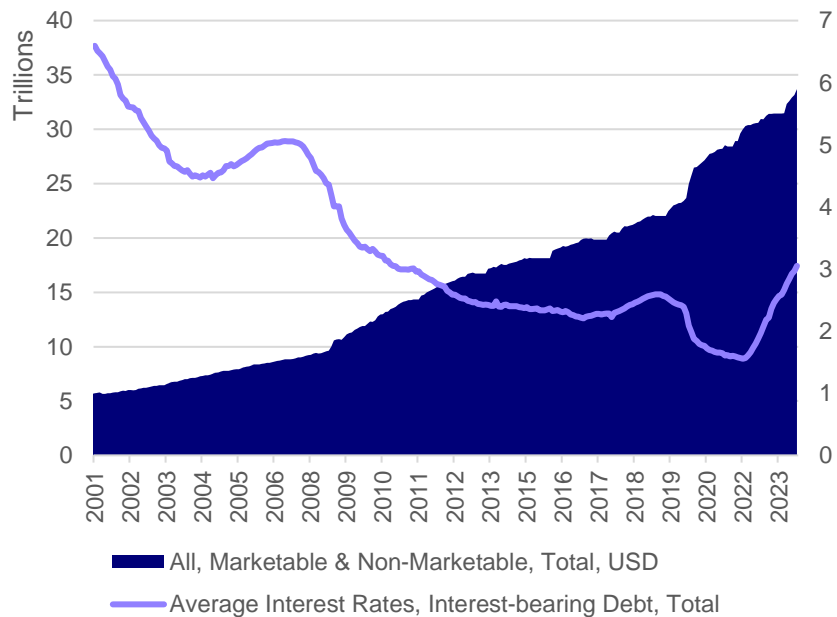


Source: US Department of Treasury, 12/31/23. Gross domestic product (GDP) is a broad indicator of a region's economic activity, measuring the monetary value of all the finished goods and services produced in that region over a specified period.

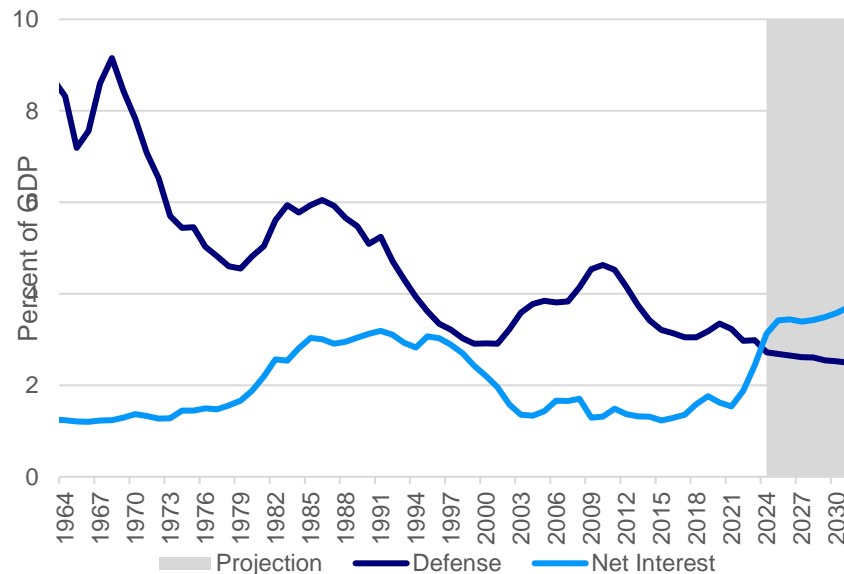


Spotlight on US debt

Higher interest rates and growing debt levels have made fiscal sustainability a major focus



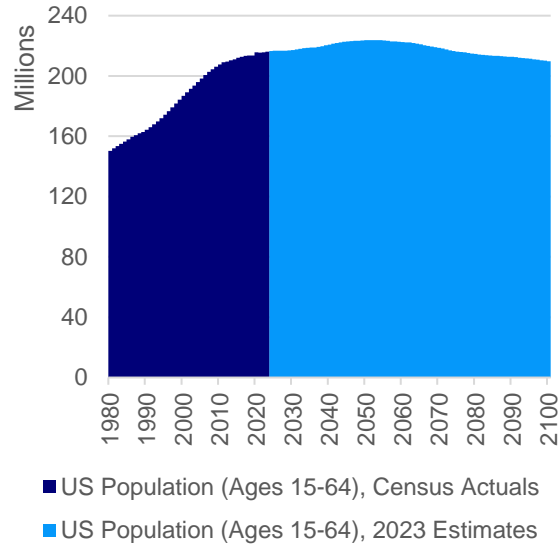
Net Interest vs. Defense Spending, % of GDP



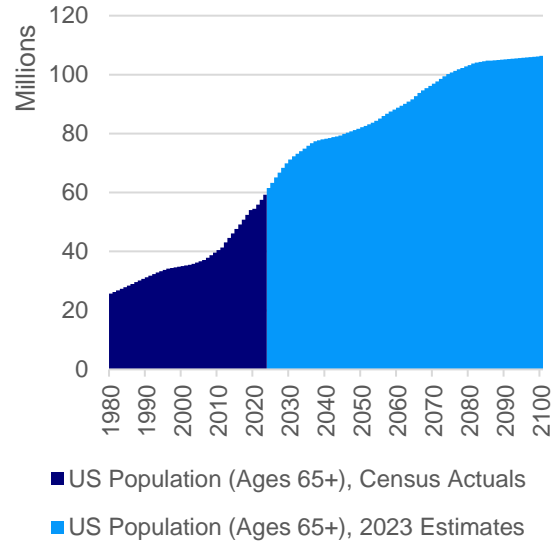
Source: US Department of Treasury, 12/31/23. Latest data available.

Demographic headwinds

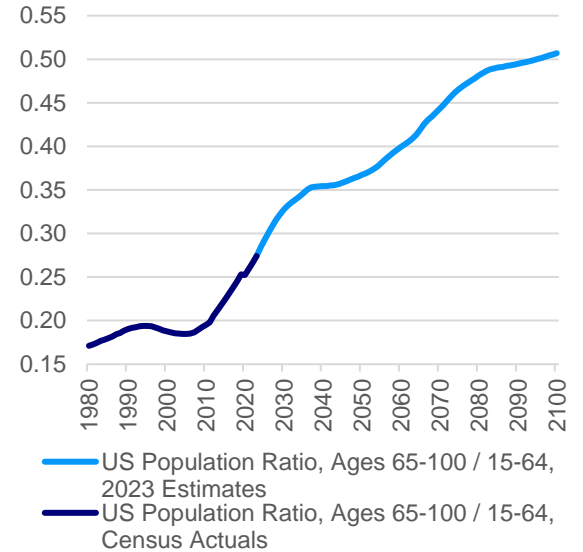
Working age pop. stopped growing



Yet 65+ population keeps rising



Dependency ratio highlights this shift

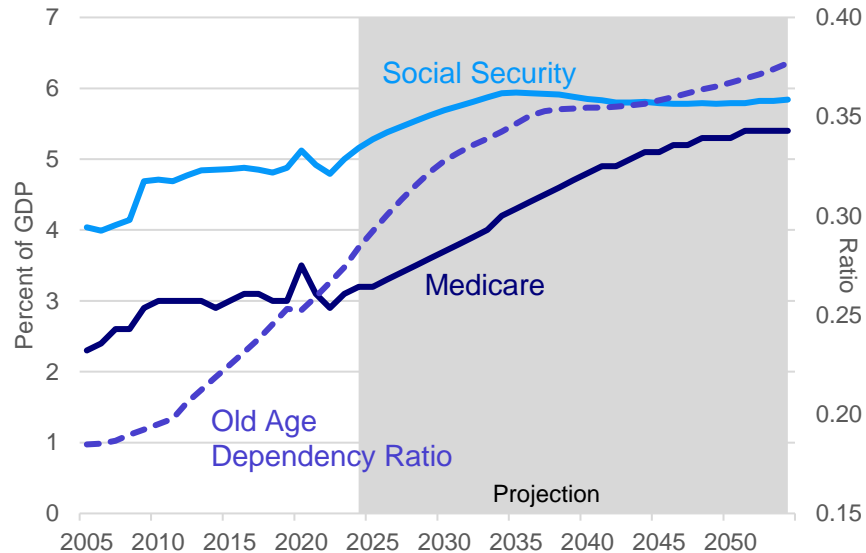


Source: US Census Bureau, July 31, 2024

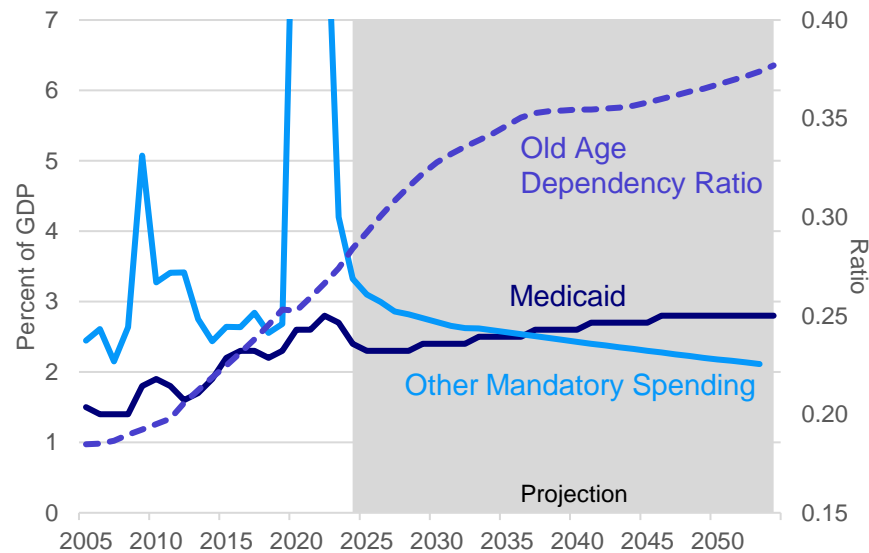
Medicare, Social Security budgets are rising with aging demographics

Medicaid, and other non-interest items are stagnant or falling

Long-Term Budget Outlook: Social Security & Medicare



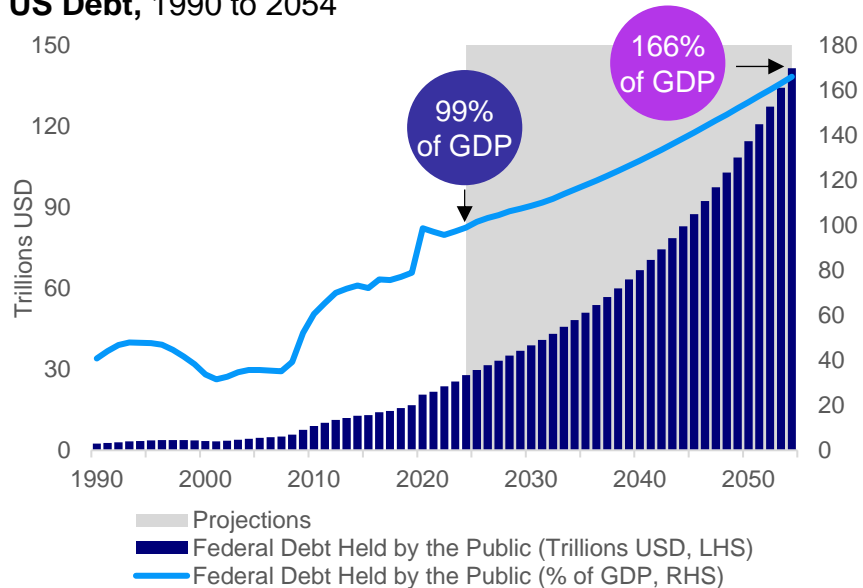
Long-Term Budget Outlook:



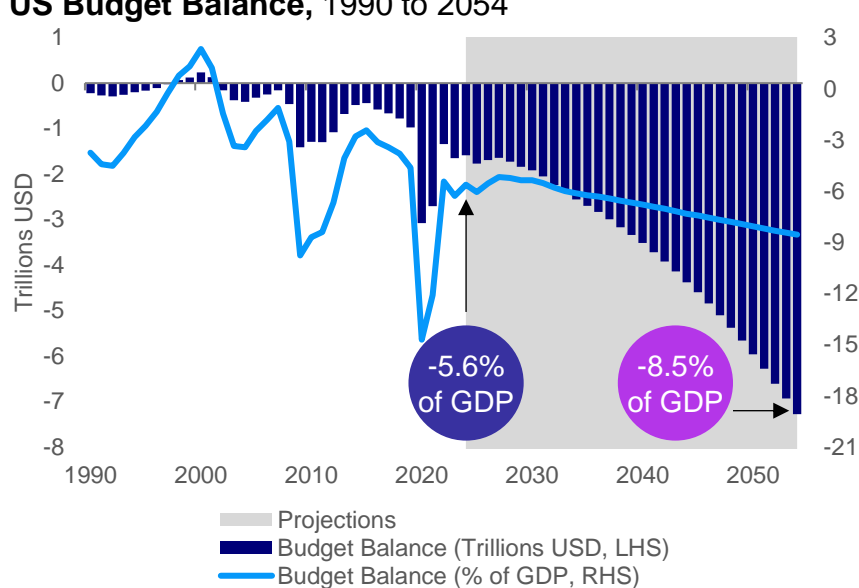
Note: "Other Mandatory Spending" includes unemployment compensation, retirement programs for federal employees, student loans, deposit insurance, and similar programs. In 2020 and 2021, unemployment insurance climbed dramatically. The scale omits these values for Other Mandatory Spending, which reached 11.0% of GDP in 2020 and 13.9% of GDP in 2021. Sources: US Congressional Budget Office, Census Bureau, Macrobond, and Invesco, as of 21 August 2024. Forecast data from 2024 to 2054, derived from the CBO's long-term budget projections.

Federal debt and deficits are climbing

US Debt, 1990 to 2054



US Budget Balance, 1990 to 2054



Sources: Congressional Budget Office, Macrobond, and Invesco, as of 29 August 2024. Projection data from 2024 to 2054.

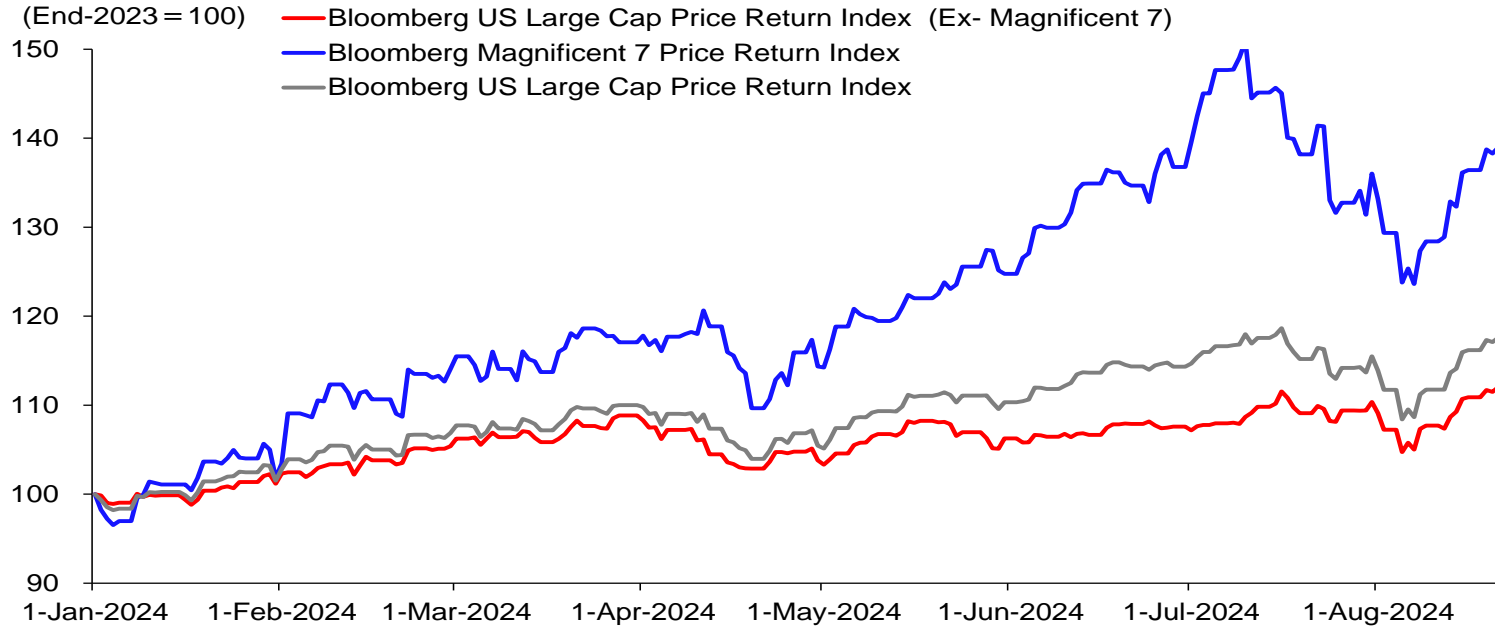


Markets

A closer look at US large-cap stocks

US large cap equity indices with and without Magnificent 7

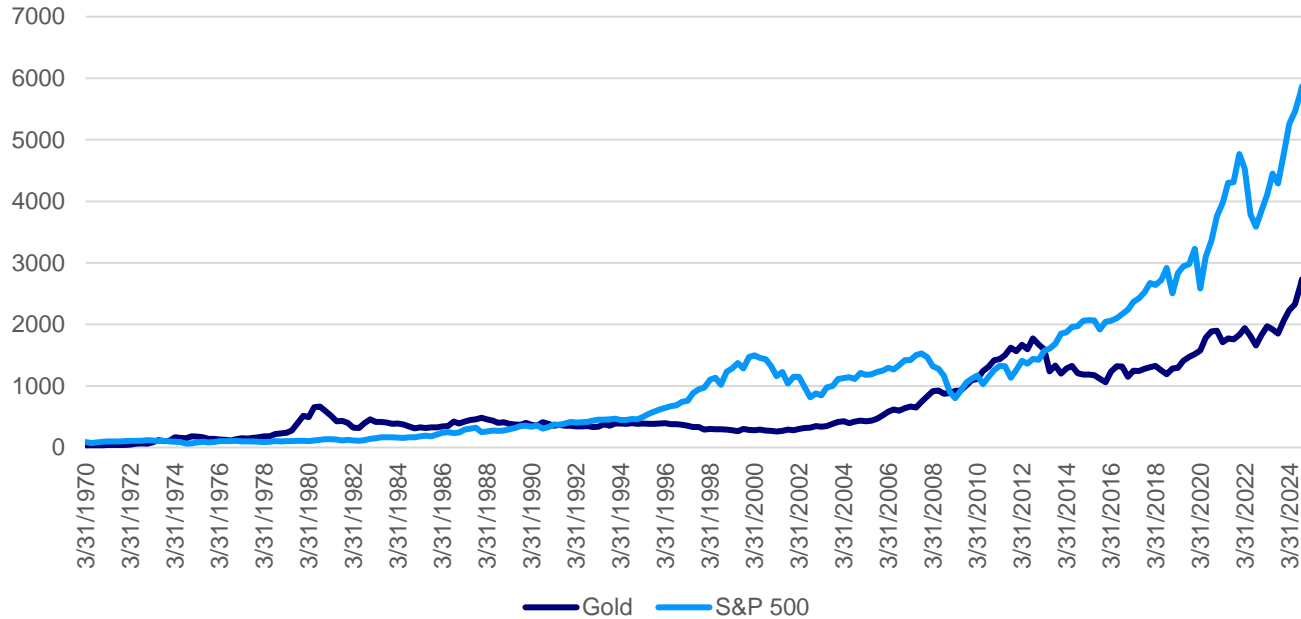
(End-2023 = 100)



Note: Magnificent 7 stocks are Apple, Microsoft, Google parent Alphabet, Amazon.com, Nvidia, Meta Platforms and Tesla. Bloomberg US Large Cap Price Return Index contains the 500 most highly capitalized US companies weighted by float market cap. Sources: Invesco from Bloomberg. Daily data as at 23 August 2024.

Gold has risen along with stocks

Spot price of gold vs S&P 500 Index



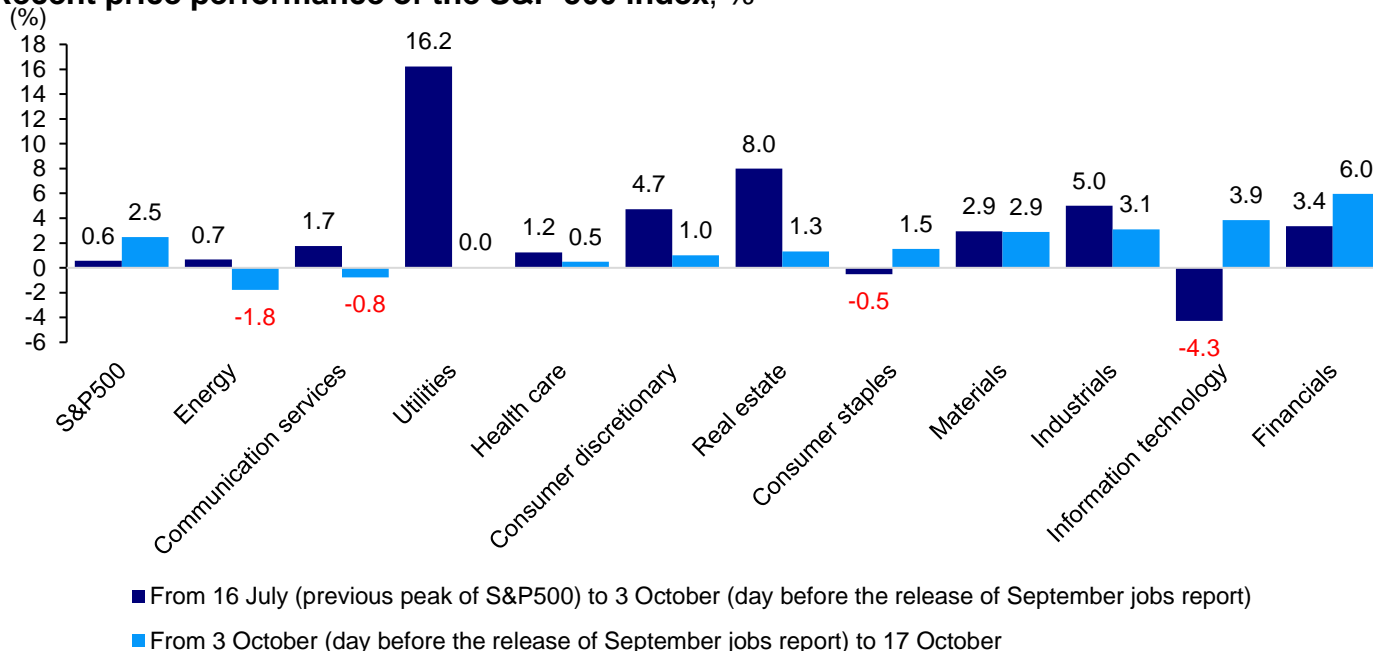
Source; Bloomberg, as of 18 October 2024



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Cyclical and tech stocks have outperformed after the release of US jobs report for September

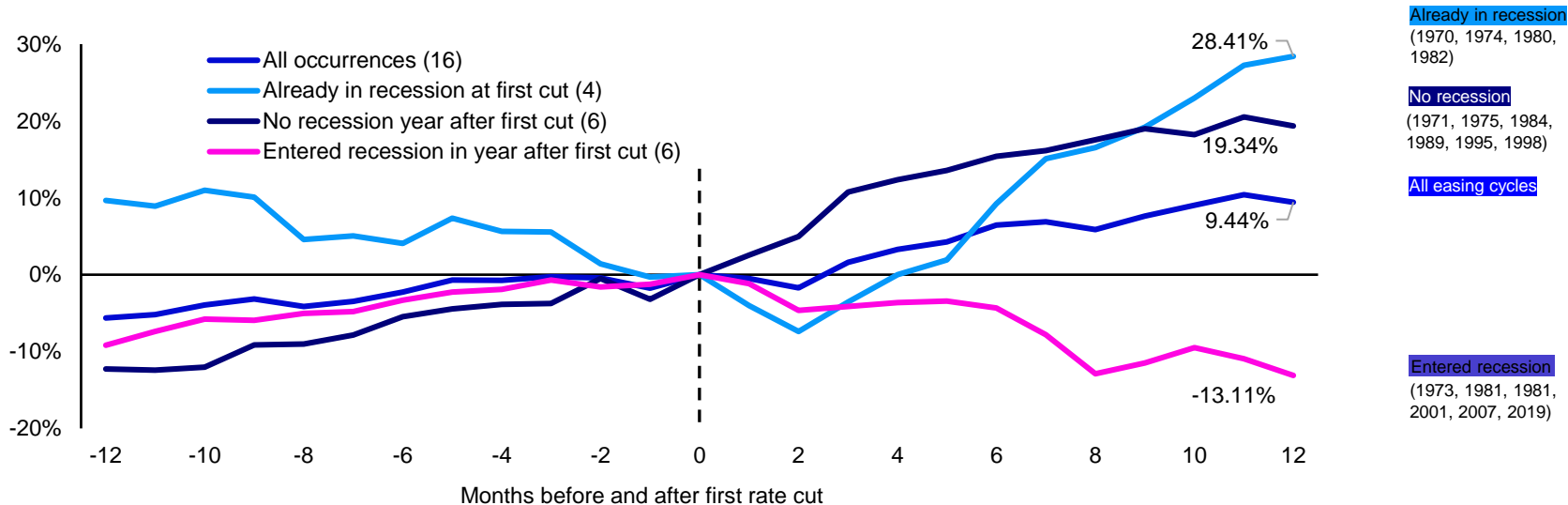
Recent price performance of the S&P 500 index, %



Sources: Bloomberg and Invesco. Data are as at 18 October 2024.

Stocks have done well when Fed cut rates and economy avoided a recession

Average S&P 500 performance following first rate cut in an easing cycle



Note: Chart shows average S&P 500 Index performance 12 months before and 12 months after the beginning of the past 16 easing cycles. There were two distinct easing cycles in 1981. Sources: Federal Reserve Economic Database (FRED) and Bloomberg L.P., 8/31/24. The S&P 500 Index is a market-capitalization-weighted index of the 500 largest domestic US stocks. An investment cannot be made directly into an index. **Past performance does not guarantee future returns.**

Stock performance in the aftermath of tightening cycles

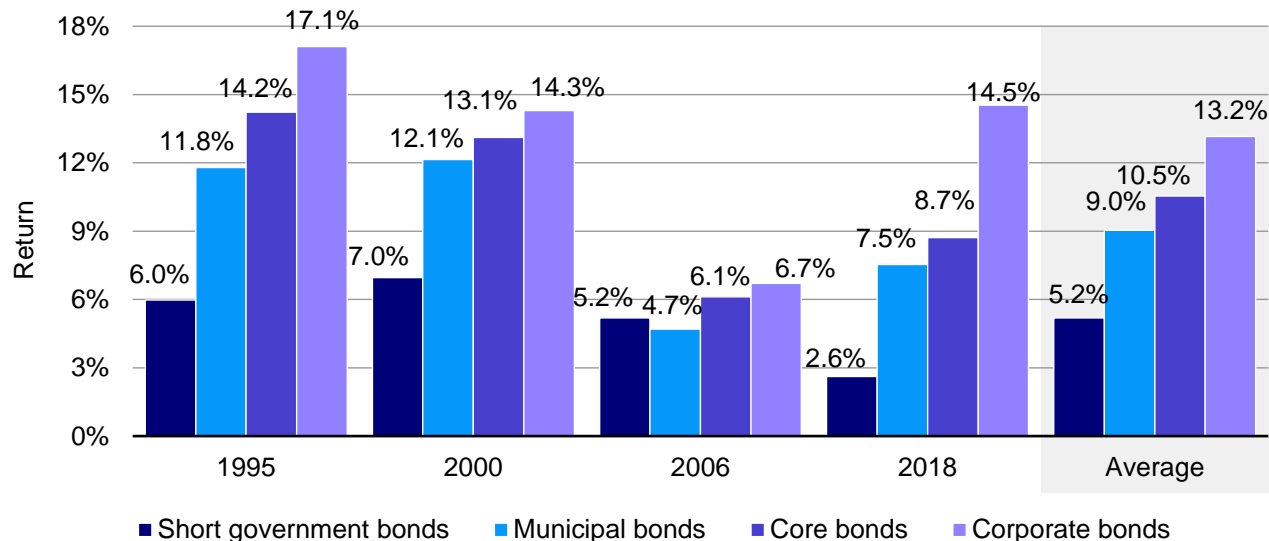
S&P 500 Index: Returns following the end of tightening cycles

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.**

Credit/munis: Performed well in the aftermath of rate hikes

Select bond indexes: 1-year returns following the end of rate hikes



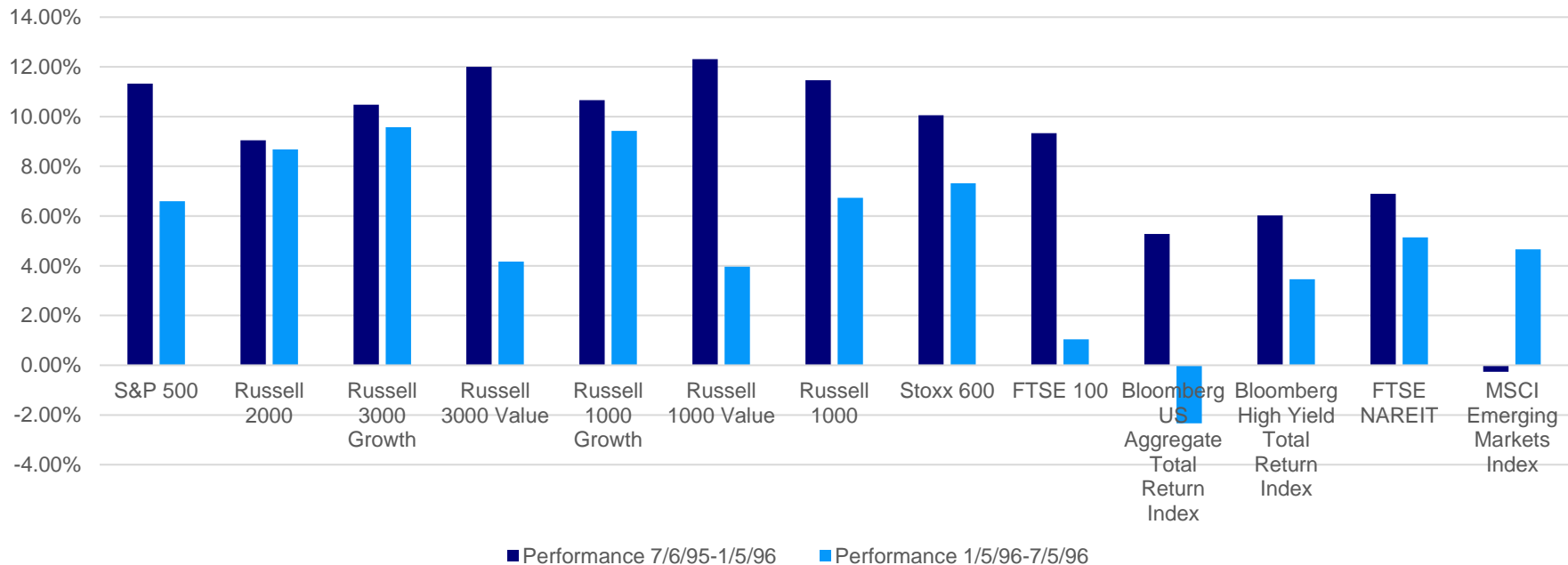
It's not just intermediate- and long-term government bonds that have outperformed following an inversion (or, in the case of 1995, a near inversion) of the yield curve.

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

Sources: Bloomberg L.P., 7/31/23. Short government bonds are represented by the S&P 0-1 Year US Treasury Index. Municipal bonds are represented by the Bloomberg US Municipal Bond Index. Core bonds are represented by the Bloomberg US Aggregate Bond Index. Corporate bonds are represented by the Bloomberg US Corporate Bond Index. Indexes cannot be purchased directly by investors. **Past performance does not guarantee future results.**

The 1995-96 Fed Easing's Impact on Markets

Performance in first six months after easing and second six months after easing

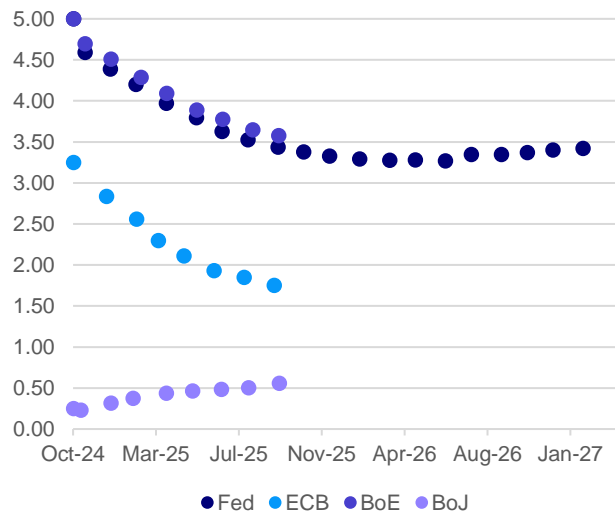


Source: Bloomberg, as of September 3, 2024. Indices cannot be purchased directly by investors. **Past performance does not guarantee future results.**

Monetary policy pricing argues for active EM allocation, instead of “buying the market”

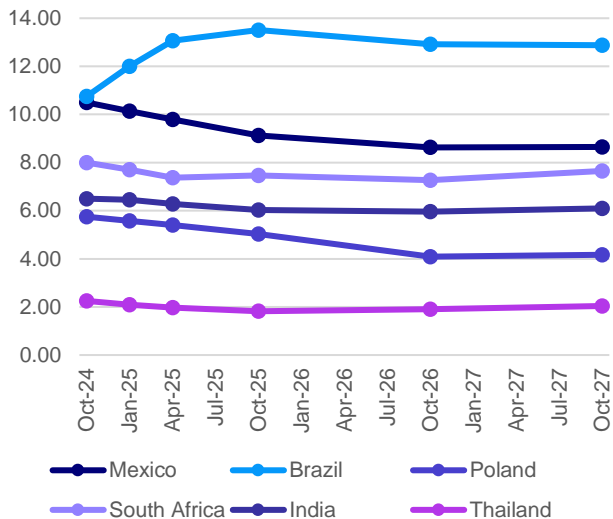
Fed, ECB, BoE rapid cuts; BoJ slow hikes

Market-implied monetary policy path, %



EM high-, mid-, low-yielders: Cuts, holds or hikes

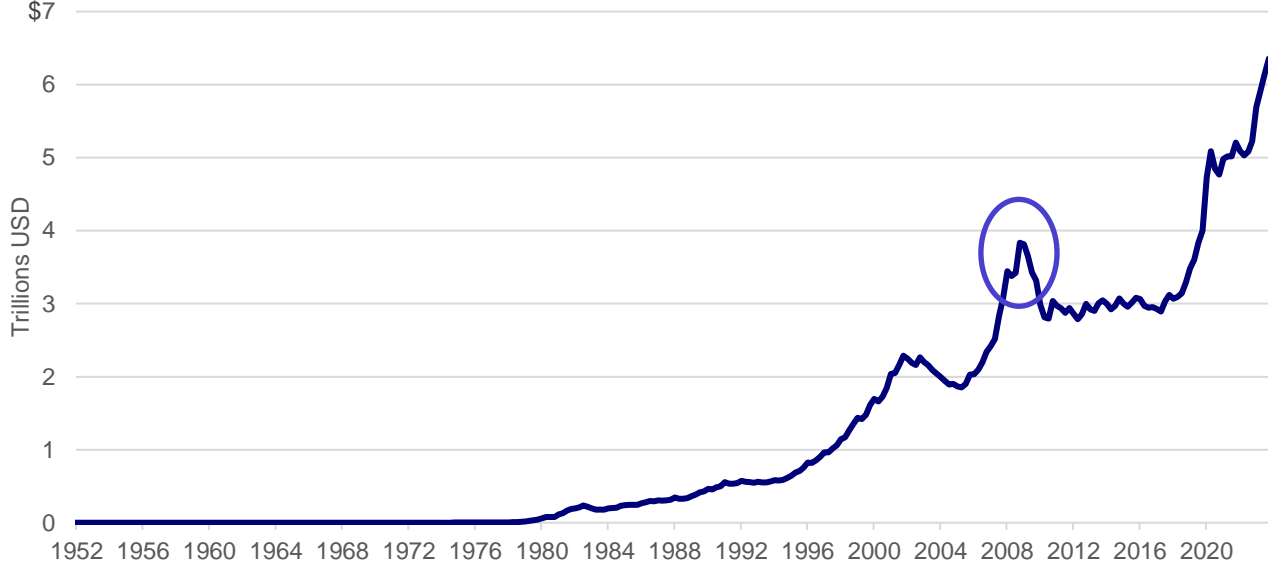
Market-implied forward overnight interest rates, %



Note: Left, implied monetary policy pricing for policy meeting dates. Right, implied overnight rate as a proxy for the central bank policy rate. Fed pricing from Fed Funds futures; ECB, BoE and BoJ from overnight indexed swaps; Emerging Market central banks from yield curves. Source: Bloomberg, Macrobond, Invesco. Market data for dates shown, all as at 18 October 2024.

Cash on the sidelines could be supportive of stocks moving higher this year

US money market fund assets



Source: Board of Governors of the Federal Reserve System through 31 December 2023, as of 7 March 2024. FOMO = fear of missing out.

Disclosures

Credit spread is the difference between Treasury securities and non-Treasury securities that are identical in all respects except for quality rating.

Equity valuation is how the market measures the worth of a company or investment.

Exchange rate is the rate at which one currency will be exchanged for another currency.

Risk-free interest rate is the theoretical rate of return on an investment with zero risk and it's used as a benchmark to measure against other investments that include an element of risk. Government bond yields are the most commonly used risk-free interest rate investment.

The yield curve plots interest rates, at a set point in time, of bonds having equal credit quality but differing maturity dates to project future interest rate changes and economic activity.

The opinions referenced within are as of October 24, 2024, are based on current market conditions and are subject to change without notice. These opinions may differ from those of other Invesco investment professionals. These comments should not be construed as recommendations, but as an illustration of broader themes. Forward-looking statements are not guarantees of future results. They involve risks, uncertainties and assumptions; there can be no assurance that actual results will not differ materially from expectations.

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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.

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For US audiences:

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