

# Navigating Uncertain Economic Times



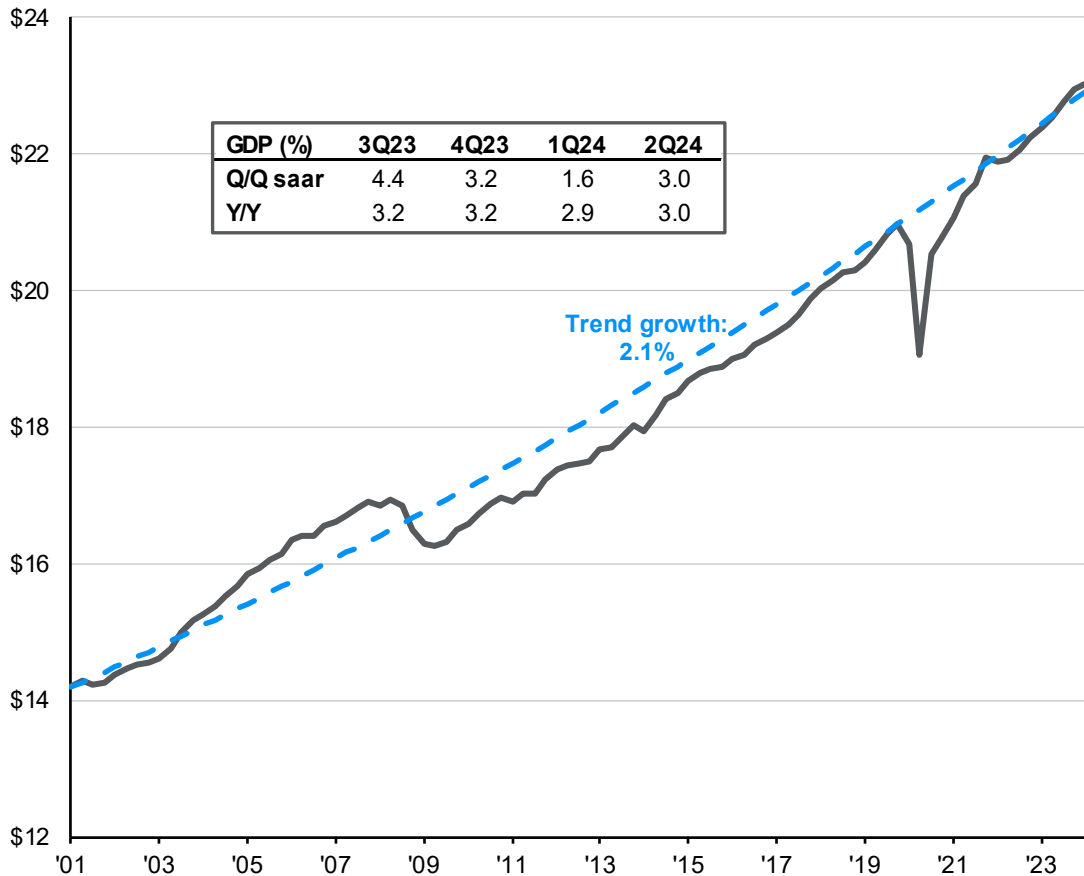
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# Economic Growth and the Composition of GDP

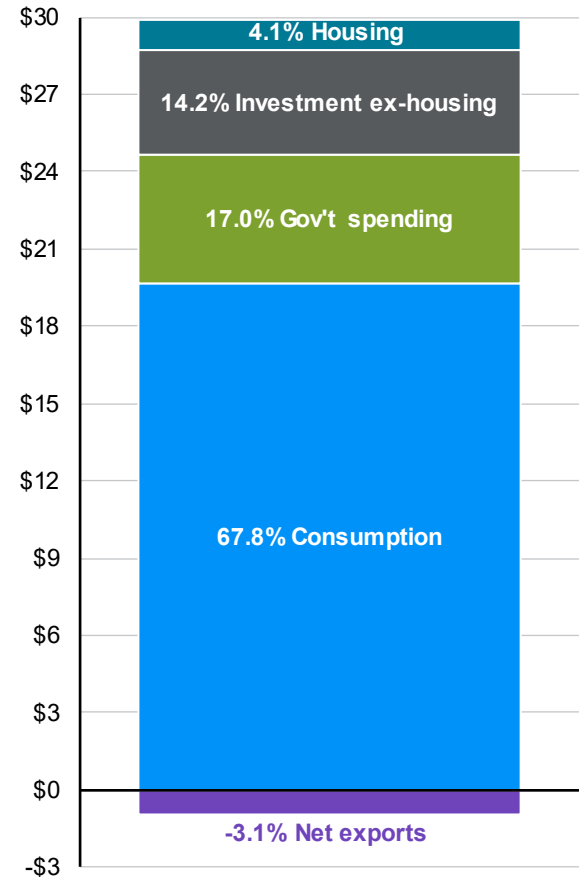
## Real GDP

Trillions of chained (2017) dollars, seasonally adjusted at annual rates



## Components of GDP

2Q24 nominal GDP, USD trillions

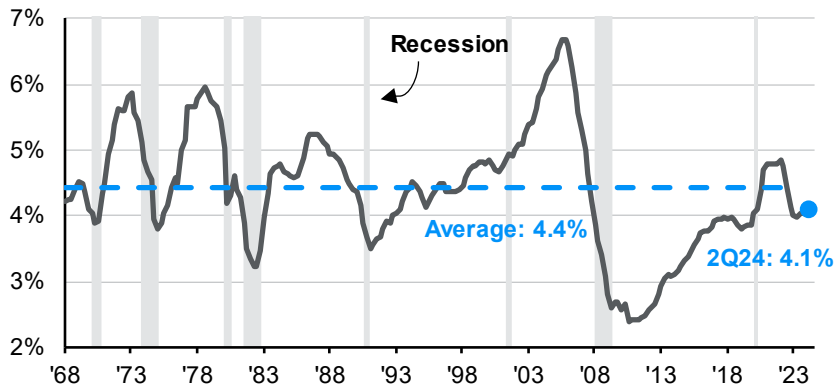


Source: BEA, FactSet, J.P. Morgan Asset Management. Values may not sum to 100% due to rounding. Trend growth is measured as the average annual growth rate from business cycle peak 1Q01 to business cycle peak 4Q19.  
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# Cyclical Sectors

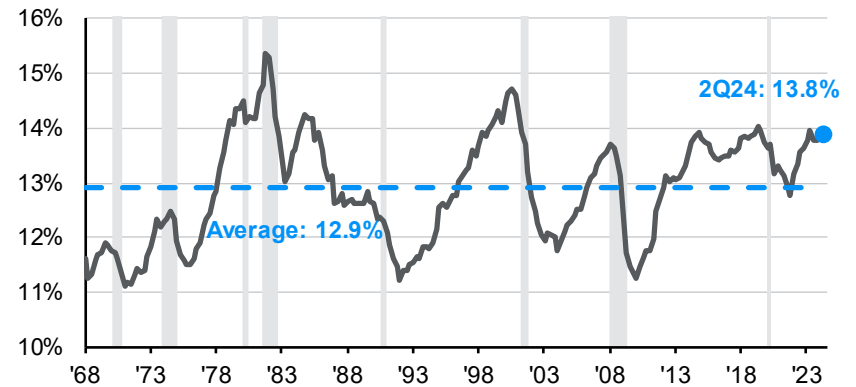
## Residential investment as a % of GDP

Quarterly, seasonally adjusted



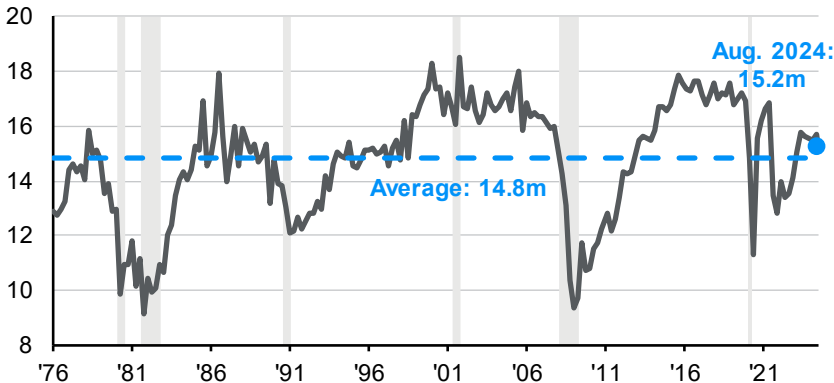
## Business fixed investment as a % of GDP

Quarterly, seasonally adjusted



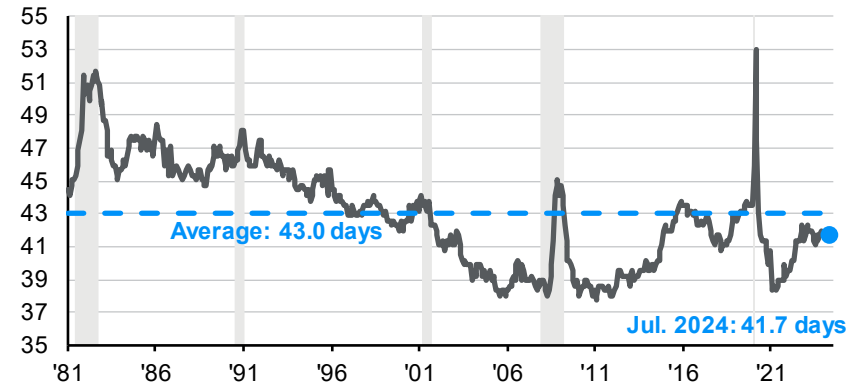
## Light vehicle sales

Mil vehicles, seasonally adjusted ann. rate



## Total business inventory/sales ratio

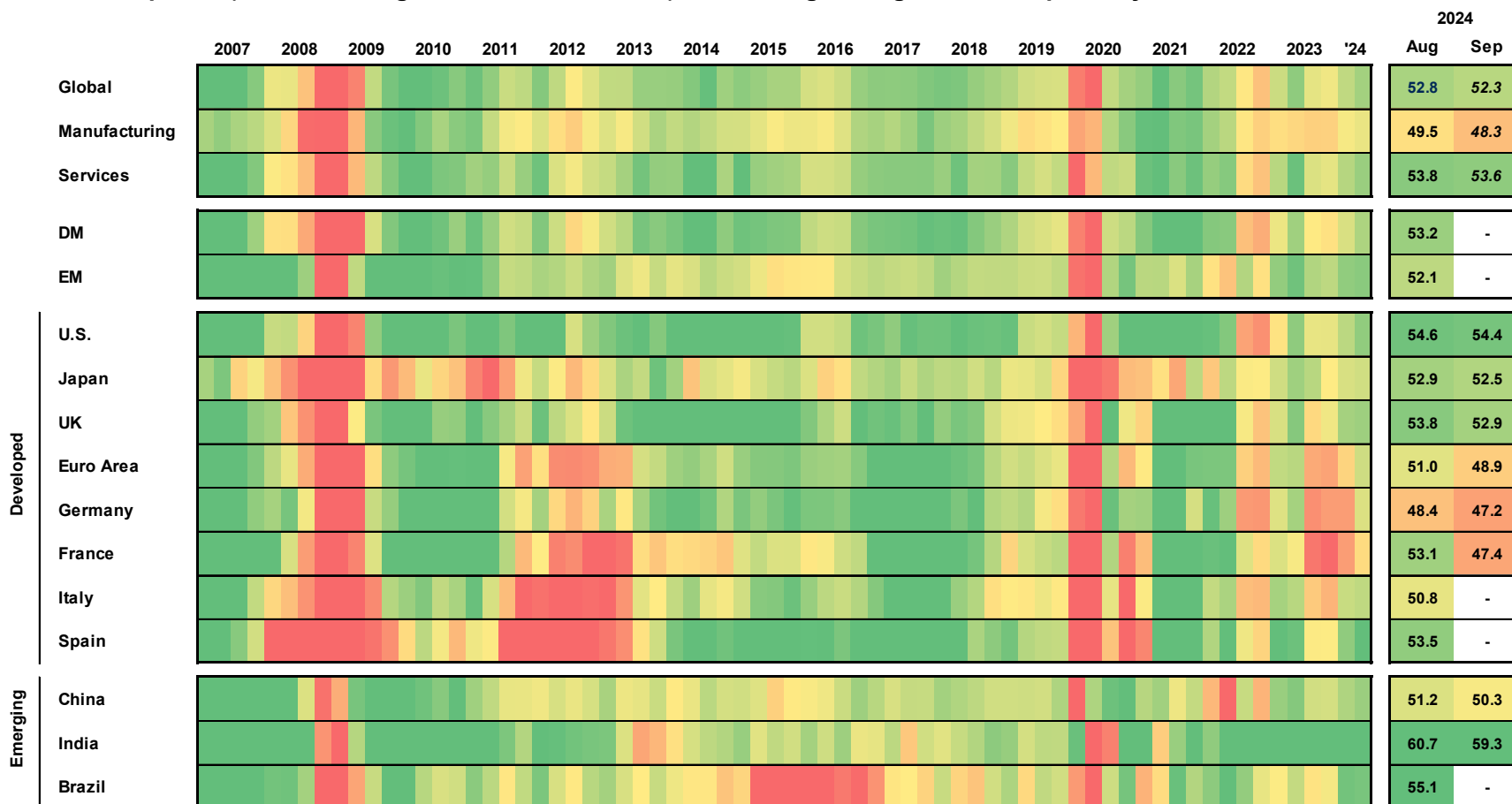
Days of sales, monthly, seasonally adjusted



Source: BEA, Census Bureau, FactSet, J.P. Morgan Asset Management. Data for light vehicle sales is quarterly apart from the latest monthly data point.  
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# Global Economic Activity Momentum

Global Composite (manufacturing & services combined) Purchasing Managers' Index, quarterly



Source: J.P. Morgan Economic Research, Standard & Poor's, J.P. Morgan Asset Management.

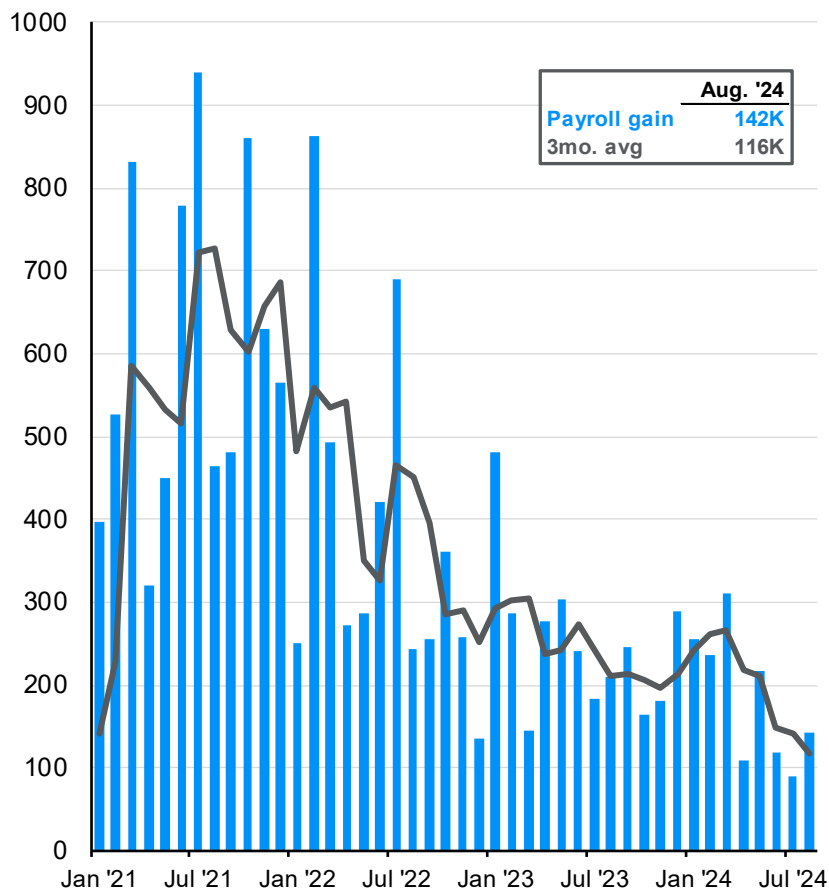
Italicized figures are estimates by J.P. Morgan Asset Management. The Composite PMI includes both manufacturing and services sub-indices. Heatmap colors are based on PMI relative to the 50 level, which indicates acceleration or deceleration of the sector, for the time period shown. Heatmap is based on quarterly averages, except for the two most recent figures, which are single month readings. Data for the U.S. are back-tested and filled in for 2007-2009. Data for Japan are back-tested and filled in for the first two quarters of 2007. DM and EM represent developed markets and emerging markets, respectively.

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# Labor Supply

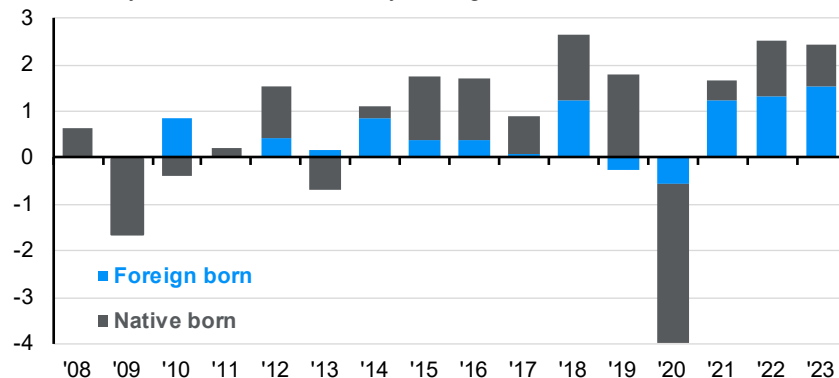
## Nonfarm payroll gains

Month-over-month change and 3mo. moving average, SA



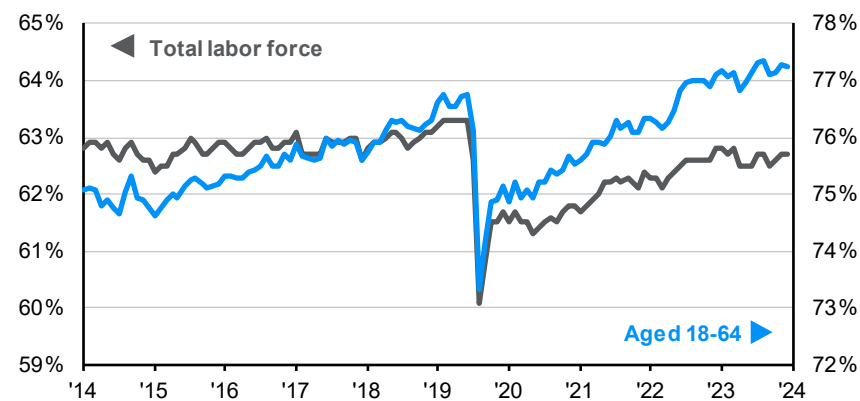
## Labor force growth, native and immigrant contribution

Year-over-year difference, end of year, aged 16+, millions



## Labor force participation

% of civilian noninstitutional population, SA



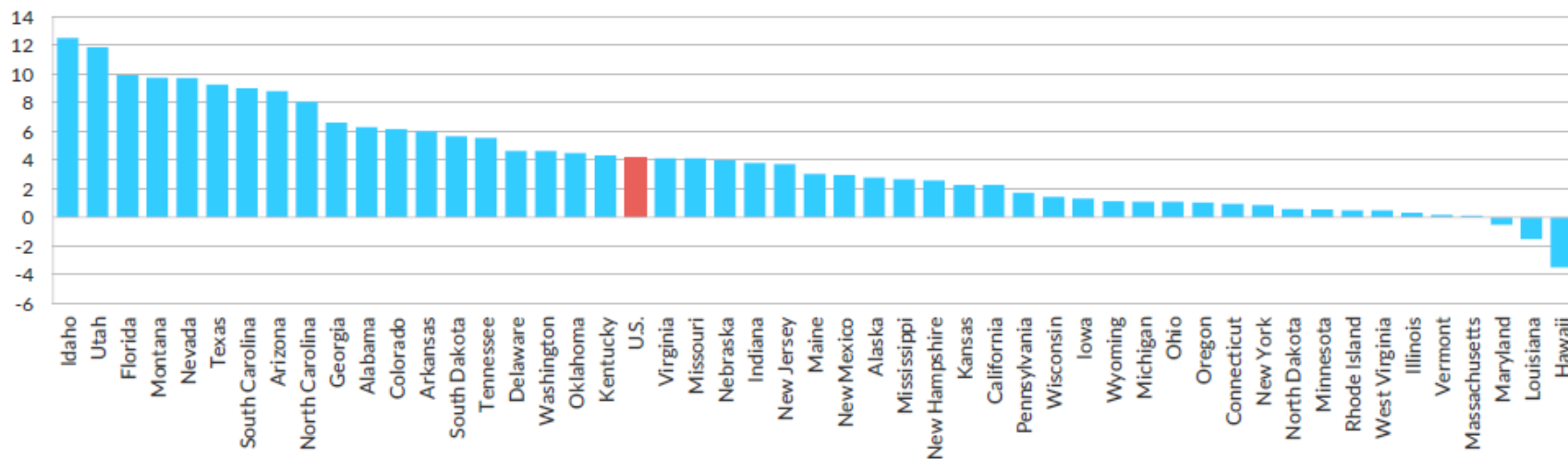
Source: BLS, FactSet, J.P. Morgan Asset Management.

Labor force data are sourced from the Current Population Survey, also known as the household survey, conducted by the BLS. This survey does not ask respondents about immigration status and may include undocumented workers, although it likely undercounts the undocumented population.  
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# Labor Market

## U.S. States Job Growth

(% Difference from February 2020, through July 2024)

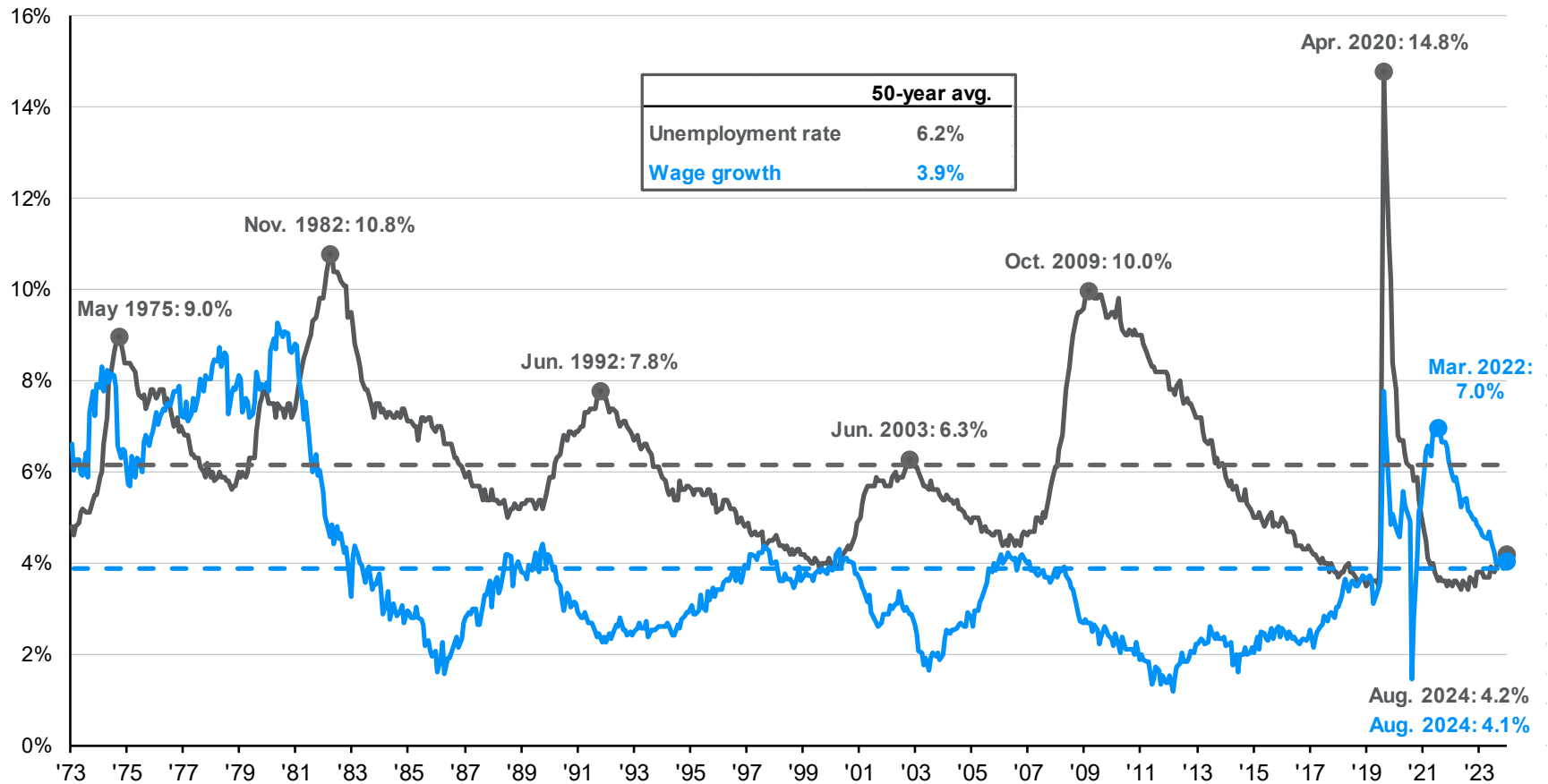


Source: Fitch Ratings

# Unemployment and Wages

## Civilian unemployment rate and year-over-year wage growth

Private production and non-supervisory workers, seasonally adjusted, percent

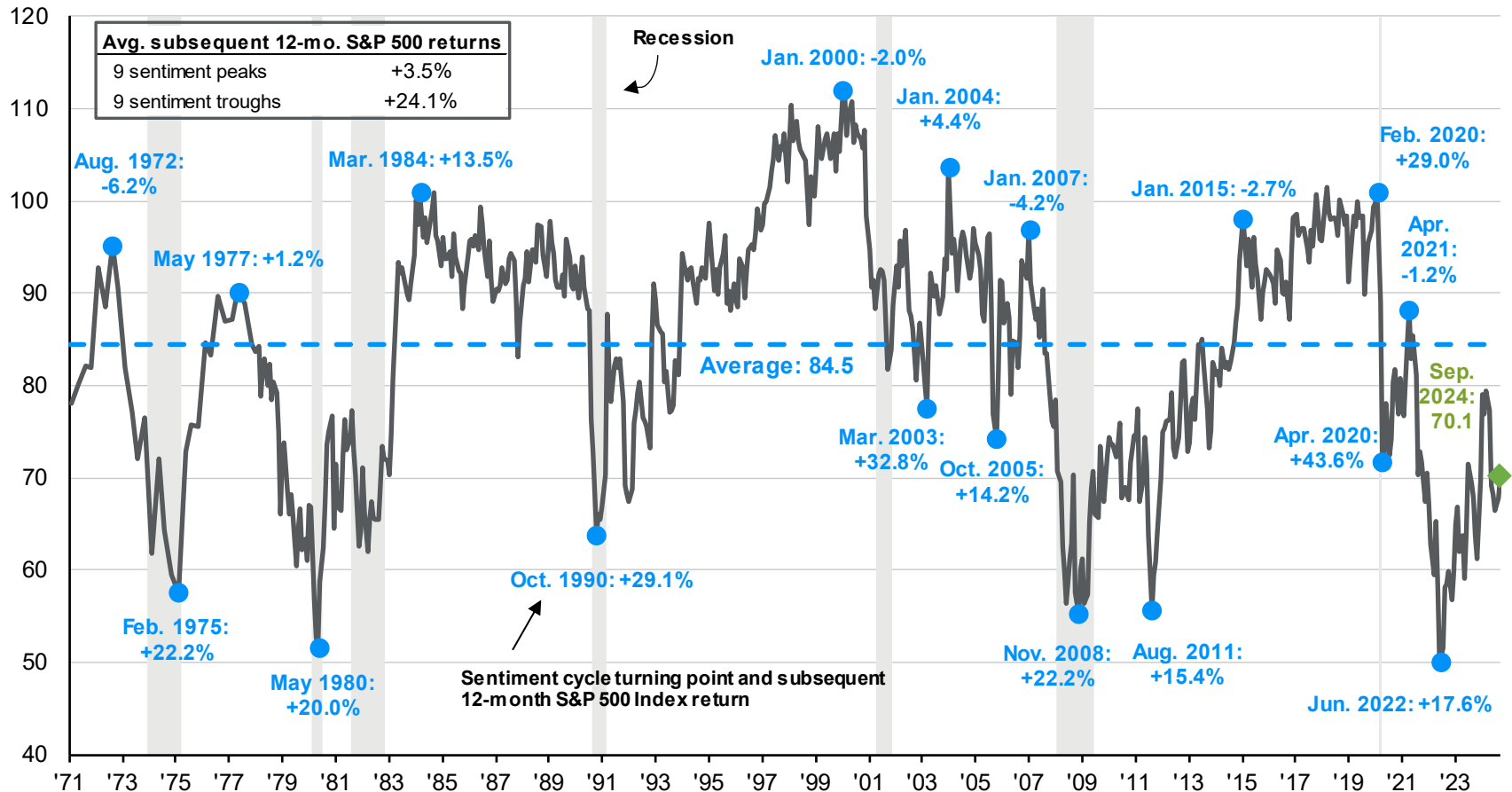


Source: BLS, FactSet, J.P. Morgan Asset Management. Private production and non-supervisory jobs represent just over 80% of total private nonfarm jobs.  
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# Consumer Confidence and the Stock Market

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

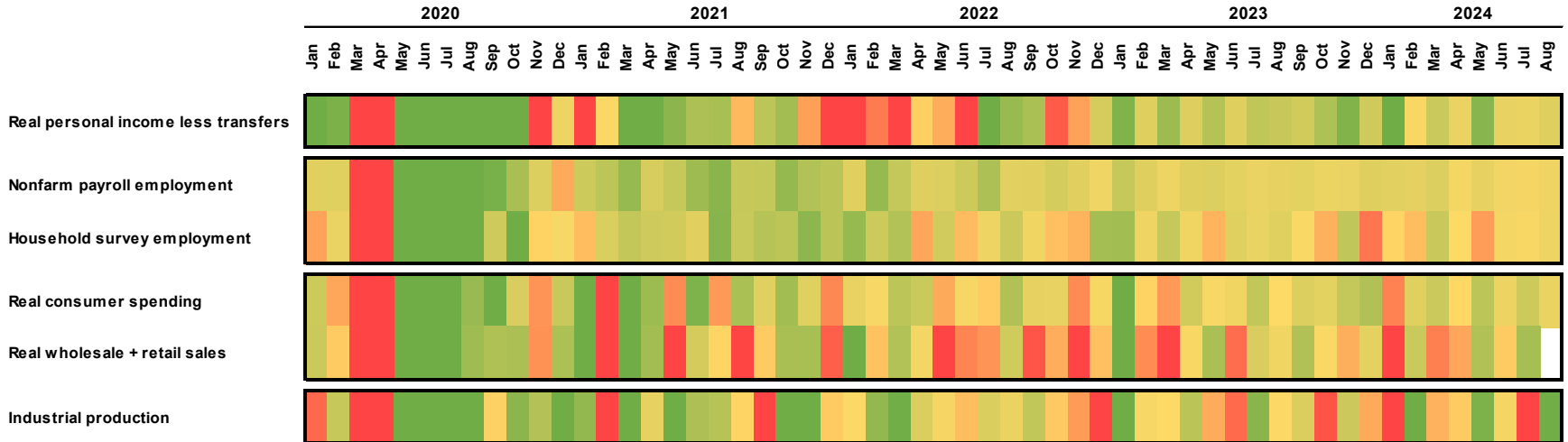


Source: FactSet, Standard & Poor's, University of Michigan, J.P. Morgan Asset Management.  
 Peak is defined as the highest index value before a series of lower lows, while a trough is defined as the lowest index value before a series of higher highs.  
 Subsequent 12-month S&P 500 returns are price returns only starting from the end of the month and excluding dividends. Past performance is not a reliable indicator of current and future results.  
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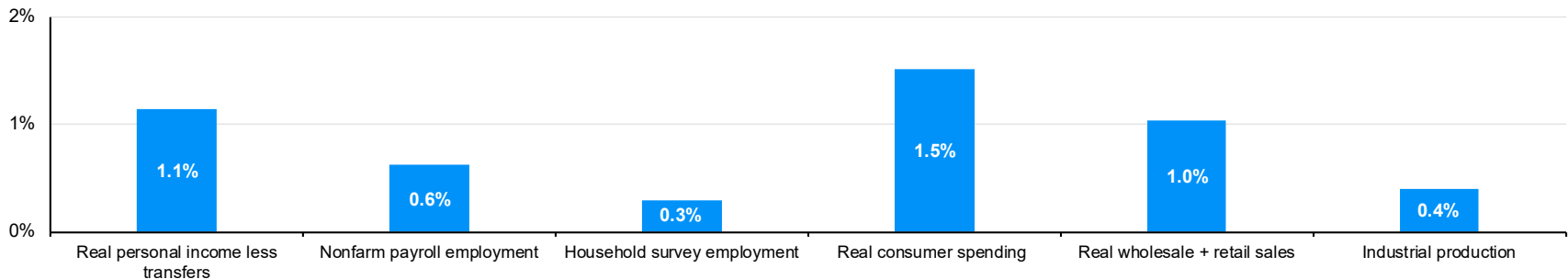
# Recession Determinants

## Variables used by the NBER in making recession determination\*

% change month-over-month



% change, last six months

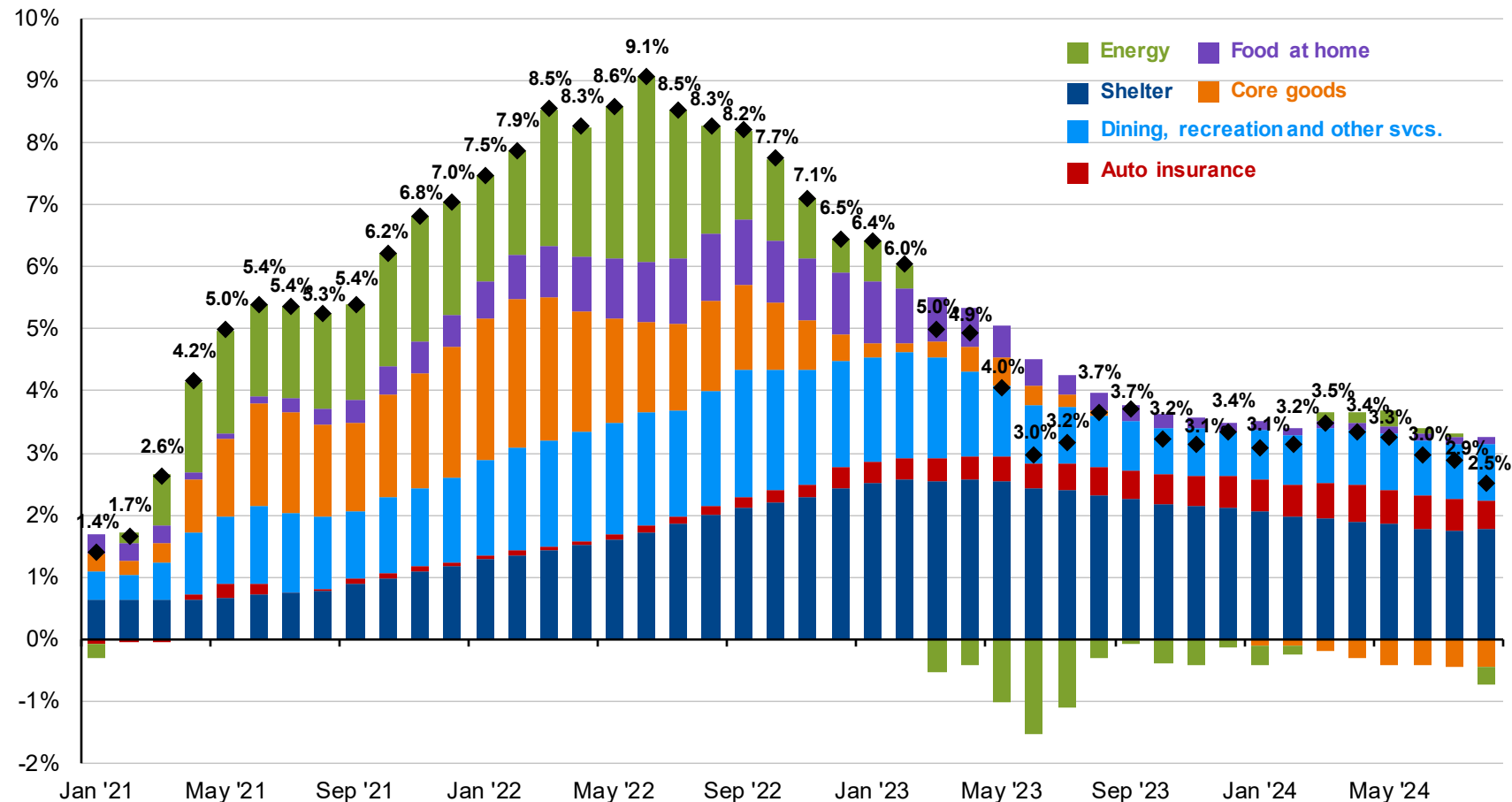


Source: BEA, BLS, Census Bureau, NBER, J.P. Morgan Asset Management. Heatmap shading based on data back to 2020, with green and red reflecting a range of +/- 0.5 standard deviations from a baseline of 0% monthly growth. \*The NBER's definition of a recession involves a significant decline in economic activity that is spread across the economy and lasts more than a few months. Specifically, they consider real personal income less transfers, nonfarm payroll employment, employment as measured by the household survey, real personal consumption expenditures, wholesale-retail sales adjusted for price changes and industrial production. There is no fixed rule about which measures contribute to the process or how they are weighted, but the committee notes that "in recent decades, the two measures we have put the most weight on are real personal income less transfers and nonfarm payroll employment." *Guide to the Markets – U.S.* Data are as of September 30, 2024.

# Inflation Components

## Contributors to headline CPI inflation

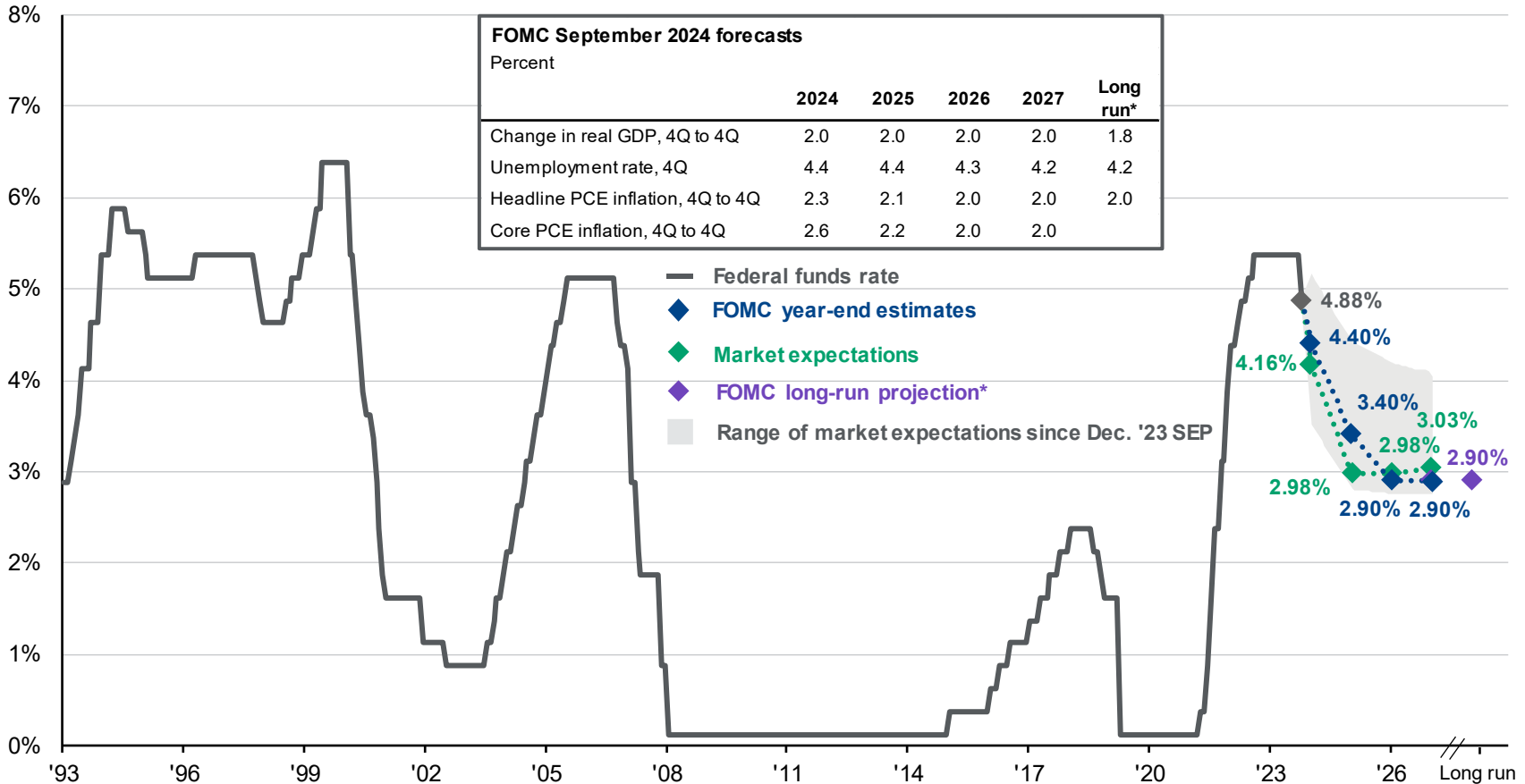
Contribution to y/y % change in CPI, non-seasonally adjusted



# The Fed and Interest Rates

## Federal funds rate expectations

FOMC and market expectations for the federal funds rate



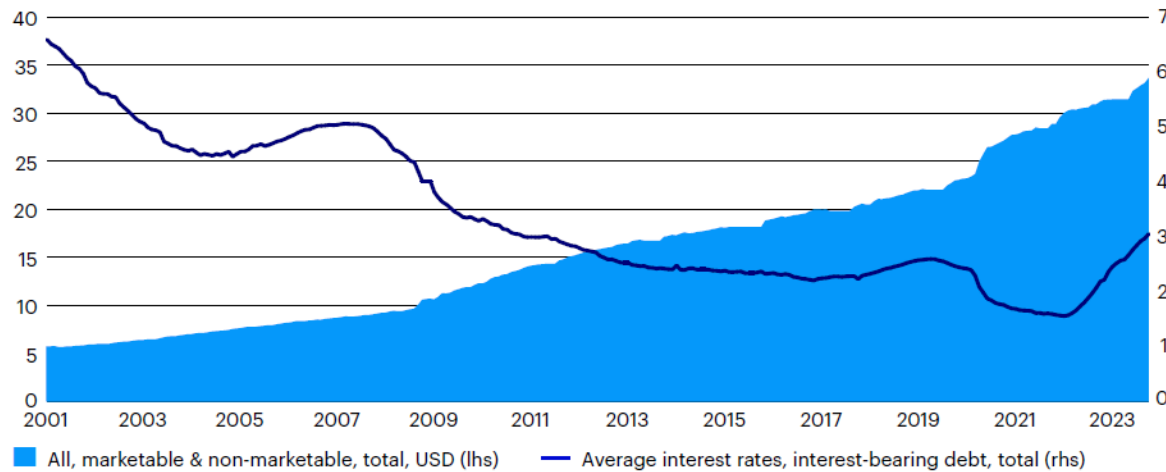
Source: Bloomberg, FactSet, Federal Reserve, J.P. Morgan Asset Management.

Market expectations are based off of USD Overnight Index Swaps. \*Long-run projections are the rates of growth, unemployment and inflation to which a policymaker expects the economy to converge over the next five to six years in absence of further shocks and under appropriate monetary policy. Forecasts are not a reliable indicator of future performance. Forecasts, projections and other forward-looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecasts, projections or other forward-looking statements, actual events, results or performance may differ materially from those reflected or contemplated.

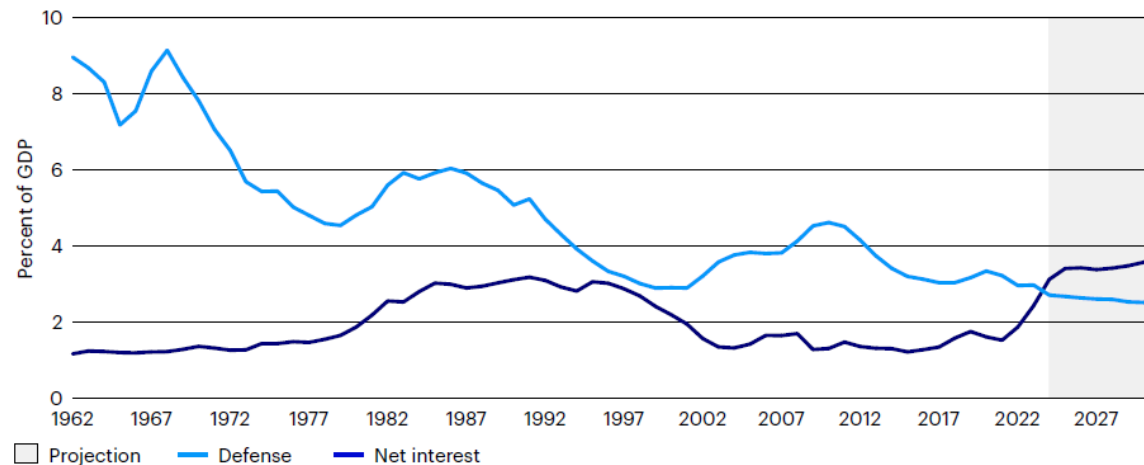
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# Interest Rate Environment

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



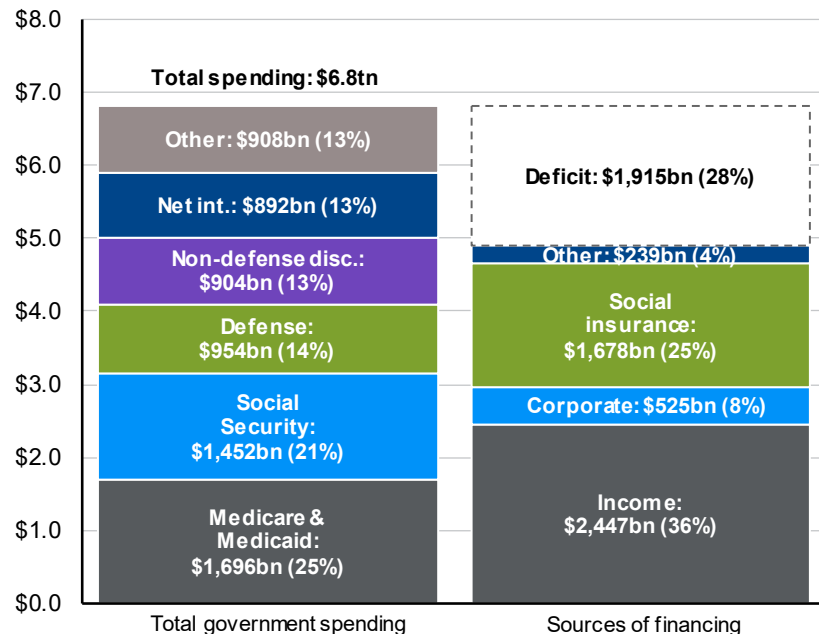
Net interest vs. defense spending, % of gross domestic product



# Federal Finances

## The 2024 federal budget

USD trillions

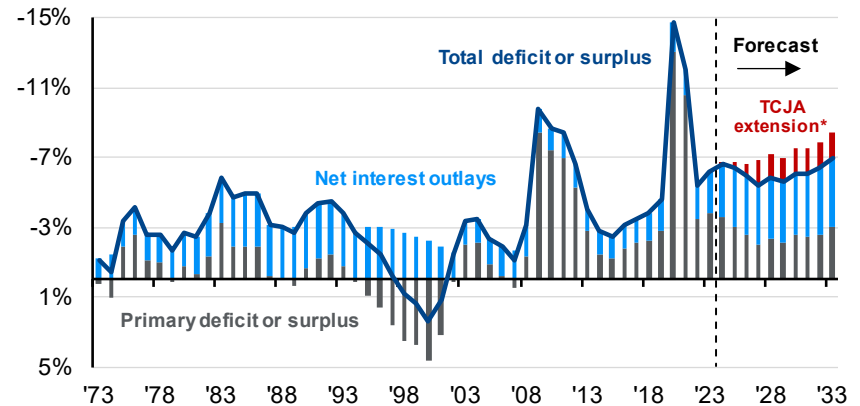


## CBO's Baseline economic assumptions

	2024	'25-'26	'27-'28	'29-'34
Real GDP growth	2.9%	2.0%	1.7%	1.8%
10-year Treasury	4.5%	4.0%	3.6%	4.0%
Headline inflation (CPI)	3.2%	2.4%	2.2%	2.2%
Unemployment	3.8%	4.0%	4.3%	4.5%

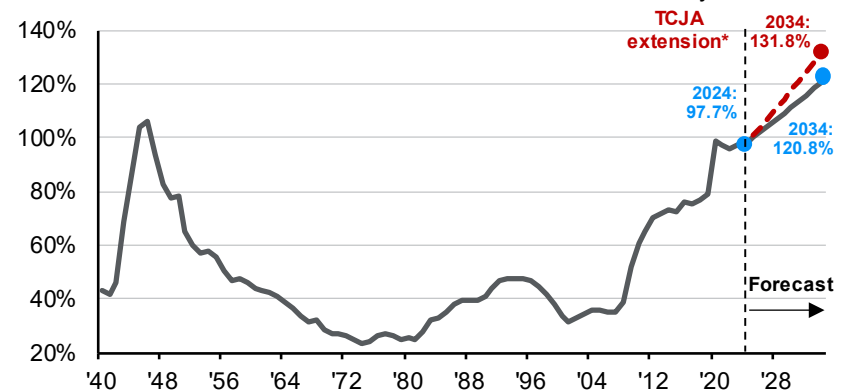
## Federal deficit and net interest outlays

% of GDP, 1973-2034, CBO Baseline Forecast



## Federal net debt (accumulated deficits)

% of GDP, 1940-2034, CBO Baseline Forecast, end of fiscal year

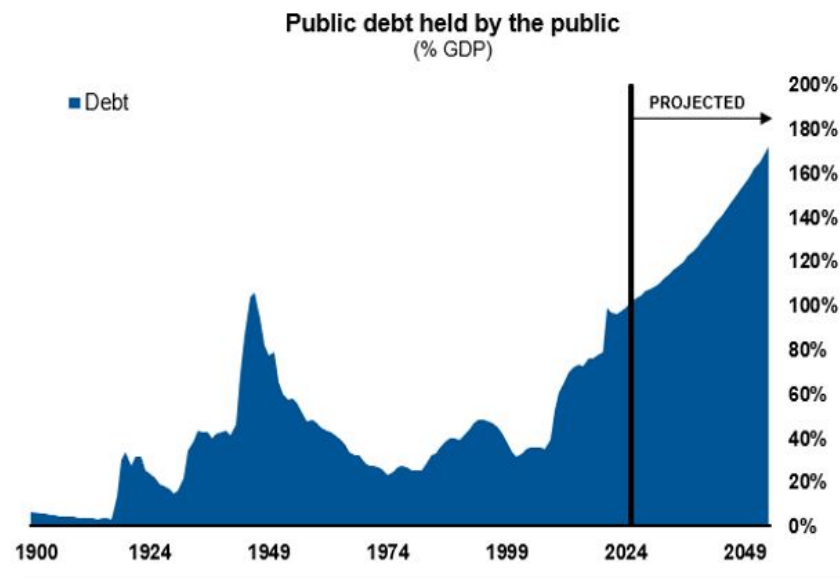
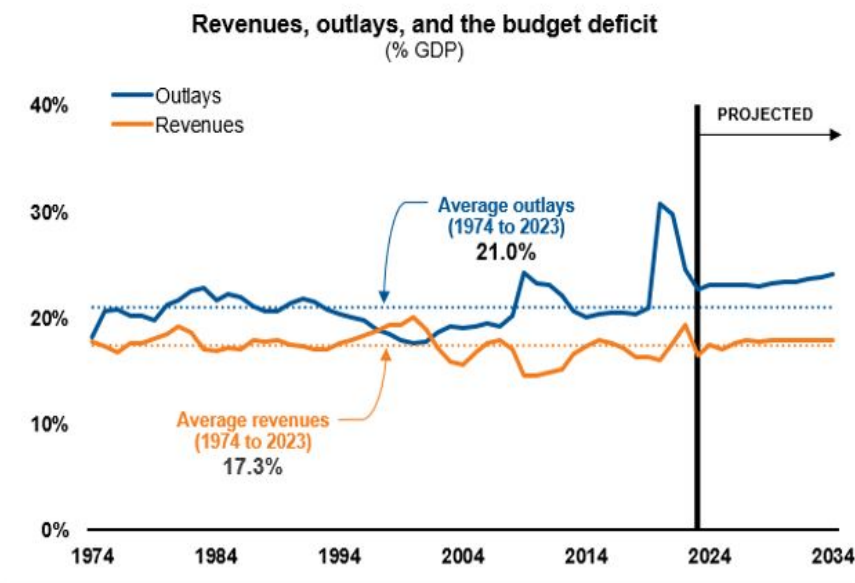


Source: CBO, J.P. Morgan Asset Management; (Left) Numbers may not sum to 100% due to rounding; (Top and bottom right) BEA, Treasury Department. Estimates are from the Congressional Budget Office (CBO) June 2024 An Update to the Budget Outlook: 2024 to 2034. "Other" spending includes, but is not limited to, health insurance subsidies, income security and federal civilian and military retirement. Years shown are fiscal years. \*Adjusted by JPMAM to include estimates from the CBO May 2024 report "Budgetary Outcomes Under Alternative Assumptions About Spending and Revenues" on the extension of TCJA provisions. Forecasts are not a reliable indicator of future performance. Forecasts, projections and other forward-looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecasts, projections or other forward-looking statements, actual events, results or performance may differ materially from those reflected or contemplated.

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# Deficits, Debts and Taxes

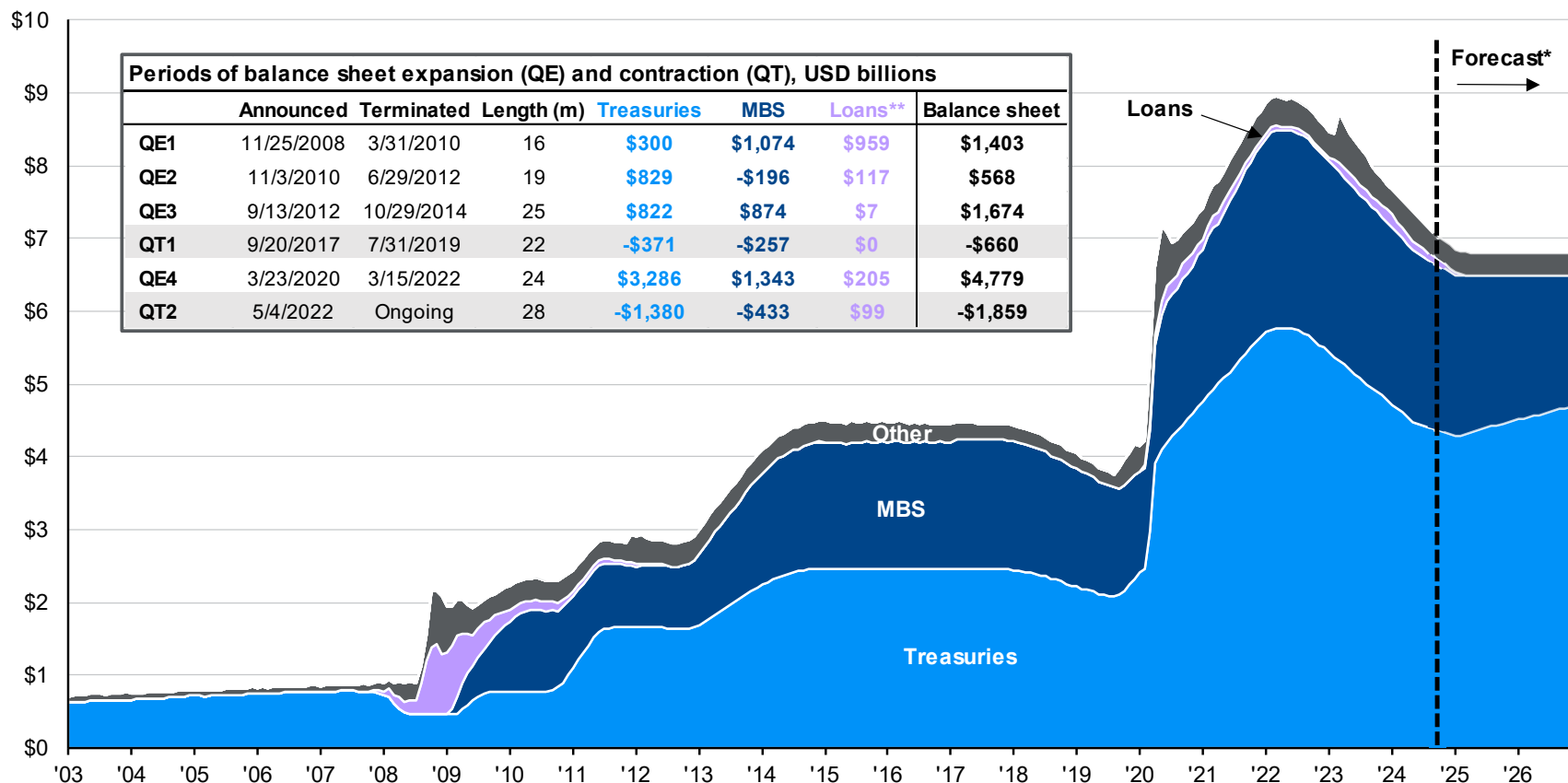
More revenue generation likely necessary in the future



# The Federal Reserve Balance Sheet

## The Federal Reserve balance sheet

USD trillions



Source: FactSet, Federal Reserve, J.P. Morgan Investment Bank, J.P. Morgan Asset Management.

Total Fed assets represents total assets on the Federal Reserve's balance sheet excluding eliminations from consolidation. \*The Federal Reserve began balance sheet run-off (quantitative tightening) in June 2022. Beginning in June 2024, the committee slowed the pace of QT to a cap of \$25bn for Treasuries and \$35bn for MBS. The forecast assumes this pace is maintained through January 2025. Thereafter, we assume the committee will conclude QT and purchase securities in the amount to keep the balance sheet level. We also assume the committee will allow MBS securities to continue to mature and reinvest maturing MBS and Treasuries into Treasury only securities to maintain a stable balance sheet. The forecast does not include the active selling of securities from the committee.

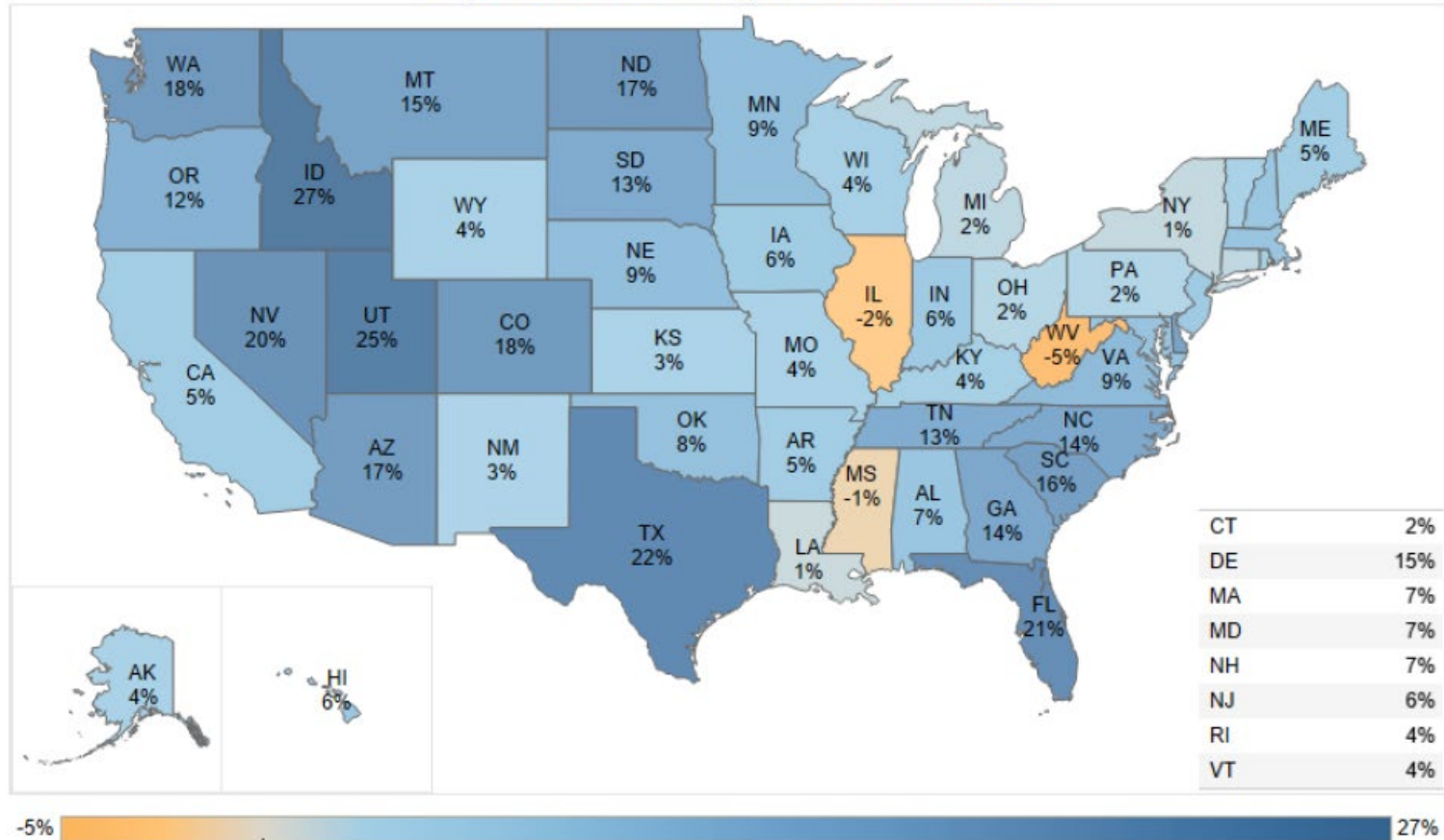
\*\*Loans include liquidity and credit extended through facilities established as a result of a financial or systemic crisis. Loan amount in the table represents the peak facility usage on the Fed's balance sheet during the defined periods of quantitative easing, the minimum facility usage during periods of quantitative tightening and facility usage at the most recent month-end for the current period. Other includes primary, secondary and seasonal loans, other credit extensions, repurchase agreements, foreign currency reserves, liquidity swaps, gold and other assets. Forecasts are not a reliable indicator of future performance. Forecasts, projections and other forward-looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Analysis is based on month-end data.

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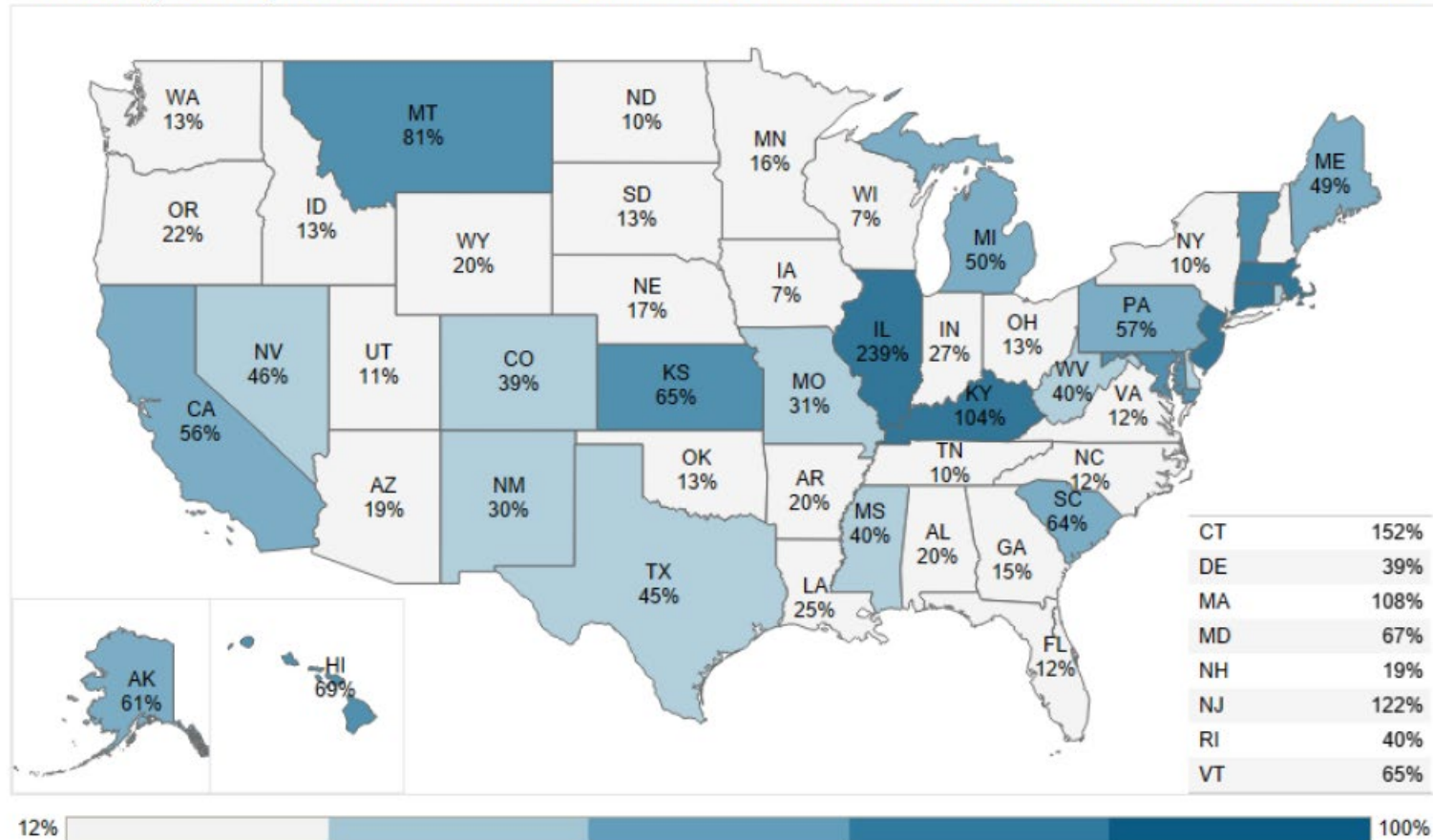
# State Demographics

## Population Change: 2010 to 2024



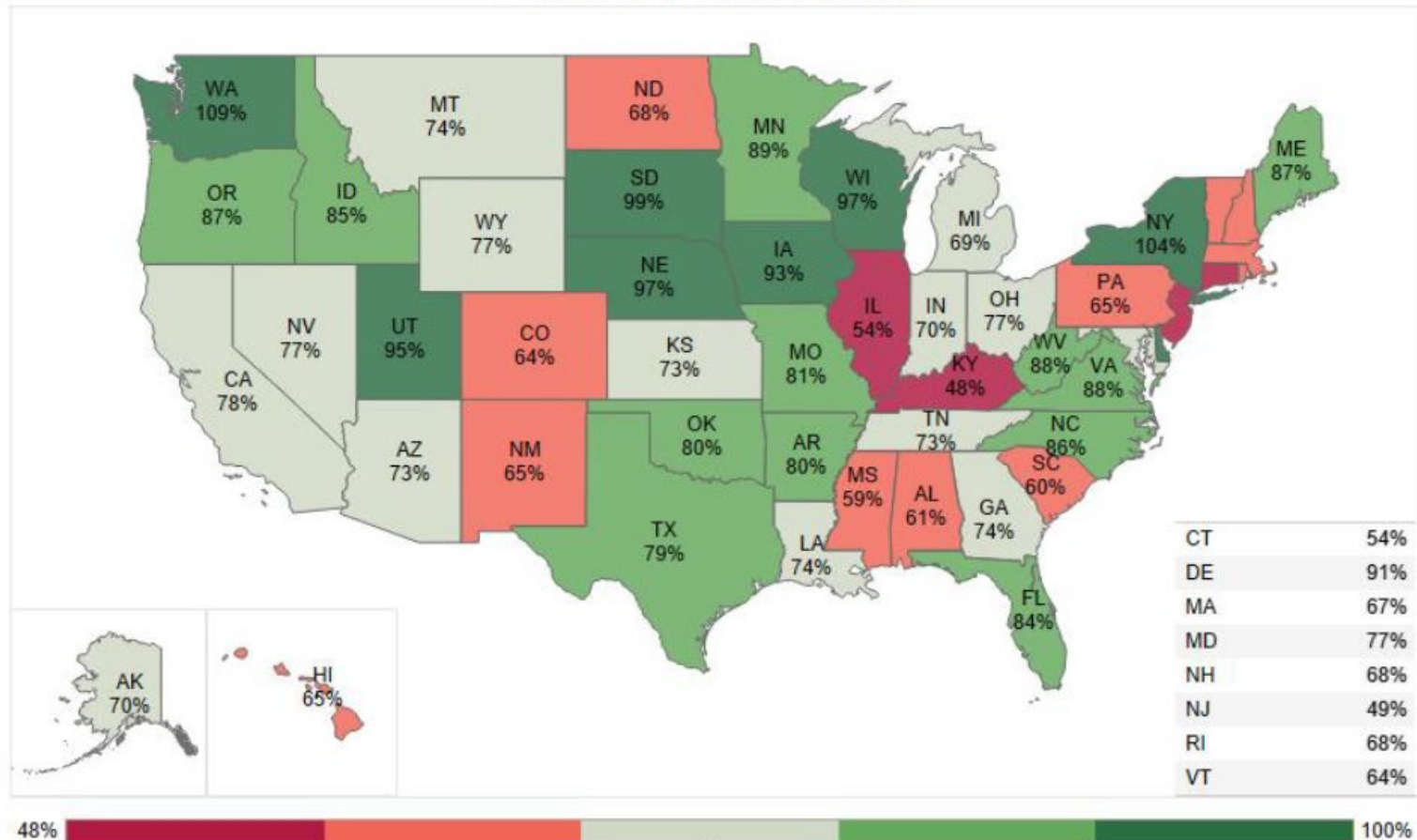
# Pension Liabilities

## Moody's Adjusted Net Pension Liabilities as % of Government Revenue



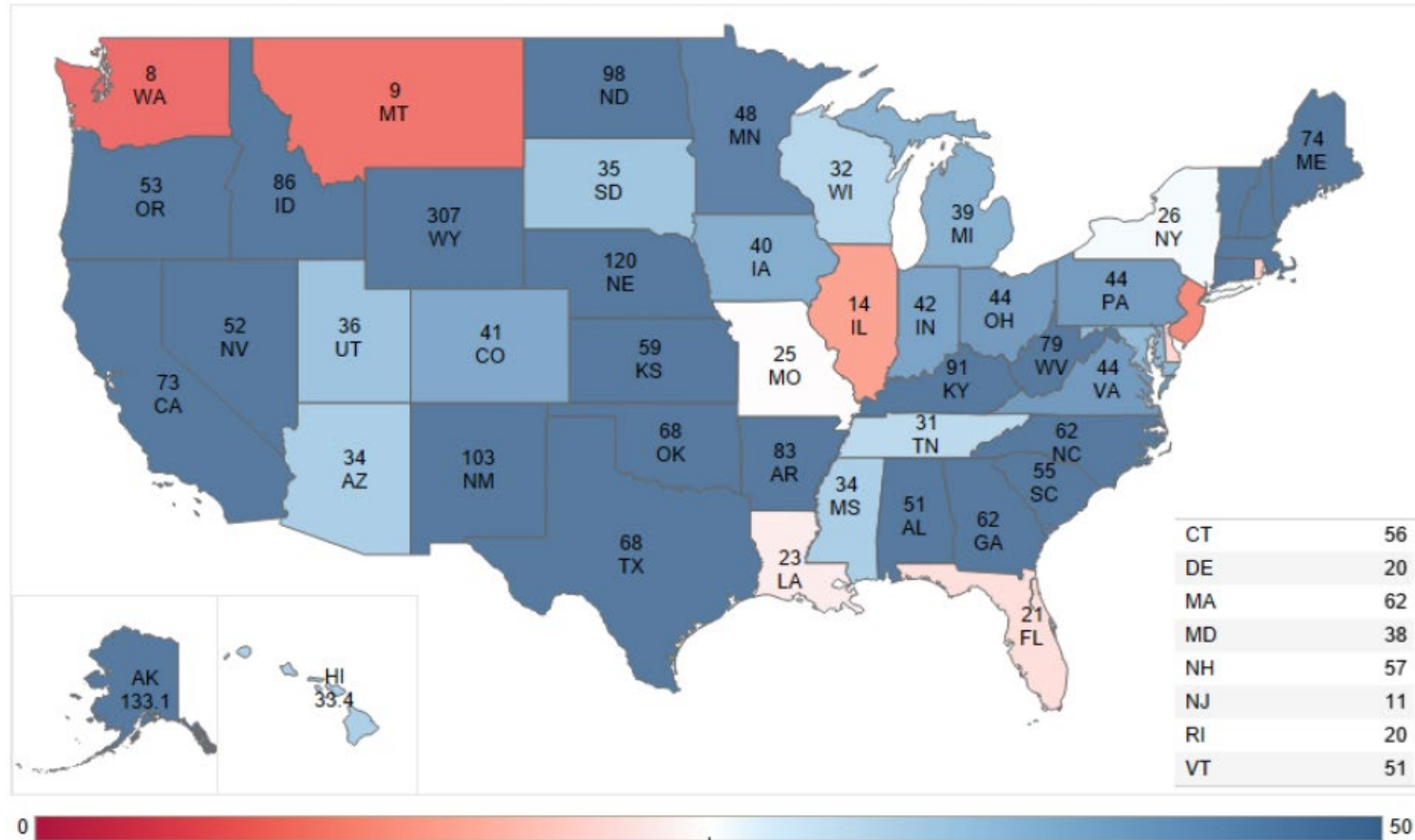
# State Pension Deficit

Pension Funded Ratio<sup>6</sup>



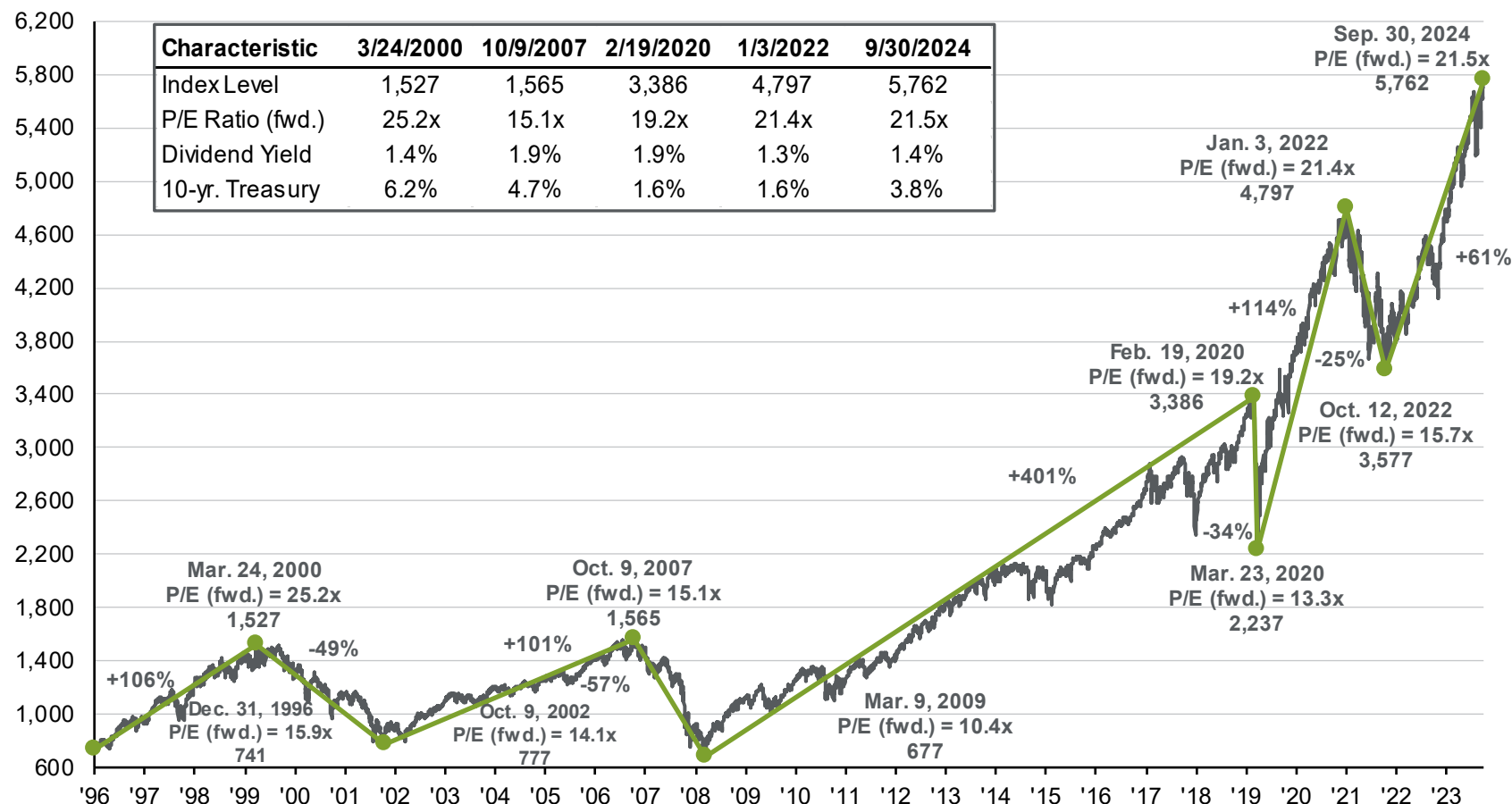
# State Coffers

Days Each State Could Run on Only Rainy Day Funds<sup>7</sup>



# S&P 500 Index at Inflection Points

## S&P 500 Price Index



Source: Compustat, FactSet, Federal Reserve, Refinitiv Datastream, Standard & Poor's, J.P. Morgan Asset Management.

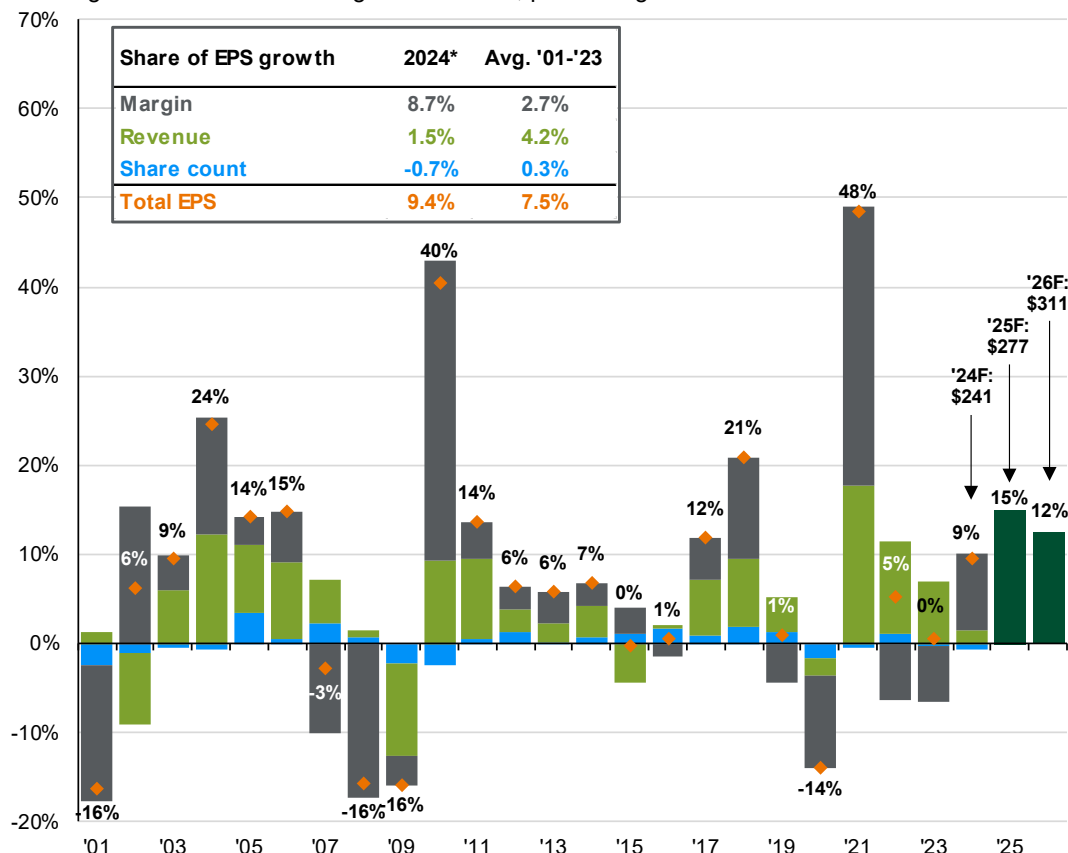
Dividend yield is calculated as consensus estimates of dividends for the next 12 months, divided by most recent price, as provided by Compustat. Forward price-to-earnings ratio is a bottom-up calculation based on IBES estimates and FactSet estimates since January 2022. Returns are cumulative and based on S&P 500 Index price movement only, and do not include the reinvestment of dividends. Past performance is not indicative of future returns.

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# Sources of Earnings Growth and Profit Margins

## S&P 500 year-over-year pro-forma EPS growth

Annual growth broken into changes in revenue, profit margin and share count



## S&P 500 profit margins

Quarterly earnings/sales



Source: Compustat, FactSet, Standard & Poor's, J.P. Morgan Asset Management.

Historical EPS levels are based on annual pro-forma earnings per share. \*2024, 2025 and 2026 EPS growth are based on consensus analyst estimates for each calendar year. Past performance is not indicative of future returns.

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# Magnificent 7 Performance and Earnings Dynamics

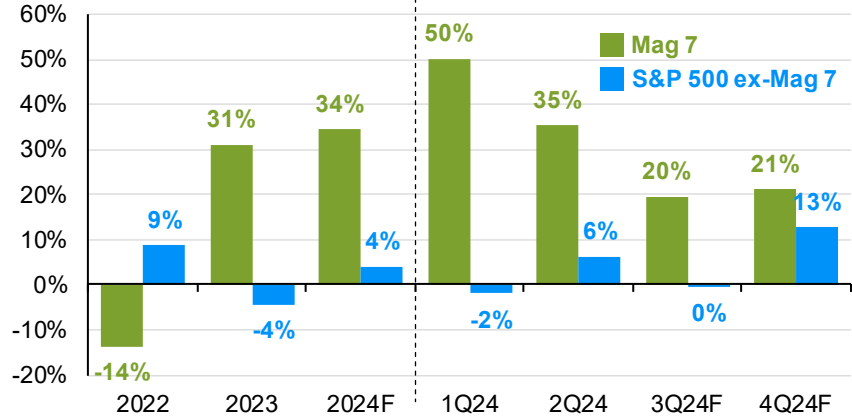
## Performance of “Magnificent 7” stocks in S&P 500\*

Indexed to 100 on 1/1/2021, price return



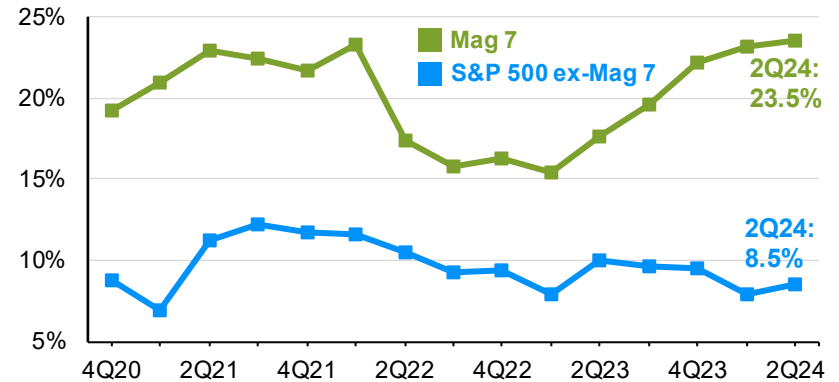
## Earnings growth

Pro-forma EPS, y/y



## Profit margins

Quarterly earnings/sales



Source: FactSet, Standard & Poor's, J.P. Morgan Asset Management.

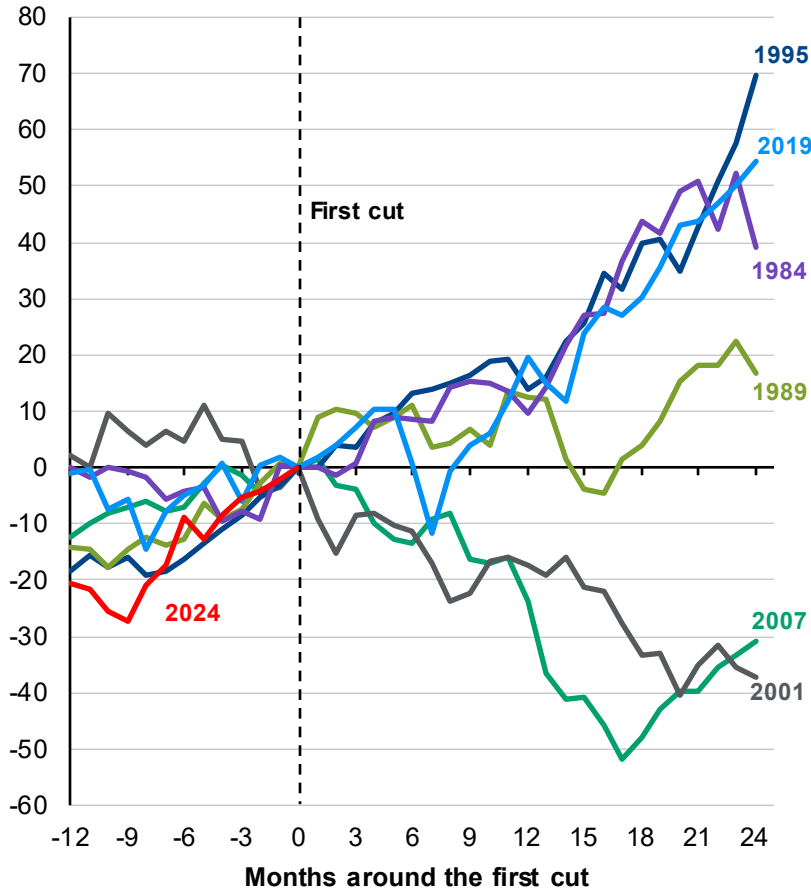
\*Magnificent 7 includes AAPL, AMZN, GOOG, GOOGL, META, MSFT, NVDA and TSLA. Earnings estimates for 2024 are forecasts based on consensus analyst expectations. \*\*Share of returns represent how much each group contributed to the overall return. Numbers are always positive despite negative performance in 2022.

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# Market Returns Around the Start of Fed Cutting Cycles

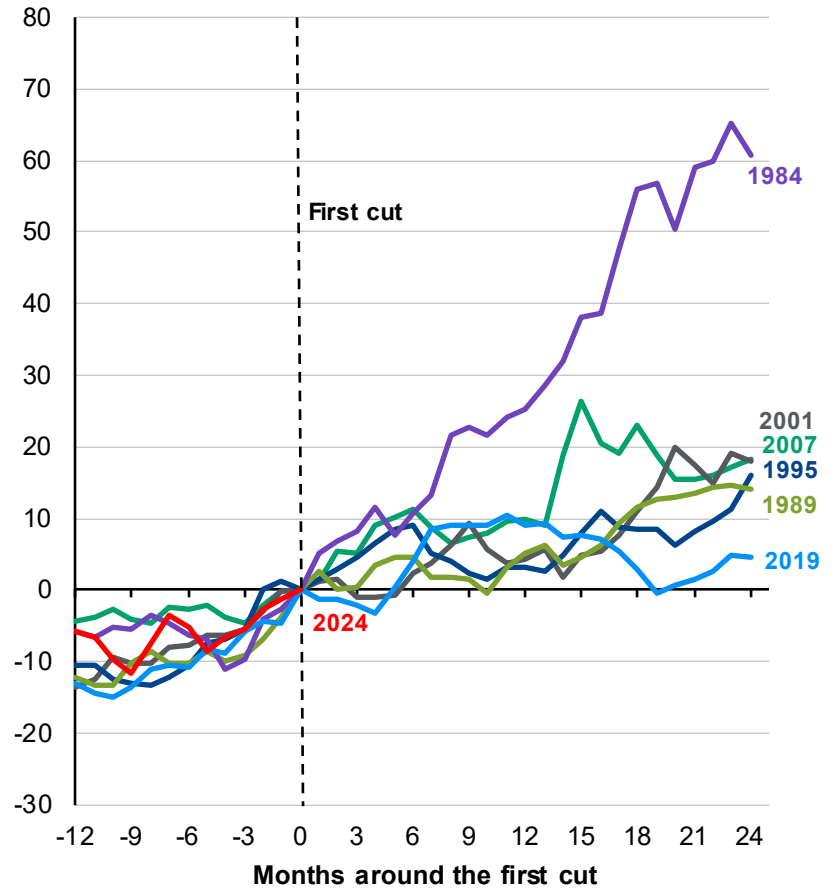
## S&P 500 returns around the start of Fed cutting cycles

%, price return, indexed to zero at the first cut



## U.S. 10-yr returns around the start of Fed cutting cycles

%, total return, indexed to zero at the first cut



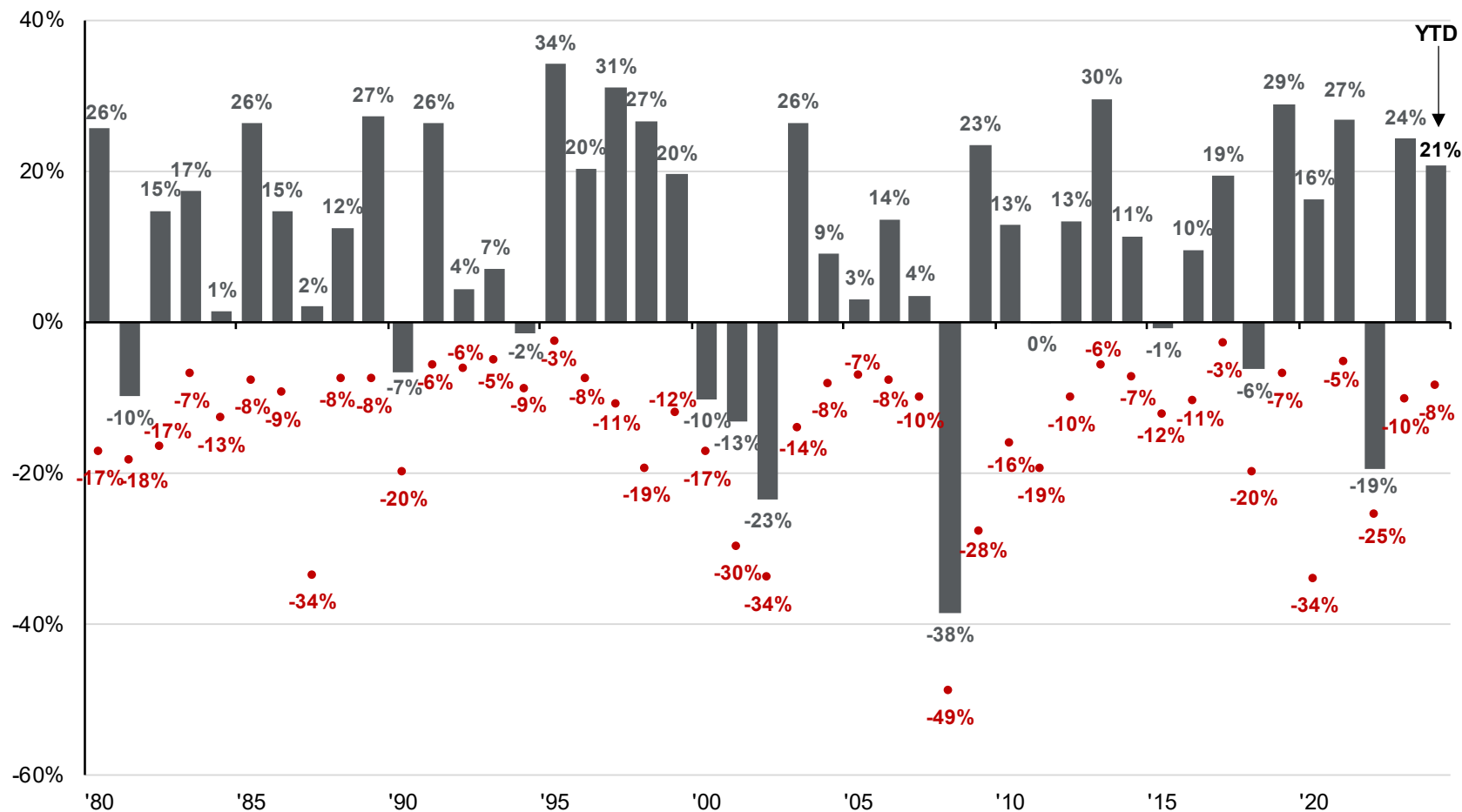
Source: FactSet, Federal Reserve, LSEG Datastream, S&P Global, J.P. Morgan Asset Management. Past performance is not a reliable indicator of current and future results. Excludes 1998 episode due to the short length of the cutting cycle and economic context for the cuts.  
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# Annual Returns and Intra-Year Declines

## S&P intra-year declines vs. calendar year returns

Despite average intra-year drops of 14.2%, annual returns were positive in 33 of 44 years



Source: FactSet, Standard & Poor's, J.P. Morgan Asset Management.

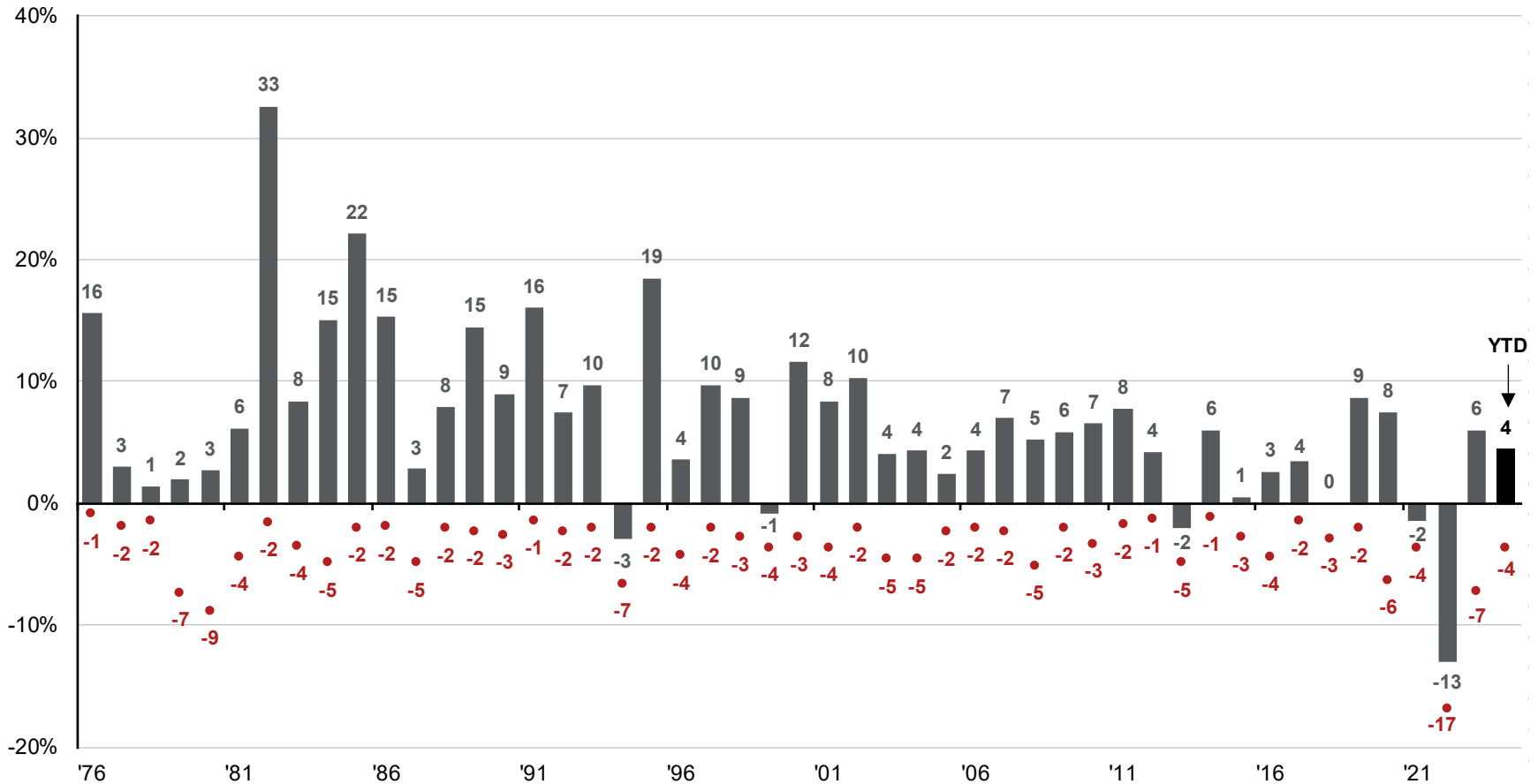
Returns are based on price index only and do not include dividends. Intra-year drops refers to the largest market drops from a peak to a trough during the year. For illustrative purposes only. Returns shown are calendar year returns from 1980 to 2023, over which time period the average annual return was 10.3%.

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# Bloomberg U.S. Agg. Annual Returns and Intra-Year Declines

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

Despite average intra-year drops of 3.5%, annual returns were positive in 43 of 48 years



Source: Bloomberg, FactSet, J.P. Morgan Asset Management.

Returns are based on total return. Intra-year drops refers to the largest market drops from a peak to a trough during the year. For illustrative purposes only. Returns shown are calendar year returns from 1976 to 2023, over which time period the average annual return was 6.6%. Returns from 1976 to 1989 are calculated on a monthly basis; daily data are used afterward.

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