



# Guide to the Markets<sup>®</sup>

U.S. | 4Q 2025

As of December 11, 2025



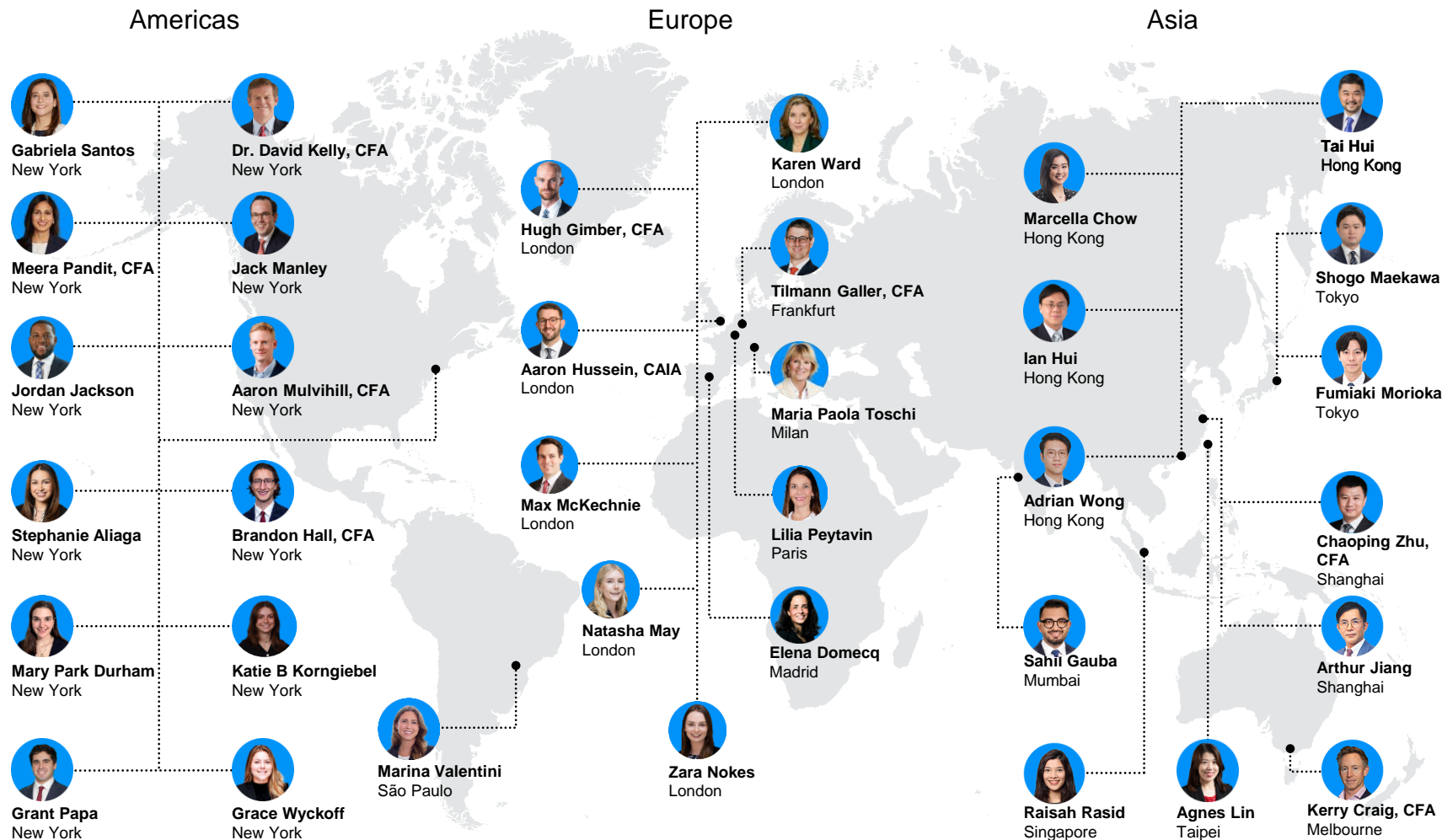


# Global Market Insights Strategy Team

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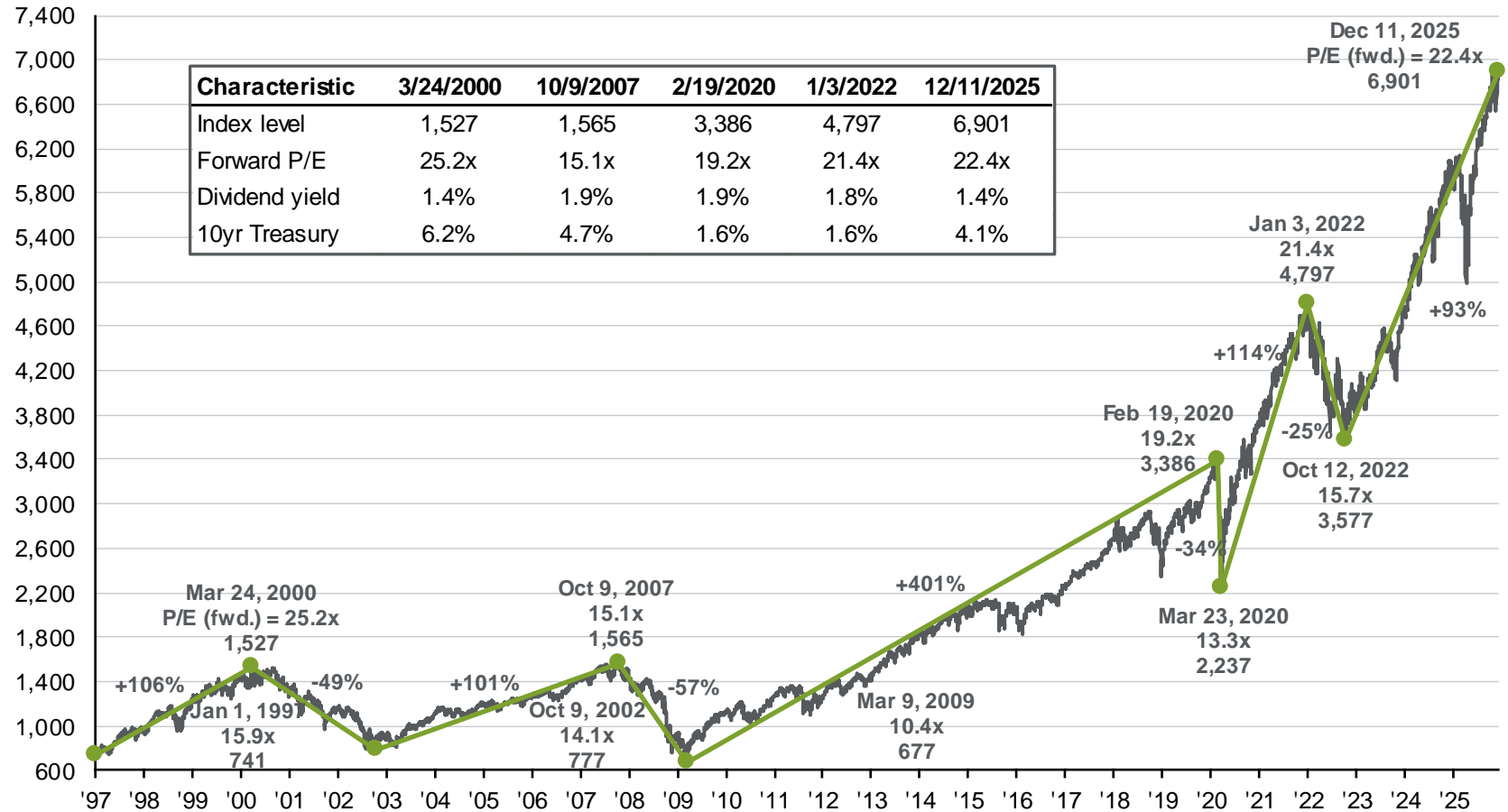
# S&P 500 index at inflection points

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## S&P 500 Price Index



Source: FactSet, Federal Reserve, Refinitiv Datastream, Standard & Poor's, J.P. Morgan Asset Management.  
Dividend yield is calculated as consensus analyst estimates of dividends in the next 12 months, provided by FactSet, divided by the most recent S&P 500 index price. Forward P/E ratio is the most recent S&P 500 index price divided by consensus estimates for earnings in the next 12 months, provided by IBES since January 1997 and FactSet since January 2022. Returns are cumulative and do not include the reinvestment of dividends. Past performance is no guarantee of future results.  
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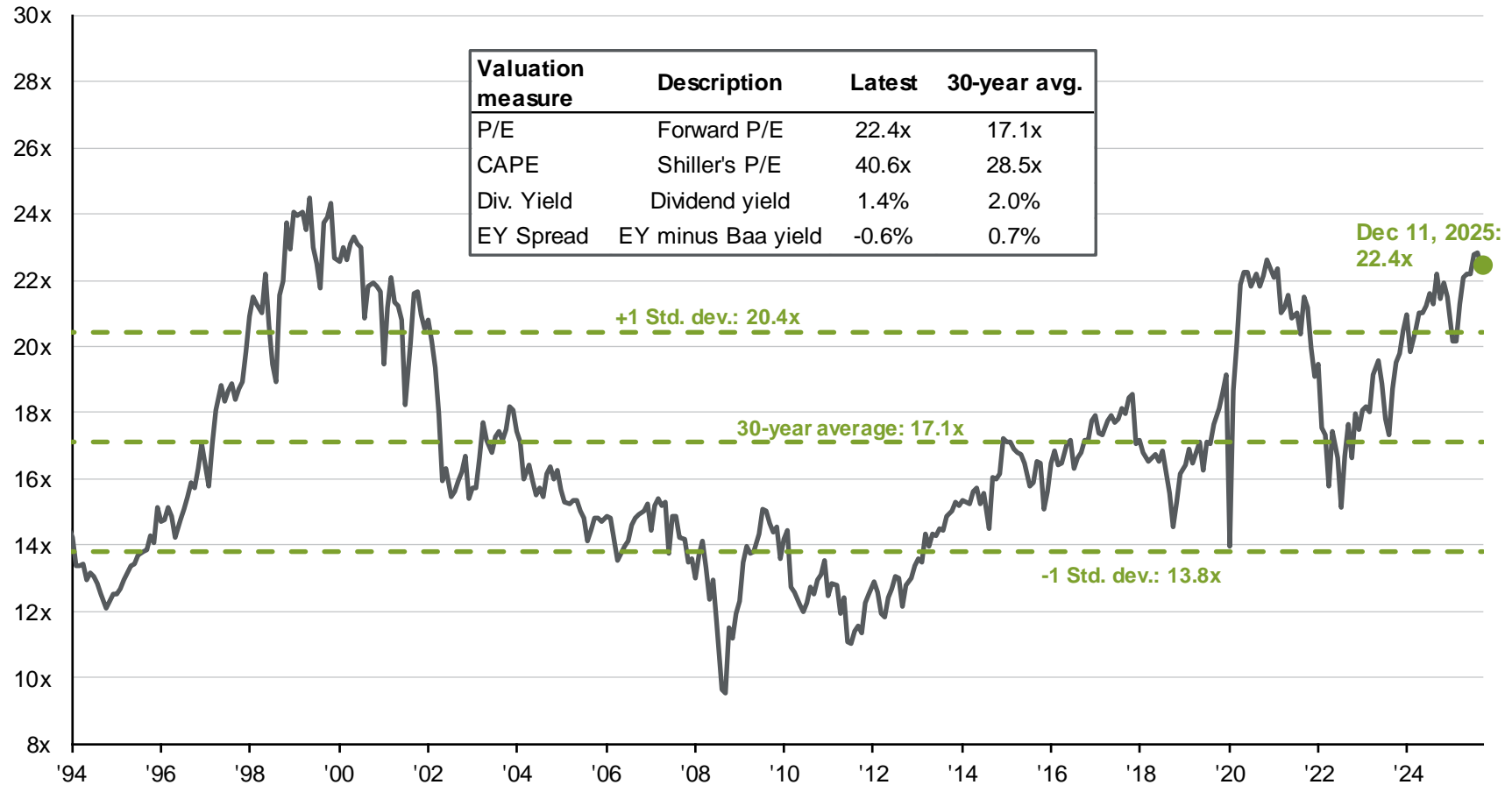
# S&P 500 valuation measures

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## S&P 500 index: Forward P/E ratio



Source: Bloomberg, FactSet, Moody's, Refinitiv Datastream, Robert Shiller, Standard & Poor's, J.P. Morgan Asset Management.

Forward P/E ratio is the most recent S&P 500 index price divided by consensus analyst estimates for earnings in the next 12 months, provided by IBES since March 1994 and FactSet since January 2022. Shiller's P/E uses trailing 10-years of inflation-adjusted earnings as reported by companies. Dividend yield is calculated as consensus estimates of dividends in the next 12 months, provided by FactSet, divided by the most recent S&P 500 index price. EY minus Baa yield is the forward earnings yield (the inverse of the forward P/E ratio) minus the Bloomberg U.S. corporate Baa yield since December 2008 and interpolated using the Moody's Baa seasoned corporate bond yield for values beforehand.

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# P/E ratios and equity returns

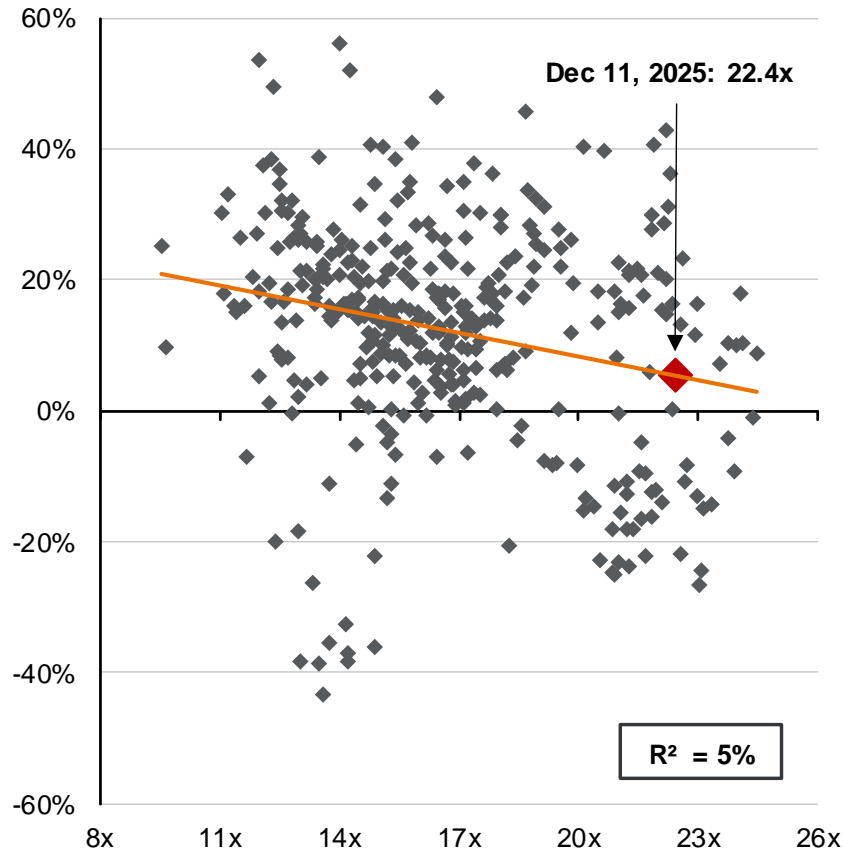
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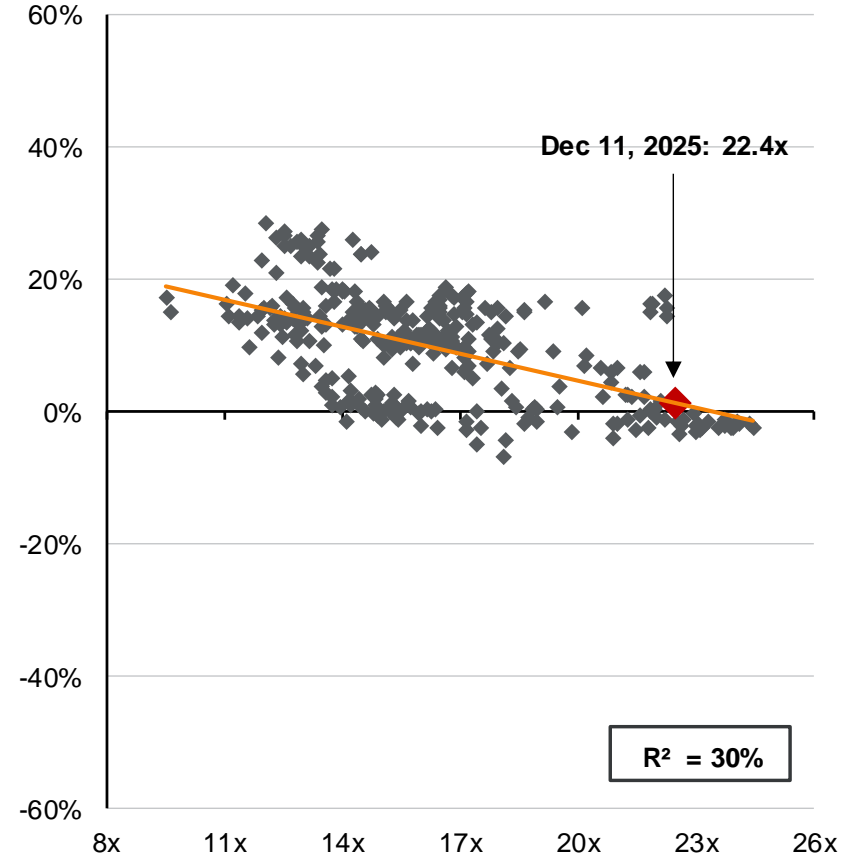
## Forward P/E and subsequent 1-year returns

S&amp;P 500 Total Return Index



## Forward P/E and subsequent 5-year annualized returns

S&amp;P 500 Total Return Index



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

Returns are 12-month and 60-month annualized total returns, measured monthly, beginning 12/31/1993.  $R^2$  represents the percent of variation in total return that can be explained by forward P/E ratios. The forward P/E ratio is the most recent S&P 500 index price divided by consensus analyst estimates for earnings in the next 12 months, provided by IBES since December 1993 and FactSet since January 2022. Past performance is no guarantee of future results.

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# Sources of earnings growth and profit margins

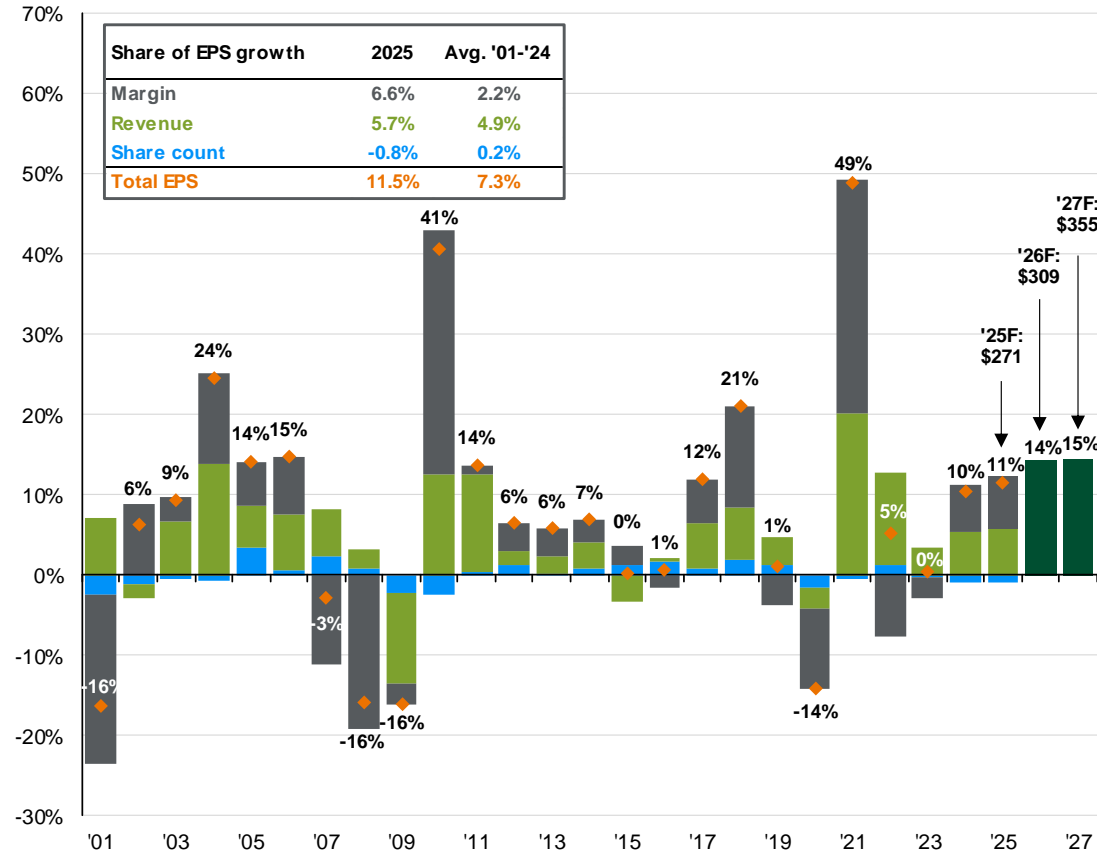
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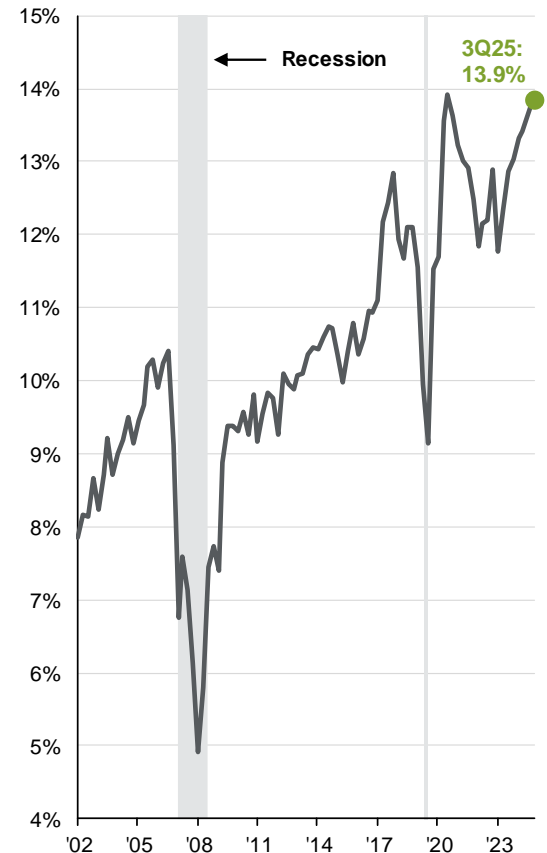
## S&P 500 EPS growth

Year-over-year 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 values are based on annual earnings per share. Forecasts for 2025, 2026 and 2027 reflect consensus analyst expectations, provided by FactSet. Past performance is no guarantee of future results.  
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# S&P 500: Index concentration

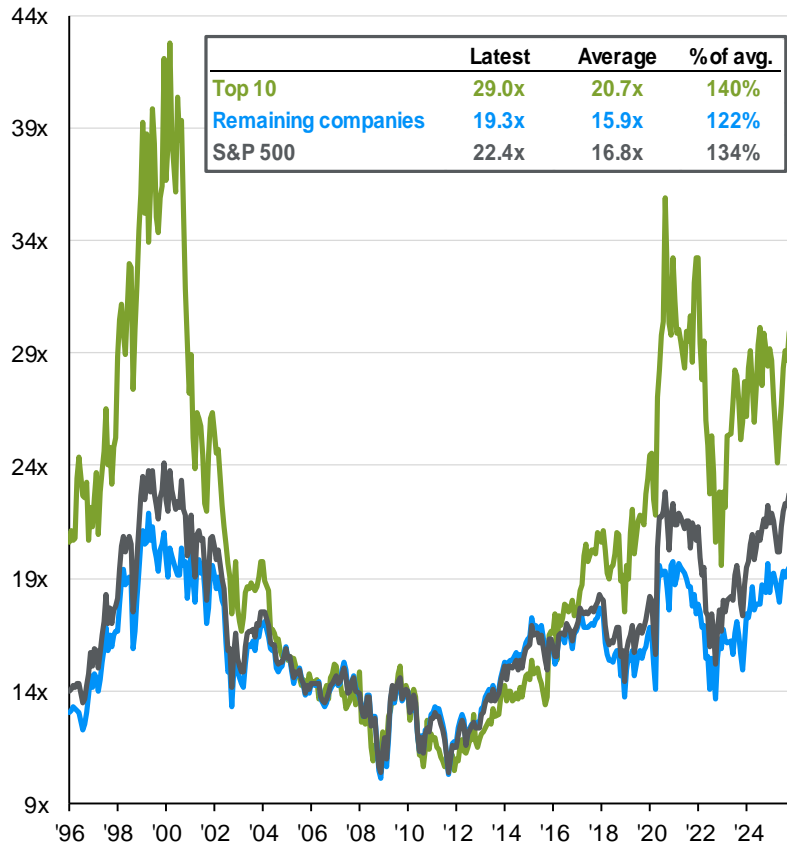
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## P/E of top 10 and remaining companies in S&P 500

Next 12 months



## Weight of the top 10 companies in the S&P 500

% of market capitalization, % of last 12 months' earnings



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

Forward P/E ratio is the most recent price divided by consensus estimates for earnings in the next 12 months, provided by IBES since January 1996 and FactSet since January 2022. The remaining stocks represent the rest of the 490 companies in the S&P 500, and their P/E ratio is calculated by backing out the nominal earnings and market cap of the top 10 from that of the S&P 500.

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# Magnificent 7 performance and earnings dynamics

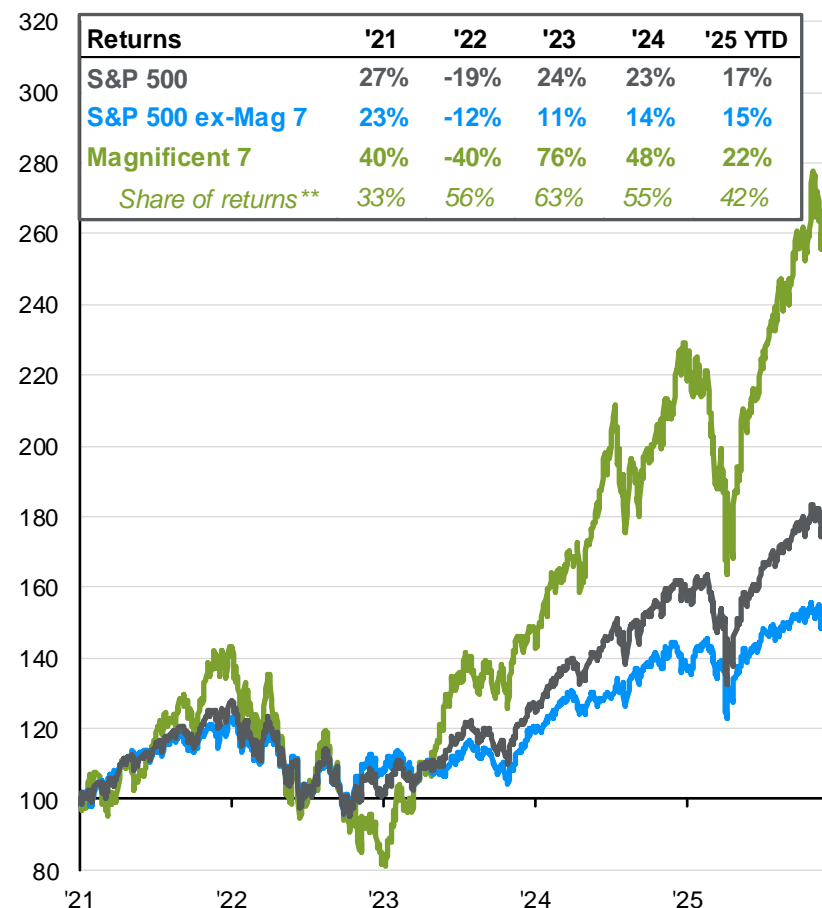
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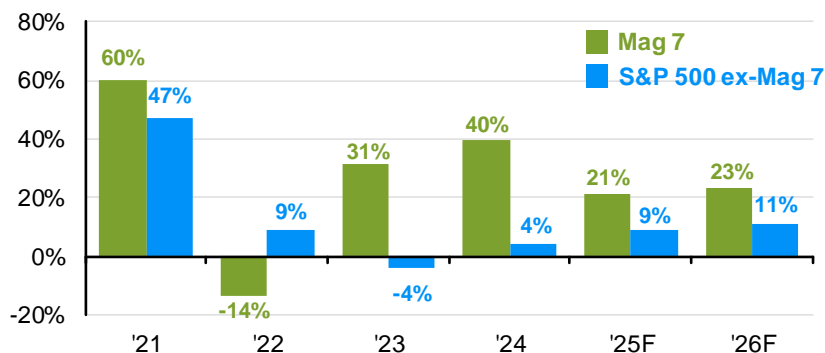
## Performance of “Magnificent 7” stocks in S&P 500\*

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



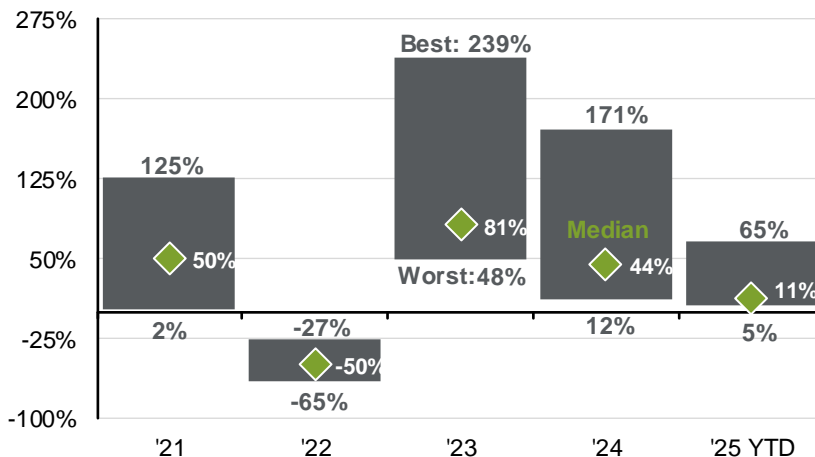
## Earnings growth

Year-over-year



## Magnificent 7 performance dispersion

Price returns, best, median and worst performing Mag 7 stock by year



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

S&P 500 ex-Mag 7 is calculated by backing out a weighted average Mag 7 price return from the S&P 500 price return. \*Magnificent 7 includes AAPL, AMZN, GOOGL/GOOG, META, MSFT, NVDA and TSLA. Earnings estimates for 2025 and 2026 reflect consensus analyst expectations, provided by FactSet. \*\*Share of returns represents the Magnificent 7's contribution to the index return. Past performance is no guarantee of future results.

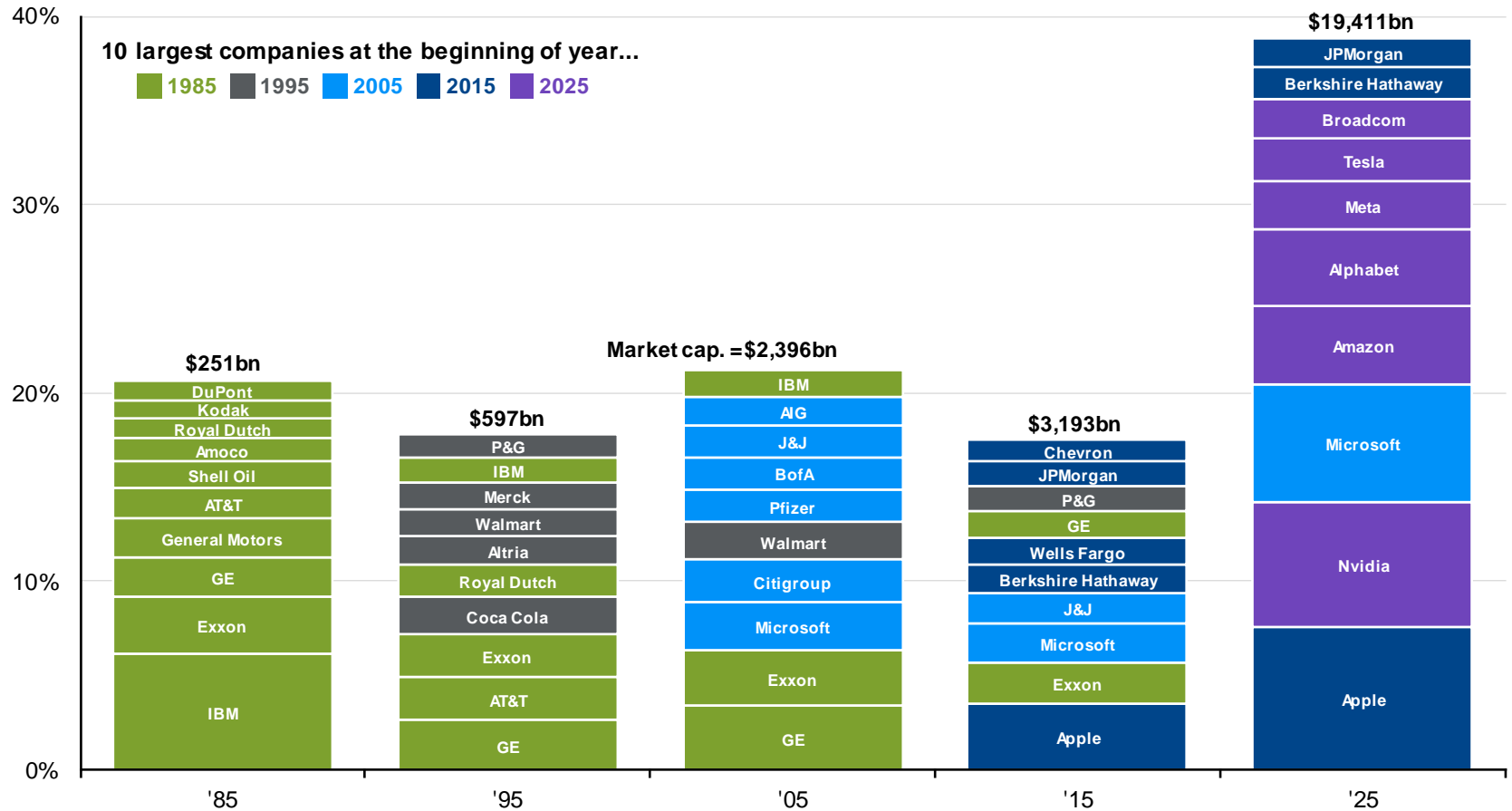
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# Top 10 companies by decade

## Top 10 S&P 500 companies by market capitalization

Percent of S&P 500 market capitalization as of the first day of the indicated year



Source: Bloomberg, Standard & Poor's, J.P. Morgan Asset Management.  
Companies are organized from highest weight at the bottom to lowest weight at the top. Past performance is no guarantee of future results.  
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# Value vs. growth: Valuations, earnings and performance

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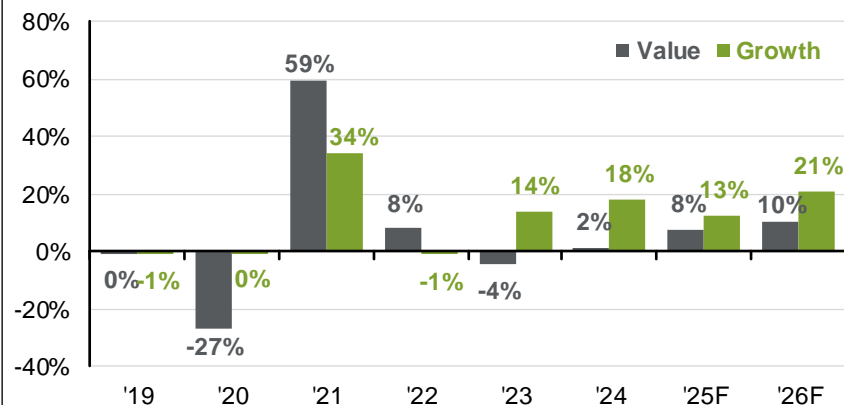
## Value vs. growth price-to-earnings discount

Russell 1000 Value vs. Growth, next 12 months



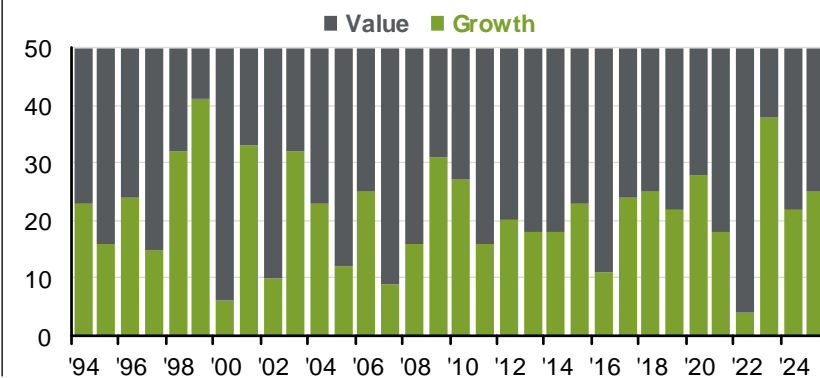
## Earnings growth

Year-over-year



## Top 50 performing companies in the S&P 500

Number of value and growth companies, 1994 - November 2025



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

Growth is represented by the Russell 1000 Growth Index and value is represented by the Russell 1000 Value Index. (Left) Long-term averages are calculated monthly since December 1997. (Top right) Earnings estimates for 2025 and 2026 reflect consensus analyst expectations, provided by FactSet. (Bottom right) Graph was made by ranking the S&P 500 constituents by total return each calendar year. On average, 29 of the top 50 performing companies are value and 21 are growth. Past performance is no guarantee of future results.

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# Valuation dispersion

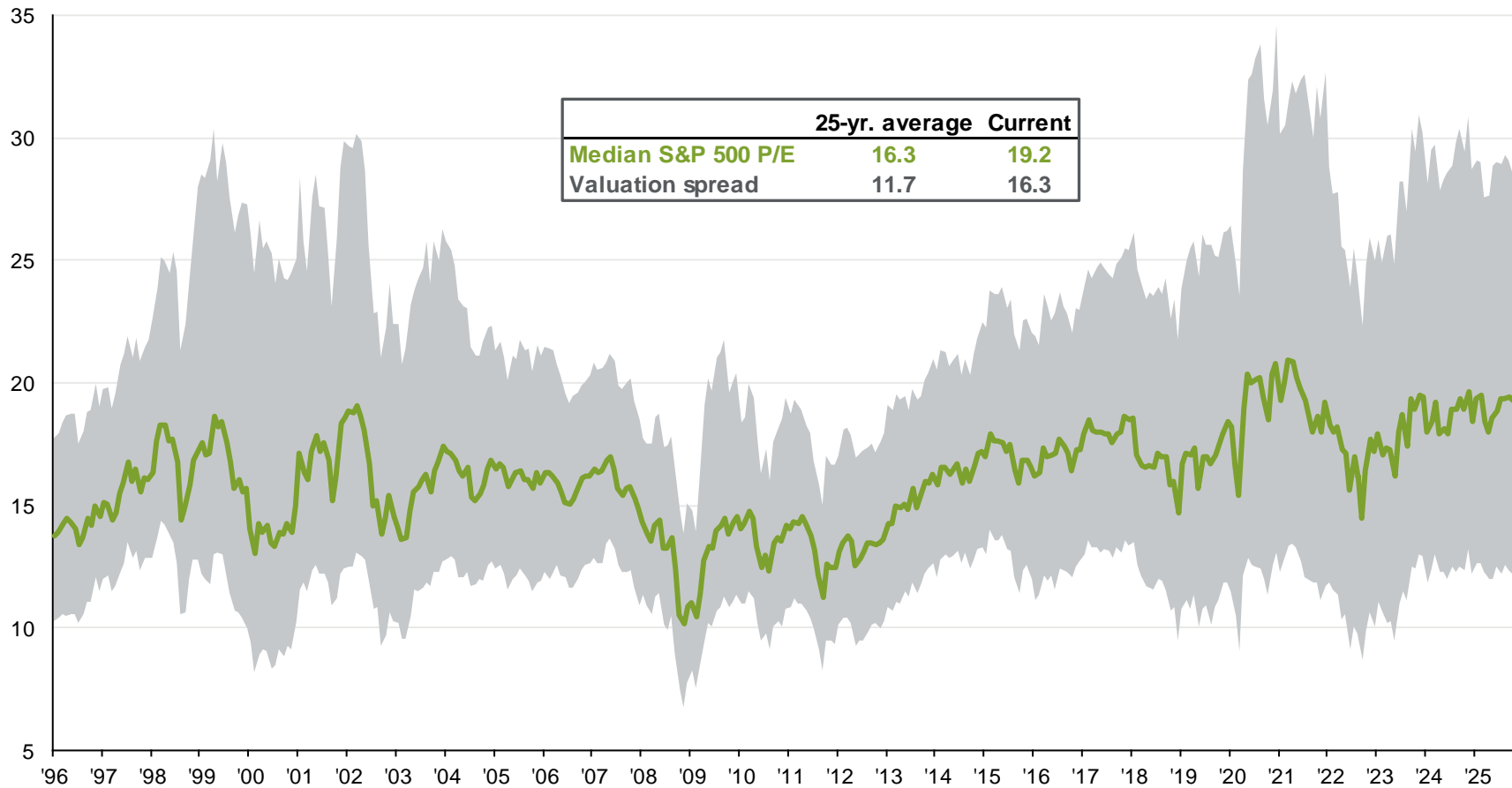
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## Valuation dispersion

Dispersion between the forward P/E of S&P 500 stocks in the 20th and 80th percentile



Source: Compustat, FactSet, Standard & Poor's, J.P. Morgan Asset Management.  
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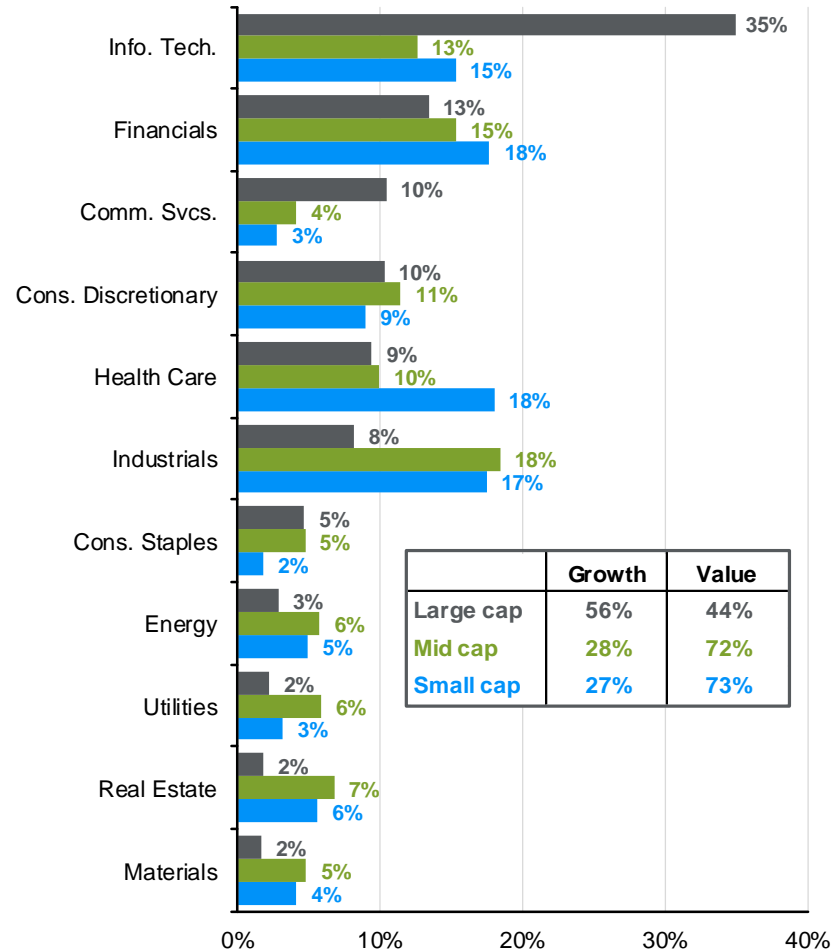
# Small caps, mid caps and large caps

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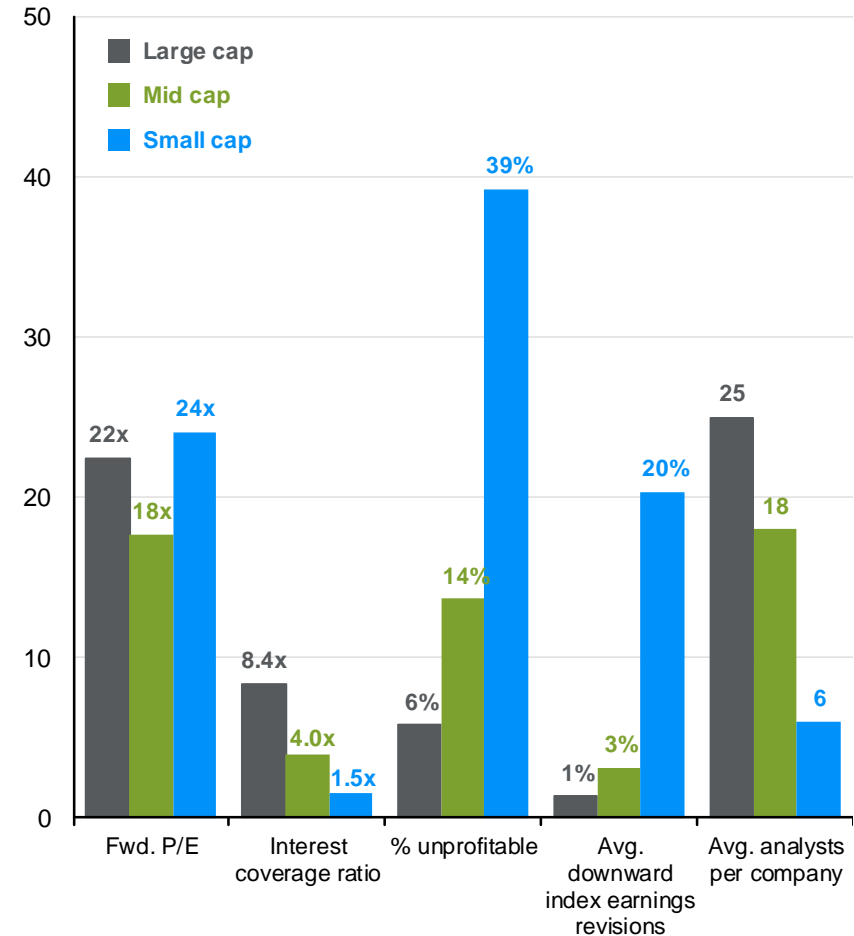
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## Percent of market capitalization by sector



## Valuations, interest coverage and earnings



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

The S&P 500 is used for large cap, the Russell Mid Cap is used for mid cap and the Russell 2000 is used for small cap. (Right) Interest coverage ratio is calculated by dividing the last 12 months' earnings by the interest expense, provided by FactSet. Data for the percent of unprofitable companies are quarterly and as of the most recently available quarter. Downward earnings index revisions are calculated as the percent change in EPS from the January 1 consensus analyst estimate, provided by FactSet, to the actual value and are averaged over the years from 2010 through 2024.

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# Returns and valuations by style

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10-year annualized			
	Value	Blend	Growth
Large	10.8%	15.1%	18.4%
Mid	10.2%	11.4%	13.0%
Small	9.8%	10.2%	10.2%

YTD			
	Value	Blend	Growth
Large	16.7%	18.8%	19.9%
Mid	13.2%	13.1%	12.2%
Small	16.9%	17.6%	18.3%

Since market peak (January 2022)			
	Value	Blend	Growth
Large	37.1%	52.6%	60.5%
Mid	26.8%	26.8%	27.6%
Small	22.3%	20.6%	17.7%

Since market low (October 2022)			
	Value	Blend	Growth
Large	66.1%	102.1%	135.2%
Mid	58.0%	66.0%	84.3%
Small	53.9%	60.7%	67.0%

Forward P/E vs. 20-year avg. P/E			
	Value	Blend	Growth
Large	17.4 / 14.0	22.4 / 16.2	29.6 / 19.8
Mid	15.9 / 14.6	17.7 / 16.5	27.5 / 21.3
Small	17.8 / 16.9	24.1 / 23.0	35.5 / 31.2

Forward P/E as % of 20-year avg. P/E			
	Value	Blend	Growth
Large	124.6%	138.7%	149.6%
Mid	109.1%	107.2%	129.2%
Small	105.6%	104.8%	113.7%

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

All calculations are cumulative total return, including dividends reinvested for the stated period. Returns are not annualized. Since market peak represents the period from 1/3/2022 to the present. Since market low represents the period from 10/12/2022 to the present. For all time periods, total return is based on Russell style indices except for the large blend category, which is based on the S&P 500 index. Forward P/E ratio is the most recent S&P 500 index price divided by consensus analyst estimates for earnings in the next 12 months, provided by FactSet. Past performance is no guarantee of future results. *Guide to the Markets* – U.S. Data are as of December 11, 2025.



# Returns and valuations by sector

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	Energy	Materials	Financials	Industrials	Cons. Disc.	Tech.	Comm. Services*	Real Estate	Health Care	Cons. Staples	Utilities	S&P 500 Index
<b>S&amp;P weight</b>	2.9%	1.6%	13.1%	8.1%	10.3%	35.3%	10.6%	1.8%	9.4%	4.7%	2.2%	100.0%
Russell Growth weight	0.3%	0.3%	5.9%	5.6%	12.9%	52.6%	11.9%	0.4%	7.5%	2.3%	0.3%	100.0%
Russell Value weight	5.9%	3.9%	22.1%	13.1%	7.5%	11.6%	8.4%	3.9%	12.1%	7.3%	4.3%	100.0%
<b>QTD return</b>	3.1	-0.2	1.9	2.2	1.0	3.7	6.5	-2.7	10.3	0.5	-1.3	3.4
<b>YTD return</b>	10.4	9.0	14.8	21.0	6.4	26.8	32.6	-0.4	13.2	4.4	16.1	18.8
<b>Beta to S&amp;P 500</b>	1.1	1.1	1.1	1.1	1.2	1.2	1.1	0.9	0.7	0.6	0.5	1.0
<b>Correl. to Treas. yields</b>	-0.2	-0.5	-0.4	-0.3	0.0	-0.1	0.1	-0.8	-0.6	-0.5	-0.4	-0.3
<b>Foreign % of sales</b>	36.8	51.8	28.2	34.6	35.0	56.4	49.3	16.6	33.1	39.5	1.9	42.3
NTMEarnings growth	6.6%	20.9%	9.5%	14.2%	10.4%	25.9%	11.8%	4.3%	9.2%	6.6%	9.2%	14.1%
<b>20yr med.</b>	7.5%	11.2%	12.0%	11.9%	14.0%	12.0%	13.1%	6.7%	8.3%	6.9%	4.7%	10.4%
Forward P/E ratio	16.0x	18.4x	16.1x	24.2x	28.7x	28.7x	22.4x	16.7x	18.0x	20.9x	17.9x	22.4x
<b>20yr avg.</b>	13.7x	15.6x	12.9x	16.8x	20.4x	18.6x	18.7x	17.3x	15.1x	17.9x	15.9x	16.2x
Dividend yield	3.5%	1.9%	1.8%	1.5%	1.9%	0.6%	0.8%	3.9%	2.1%	2.7%	3.0%	1.4%
<b>20yr avg.</b>	2.9%	2.3%	2.3%	2.2%	1.7%	1.2%	1.8%	3.7%	2.0%	2.9%	3.8%	2.1%

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

All calculations are cumulative total return, not annualized, including dividends for the stated period. Correlation to Treasury yields are trailing 2-year monthly correlations between S&P 500 sector price returns and 10-year Treasury yield movements. Next 12 months (NTM) earnings growth is the percent change in next 12 months consensus analyst earnings estimates compared to last 12 months earnings, provided by FactSet. Forward P/E ratio is the most recent S&P 500 index price divided by consensus estimates for earnings in the next 12 months, provided by FactSet. Dividend yield is calculated as the next 12 months consensus dividend, provided by FactSet, divided by most recent price. Beta calculations are based on 10-years of monthly price returns for the S&P 500 and its sub-indices. \*Communication Services (formerly Telecom) averages and beta are based on 5-years of data. Past performance is no guarantee of future results.

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# Annual returns and intra-year declines

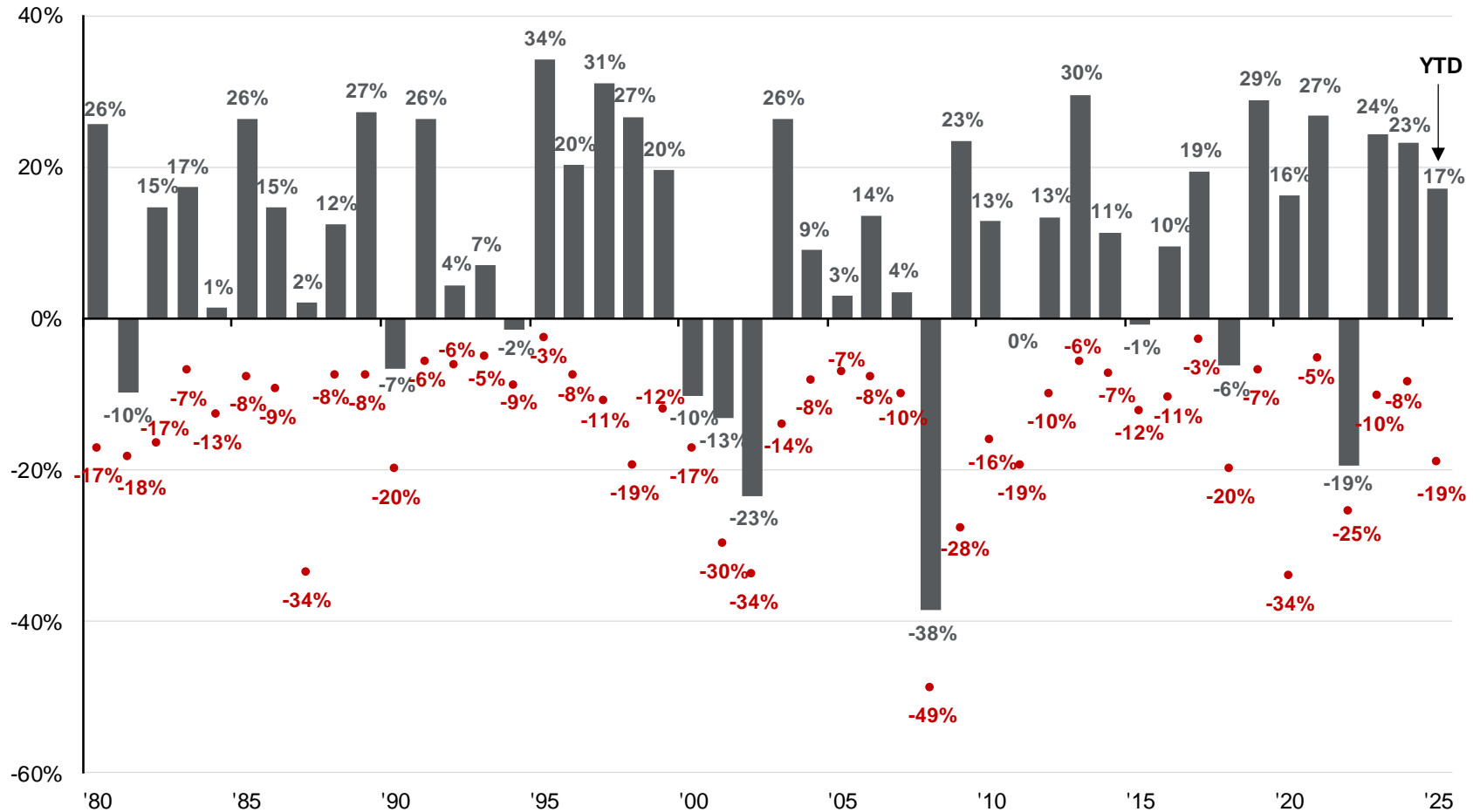
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## S&P 500 intra-year declines vs. calendar year returns

Despite average intra-year drops of 14.1%, annual returns were positive in 34 of 45 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 peak-to-trough decline during the year. Returns shown are calendar year returns from 1980 to 2024, over which the average annual return was 10.6%. Past performance is no guarantee of future results.

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# Economic growth and the composition of GDP

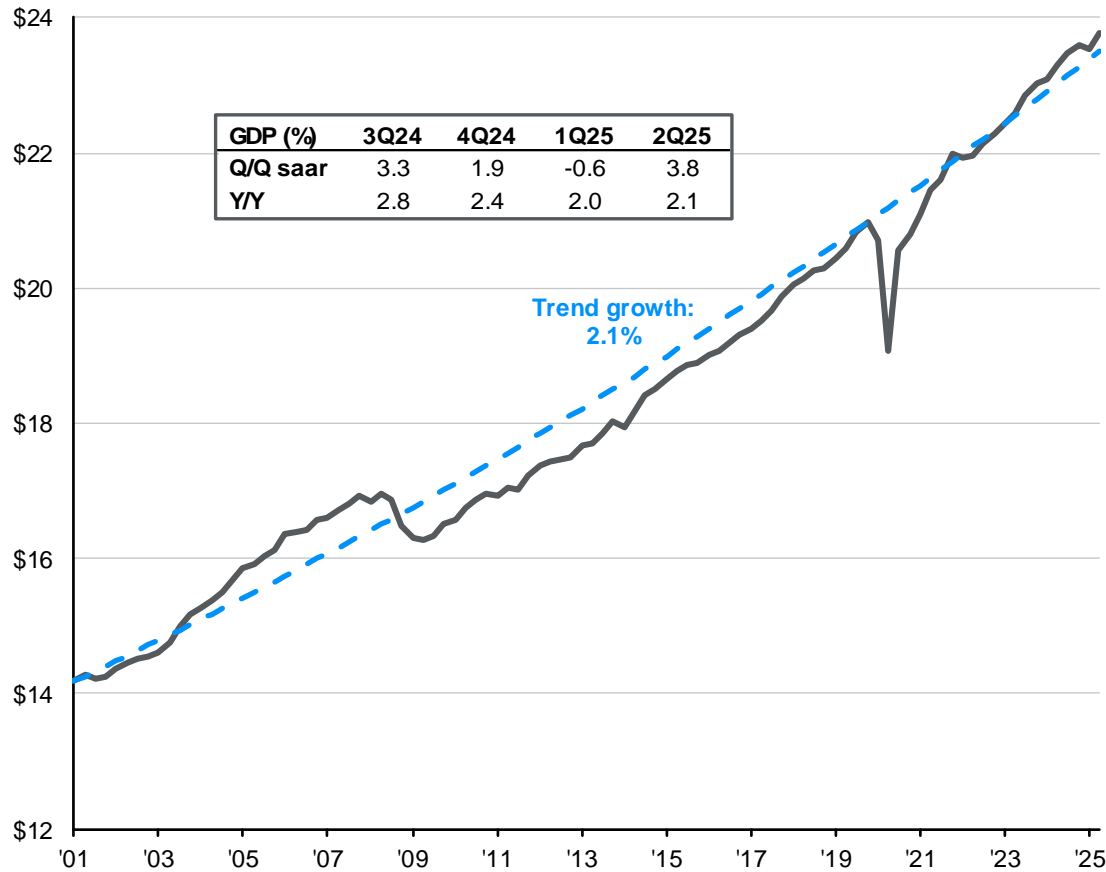
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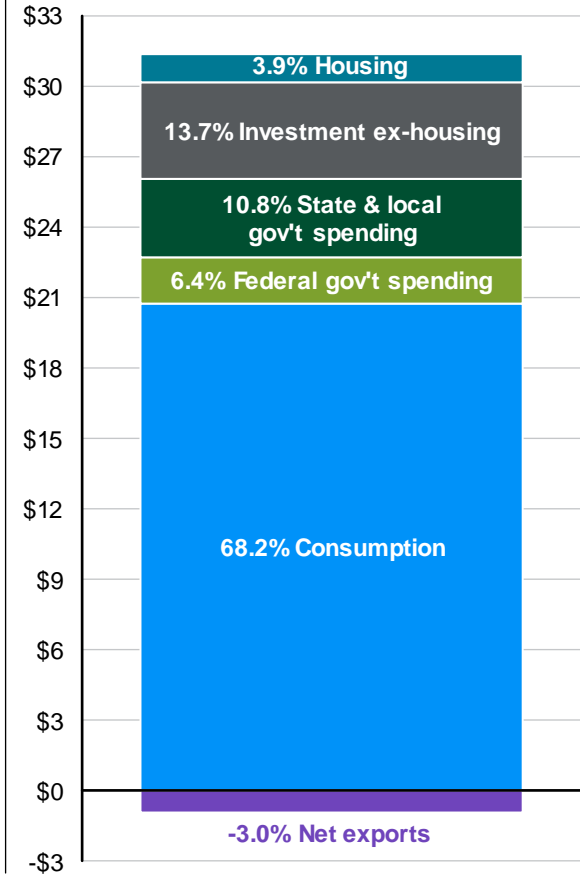
## Real GDP

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



## Components of GDP

2Q25 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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# Components of GDP growth

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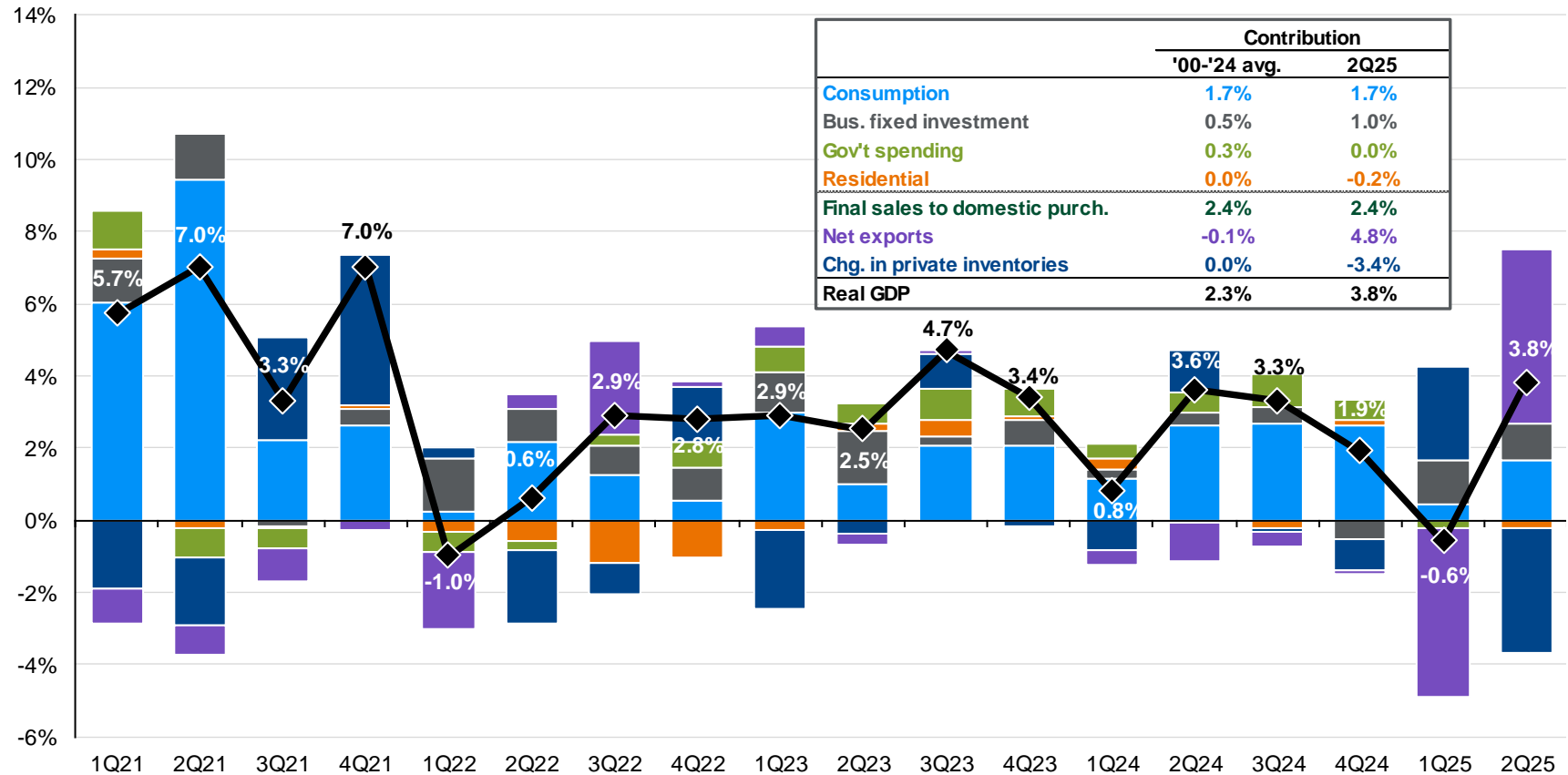
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Economy

## Contributors to real GDP growth

Quarter-over-quarter, seasonally adjusted annualized rate



Source: BEA, FactSet, J.P. Morgan Asset Management.  
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J.P.Morgan  
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# Labor demand

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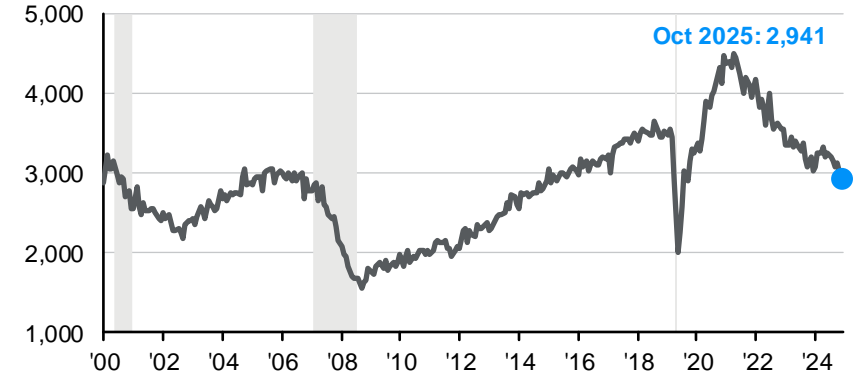
## JOLTS job openings\*

Total job openings, thousands, seasonally adjusted



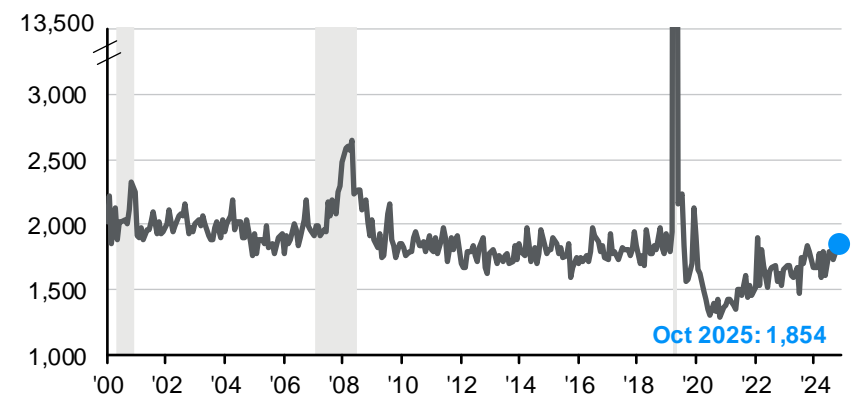
## JOLTS quits

Total nonfarm quits, thousands, seasonally adjusted



## JOLTS layoffs

Total nonfarm layoffs, thousands, seasonally adjusted



Source: U.S. Department of Labor, J.P. Morgan Asset Management.

\*JOLTS job openings from February 1974 to November 2000 are J.P. Morgan Asset Management estimates.

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# Labor supply

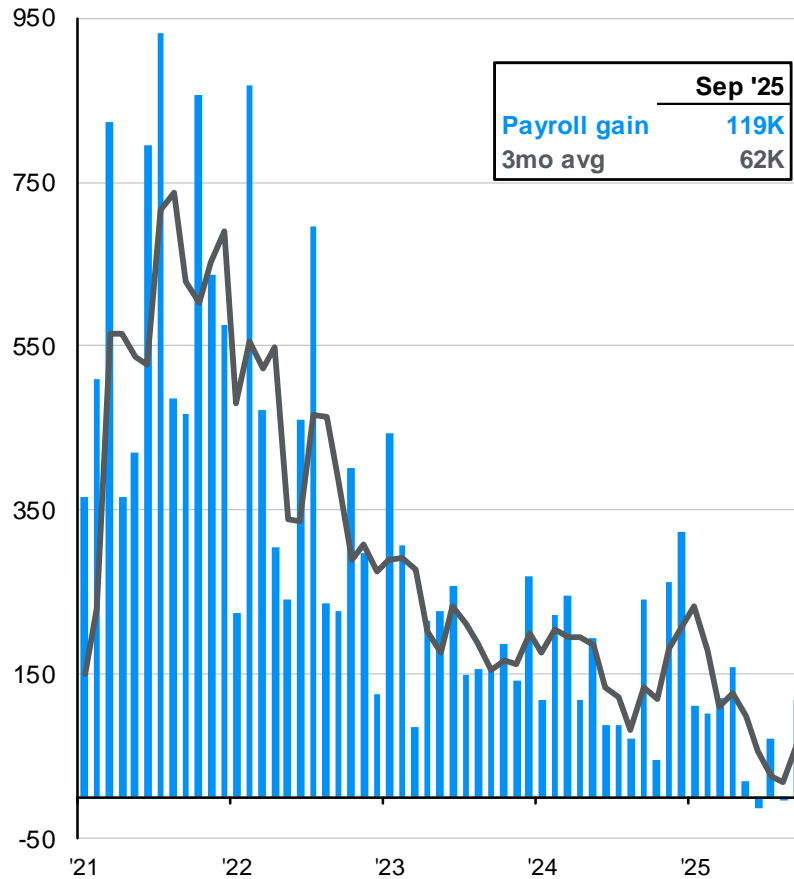
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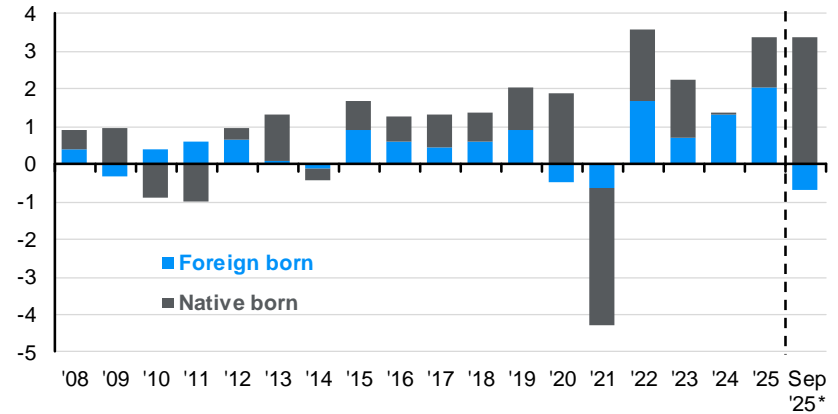
## Nonfarm payroll gains

Month-over-month change and 3-month moving average, thousands, SA



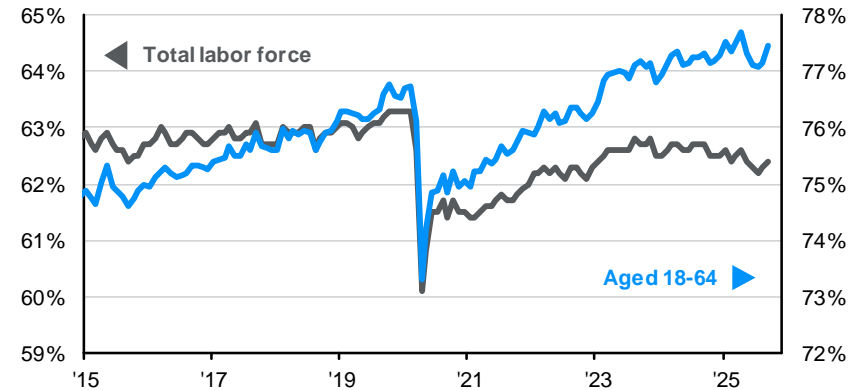
## Labor force growth, native and immigrant contribution

Year-over-year change as of January, aged 16+, millions



## Labor force participation

% of civilian noninstitutional population, seasonally adjusted (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. \*Latest figure reflects the y/y change as of the latest month.

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# Unemployment and wages

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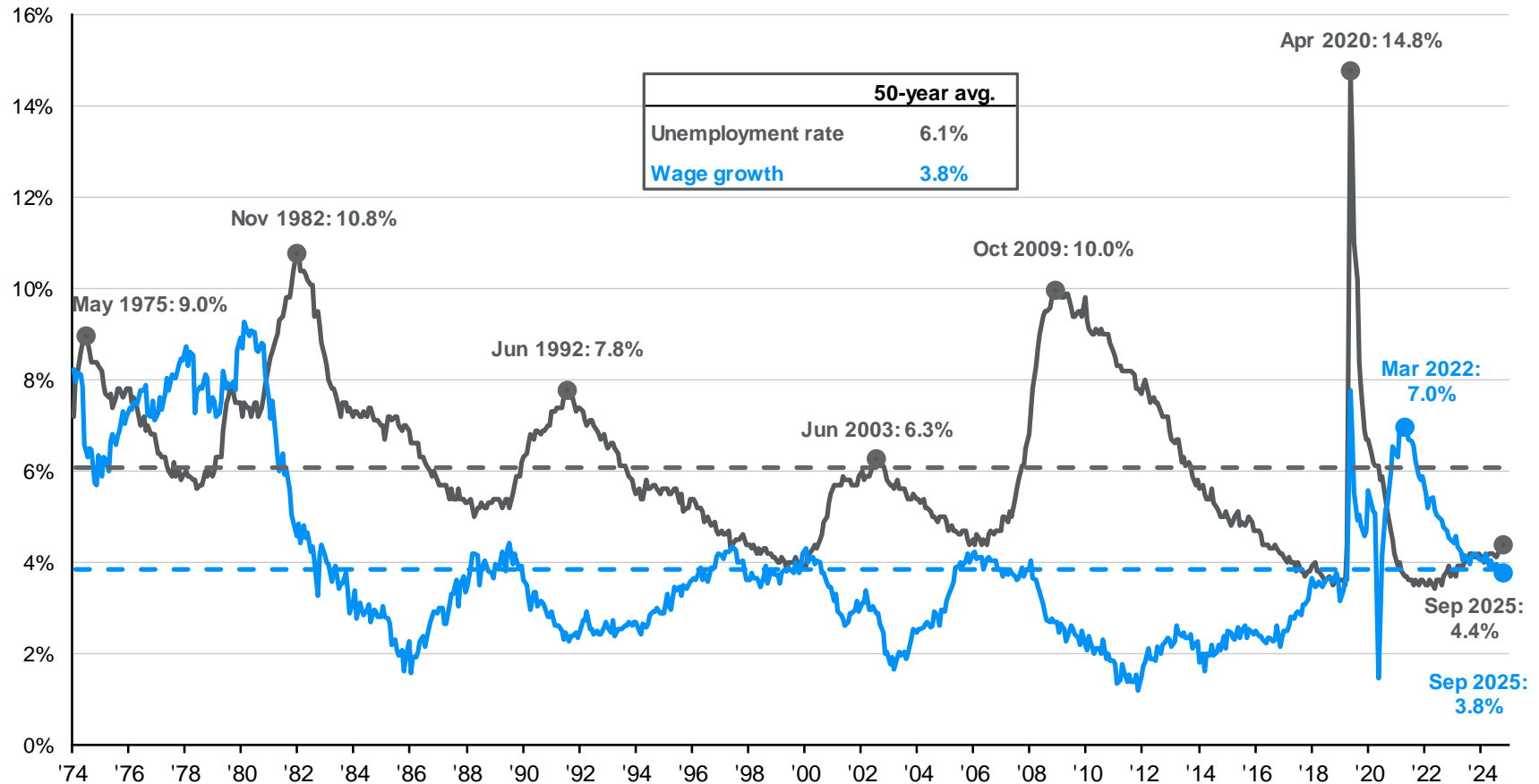
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Economy

## 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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**J.P.Morgan**  
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# Artificial intelligence: Investment

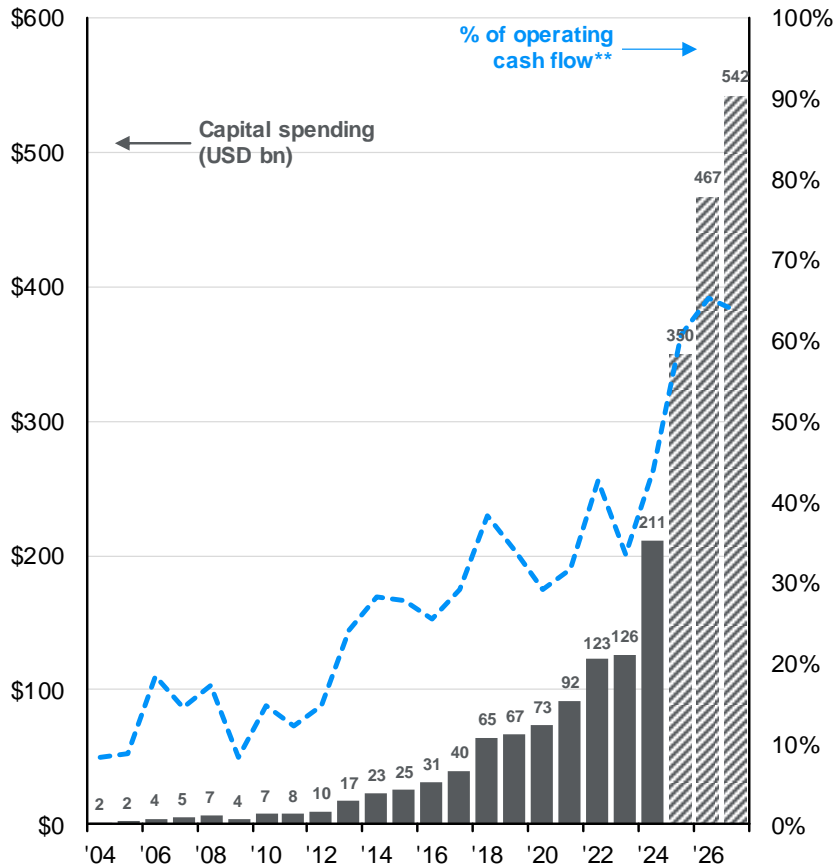
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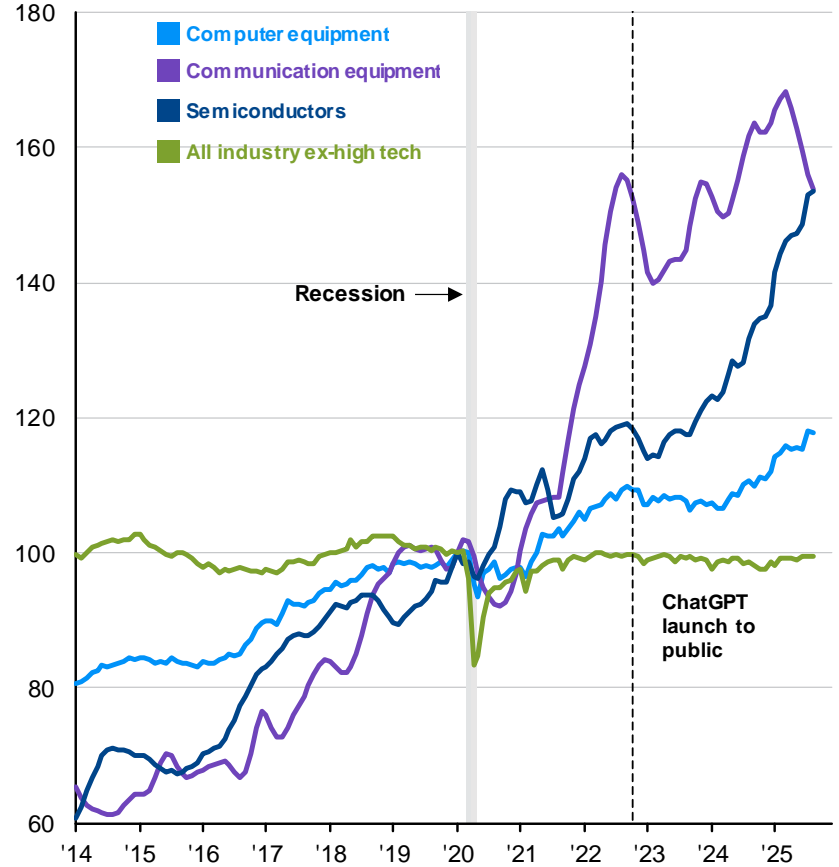
## Capex from the major AI hyperscalers\*

USD billions; Alphabet, Amazon (AWS), Meta, Microsoft, Oracle



## U.S. industrial production of high tech industries

Indexed to 100 in Jan 2020



Source: J.P. Morgan Asset Management; (Left) Bloomberg; (Right) Federal Reserve Board.

Data for 2025, 2026 and 2027 reflect consensus estimates. Capex shown is company total, except for Amazon, which reflects an estimate for AWS spend (2004 to 2012 are J.P. Morgan Asset Management estimates and 2012 to current are Bloomberg consensus estimates). \*Hyperscalers are the large cloud computing companies that own and operate data centers with horizontally linked servers that, along with cooling and data storage capabilities, enable them to house and operate AI workloads. \*\*Reflects cash flow before capital expenditures in contrast to free cash flow, which subtracts out capital expenditures.

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# Artificial intelligence: Implementation

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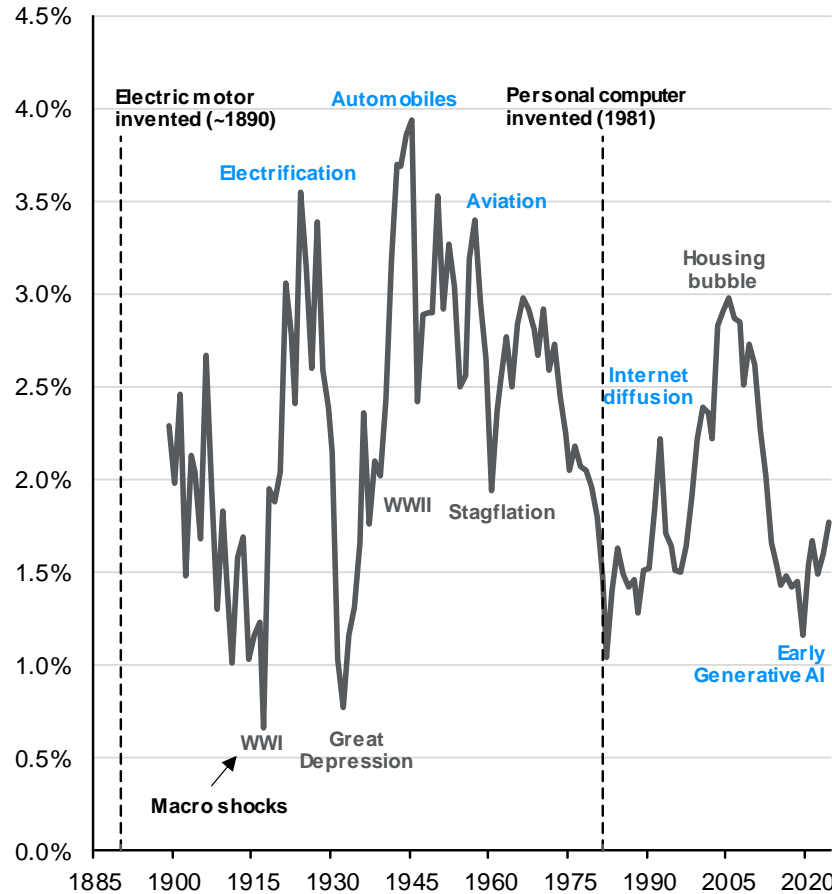
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Economy

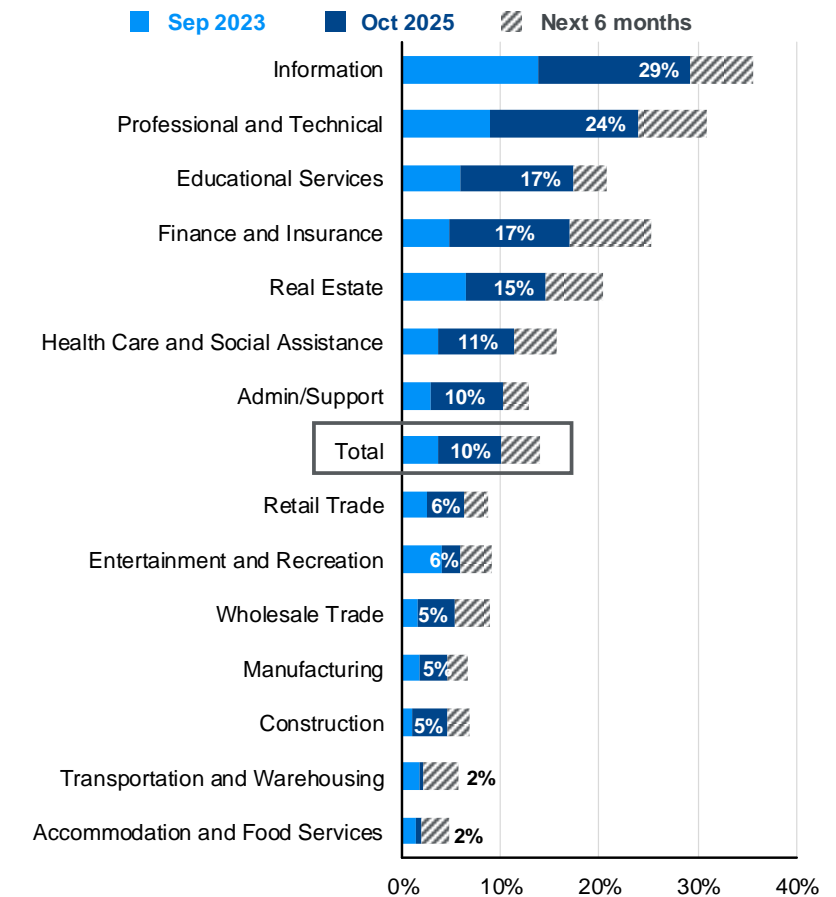
## U.S. labor productivity growth

Trailing 10-year average annualized rate, through 2024



## Businesses using AI to produce goods and services

% of all firms reporting use of AI applications



Source: J.P. Morgan Asset Management; (Left) BLS, NBER; (Right) Census Business Trends and Outlook Survey (AI Supplement).  
Data from 1888 to 1957 reflect productivity data for the total private economy from John Kendrick, "Productivity Trends in the United States," NBER.  
Data from 1958 to 2024 reflect nonfarm productivity data from the BLS.  
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# Inflation components

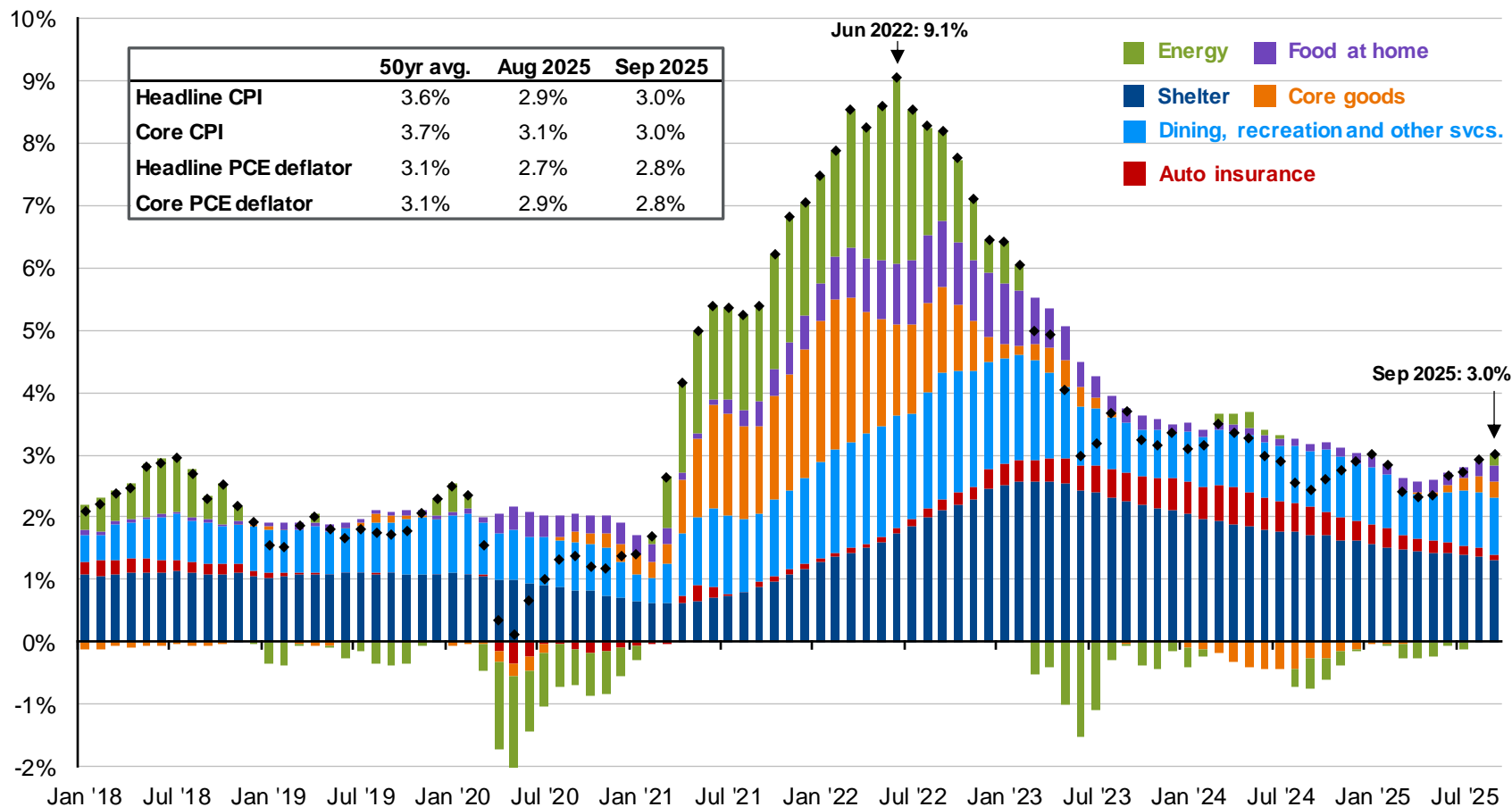
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## Contributors to headline CPI inflation

Contribution to year-over-year % change in CPI, non-seasonally adjusted



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

Contributions mirror the BLS methodology on Table 7 of the CPI report. Values may not sum to headline CPI figures due to rounding and underlying calculations. "Shelter" includes owners' equivalent rent, rent of primary residence and home insurance. "Food at home" includes alcoholic beverages.

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# Dollar drivers

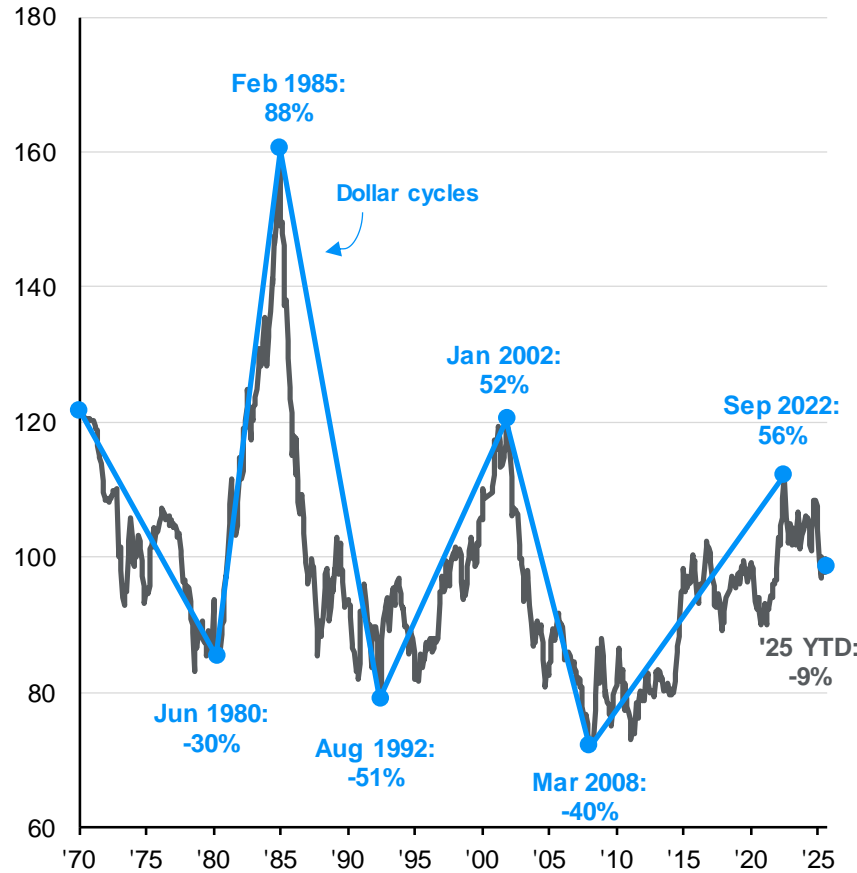
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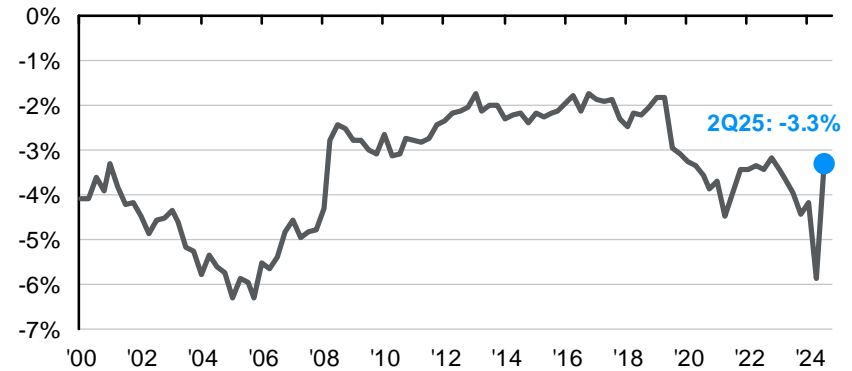
## The U.S. dollar

DXY Index, level



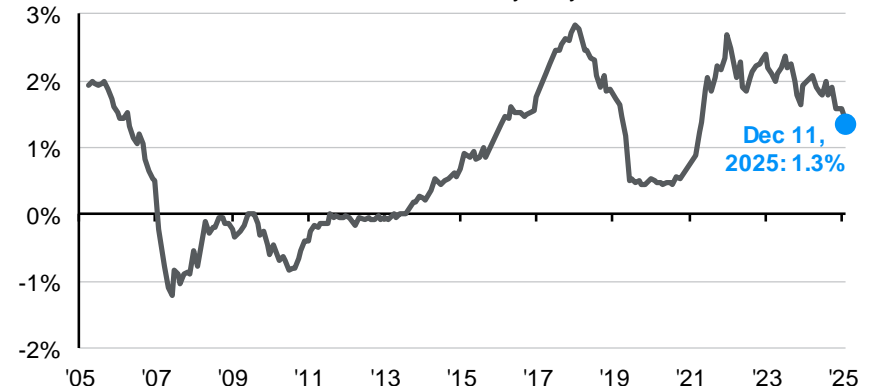
## The U.S. trade balance

Current account balance, % of GDP



## Developed markets interest rate differentials

Difference between U.S. and international 2-year yields\*



Source: Bloomberg, FactSet, J.P. Morgan Asset Management; (Left) ICE; (Top right) BEA; (Bottom right) BIS.

Currencies in the DXY Index are: British pound, Canadian dollar, euro, Japanese yen, Swedish krona and Swiss franc. \*Interest rate differential is the difference between the 2-year U.S. Treasury yield and a basket of the 2-year yields of each major trading partner (Australia, Canada, eurozone, Japan, Sweden, Switzerland and UK). Weights in the basket are calculated using the 2-year average of total government bonds outstanding in each region.

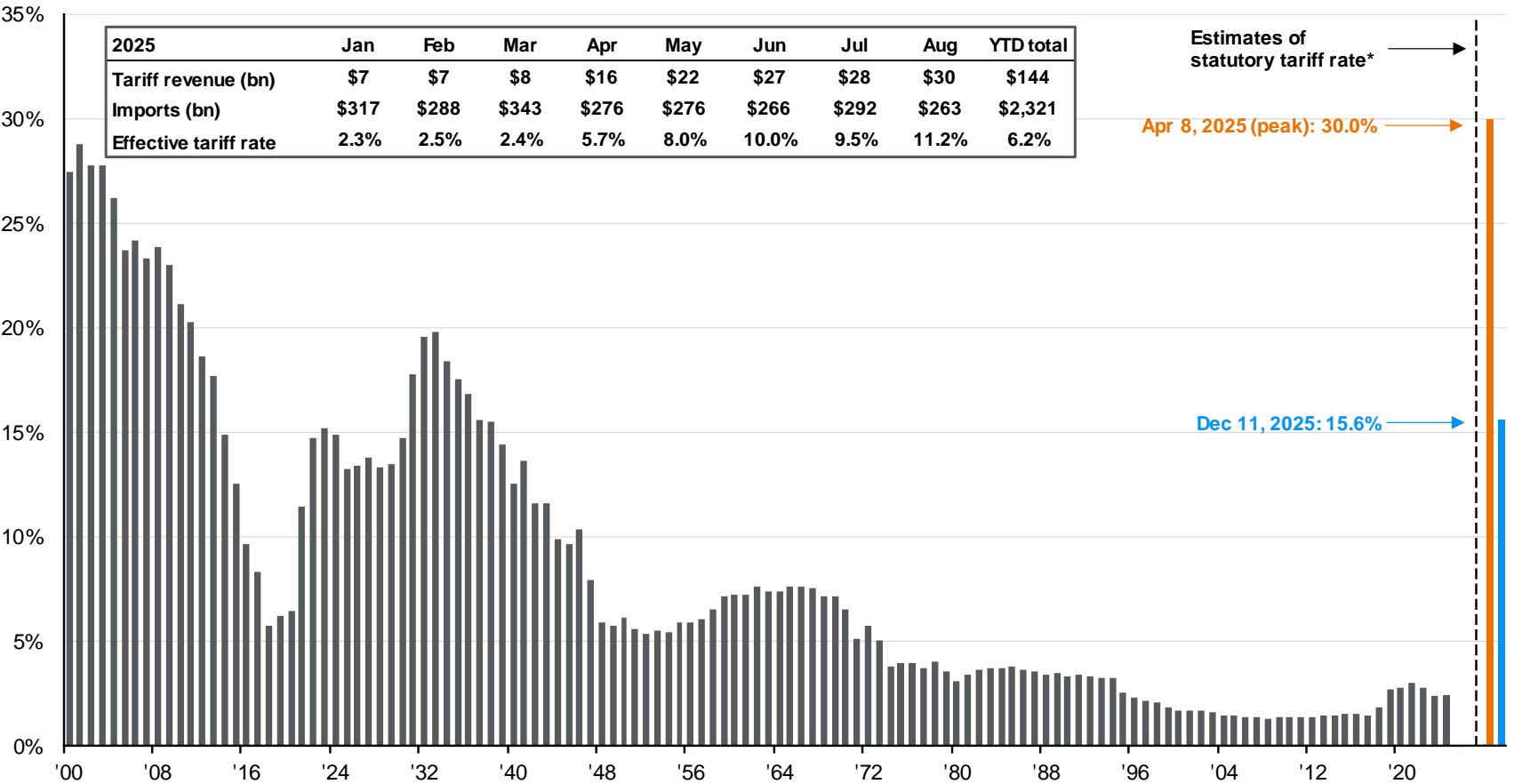
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# Tariffs on U.S. imports

## Average tariff rate on U.S. goods imports for consumption

Duties collected / value of total goods imports for consumption, 1900 - 2024



Source: U.S. Census Bureau, U.S. Department of Treasury, U.S. International Trade Commission, J.P. Morgan Asset Management.  
For illustrative purposes only. The estimated weighted average statutory U.S. tariff rate includes all tariffs that are currently in effect, not announced. Imports for consumption: goods brought into a country for direct use or sale in the domestic market. \*Figures are based on 2024 import levels and assume no change in demand due to tariff increases. Tariff revenue shown are figures from the Monthly Treasury Statement. Import figures included in the table are from the U.S. Census Bureau. Estimates, 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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# Consumer finances

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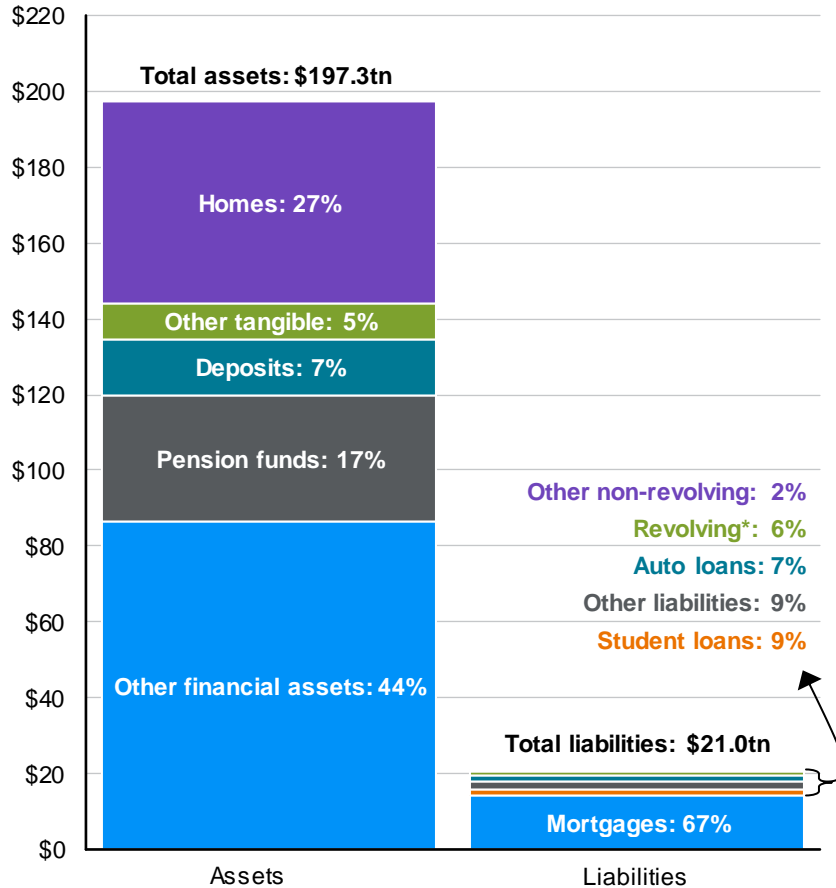
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Economy

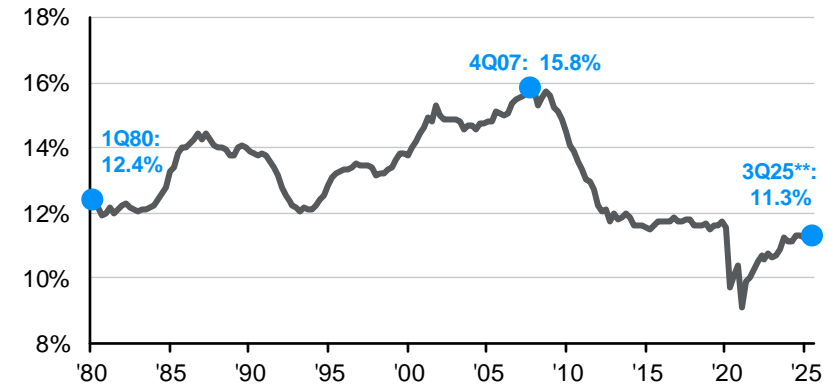
## Consumer balance sheet

2Q25, USD trillions, not seasonally adjusted



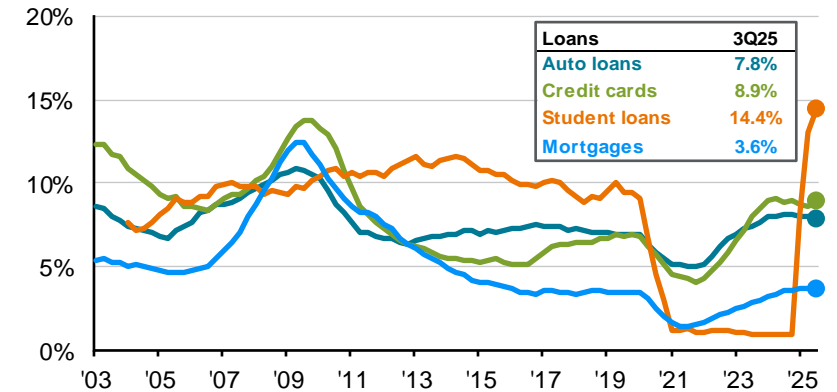
## Household debt service ratio

Debt payments as % of disposable personal income, SA



## Flows into early delinquencies

% of balance delinquent 30+ days



Source: FactSet, FRB, J.P. Morgan Asset Management; (Top and bottom right) BEA.  
Data include households and nonprofit organizations. \*Revolving includes credit cards. Values may not sum to 100% due to rounding. \*\*Periods for which official data are unavailable are J.P. Morgan Asset Management estimates. Household debt service ratio data from 1Q80 to 4Q04 are J.P. Morgan Asset Management estimates. Due to the moratorium on delinquent student loan payments being reported to credit bureaus, missed federal student loan payments were not reported until 4Q24.  
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# Federal finances

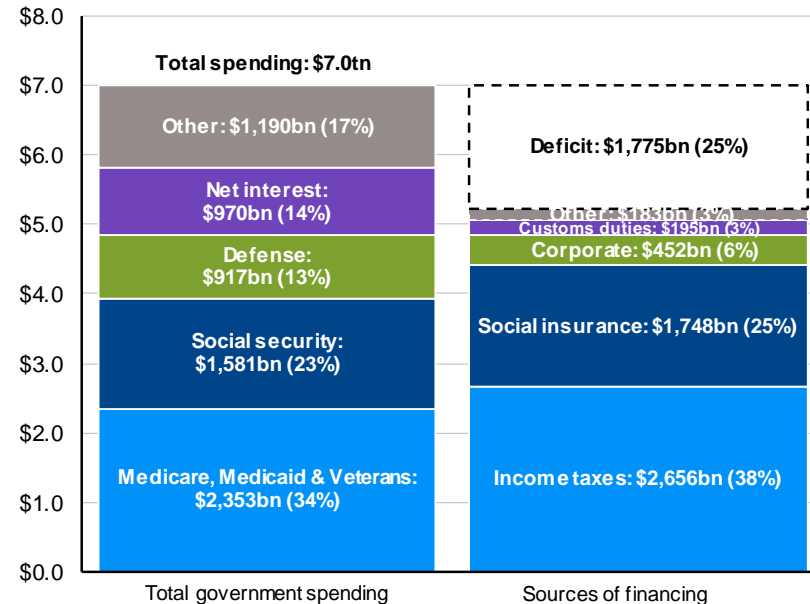
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## The 2025 federal budget

USD trillions

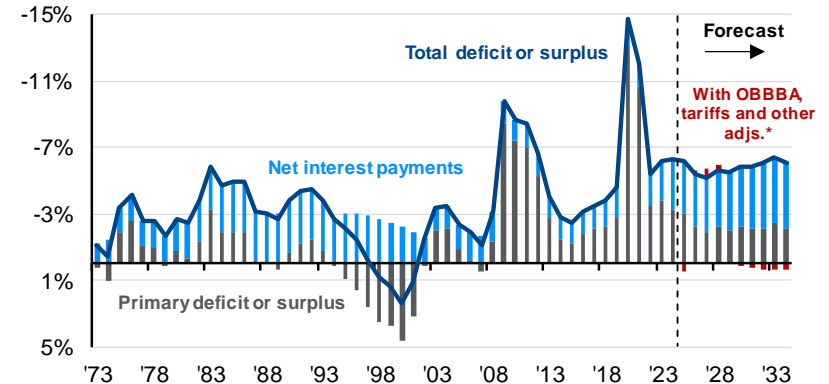


### CBO's Baseline economic assumptions

	2025	'26-'27	'28-'29	'30-'35
Real GDP growth	2.2%	1.8%	1.8%	1.8%
10-year Treasury	4.1%	3.9%	3.9%	3.8%
Headline inflation (CPI)	2.3%	2.4%	2.3%	2.2%
Unemployment	4.2%	4.4%	4.4%	4.4%

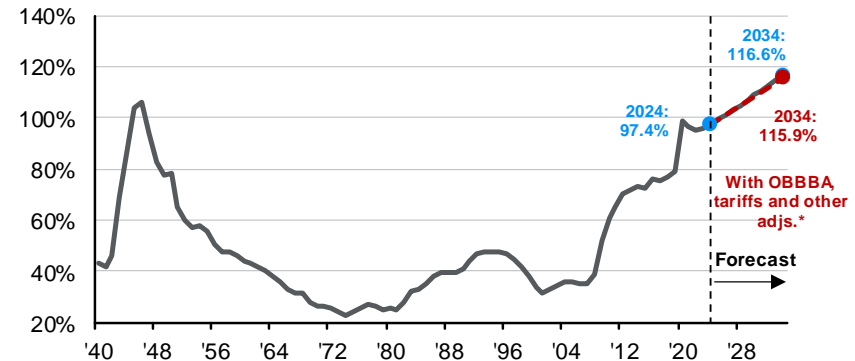
## Federal deficit and net interest payments

% 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, Treasury Department, J.P. Morgan Asset Management; (Left) Reflects actual FY 2025 government receipts and outlays based on data sourced from the Treasury Department. Numbers may not sum to 100% due to rounding; (Top and bottom right) BEA. Estimates are from the Congressional Budget Office (CBO) January 2025 An Update to the Budget Outlook: 2025 to 2035. "Other" spending includes, but is not limited to, health insurance subsidies, income security and federal civilian and military retirement. Years shown are fiscal years. OBBBA refers to the "One Big Beautiful Bill Act." \*Adjusted by JPMAM to include estimates from the CBO July 2025 report "Estimated Budgetary Effects of Public Law 119-21, to Provide for Reconciliation Pursuant to Title II of H. Con. Res. 14, Relative to CBO's January 2025 Baseline." Figures are also adjusted to include JPMAM estimates of tariff revenues and the estimated cost of extending expiring tax cuts beyond 2028, based on CBO August 2025 report "Effects on Deficits and the Debt of Public Law 119-21 and of Making Certain Tax Policies in the Act Permanent." 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.



# Consumer confidence and the stock market

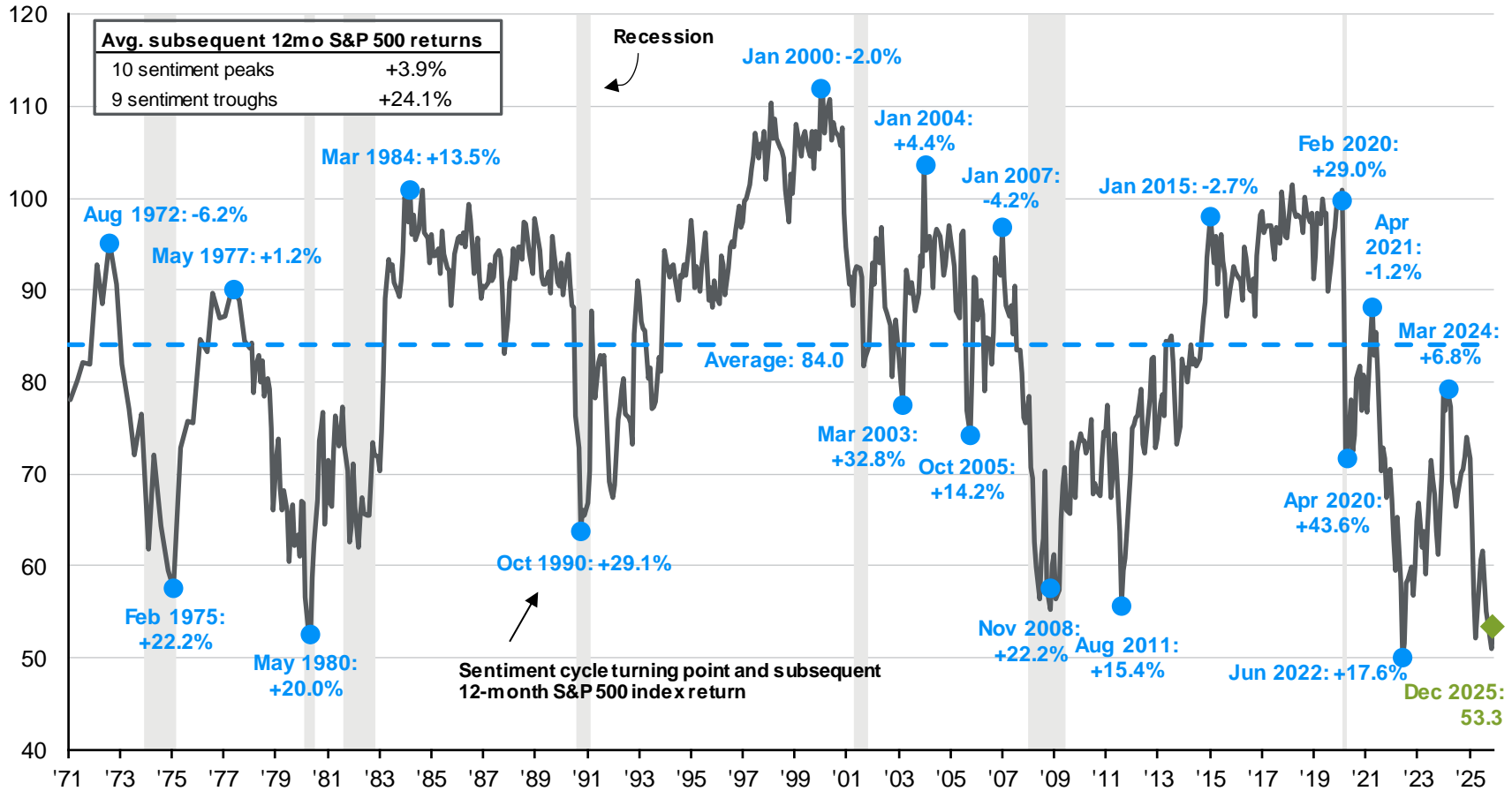
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Economy

## 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 no guarantee of future results.

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# The Fed and interest rates

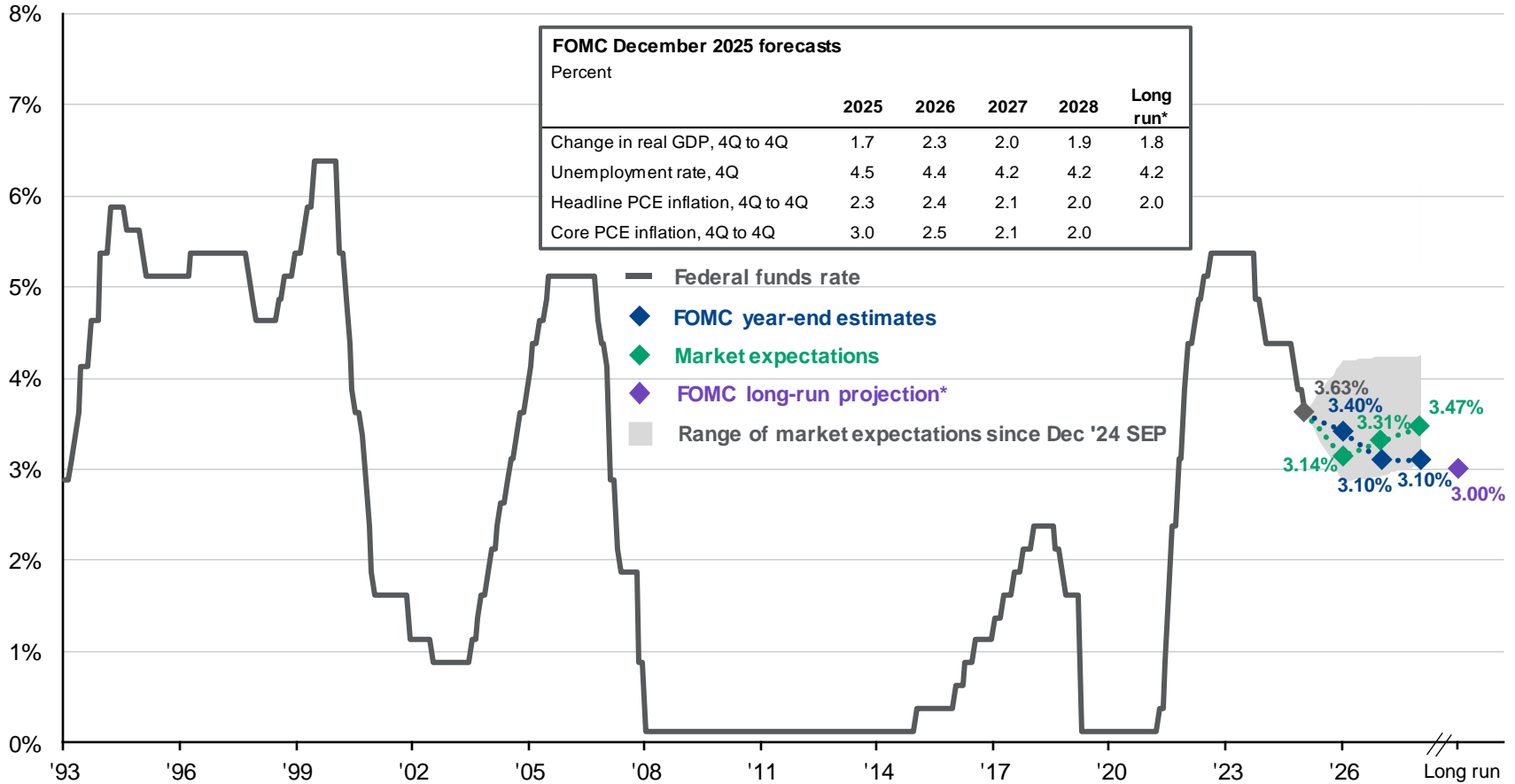
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## Federal funds rate expectations

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, 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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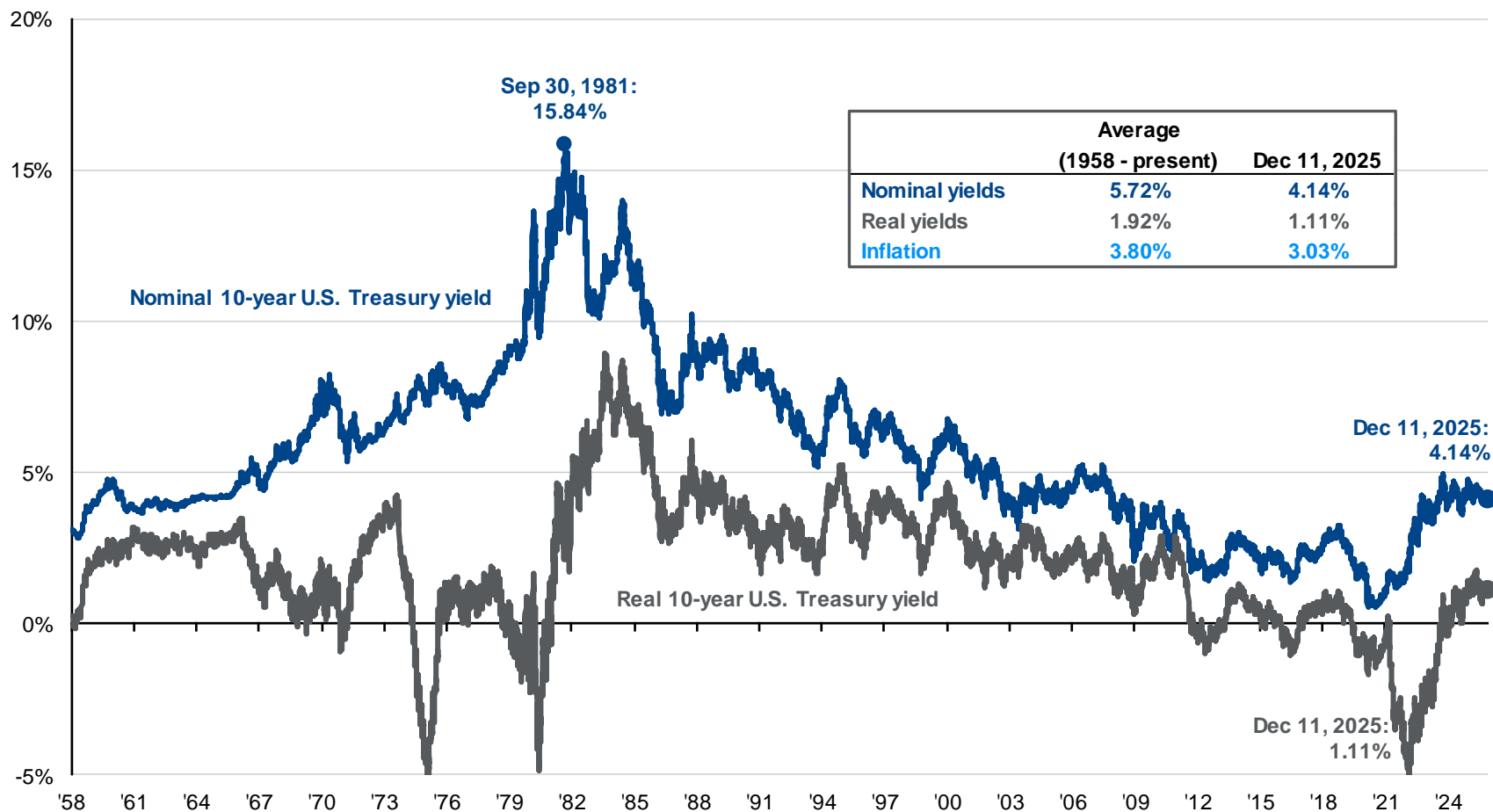
# Interest rates and inflation

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## Nominal and real U.S. 10-year Treasury yields



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

Real 10-year Treasury yields are calculated as the daily Treasury yield less y/y core CPI inflation for that month. For the current month, we use the prior month's core CPI figures until the latest data are available.

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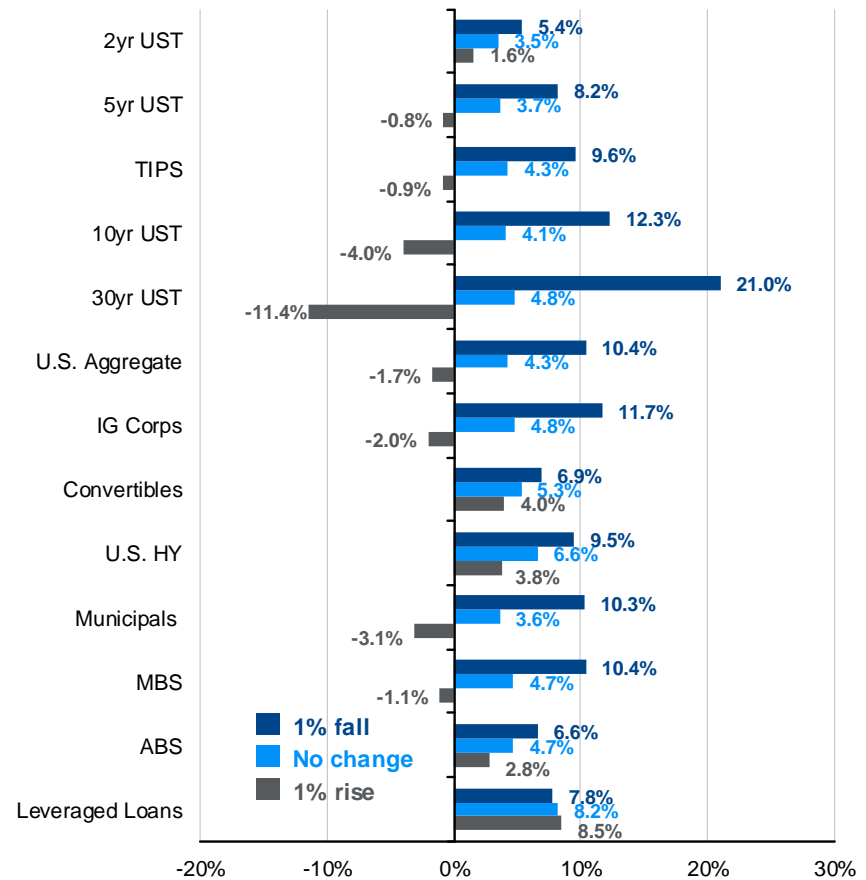


# Fixed income market dynamics

U.S. Treasuries	Yield		Return		Avg. Maturity	Correlation to 10-year	Correlation to S&P 500
	12/11/2025	12/31/2024	2025				
2-Year	3.52%	4.25%	4.65%	2 years	0.74	0.02	
5-Year	3.72%	4.38%	6.87%	5	0.94	0.01	
TIPS	1.64%	2.13%	6.95%	7.2	0.75	0.36	
10-Year	4.14%	4.58%	8.02%	10	1.00	-0.02	
30-Year	4.79%	4.78%	4.09%	30	0.93	-0.05	
Sector							
U.S. Aggregate	4.34%	4.91%	7.04%	8.3	0.91	0.28	
IG Corps	4.83%	5.33%	7.59%	10.5	0.70	0.50	
Convertibles	5.27%	6.13%	19.63%	-	0.00	0.86	
U.S. HY	6.64%	7.49%	8.10%	4.8	0.11	0.79	
Municipals	3.60%	3.74%	4.05%	13.6	0.73	0.30	
MBS	4.67%	5.27%	8.16%	7.4	0.83	0.29	
ABS	4.72%	5.38%	5.67%	2.1	0.41	0.27	
Leveraged Loans	8.16%	8.68%	5.67%	4.7	-0.21	0.61	

## Fixed income returns in different interest rate scenarios

Total return, assumes a parallel shift in the yield curve



Source: Bloomberg, FactSet, Federal Reserve Bank of Cleveland, Standard & Poor's, U.S. Treasury, J.P. Morgan Asset Management.

Sectors shown above are provided by Bloomberg unless otherwise noted and are represented by – U.S. Aggregate; MBS: U.S. Aggregate Securitized – MBS; ABS: J.P. Morgan ABS Index; IG Corporates: U.S. Corporates; Municipals: Muni Bond; High Yield: Corporate High Yield; Leveraged Loans: J.P. Morgan Leveraged Loan Index; TIPS: Treasury Inflation-Protected Securities; Convertibles: U.S. Convertibles Composite. Convertibles yield is as of most recent month-end and is based on U.S. portion of Bloomberg Global Convertibles Index. Yield and return information based on bellwethers for Treasury securities. Yields shown for TIPS are real yields. TIPS returns consider the impact that inflation could have on returns by assuming the Cleveland Fed's 1-year inflation expectation forecasts are realized. Sector yields reflect yield to worst. Leveraged loan yields reflect the yield to 3-year takeout. Correlations are based on 15 years of monthly returns for all sectors. ABS returns prior to June 2012 are sourced from Bloomberg. Past performance is no guarantee of future results.

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# Fixed income investment universe

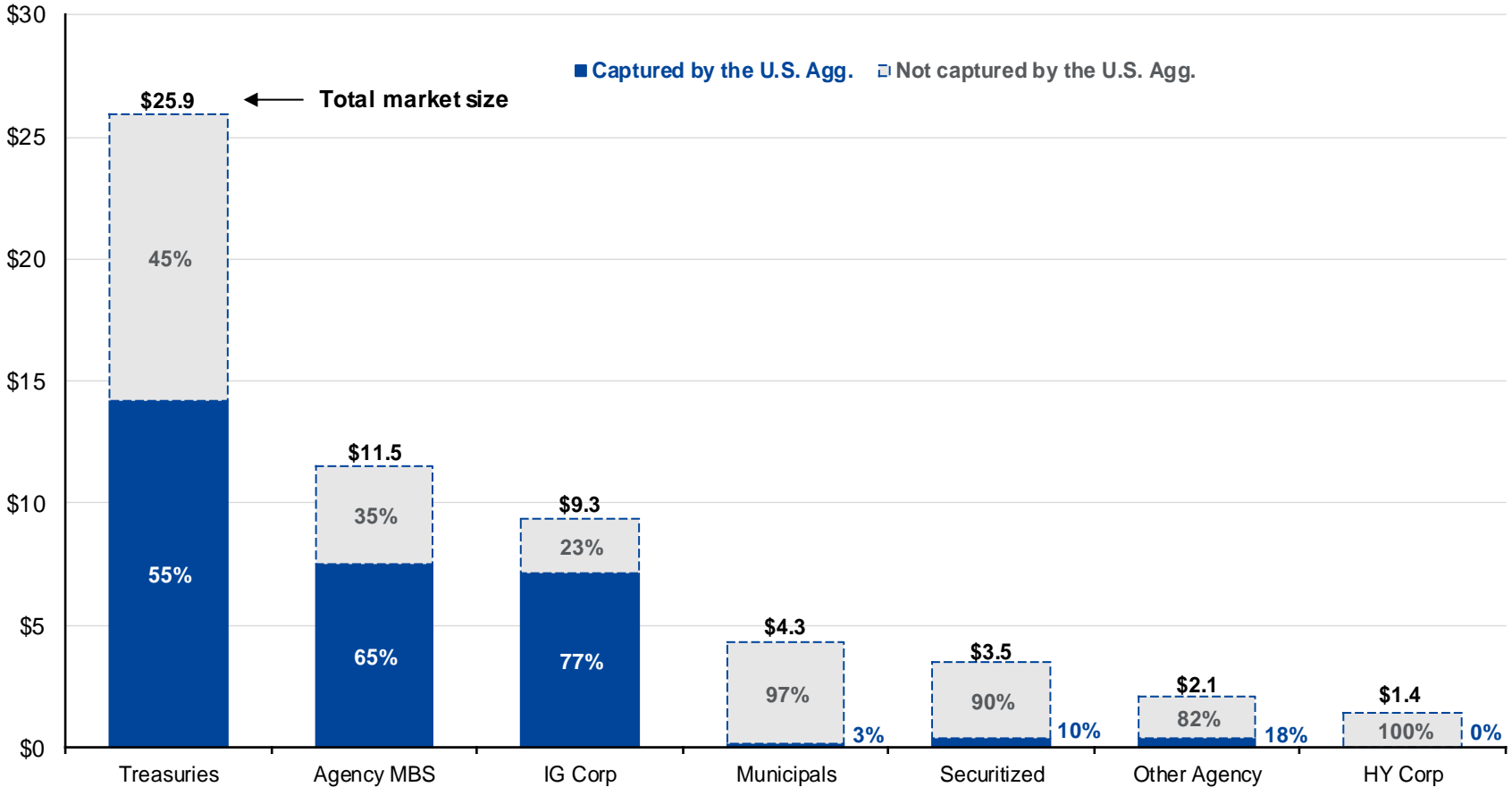
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## Fixed income investable market vs. the Bloomberg U.S. Aggregate Index

USD trillions, 2Q25



Source: Bank of America, Bloomberg, SIFMA, J.P. Morgan Asset Management.

The investable universe for Treasuries, municipals and other agency securities are sourced from SIFMA and reflect par value outstanding. The investable universe for agency MBS, CMBS, CMOs, CLOs, CDOs, ABS, investment grade corporates and high yield corporates are sourced from Bank of America and reflect market value outstanding. Treasuries include outstanding bills, bonds and notes. Agency MBS includes MBS, CMBS and CMOs. Securitized includes ABS, CLOs, CDOs, non-agency CMBS and non-agency RMBS. Sector classifications for constituents in the Bloomberg U.S. Aggregate are based on classifications provided by Bloomberg.

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# Yield curve

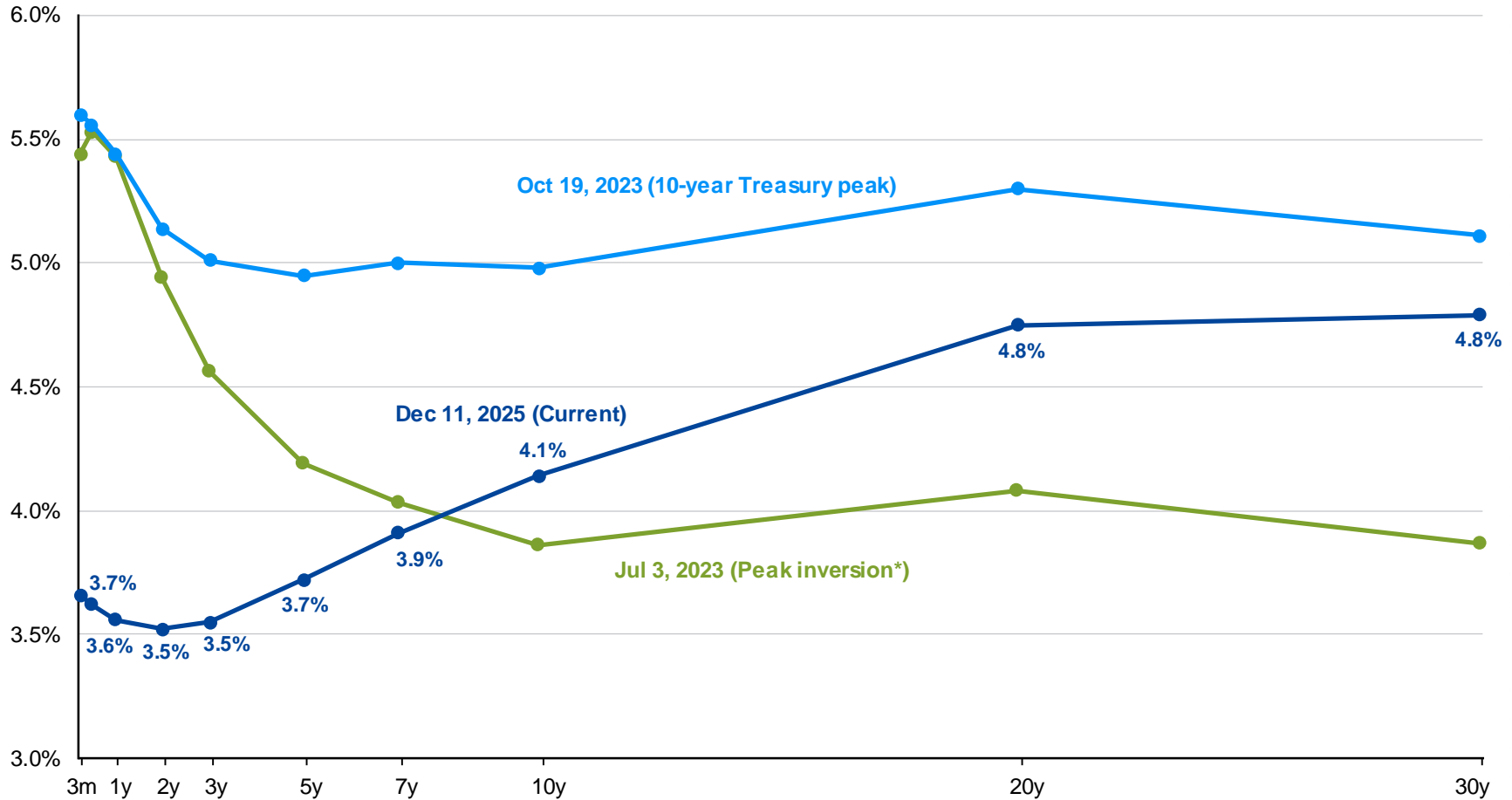
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Fixed Income

## U.S. Treasury yield curve



Source: FactSet, Federal Reserve, J.P. Morgan Asset Management.  
Analysis references data back to 2020. \*Peak inversion is measured by the spread between the yield on a 10-year Treasury and 2-year Treasury.  
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# The shape of the yield curve

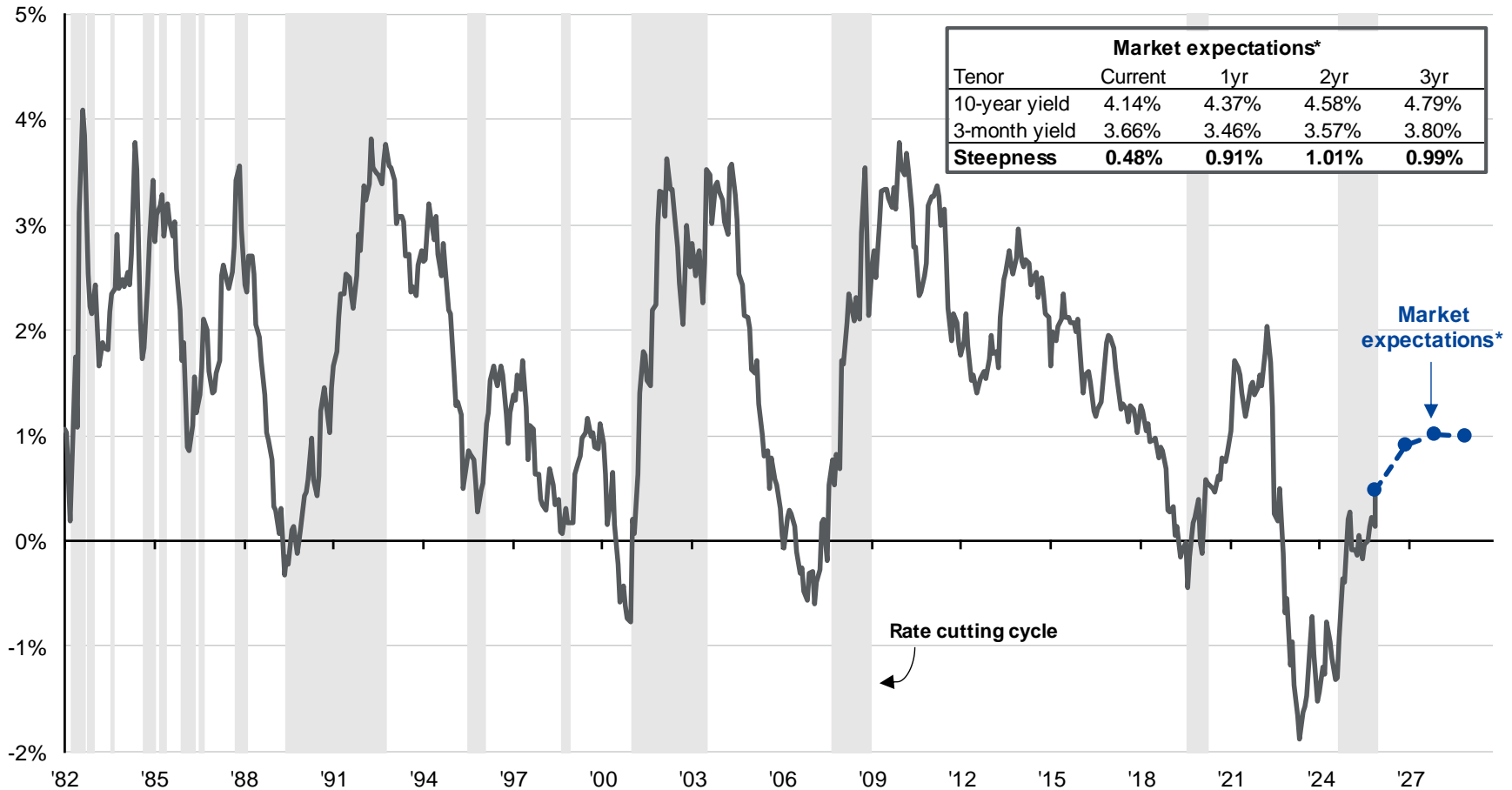
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## U.S. yield curve steepness

Difference between 10-year and 3-month U.S. Treasury yields



Source: Bloomberg, U.S. Treasury, J.P. Morgan Asset Management.

The 10-year Treasury and 3-month Treasury yield spread is commonly referenced as a forward-looking indicator that reflects the market's judgment of future economic prospects. \*Market expectations are derived from forward rates and reflect expectations for rates one year (1yr), two years (2yr) and three years (3yr) from today.

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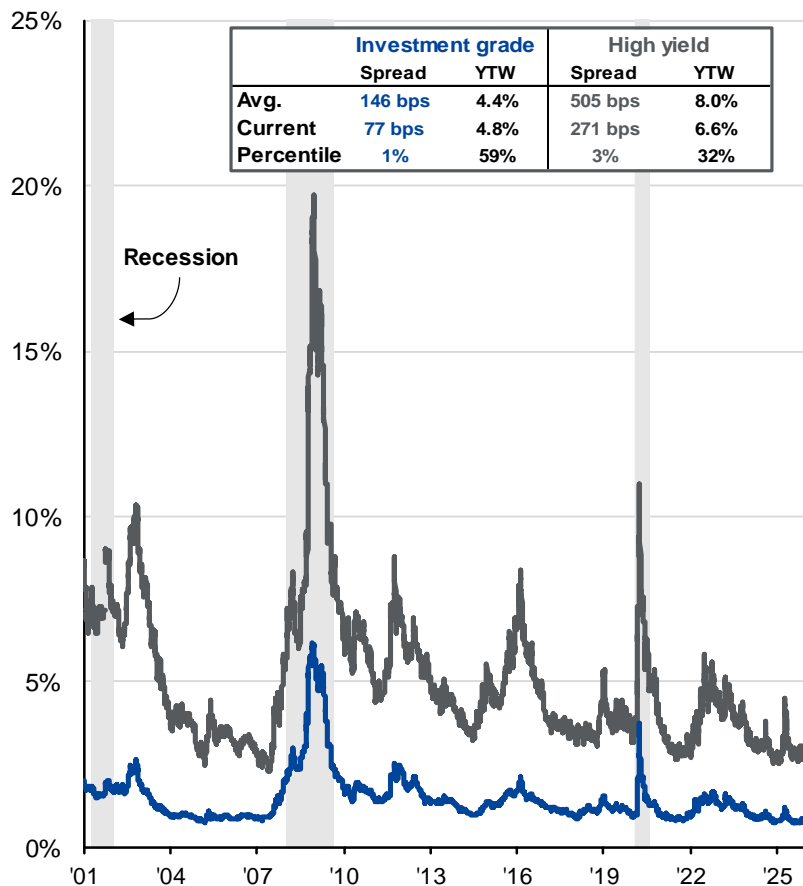


# Credit market dynamics

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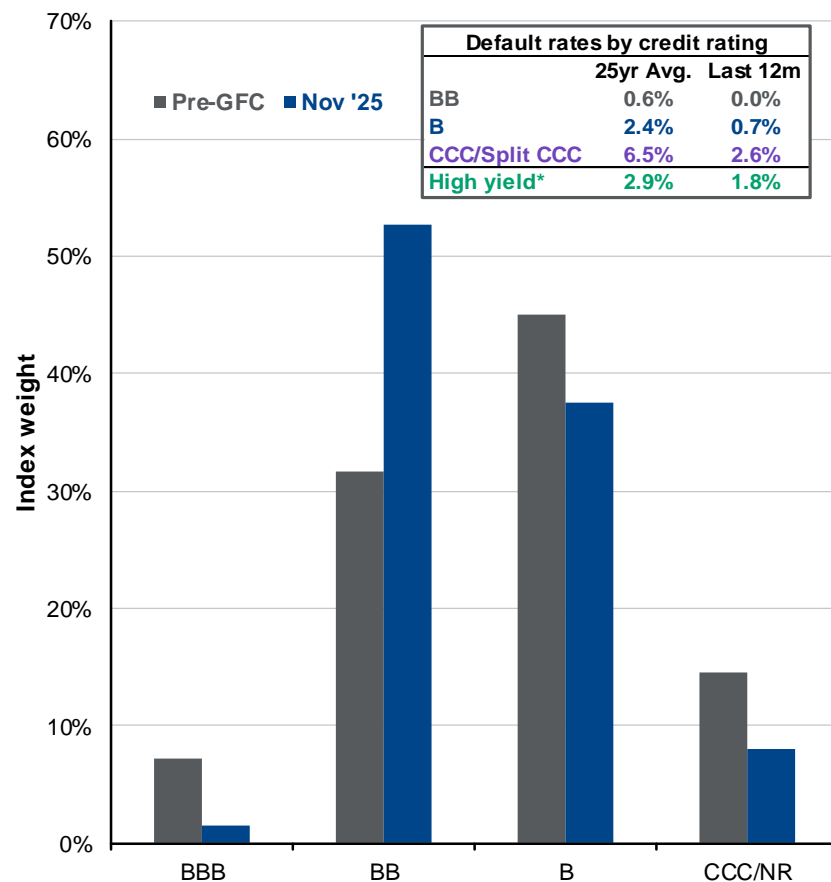
## Corporate credit spreads

Option adjusted spread, 2001 - present



## Credit rating and default rates in U.S. high yield

%, J.P. Morgan Domestic High Yield Index



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

(Left) U.S. Investment Grade: Bloomberg U.S. Corporate Investment Grade Index; U.S. High Yield: Bloomberg U.S. Aggregate Corporate High Yield Index. (Right) Last 12-month default rates are as of most recent month for which data are available. Default rates shown by credit rating do not include distressed exchanges and are grouped by rating 12 months prior to default. Bond ratings include split ratings. "NR" stands for not rated. Pre-GFC reflects data as of December 2007. \*Aggregate high yield default rate data do include distressed exchanges.

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# Fixed income yields

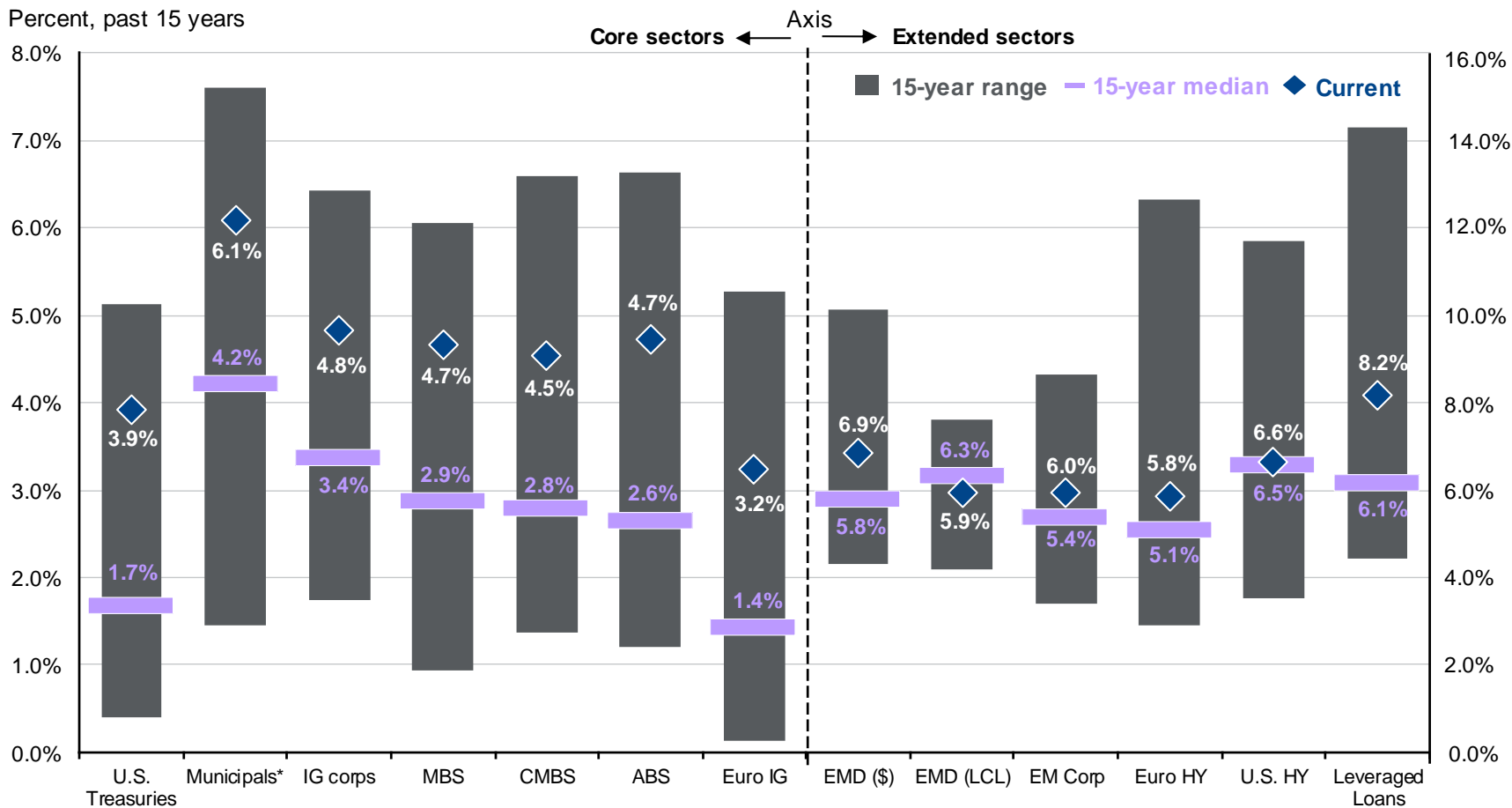
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## Yield to worst across fixed income sectors

Percent, past 15 years



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

Indices used are Bloomberg except for ABS, emerging market debt and leveraged loans: ABS: J.P. Morgan ABS Index; CMBS: Bloomberg Investment Grade CMBS Index; EMD (USD): J.P. Morgan EMIGLOBAL Diversified Index; EMD (LCL): J.P. Morgan GBI-EM Global Diversified Index; EM Corp.: J.P. Morgan CEMBI Broad Diversified; Leveraged Loans: JPM Leveraged Loan Index; Euro IG: Bloomberg Euro Aggregate Corporate Index; Euro HY: Bloomberg Pan-European High Yield Index. Yield to worst is the lowest possible yield that can be received on a bond apart from the company defaulting and considers factors like call provisions, prepayments and other features that may affect the bonds' cash flows. ABS data begins in 2012. \*All sectors shown are yield to worst except for Municipals, which is based on the tax-equivalent yield to worst assuming a top income tax bracket rate of 37% plus a Medicare tax rate of 3.8%.

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# Global fixed income

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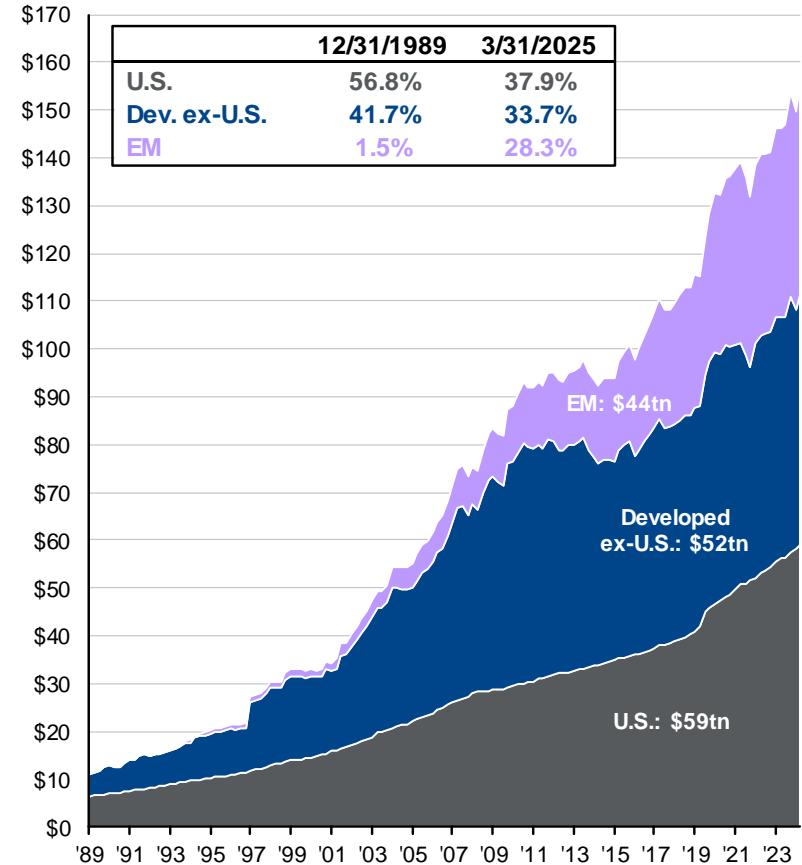
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	Local yield		USD yield	2025 Return			
Aggregates	12/11/2025	12/31/2024	12/11/2025	Local	USD	Duration	Correlation to U.S. 10yr
U.S.	4.34%	4.91%	-	7.04%	7.04%	6.0 years	0.93
Gbl. ex-U.S.	2.99%	2.85%	-	-	8.49%	6.7	0.71
Canada	3.66%	3.75%	5.31%	2.70%	7.35%	6.7	0.57
Japan	1.94%	1.26%	4.86%	-4.92%	-3.70%	8.4	0.69
Germany	2.86%	2.70%	4.68%	-0.63%	12.83%	6.0	0.66
UK	4.40%	4.66%	4.31%	4.76%	12.38%	7.5	0.61
Italy	3.12%	3.11%	4.94%	2.81%	16.74%	6.2	0.53
China	1.78%	1.64%	4.10%	0.55%	3.99%	6.0 years	0.51
Sector							
Euro Corp.	3.24%	3.18%	5.06%	2.81%	16.73%	4.4	0.46
Euro HY	5.84%	6.03%	7.66%	4.48%	18.63%	3.4	0.06
EMD (USD)	6.86%	7.86%	-	-	13.56%	6.2	0.41
EMD (LCL)	5.94%	6.39%	-	9.43%	18.03%	5.3	0.33
EM Corp.	5.95%	6.56%	-	-	8.27%	5.2	0.32

## Global bond market

USD trillions



Source: J.P. Morgan Asset Management; (Left) Bloomberg, FactSet; (Right) BIS.

Fixed income sectors shown above are provided by Bloomberg and are represented by the global aggregate for each country except where noted. EMD sectors are represented by the J.P. Morgan EMBIG Diversified Index (USD), the J.P. Morgan GBI EM Global Diversified Index (LCL) and the J.P. Morgan CEMBI Broad Diversified Index (Corp). European Corporates are represented by the Bloomberg Euro Aggregate Corporate Index and the Bloomberg Pan-European High Yield Index. Sector yields reflect yield to worst. Correlations are based on 10-years of monthly returns for all sectors. Countries included in the emerging market debt calculation are those represented in the J.P. Morgan EMB Index suite for which the BIS has data. Global bond market regional breakdown may not sum to 100% due to rounding. USD yield shows the total effective yield a U.S.-based investor could expect after accounting for the hedging premium. Hedging premiums are calculated taking the spread between the 3-month SOFR rate and the 3-month short-term lending rates in local market referenced (e.g. 3-month Euribor is used for European economies) and do not include transactional fees that can reduce effective yield. Past performance is no guarantee of future results.

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# Municipal finance

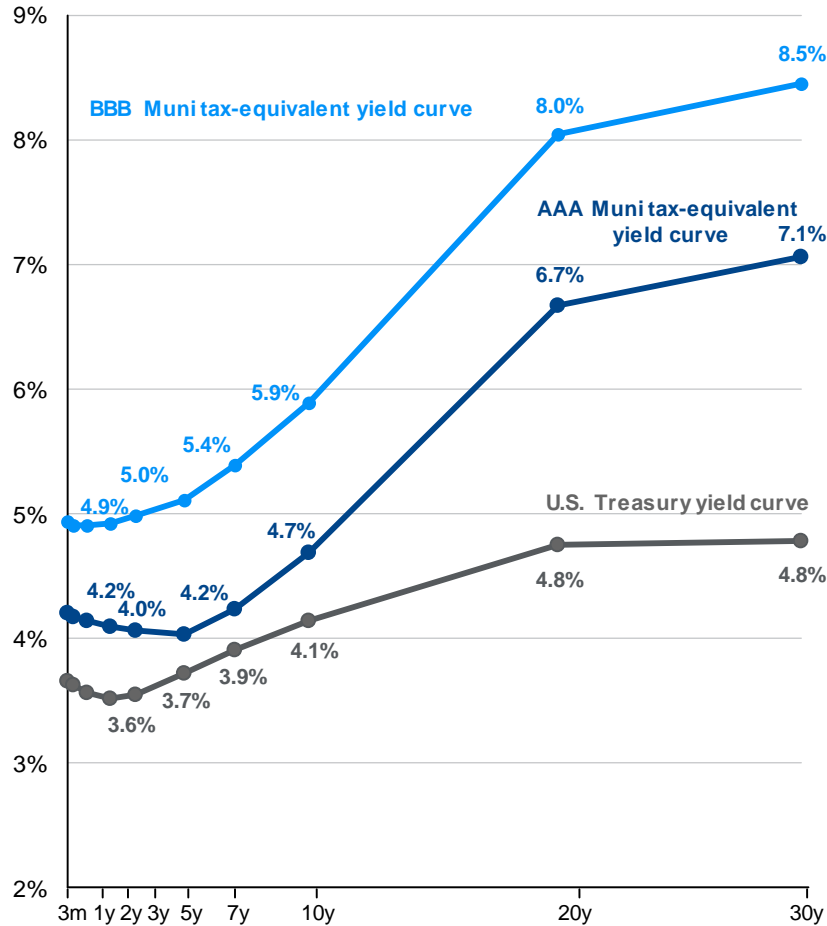
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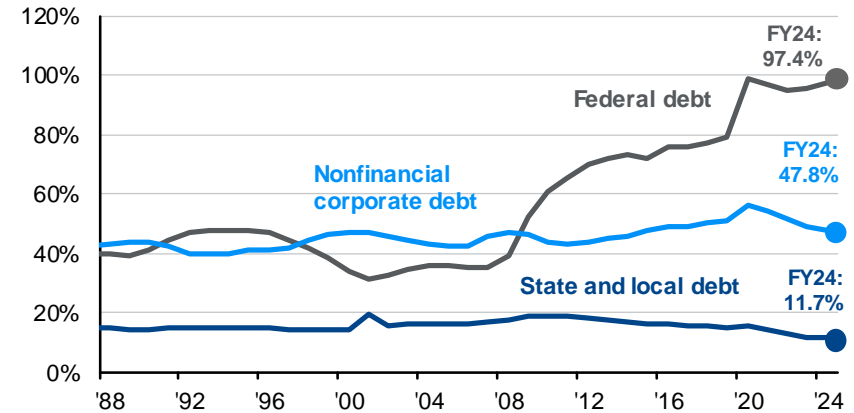
Fixed Income

## Muni tax-equivalent and Treasury yield curves



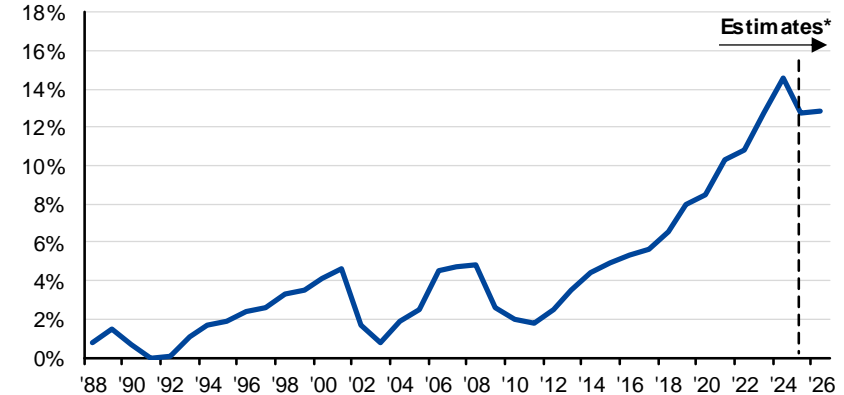
## State and local, federal and corporate debt

% of GDP, 1988 - 2024, end of fiscal year



## State Rainy Day Fund balances

Median savings balances as a % of total spending, 1988 - 2026, fiscal year



Source: J.P. Morgan Asset Management; (Left) Bloomberg, FactSet, Federal Reserve, S&P Global; (Top right) Census Bureau, Congressional Budget Office (CBO), Federal Reserve; (Bottom right) NASBO Fiscal Survey of States. Municipal tax-equivalent yields are calculated based on municipal bond curves for each credit rating according to S&P Global and assume a top income tax bracket rate of 37% plus a Medicare tax rate of 3.8% for a total tax rate of 40.8%. State and local debt are based on the Census Bureau's Annual Survey of State and Local Government Finances. A rainy day fund, also known as a budget stabilization fund or reserve fund, is a collection of funds that local governments use to prepare for financial emergencies and future stability. \*Estimates are sourced from NASBO's Fiscal Survey of States. Figures for FY 2025 are estimates while figures for FY 2026 are projected based on governors' recommended budgets. Guide to the Markets – U.S. Data are as of December 11, 2025.

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# Fixed income yields and forward returns

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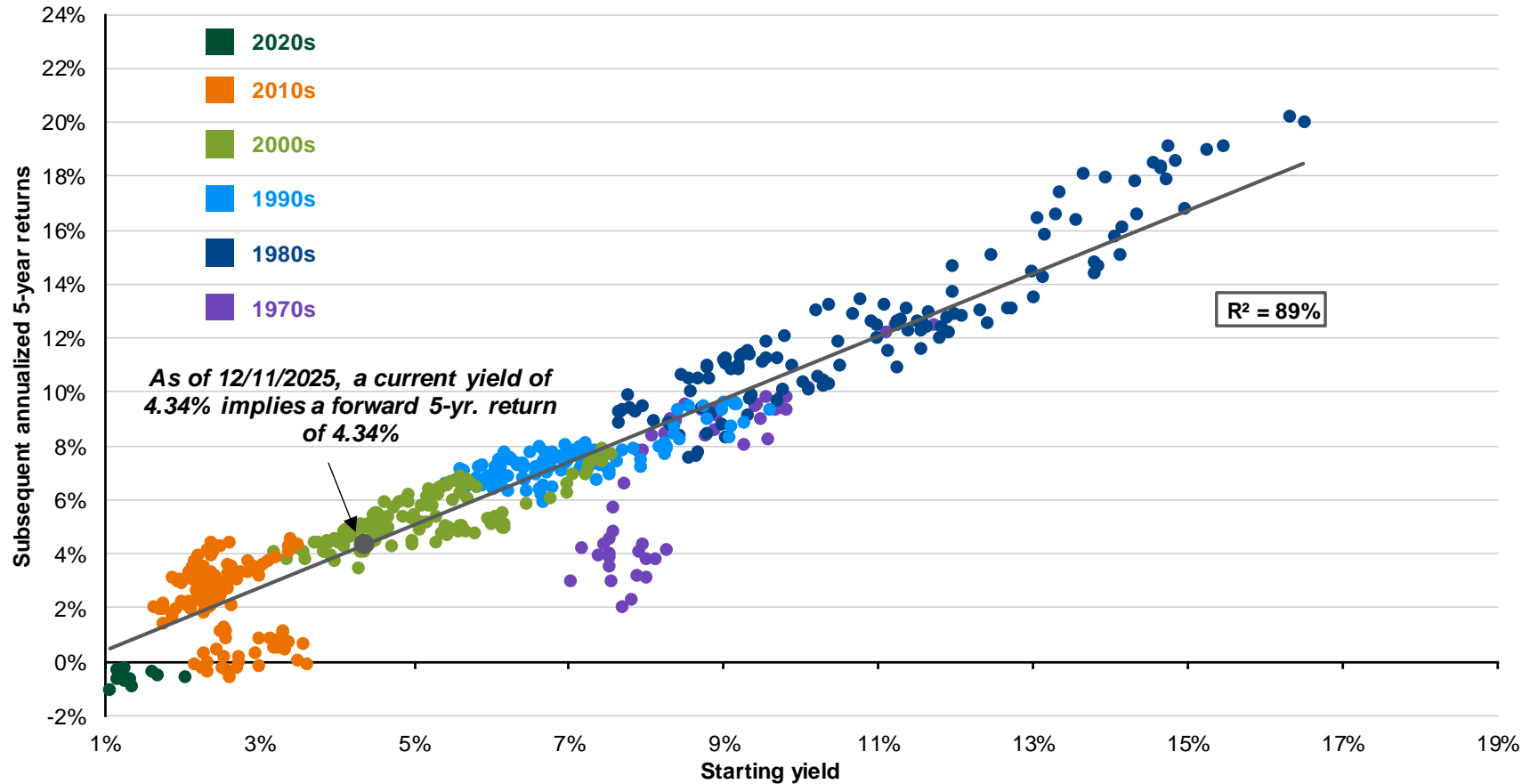
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Fixed Income

## Yield to worst and subsequent 5-year annualized returns

Bloomberg U.S. Aggregate Total Return Index



Source: Bloomberg, FactSet, J.P. Morgan Asset Management. Returns are 60-month annualized total returns, measured monthly, beginning 1/31/1976.  $R^2$  represents the percent of total variation in total returns that can be explained by yields at the start of each period. Past performance is no guarantee of future results. *Guide to the Markets* – U.S. Data are as of December 11, 2025.

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# Bloomberg U.S. Agg. annual returns and intra-year declines

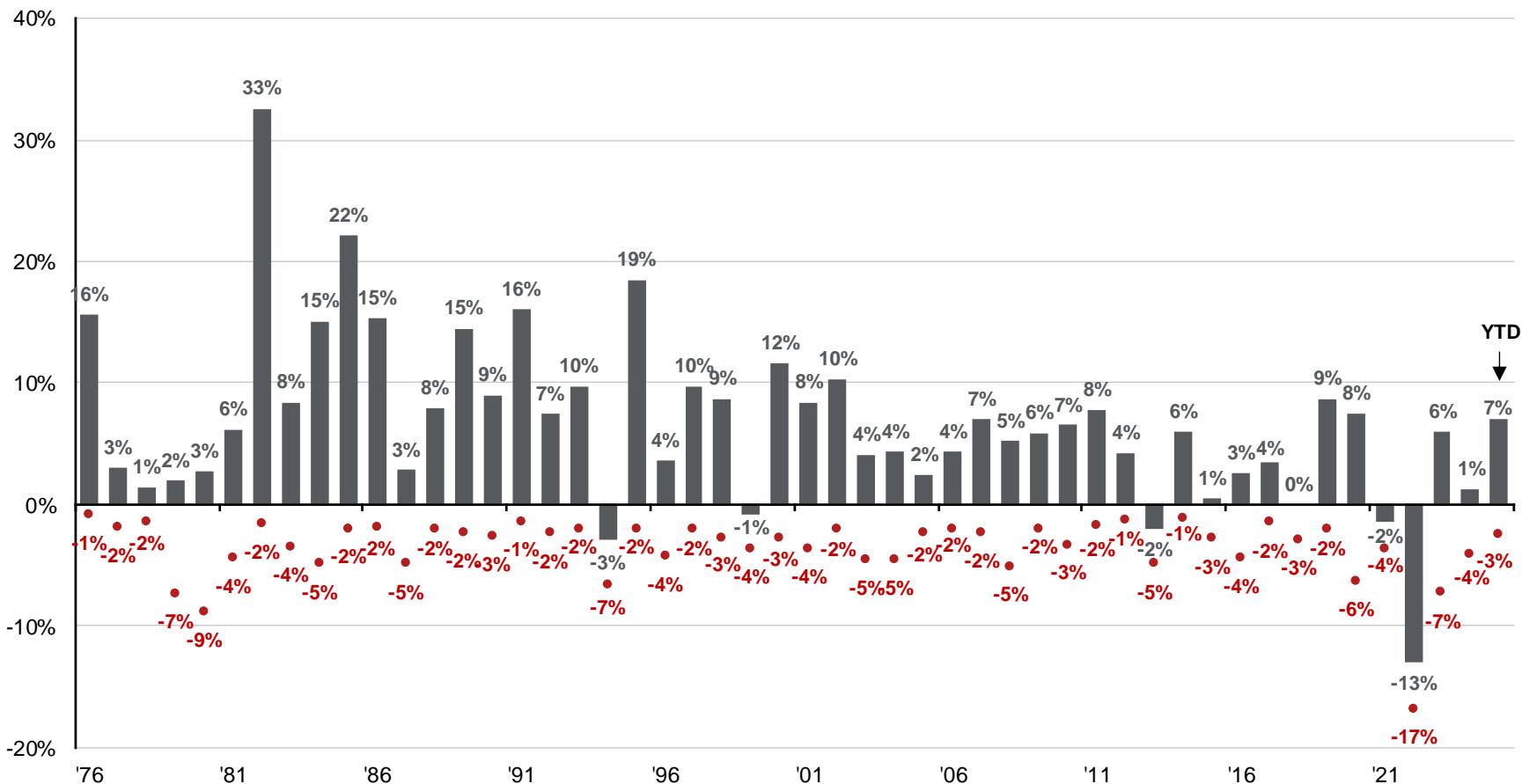
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## Bloomberg U.S. Aggregate intra-year declines vs. calendar year returns

Despite average intra-year drops of 3.5%, annual returns were positive in 44 of 49 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. Returns shown are calendar year returns from 1976 to 2024, over which time period the average annual return was 6.5%. Returns from 1976 to 1989 are calculated on a monthly basis; daily data are used afterward. For illustrative purposes only. Past performance is no guarantee of future results.

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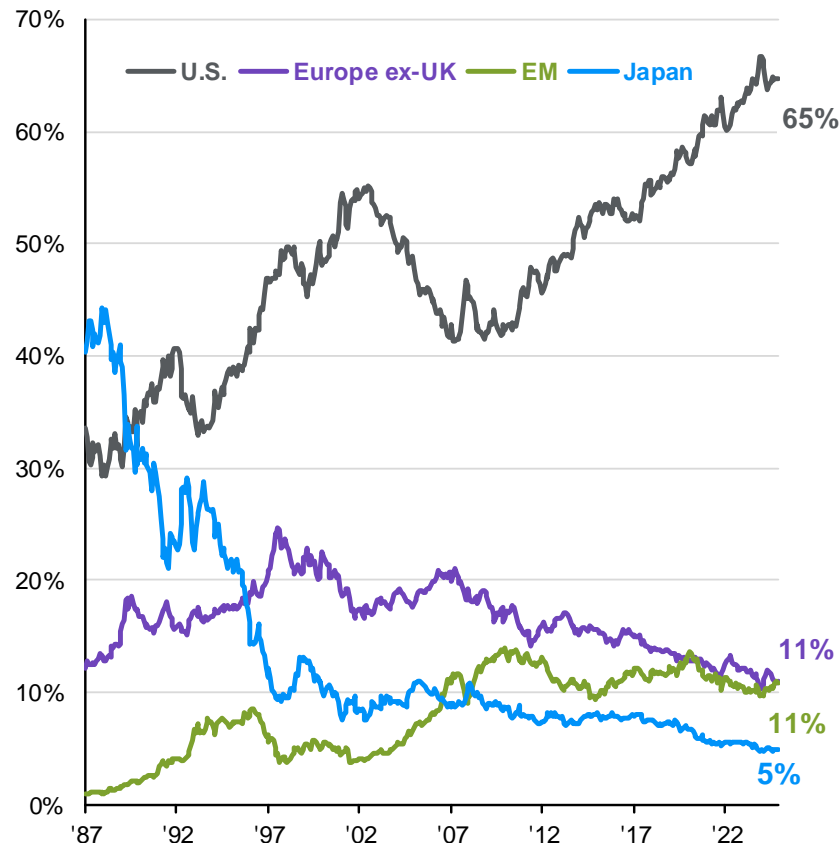
# Global equity markets

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Returns	2025 YTD		2024		15-years Ann.
	Local	USD	Local	USD	
Regions					
U.S. (S&P 500)	-	18.8%	-	25.0%	14.1%
AC World ex-U.S.	23.2%	31.1%	13.2%	6.1%	6.3%
EAFE	19.4%	30.2%	11.8%	4.3%	7.1%
Eurozone	23.3%	39.9%	10.3%	3.4%	7.7%
Emerging markets	29.8%	31.6%	13.7%	8.1%	4.1%
Selected Countries					
Japan	23.0%	24.6%	21.2%	8.7%	6.8%
UK	22.8%	31.7%	9.5%	7.5%	6.2%
France	13.1%	28.4%	1.8%	-4.6%	7.8%
Canada	30.5%	36.4%	23.0%	12.7%	6.8%
Germany	20.0%	36.2%	18.4%	11.0%	7.2%
China	31.1%	31.7%	19.8%	19.7%	4.1%
Taiwan	28.9%	35.2%	44.3%	35.1%	12.7%
India	8.1%	2.5%	15.7%	12.4%	5.7%
Brazil	34.0%	50.3%	-11.4%	-29.5%	-0.3%

## Share of global market capitalization

% weight in MSCI All Country World, USD, monthly



Source: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management. (Left) All return values are MSCI Total Return Index (Gross) data. 15-year history based on USD returns. 15-year annualized return figures are calculated using a rolling 12-month period ending with the previous month-end. Please see disclosure page for index definitions. Past performance is not a reliable indicator of current and future results. *Guide to the Markets* – U.S. Data are as of December 11, 2025.



# International developed equities and the U.S. dollar

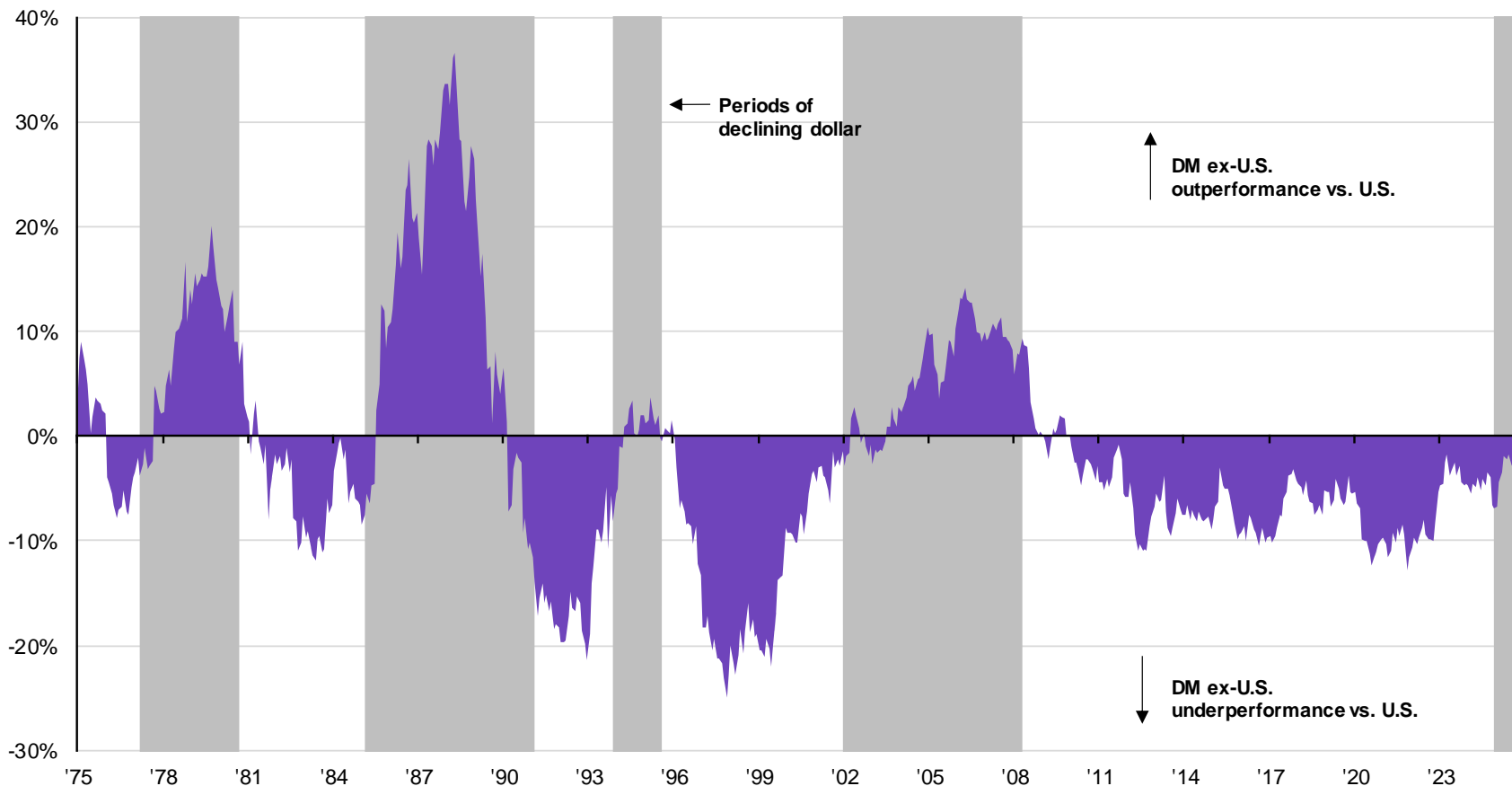
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## Cycles of DM ex-U.S. outperformance and USD

International developed out/underperformance vs. U.S., MSCI EAFE, MSCI USA, DXY Index, total return, rolling 3-year ann.



Source: FactSet, MSCI, J.P. Morgan Asset Management. Past performance is not a reliable indicator of current and future results. MSCI EAFE Index: A benchmark tracking large- and mid-cap stocks in developed markets across Europe, Australasia, and the Far East, excluding the U.S. and Canada.

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# Global equity return composition

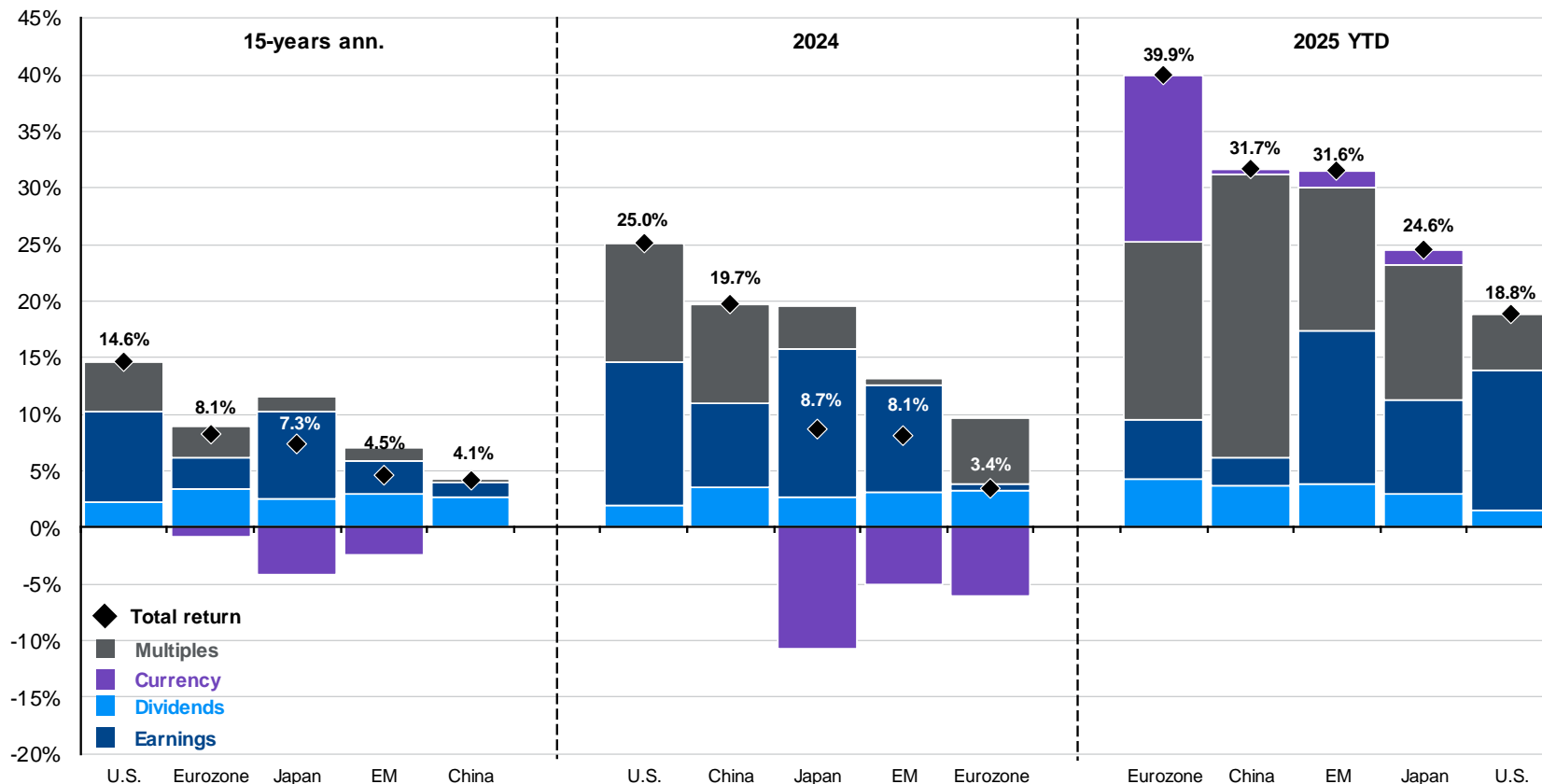
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## Sources of global equity returns\*

Total return, USD



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

15-years ann. is a rolling 15-year period ending with the previous month-end. All return values are MSCI Gross Index data, except the U.S., which is the S&P 500. \*Multiple expansion is based on the forward P/E ratio, and EPS growth outlook is based on NTMA earnings estimates. Chart is for illustrative purposes only. Past performance is not indicative of future results.

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# Global equity return themes

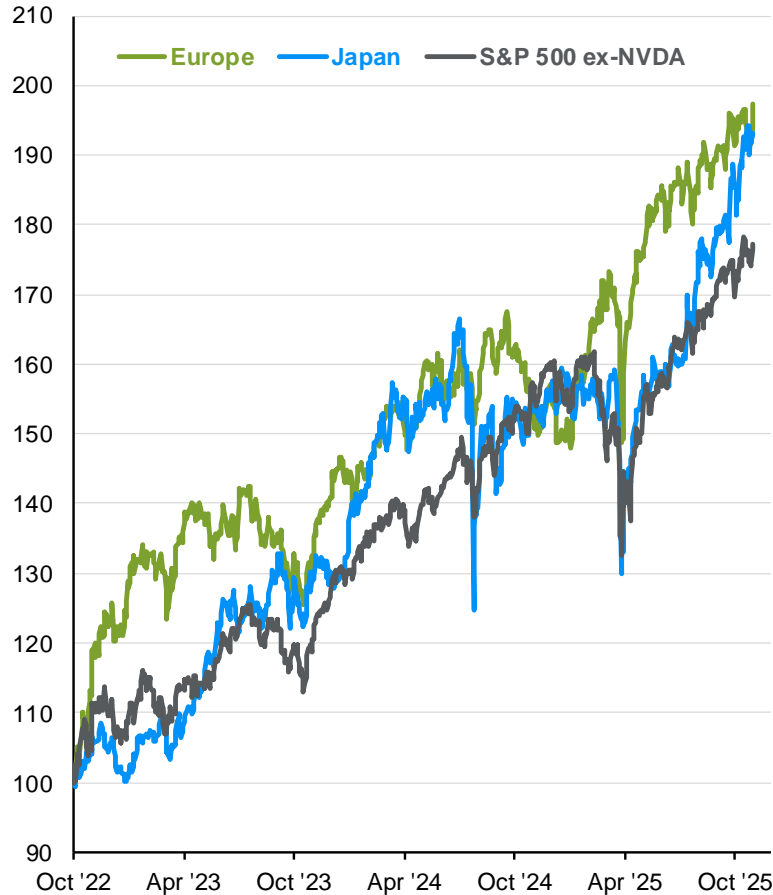
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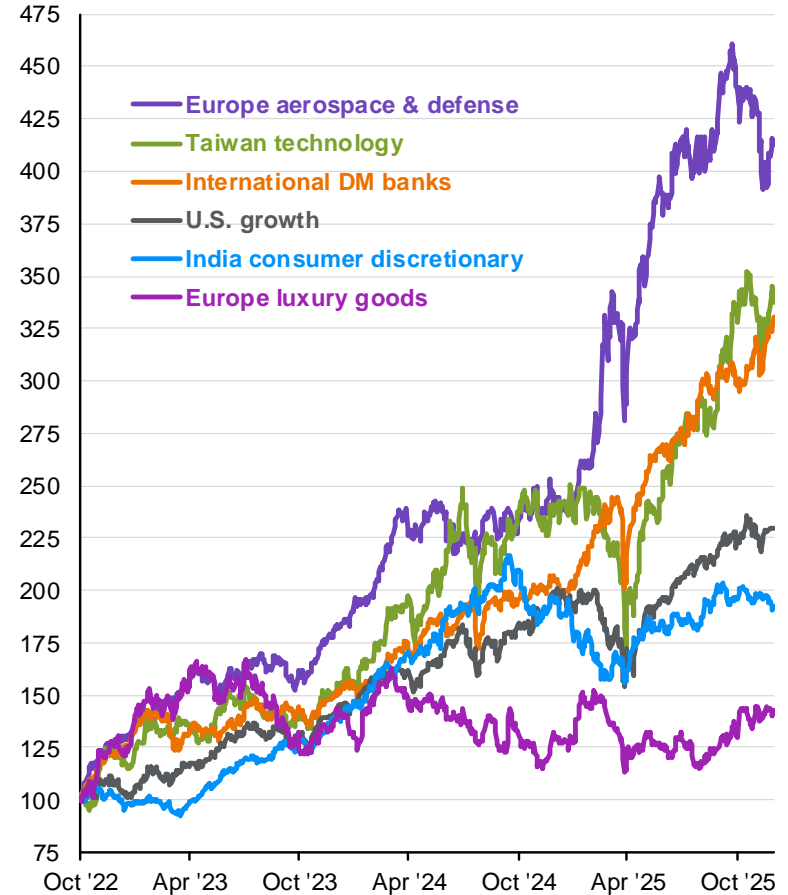
## Regional performance since 2022

Oct 12, 2022 = 100, total return, USD



## Major global investment themes

Oct 12, 2022 = 100, total return, USD



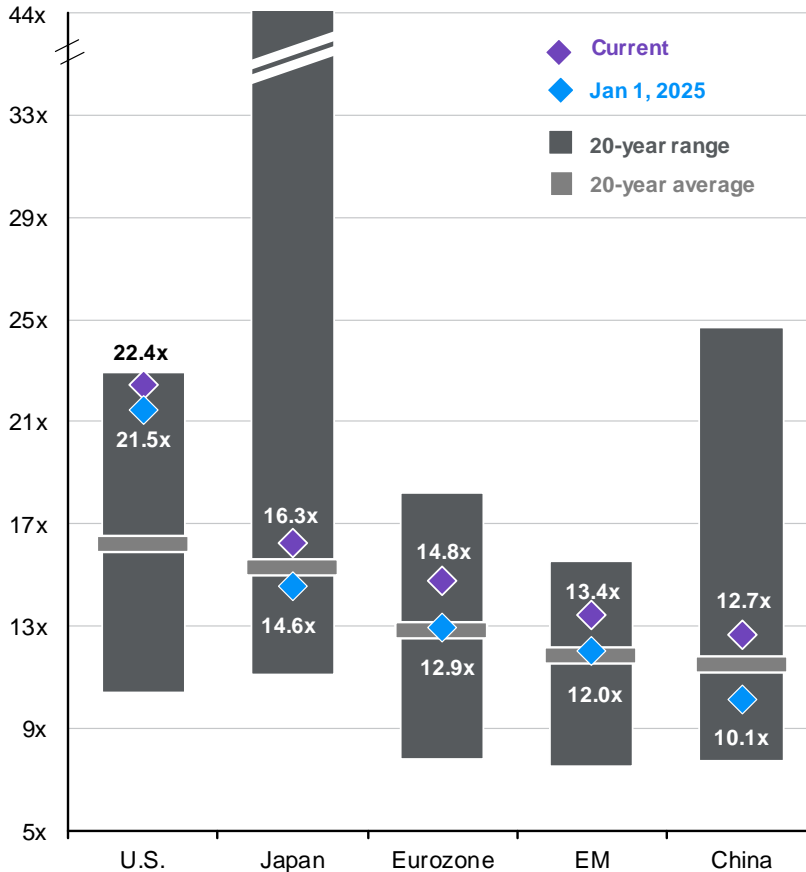
Source: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management. 10/12/2022 was the market bottom for U.S. equities. (Right) Russell. Europe aerospace & defense = MSCI Europe / Aerospace & Defense Index, International DM banks = MSCI EAFE / Banks Index, Taiwan technology = MSCI Taiwan / Information Technology Index, U.S. Growth = Russell 1000 Growth Index, India consumer discretionary = MSCI India / Consumer Discretionary Index, Europe luxury goods = MSCI Europe / Textiles & Apparel & Luxury Goods Index. Guide to the Markets – U.S. Data are as of December 11, 2025.



# Global equity valuations

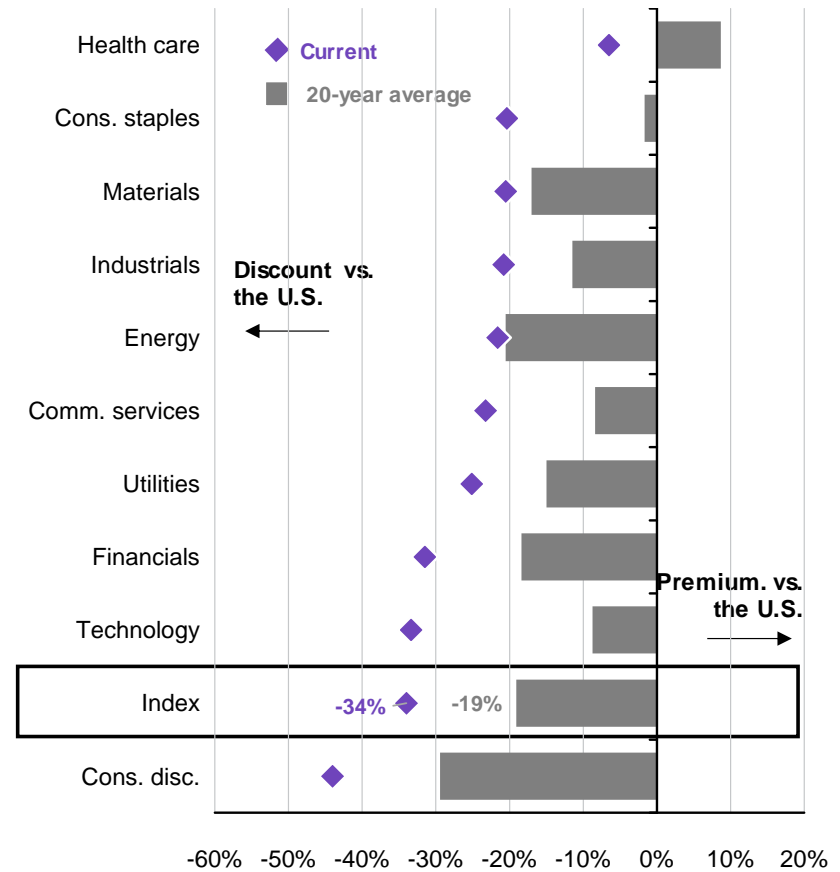
## Valuations by region/country

Forward P/E ratio



## Relative valuations by sector

Forward P/E ratio, MSCI ACWI ex-U.S. divided by S&P 500



Source: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management. Countries are represented by their respective MSCI country index except for the U.S., which is represented by the S&P 500.  
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# Global equity earnings

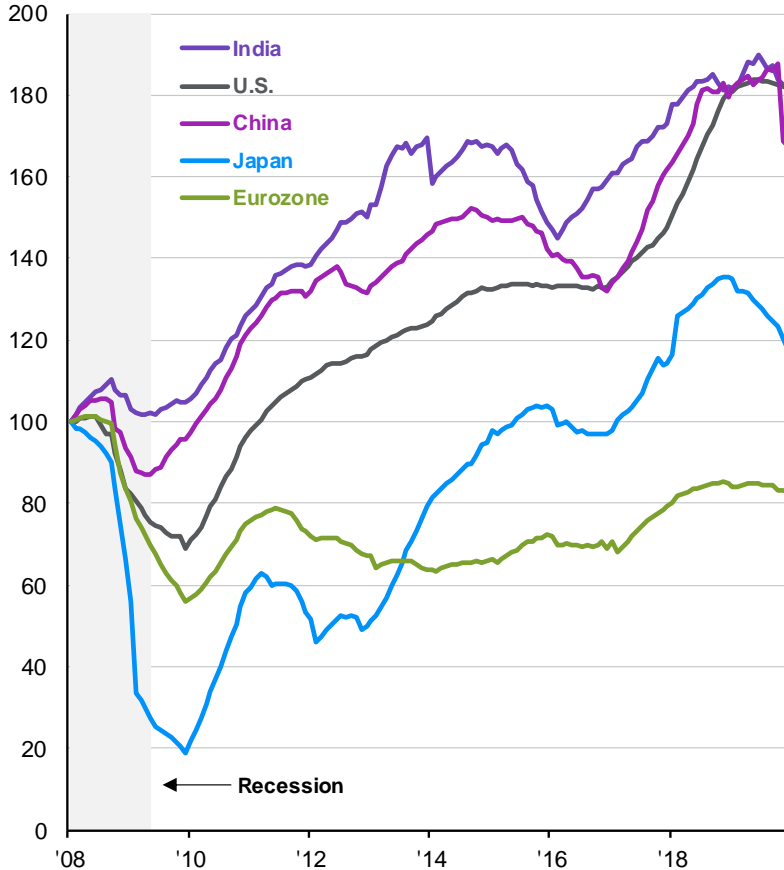
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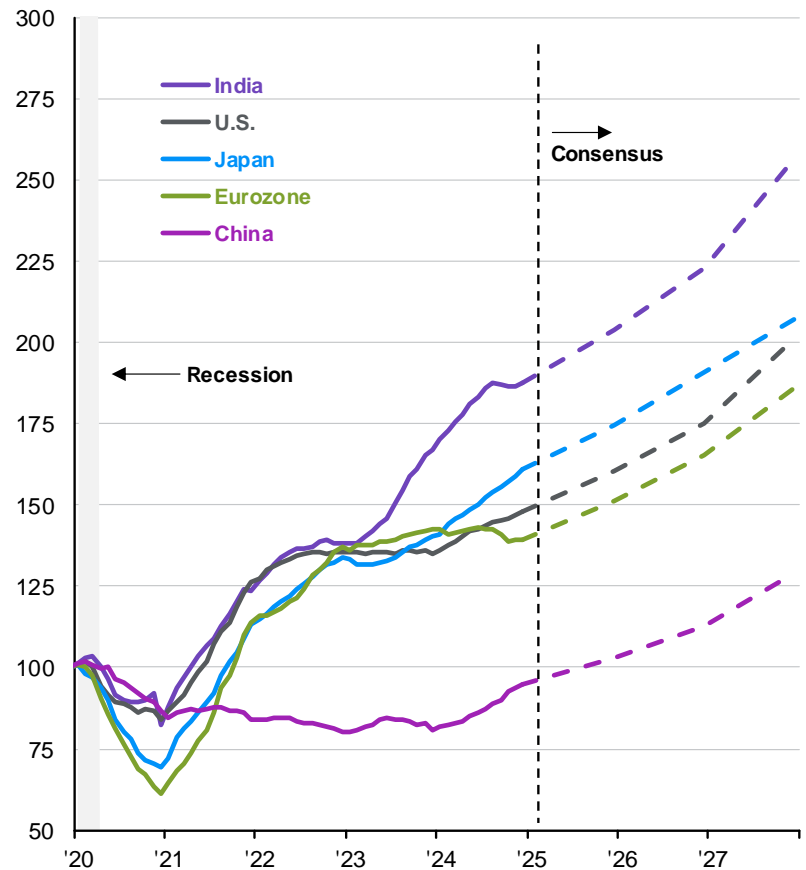
## Earnings growth: GFC to pre-pandemic

Jan 2008 = 100, last 12 months, local currency, monthly



## Earnings growth: Pandemic to present/consensus estimates

Jan 2020 = 100, last 12 months, local currency, monthly



Source: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management. Countries are represented by their respective MSCI country index except for the U.S., which is represented by the S&P 500. GFC = Global Financial Crisis. Past performance is not a reliable indicator of current and future results.

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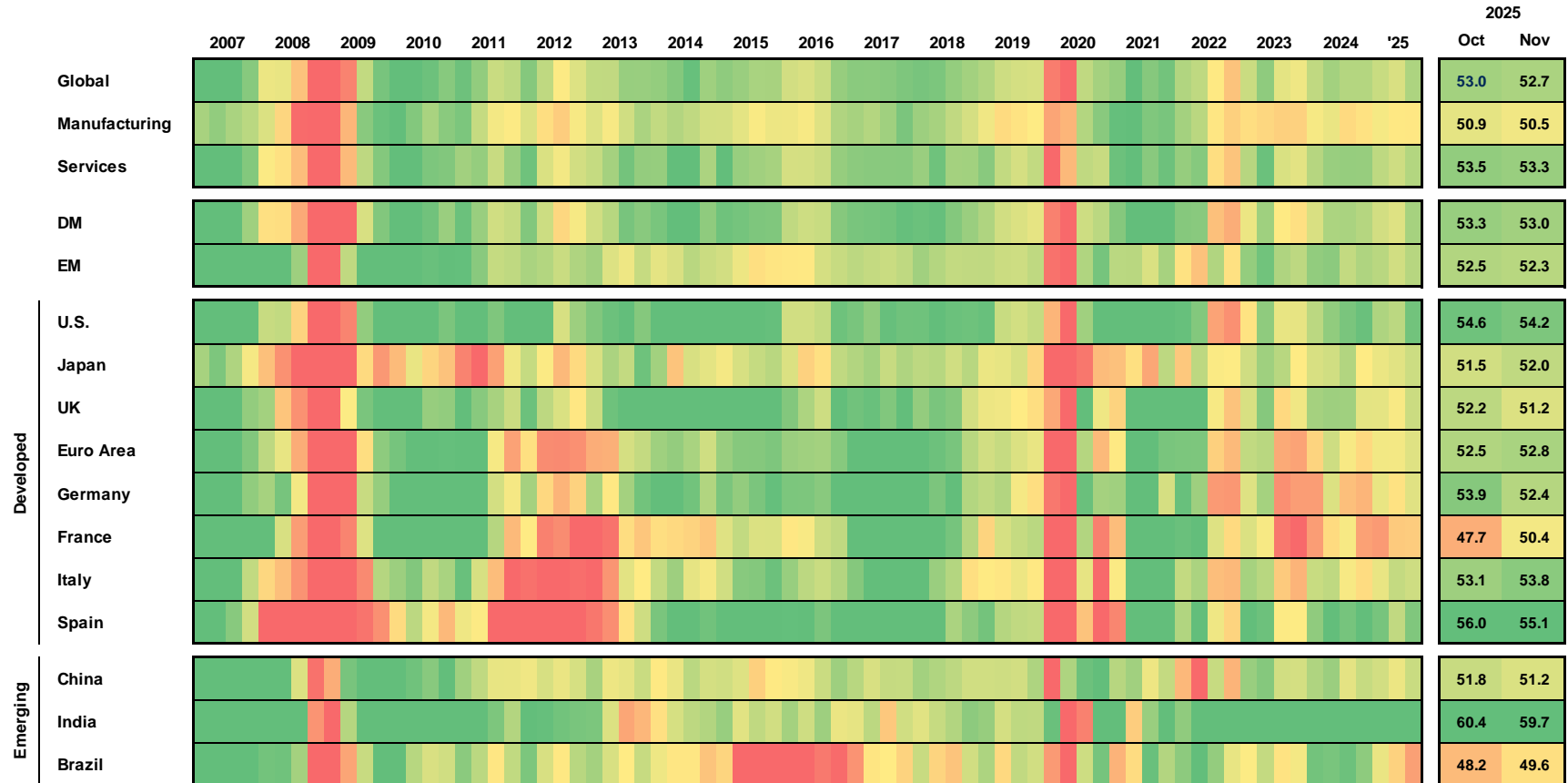
# Global economic activity momentum

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



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

Any italicized figures represent 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 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 to 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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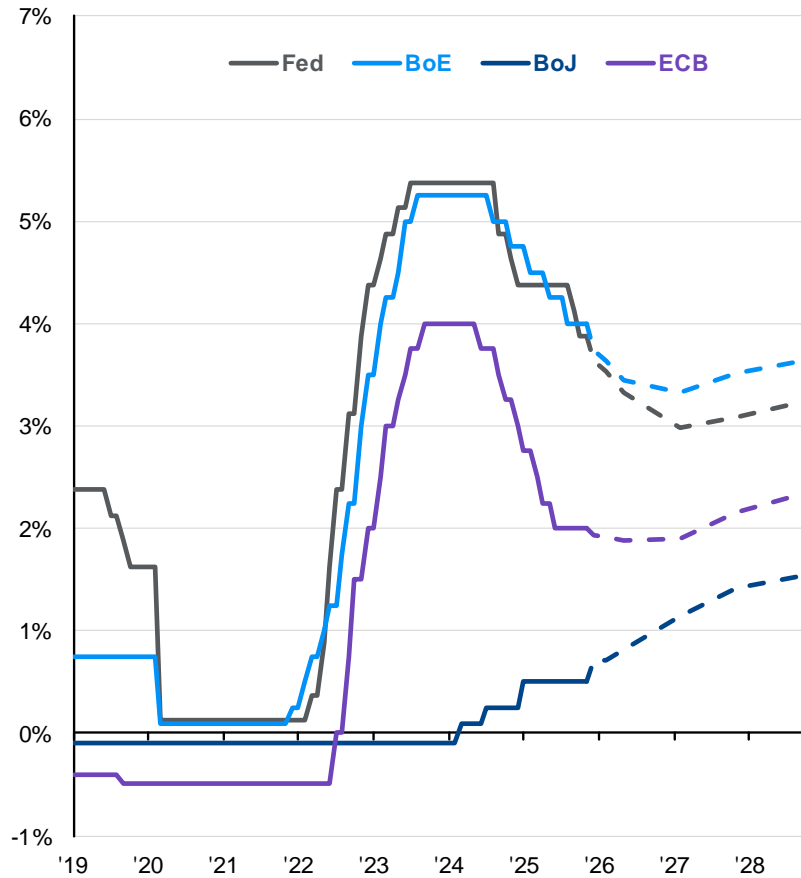




# Developed market monetary and fiscal policy

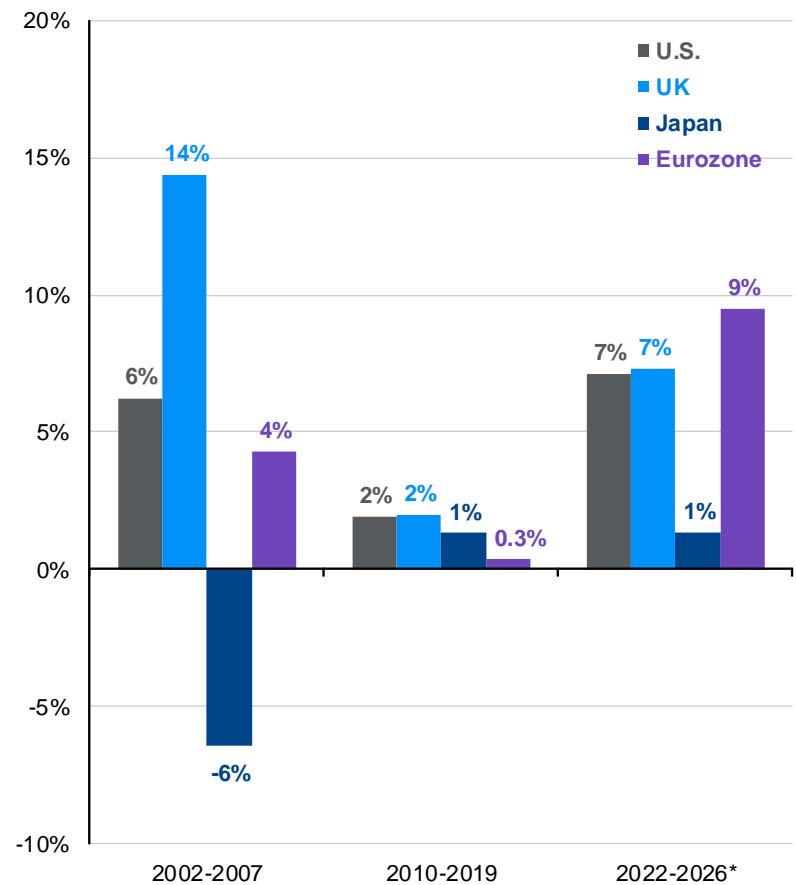
## Historical and expected policy rates

Target policy rates and market implied forward rates



## Government fixed investment

Average annual growth rate, general government fixed capital formation



Source: J.P. Morgan Asset Management. (Left) Bank of England (BoE), Bank of Japan (BoJ), Bloomberg, European Central Bank (ECB), Federal Reserve (Fed). (Right) OECD. \*2022 to 2026 includes OECD forecasts. Eurozone is a GDP-weighted average of France, Germany, Italy and Spain. General government fixed capital formation is investment by government entities in long-term assets such as infrastructure, buildings, machinery, and equipment, intended to support public services and economic development.  
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# Alternatives: Correlations, returns and yields

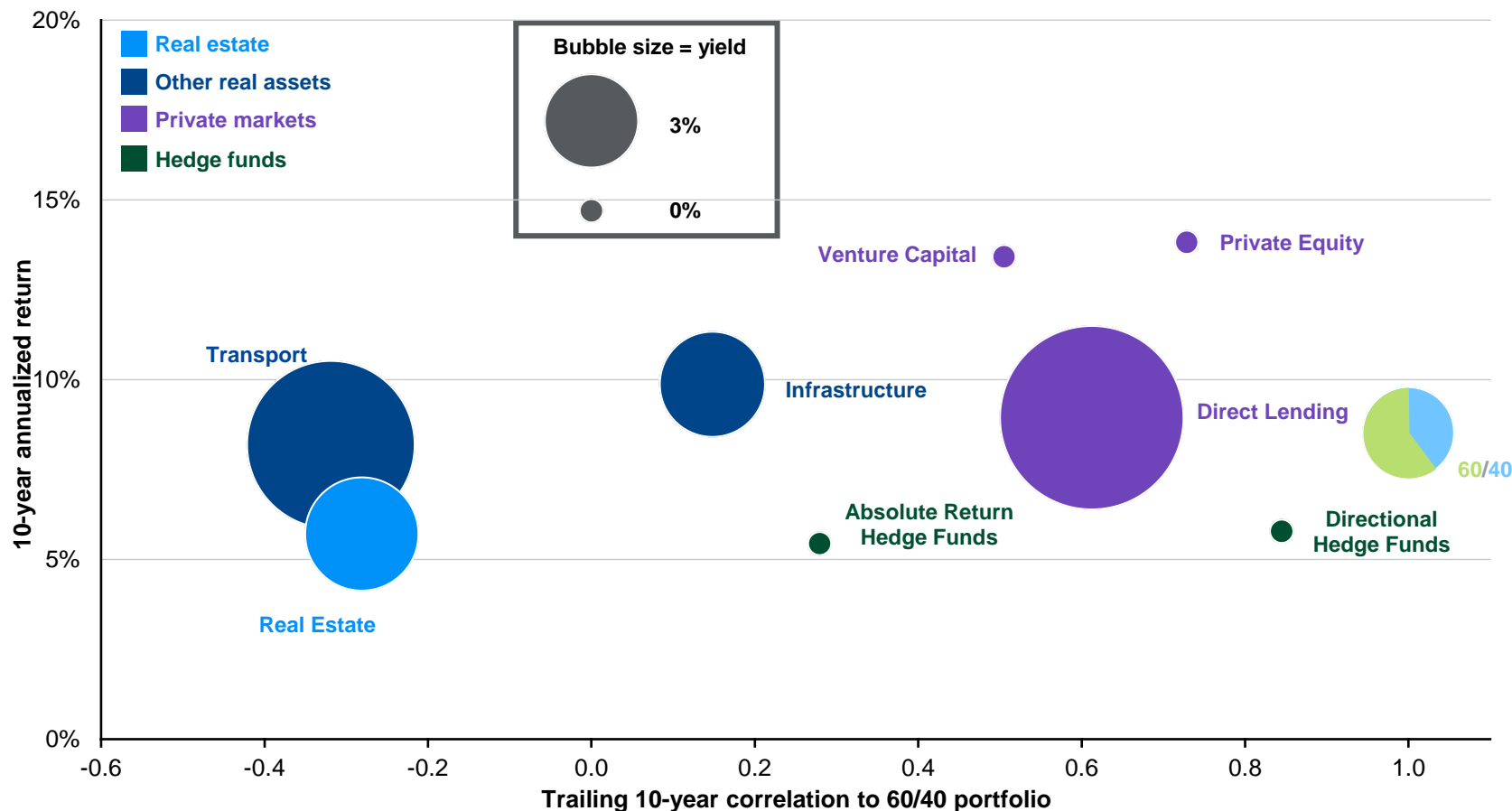
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## Correlations, returns and yields

10-year correlations and 10-year annualized total returns, 2Q15 - 1Q25



Source: Burgiss, Cliffwater, FactSet, MSCI, PivotalPath, J.P. Morgan Asset Management.

All categories are global, except Direct Lending, which is U.S. Correlations are based on quarterly returns over the time period indicated. A 60/40 portfolio is comprised of 60% stocks and 40% bonds. Stocks are represented by the S&P 500 Total Return Index. Bonds are represented by the Bloomberg U.S. Aggregate Total Return Index. 10-year annualized returns are calculated based on the time period indicated. "Absolute Return Hedge Funds" represent asset-weighted returns from the PivotalPath Global Macro and Relative Value indices. "Directional Hedge Funds" represent asset-weighted returns from the PivotalPath Credit, Equity Diversified and Event Driven indices. Direct Lending uses yields from the Cliffwater Direct Lending Index. All other indices and data used for alternative asset class returns and yields are as described on pages 12 and 16 of the *Guide to Alternatives*. Yields are based on latest available data as described on page 12 of the *Guide to Alternatives*. Transportation returns are shown on an unlevered basis and returns can be enhanced by adding leverage. Past performance is no guarantee of future results.

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# Sources of global private real estate returns

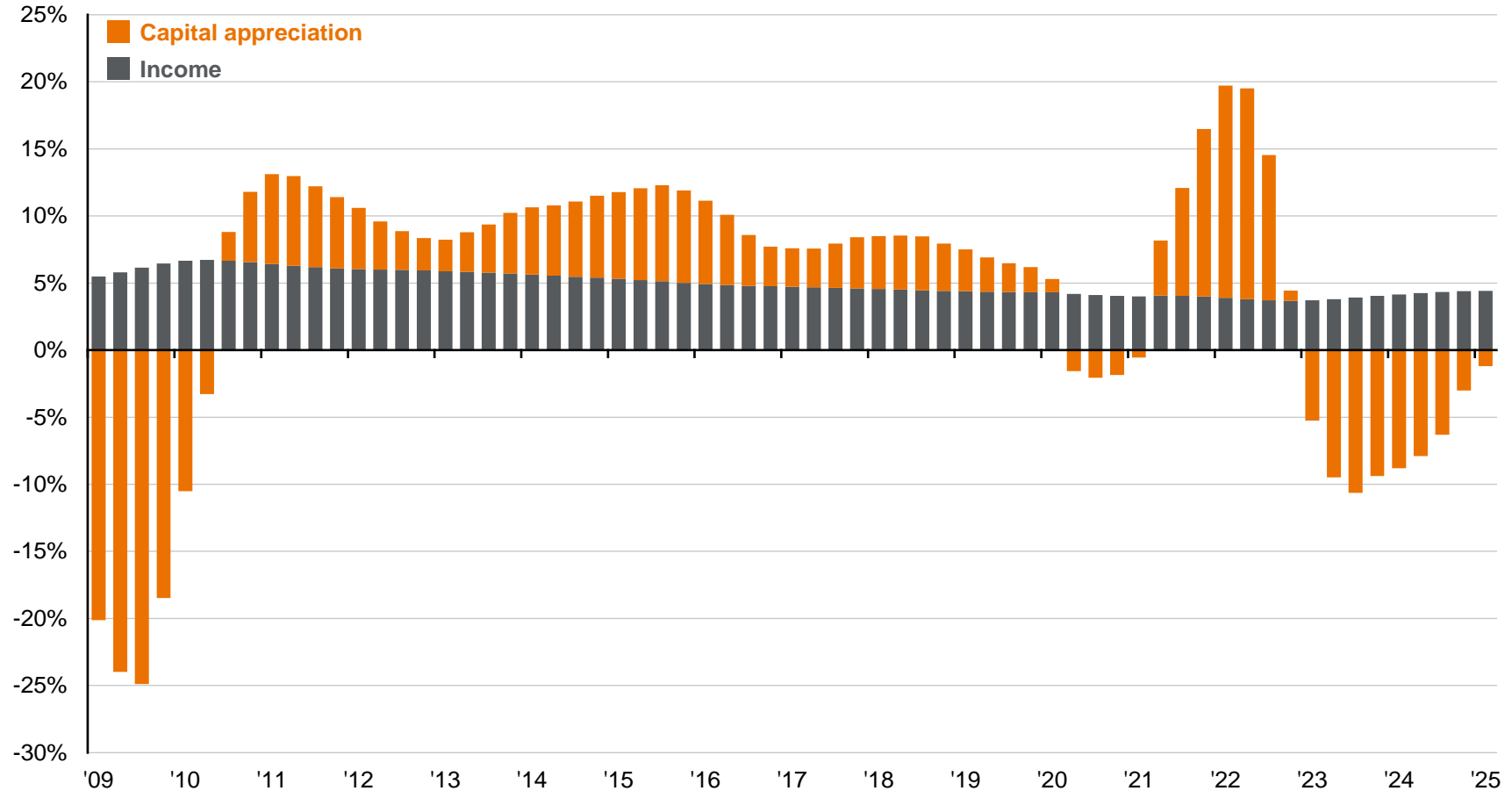
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## Global private real estate returns

Rolling 4-quarter returns from income and capital appreciation



Source: MSCI, J.P. Morgan Asset Management.

Real estate returns represented by the MSCI Global Property Fund Index. Data show rolling four-quarter returns from income and capital appreciation. The chart shows the full index history, beginning in 1Q09, and ending in 1Q25. Past performance is no guarantee of future results.

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# Infrastructure investment needs

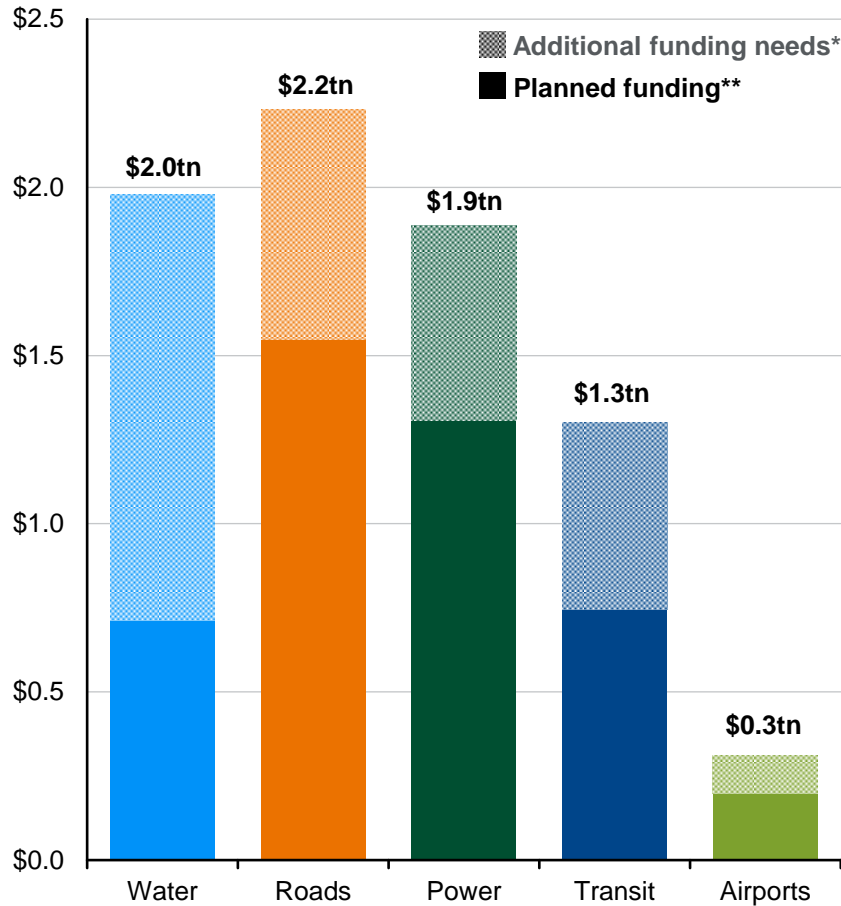
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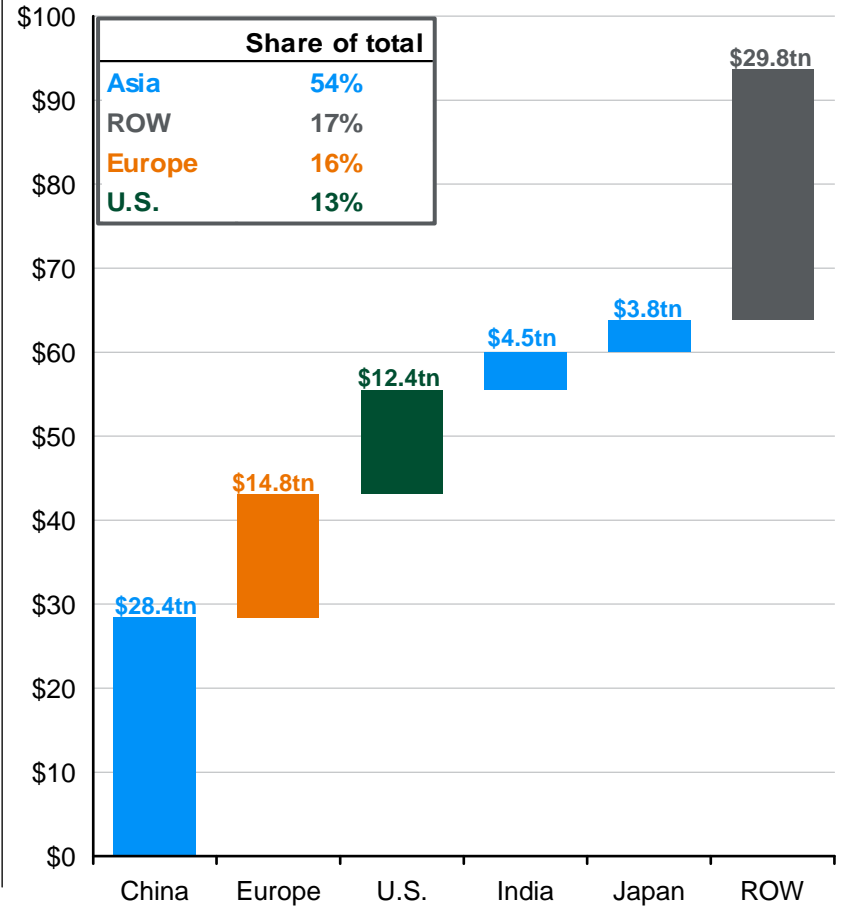
## U.S. infrastructure funding & funding gaps

USD trillions, 2024 - 2033, as of 2024



## Infrastructure investment needs by region

USD trillions, 2016 - 2040, constant 2016



Source: American Society of Civil Engineers (ASCE), Global Infrastructure Hub by G20, J.P. Morgan Asset Management.

(Left) Categories defined by the ASCE in the March 2025 "A Comprehensive Assessment of America's Infrastructure: 2025 Report Card for America's Infrastructure" report. \*Additional funding is the amount of funding needed to get each category to a "B" rating, or a state of "Good" repair, as defined by the ASCE. \*\*Planned public funding is the amount of investment from 2024 to 2033 that is currently in place by U.S. law. (Right) ROW = Rest of World.

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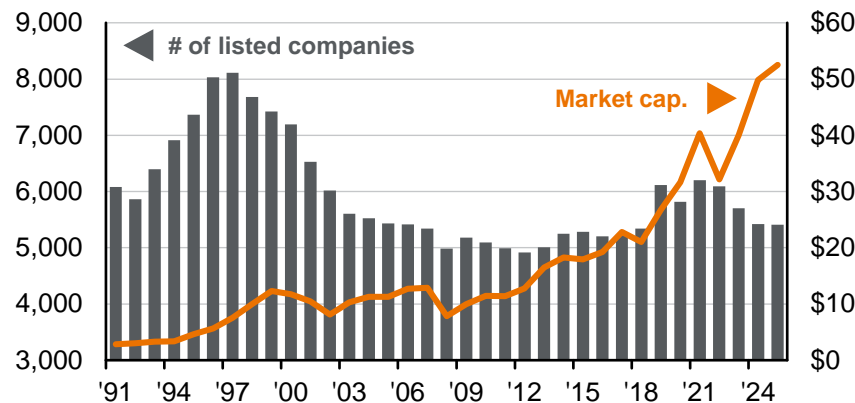


# U.S. public vs. private equity

GTM U.S. 53

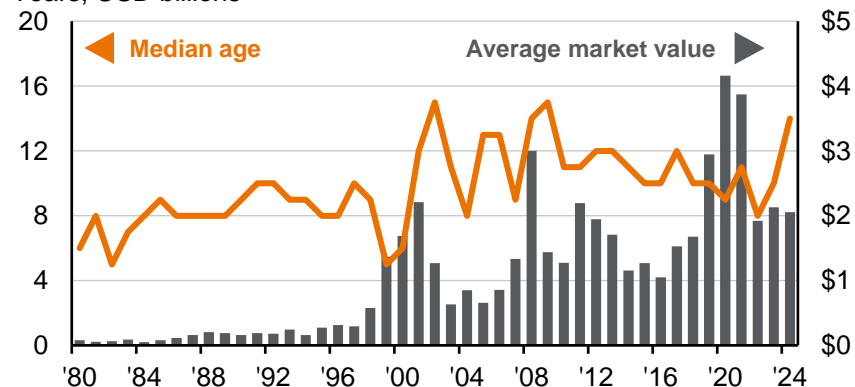
## Number of listed U.S. companies\* and market cap.

Count, S&P 500 market capitalization in USD trillions



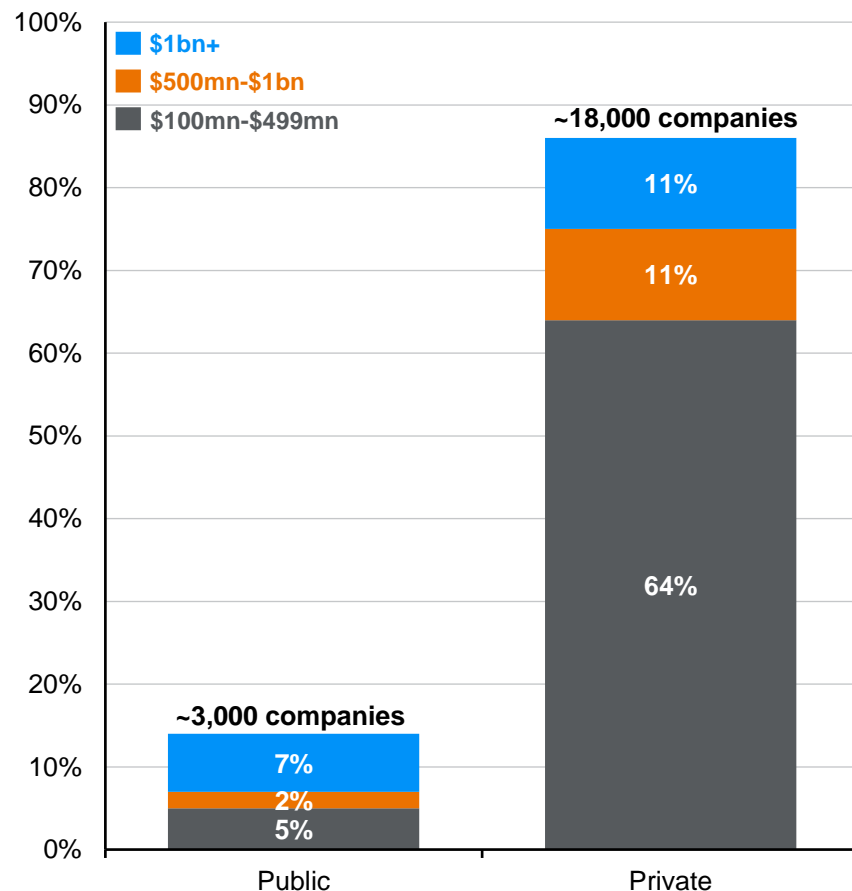
## Median age and average market value at IPO

Years, USD billions



## U.S. companies split public vs. private

Companies with revenue greater than \$100mn, share public vs. private



Source: Bain and Company, FactSet, Jay Ritter – University of Florida, S&P Capital IQ, World Federation of Exchanges, J.P. Morgan Asset Management. (Top left) \*Number of listed U.S. companies is represented by the sum of number of companies listed on the NYSE and the NASDAQ. (Bottom left) Average market value is calculated by dividing the total market value at first closing price by the total number of IPOs for each period. The sample is IPOs with an offer price of at least \$5, excluding ADRs, unit offers, closed-end funds, REITs, natural resource limited partnerships, small best efforts offers, banks and S&Ls and stocks not listed on CRSP (CRSP includes Amex, NYSE and NASDAQ stocks). (Right) Percentages may not sum to 100 due to rounding.

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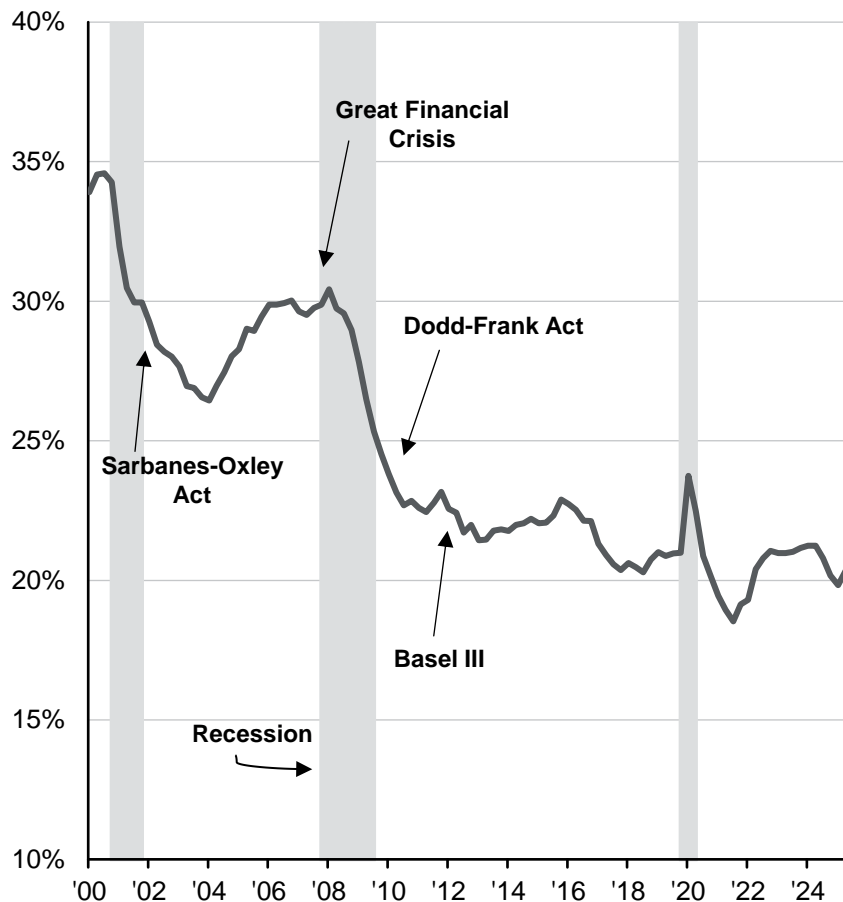


# Private credit industry growth

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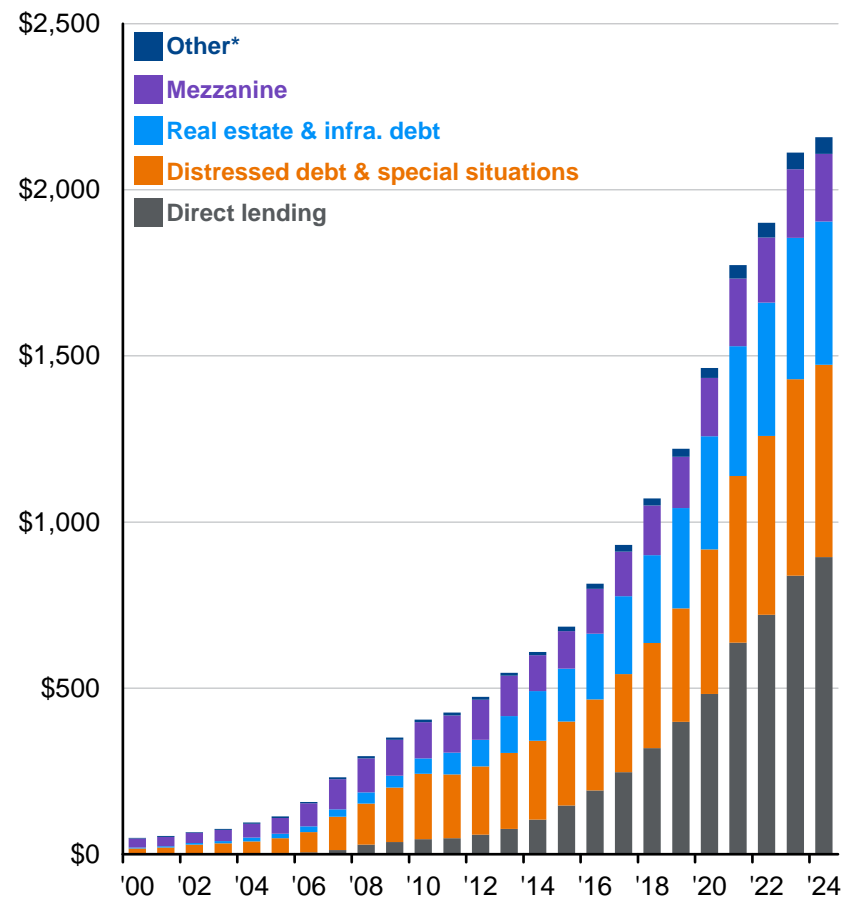
## U.S. bank lending

% of total nonfinancial corporate debt, 1Q00 - 2Q25



## Global private credit AUM by type

USD billions, end of period



Source: Federal Reserve, Preqin, J.P. Morgan Asset Management.  
(Right) \*Other includes venture debt and funds of funds.  
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# Alternatives and manager selection

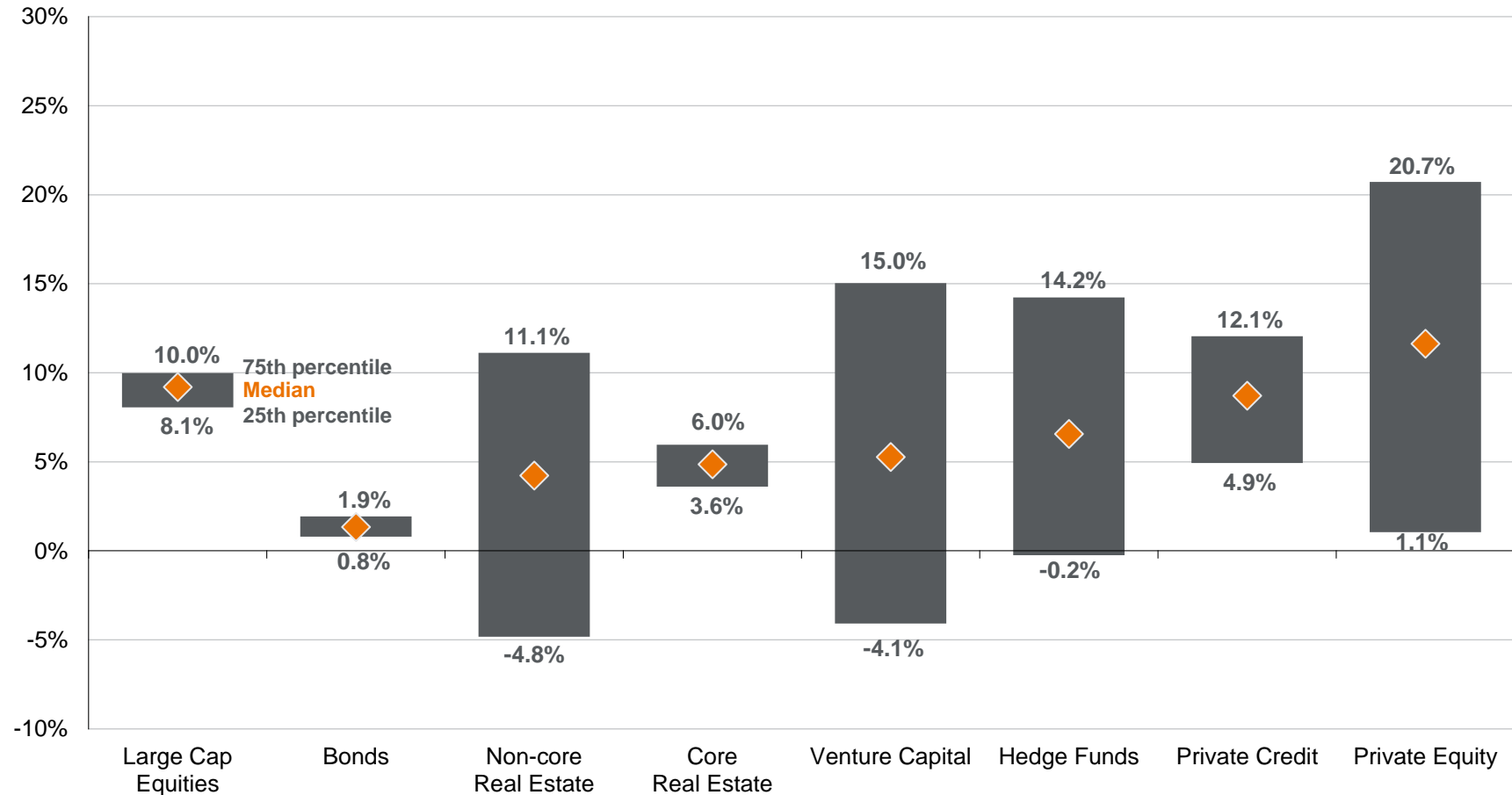
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## Public and private manager dispersion

Based on returns from 2Q15 - 2Q25\*



Source: Burgiss, Morningstar, MSCI, PivotalPath, J.P. Morgan Asset Management.

All categories are global. Large Cap Equities and Bonds are based on the Morningstar Global Large Stock Blend and Global Bond (not hedged) categories, respectively. Core Real Estate is based on the MSCI Global Property Fund Index. Private Credit, Non-core Real Estate, Private Equity and Venture Capital are based on indices from the MSCI Private Capital Universe. Hedge Funds are based on the PivotalPath index. Manager dispersion is based on annual returns over the 10-year period indicated for: Large Cap Equities, Bonds and Hedge Funds. \*Manager dispersion is based on annual returns over the 10-year period ending 1Q25 for Core Real Estate. Manager dispersion is based on the 10-year internal rate of return (IRR) ending 1Q25 for: Private Credit, Non-core Real Estate, Private Equity and Venture Capital. Past performance is no guarantee of future results.

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# Asset class returns

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2010 - 2024

Ann.	Vol.	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	YTD
Large Cap 13.9%	Small Cap 20.6%	REITs 27.9%	REITs 8.3%	REITs 19.7%	Small Cap 38.8%	REITs 28.0%	REITs 2.8%	Small Cap 21.3%	EM Equity 37.8%	Cash 1.8%	Large Cap 31.5%	Small Cap 20.0%	REITs 41.3%	Comdty. 16.1%	Large Cap 26.3%	Large Cap 25.0%	EM Equity 31.6%
Small Cap 10.3%	EM Equity 17.9%	Small Cap 26.9%	Fixed Income 7.8%	High Yield 19.6%	Large Cap 32.4%	Large Cap 13.7%	Large Cap 1.4%	High Yield 14.3%	DM Equity 25.6%	Fixed Income 0.0%	REITs 28.7%	EM Equity 18.7%	Large Cap 28.7%	Cash 1.5%	DM Equity 18.9%	Small Cap 11.5%	DM Equity 30.2%
REITs 9.4%	REITs 16.8%	EM Equity 19.2%	High Yield 3.1%	EM Equity 18.6%	DM Equity 23.3%	Fixed Income 6.0%	Fixed Income 0.5%	Large Cap 12.0%	Large Cap 21.8%	REITs -4.0%	Small Cap 25.5%	Large Cap 18.4%	Comdty. 27.1%	High Yield -12.7%	Small Cap 16.9%	Asset Alloc. 10.0%	Large Cap 18.8%
Asset Alloc. 7.2%	DM Equity 16.5%	Comdty. 16.8%	Large Cap 2.1%	DM Equity 17.9%	Asset Alloc. 14.9%	Asset Alloc. 5.2%	Cash 0.0%	Comdty. 11.8%	Small Cap 14.6%	High Yield -4.1%	DM Equity 22.7%	Asset Alloc. 10.6%	Small Cap 14.8%	Fixed Income -13.0%	Asset Alloc. 14.1%	High Yield 9.2%	Small Cap 17.6%
High Yield 5.9%	Comdty. 16.1%	Large Cap 15.1%	Cash 0.1%	Small Cap 16.3%	High Yield 7.3%	Small Cap 4.9%	DM Equity -0.4%	EM Equity 11.6%	Asset Alloc. 14.6%	Large Cap -4.4%	Asset Alloc. 19.5%	DM Equity 8.3%	Asset Alloc. 13.5%	Asset Alloc. -13.9%	High Yield 14.0%	EM Equity 8.1%	Comdty. 16.3%
DM Equity 5.7%	Large Cap 15.1%	High Yield 14.8%	Asset Alloc. -0.7%	Large Cap 16.0%	REITs 2.9%	Cash 0.0%	Asset Alloc. -2.0%	REITs 8.6%	High Yield 10.4%	Asset Alloc. -5.8%	EM Equity 18.9%	Fixed Income 7.5%	DM Equity 11.8%	DM Equity -14.0%	REITs 11.4%	Comdty. 5.4%	Asset Alloc. 16.0%
EM Equity 3.4%	Asset Alloc. 10.4%	Asset Alloc. 13.3%	Small Cap -4.2%	Asset Alloc. 12.2%	Cash 0.0%	High Yield 0.0%	High Yield -2.7%	Asset Alloc. 8.3%	REITs 8.7%	Small Cap -11.0%	High Yield 12.6%	High Yield 7.0%	High Yield 1.0%	Large Cap -18.1%	EM Equity 10.3%	Cash 5.3%	High Yield 11.4%
Fixed Income 2.4%	High Yield 9.4%	DM Equity 8.2%	DM Equity -11.7%	Fixed Income 4.2%	Fixed Income -2.0%	EM Equity -1.8%	Small Cap -4.4%	Fixed Income 2.6%	Fixed Income 3.5%	Comdty. -11.2%	Fixed Income 8.7%	Cash 0.5%	Cash 0.0%	EM Equity -19.7%	Fixed Income 5.5%	REITs 4.9%	Fixed Income 7.0%
Cash 1.2%	Fixed Income 4.7%	Fixed Income 6.5%	Comdty. -13.3%	Cash 0.1%	EM Equity -2.3%	DM Equity -4.5%	EM Equity -14.6%	DM Equity 1.5%	Comdty. 1.7%	DM Equity -13.4%	Comdty. 7.7%	Comdty. -3.1%	Fixed Income -1.5%	Small Cap -20.4%	Cash 5.1%	DM Equity 4.3%	Cash 4.1%
Comdty. -1.0%	Cash 0.9%	Cash 0.1%	EM Equity -18.2%	Comdty. -1.1%	Comdty. -9.5%	Comdty. -17.0%	Comdty. -24.7%	Cash 0.3%	Cash 0.8%	EM Equity -14.2%	Cash 2.2%	REITs -5.1%	EM Equity -2.2%	REITs -24.9%	Comdty. -7.9%	Fixed Income 1.3%	REITs 2.3%

Source: Bloomberg, FactSet, MSCI, NAREIT, Russell, Standard & Poor's, J.P. Morgan Asset Management.

Large Cap: S&P 500, Small Cap: Russell 2000, EM Equity: MSCI EME, DM Equity: MSCI EAFE, Comdty: Bloomberg Commodity Index, High Yield: Bloomberg Global HY Index, Fixed Income: Bloomberg U.S. Aggregate, REITs: NAREIT Equity REIT Index, Cash: Bloomberg 1-3m Treasury. The "Asset Allocation" portfolio is for illustrative purposes only and assumes annual rebalancing with the following weights: 25% in the S&P 500, 10% in the Russell 2000, 15% in the MSCI EAFE, 5% in the MSCI EME, 25% in the Bloomberg U.S. Aggregate, 5% in the Bloomberg 1-3m Treasury, 5% in the Bloomberg Global High Yield Index, 5% in the Bloomberg Commodity Index and 5% in the NAREIT Equity REIT Index. Annualized (Ann.) return and volatility (Vol.) represents the period from 12/31/2009 to 12/31/2024. Please see the disclosure page at the end for index definitions. All data represent total return for stated period. Past performance is no guarantee of future results.

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# Time, diversification and the volatility of returns

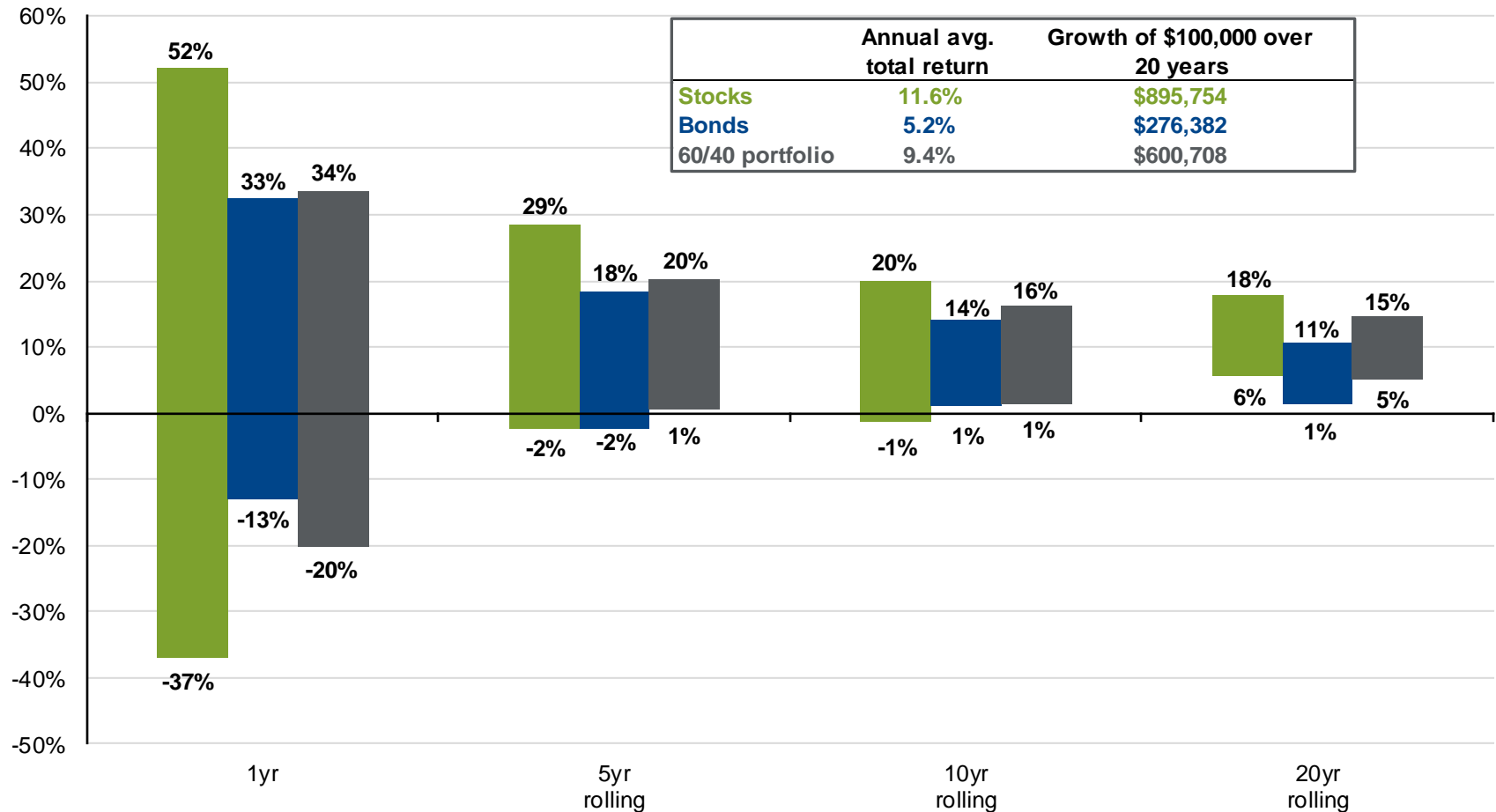
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## Range of stock, bond and blended total returns

Annual total returns, 1950 - 2024



Source: Bloomberg, FactSet, Federal Reserve, Standard & Poor's, Strategas/Ibbotson, J.P. Morgan Asset Management. Returns shown are based on calendar year returns from 1950 to 2024. Stocks: S&P 500; Bonds: Strategas/Ibbotson for periods prior to 1976 and the Bloomberg U.S. Aggregate thereafter. Growth of \$100,000 is based on annual average total returns from 1950 to 2024. *Guide to the Markets* – U.S. Data are as of December 11, 2025.

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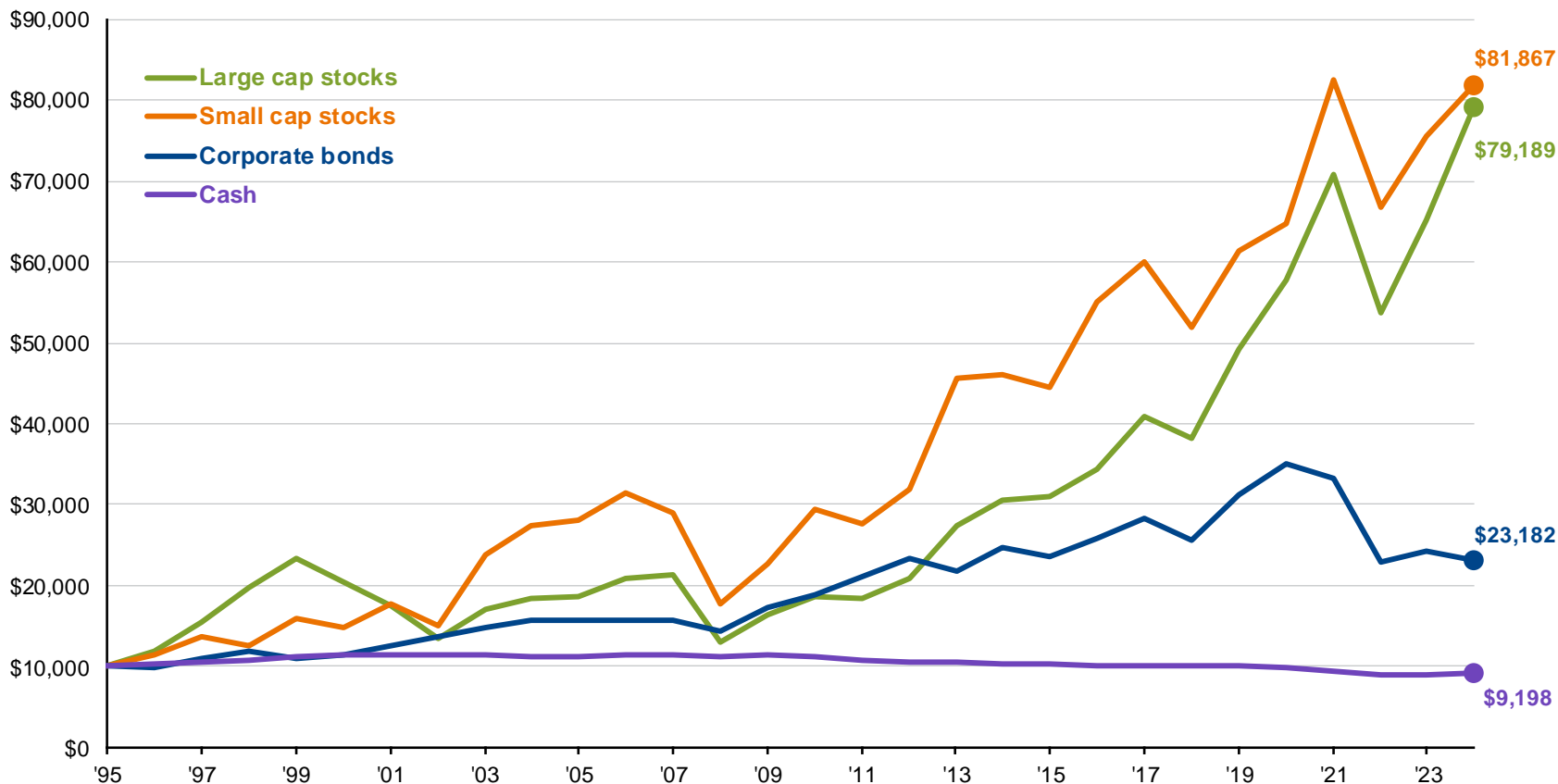


# Risk investing and the power of compounding

GTM U.S. 58

## Change in purchasing power by investment in major asset class

Growth of \$10,000, adjusted for inflation, from 1994 - 2024, annual returns



Source: Bloomberg, Bureau of Labor Statistics, Ibbotson, J.P. Morgan Asset Management.  
Large cap stocks: IA SBBi Large Cap TR Index; Small cap stocks: IA SBBi Small Cap TR Index; Corporate bonds: Bloomberg Long U.S. Corporate Index; Cash: IA SBBi T-bill Index. All returns are inflation-adjusted total returns, using annual average headline CPI inflation.  
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# Economic and market cycles

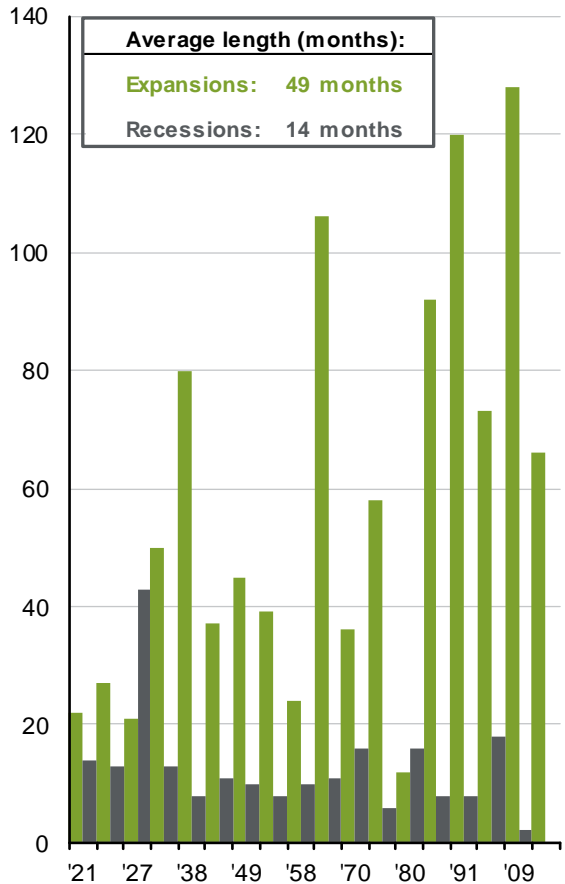
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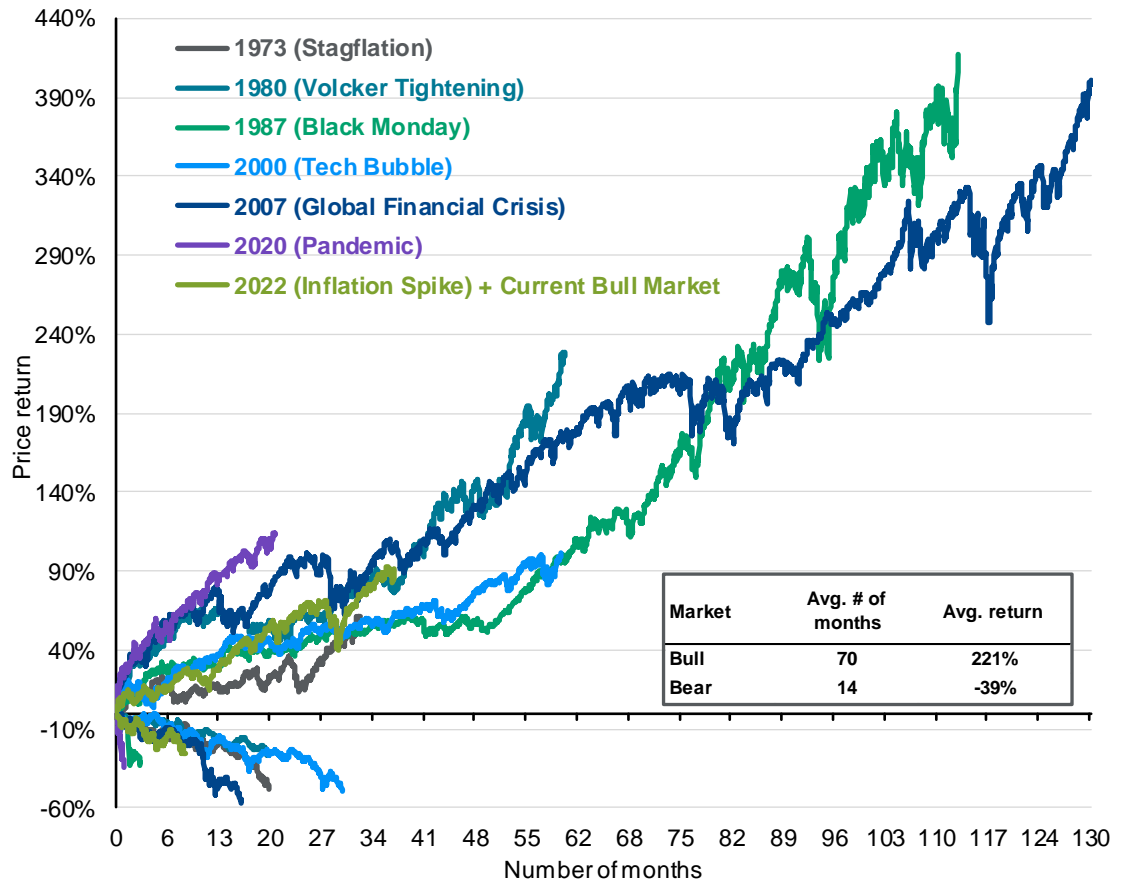
## Length of expansions and recessions

Months



## Length and severity of bear and subsequent bull markets

Number of months, S&P 500 price return



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

(Left) Chart assumes the current expansion lasted until at least the end of last month. (Right) Bear markets are defined as a 20% drawdown from the prior peak and measured from peak to bottom. Bull markets are measured from the bottom of the prior bear market to the peak.

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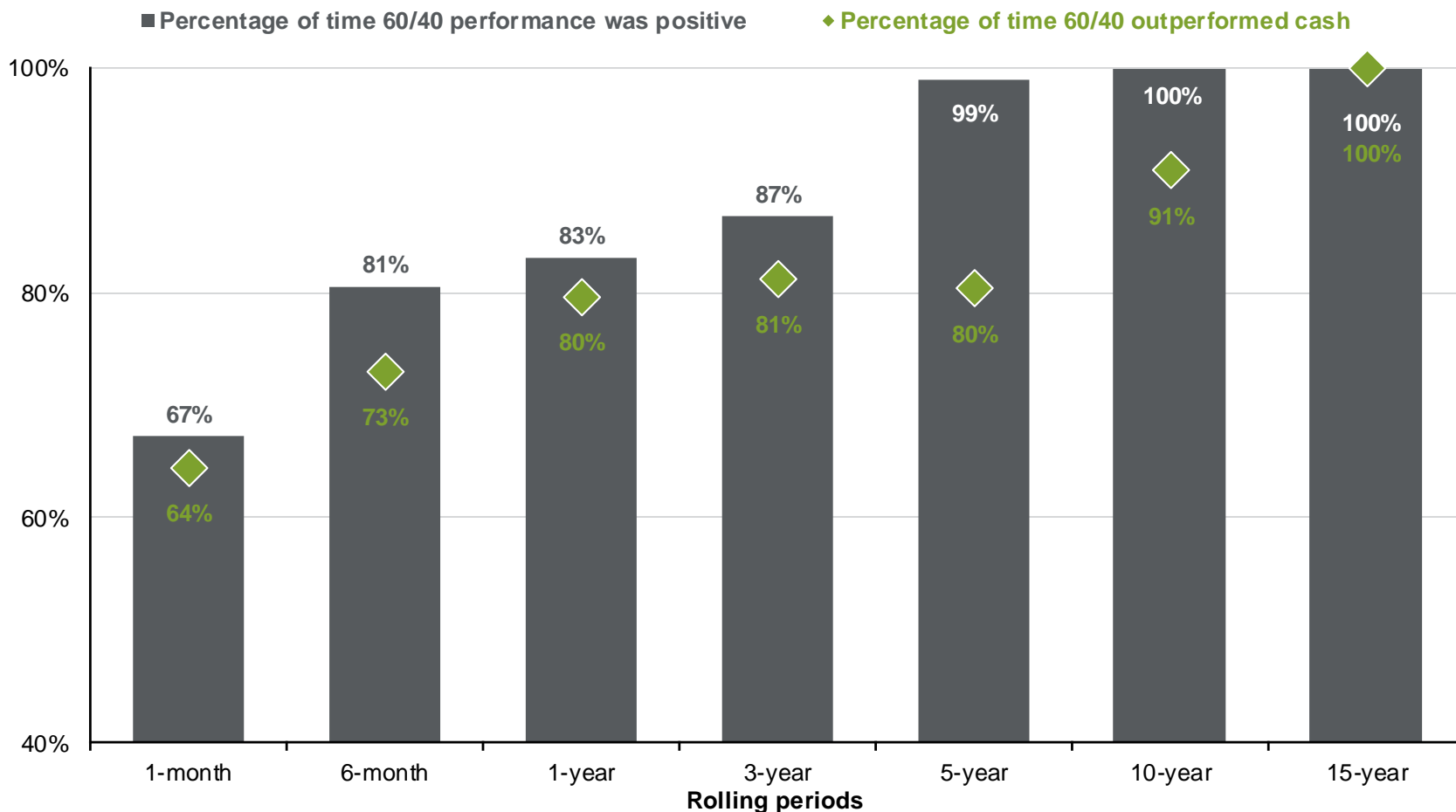


# Cash vs. a 60/40 portfolio

GTM U.S. 60

## Percentage of time 60/40 returns were positive or outperformed cash

Rolling monthly basis, 1995 - 2024



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

A 60/40 portfolio is 60% invested in the S&P 500 Total Return Index and 40% invested in the Bloomberg U.S. Aggregate Total Return Index. Cash is the Bloomberg U.S. 30-day Treasury Bill index.

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# Investing at all-time highs

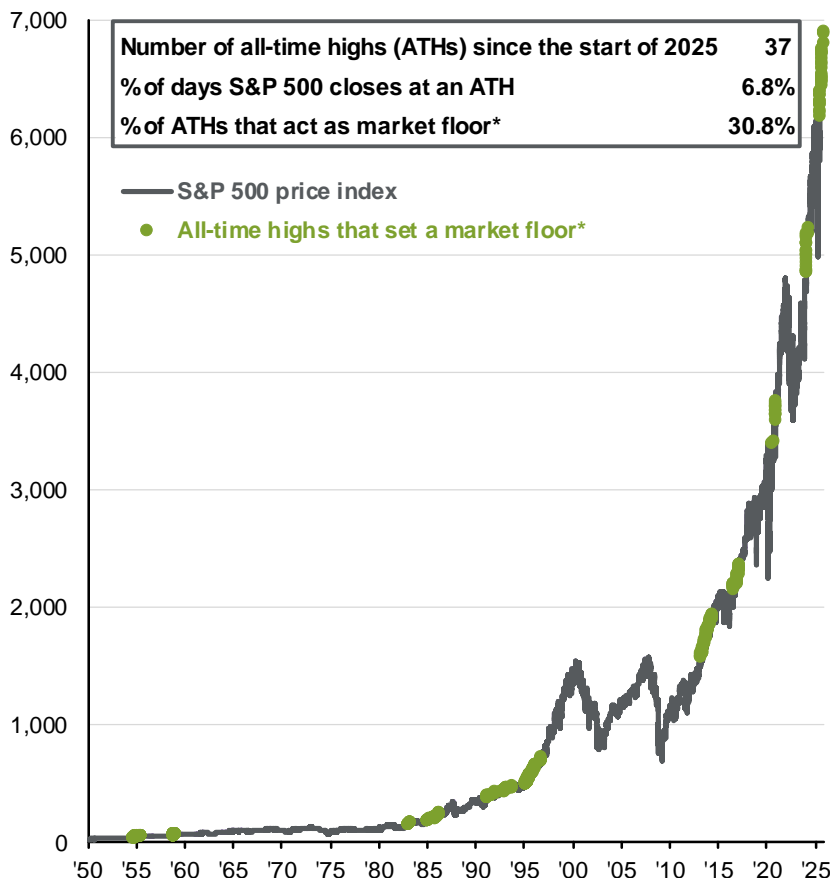
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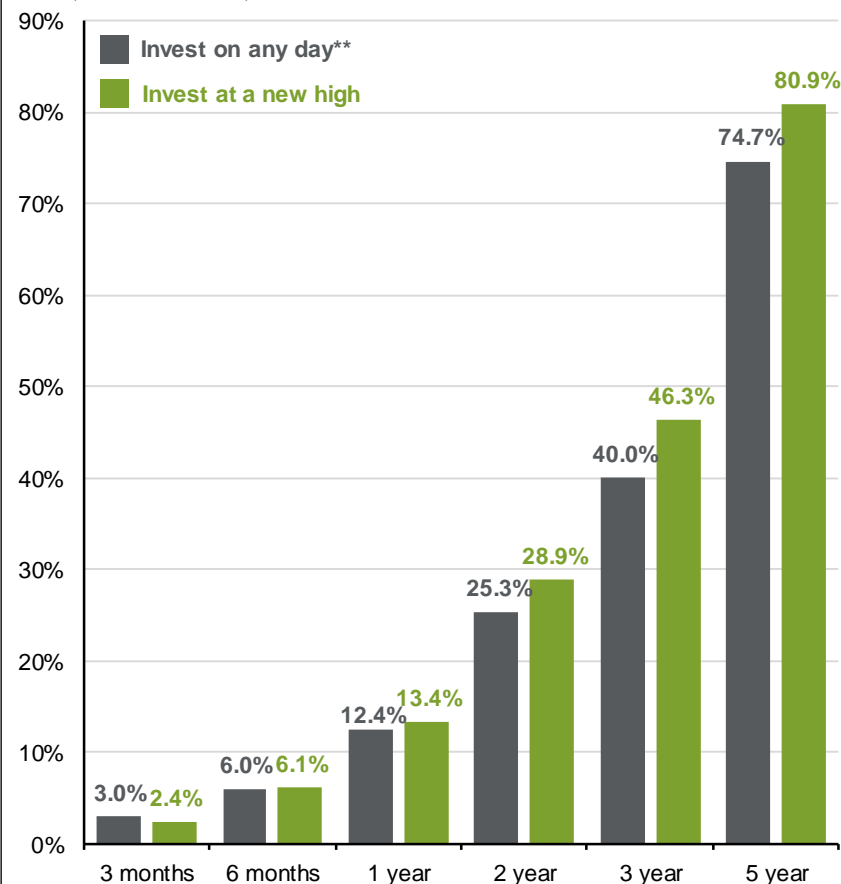
## All-time highs and market floors

S&P 500 price index, daily, 1950 - today



## Average cumulative S&P 500 total returns

Jan 1, 1988 - Dec 31, 2024



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

(Left) \*Market floor is defined as an all-time high from which the market never fell more than 5%. (Right) \*\*\*Invest on any day" represents average of forward returns for the entire time period whereas "Invest at a new high" represents average of rolling forward returns calculated from each new S&P 500 high for the subsequent 3-month, 6-month, 1-year, 2-year, 3-year and 5-year intervals, with data starting 1/1/1988 through 12/31/2024.

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# Manager dispersion

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## 20-year manager return dispersion and growth of capital

By asset type, annualized total returns, growth of \$1,000 invested 20 years ago\*



Source: Morningstar, J.P. Morgan Asset Management.

\*Represents average annual portfolio return dispersion between the 10<sup>th</sup> and 90<sup>th</sup> percentile over a 20-year period for each Morningstar category, including mutual funds and ETFs. Returns are updated monthly and reflect data as of the latest available month, typically with a one-month lag. This information is for illustrative purposes only, does not reflect actual investment results, is not a guarantee of future results and is not a recommendation.

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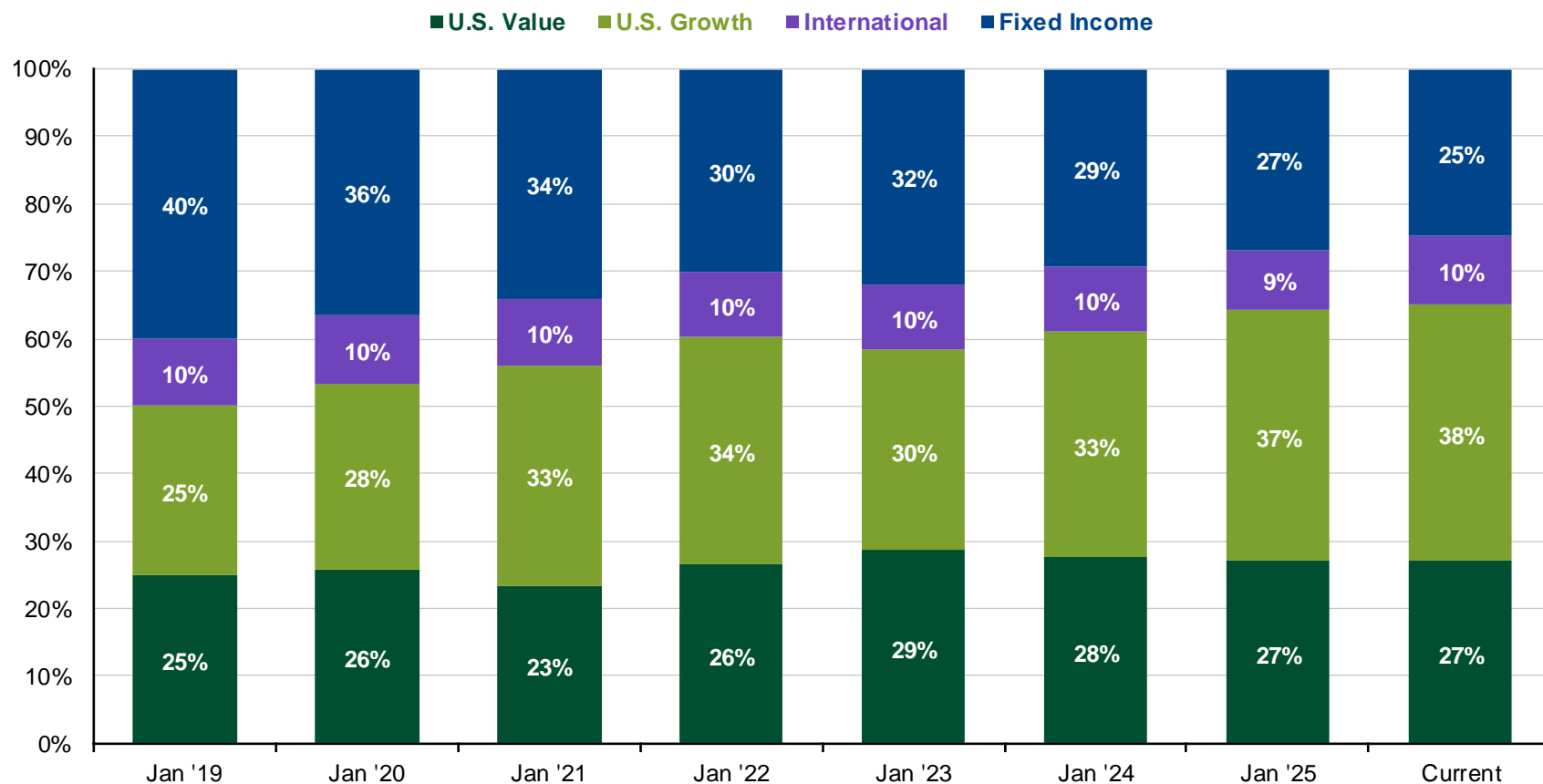


# 60/40 portfolio drift

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## 60/40 portfolio composition by asset class

Start of 2019 - current, no rebalancing



Source: Bloomberg, FactSet, MSCI, Russell, Standard & Poor's, J.P. Morgan Asset Management. Standard asset allocation at the start of 2019 assumes 60% weight to global equities and 40% to U.S. fixed Income. U.S. Value: Equal-weighted Russell 1000 Value and Russell 2000 Value, U.S. Growth: Equal-weighted Russell 1000 Growth and Russell 2000 Growth, International: MSCI ACWI ex-US, Fixed Income: 10% Bloomberg Global HY Index and 30% Bloomberg U.S. Aggregate. Past performance is no guarantee of future results. Guide to the Markets – U.S. Data are as of December 11, 2025.

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# 60/40 returns and stock-bond correlation

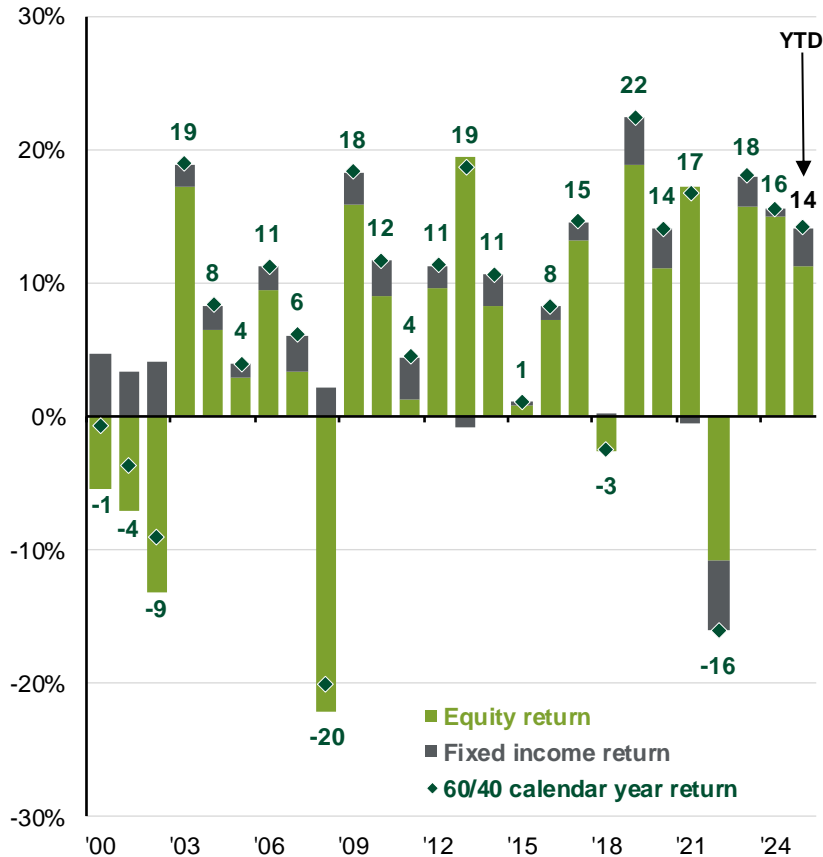
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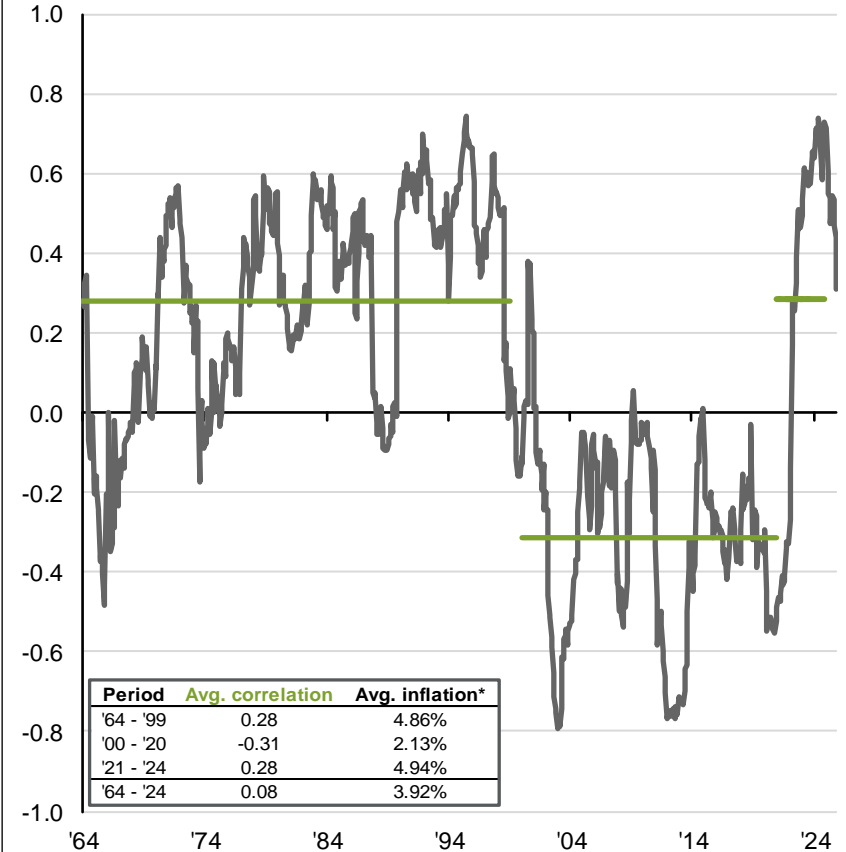
## 60/40 annual return decomposition

Total return, %



## S&P 500 / U.S. 10-year Treasury correlation

Rolling 24-month corr. based on monthly total returns, Jan '64 - YTD



Source: Bloomberg, FactSet, Haver Analytics, LSEG, Standard & Poor's, J.P. Morgan Asset Management.

(Left) The 60/40 portfolio is 60% invested in the S&P 500 Total Return Index and 40% invested in the Bloomberg U.S. Aggregate Total Return Index. (Right) Correlations are calculated using monthly returns of S&P 500 TR Index and U.S. 10-year Constant Maturity TR Index, data until 2006 are sourced from Haver Analytics and from FactSet thereafter. \*Simple average of the y/y percent change in headline CPI during each period.

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# Market returns around the start of Fed cutting cycles

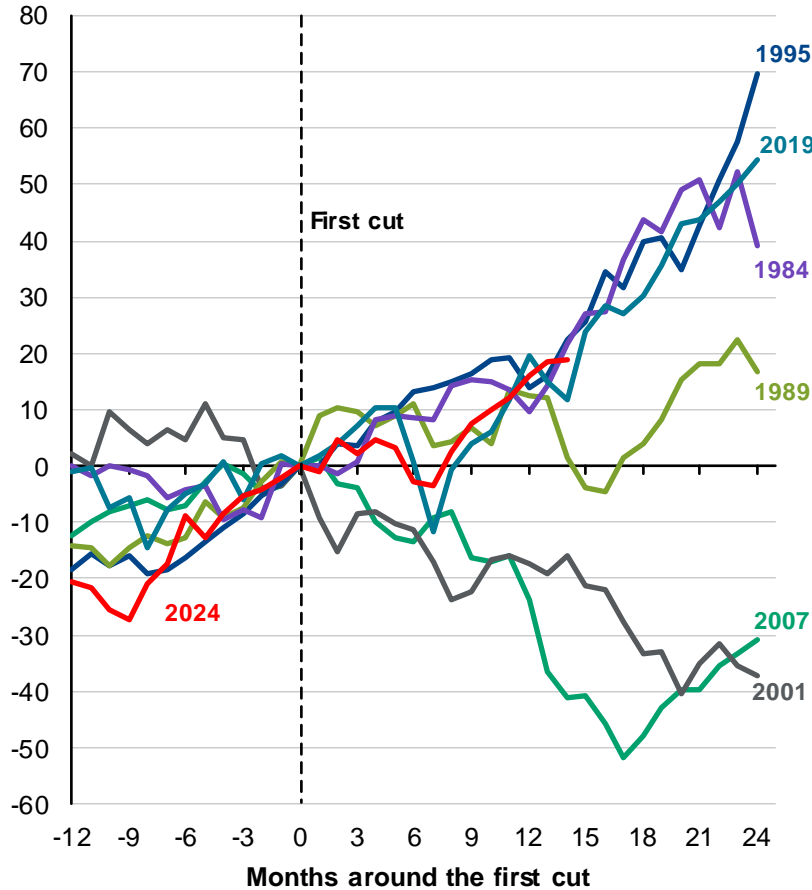
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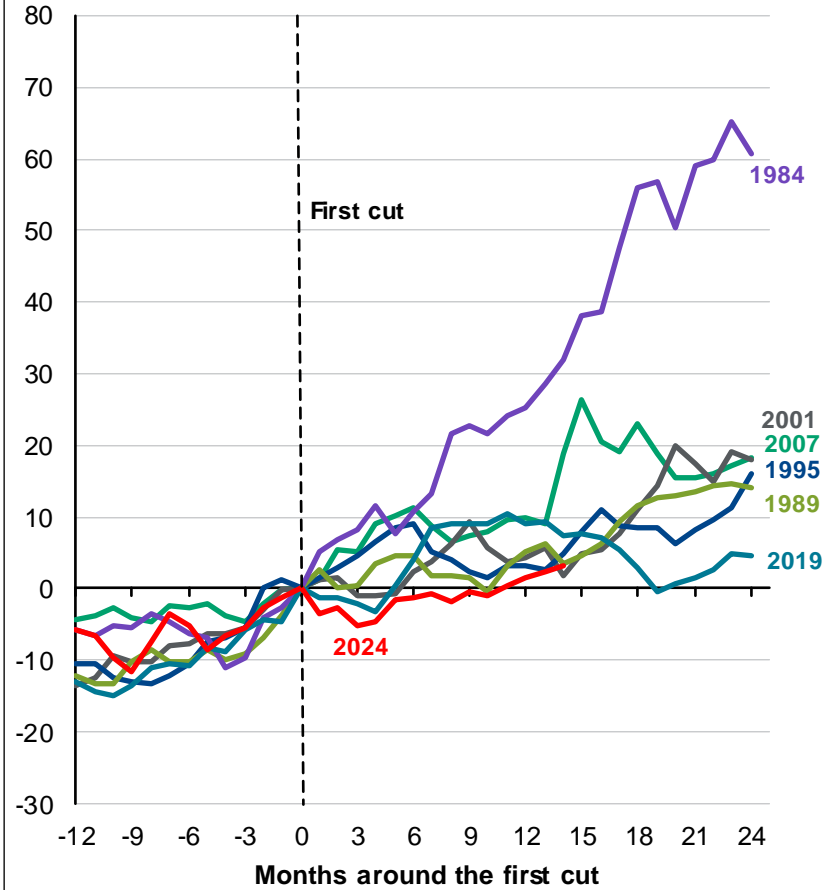
## S&P 500 returns around the start of Fed cutting cycles

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



## U.S. 10yr 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.  
Excludes 1998 episode due to the short length of the cutting cycle and economic context for the cuts. Past performance is no guarantee of future results.  
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# Single-stock volatility and equity market returns

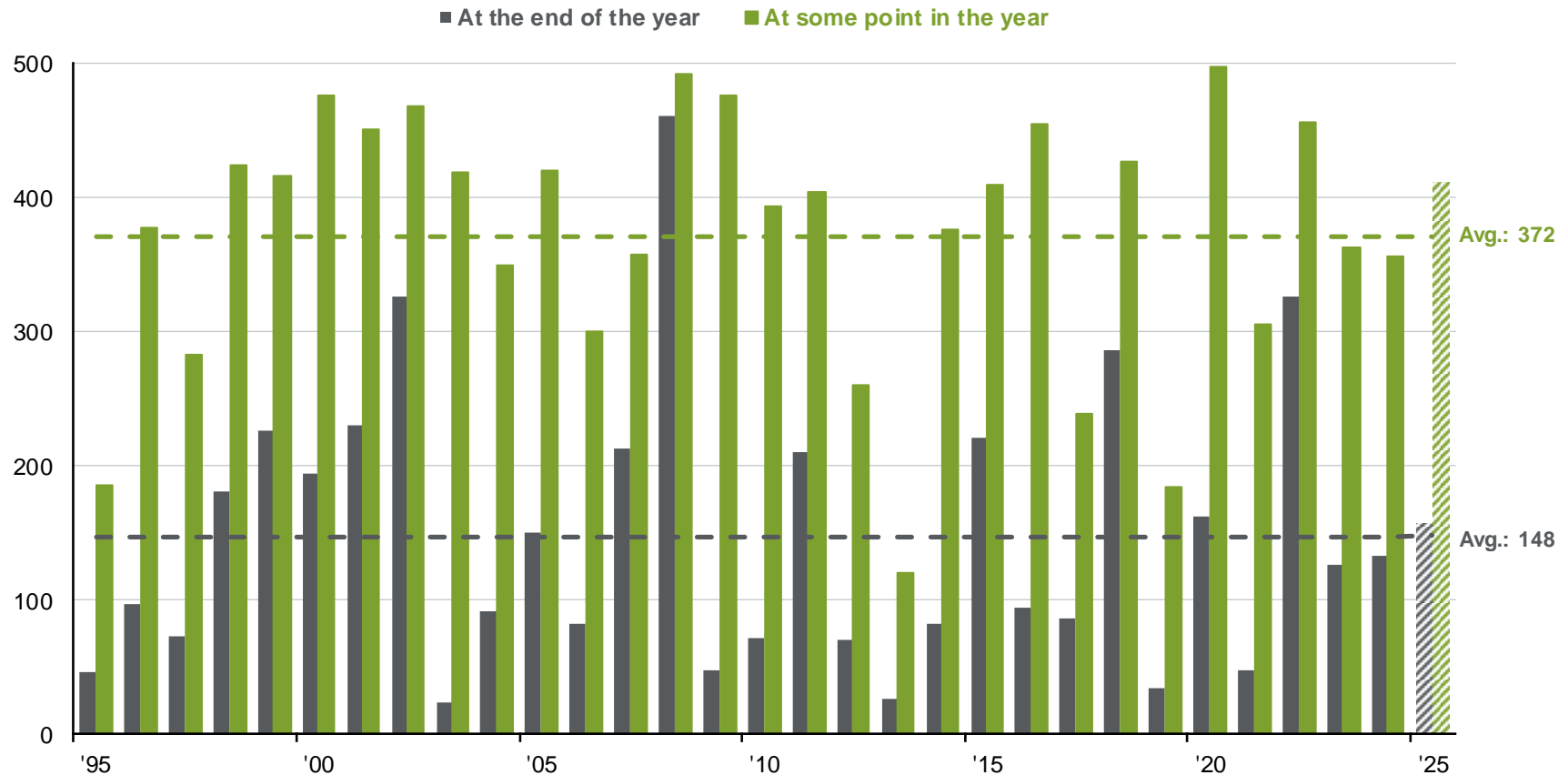
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## Number of S&P 500 stocks with a drawdown of 5% or more

Despite positive index returns in 22 of 30 years, roughly 75% of stocks experienced a drawdown of 5% or more in any given year



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

A 5% drawdown is calculated from each stock's start-of-year price. If a stock declines by 5% or more during the year, it is counted exactly once – even if it later recovers and declines by 5% again. Data for 2025 are year-to-date as of the latest completed month.

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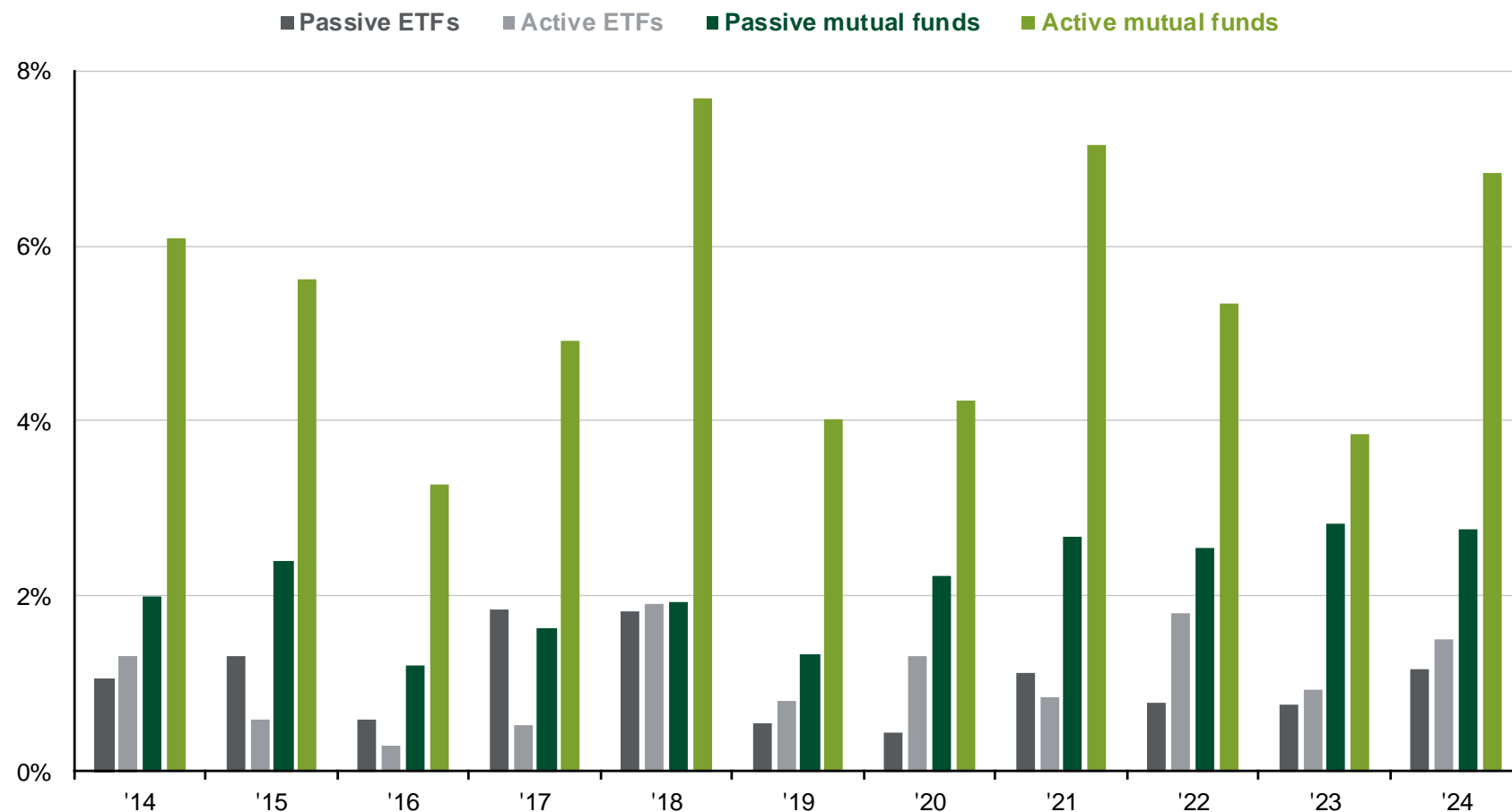


# Capital gains by investment vehicle

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## Capital gains paid by investment vehicle

Weighted capital gains/assets under management



Source: Morningstar, J.P. Morgan Asset Management.

Capital gains are the taxable profits made when an asset is sold for more than its initial purchase cost. "Weighted" capital gains are the capital gains paid by an investment vehicle divided by its net asset value (NAV). NAV is the per-share value of a fund, calculated by subtracting the fund's liabilities from its total assets and dividing the result by the number of outstanding shares.

This slide comes from our *Guide to ETFs*.

*Guide to the Markets* – U.S. Data are as of December 11, 2025.



# Growth and evolution of the ETF market

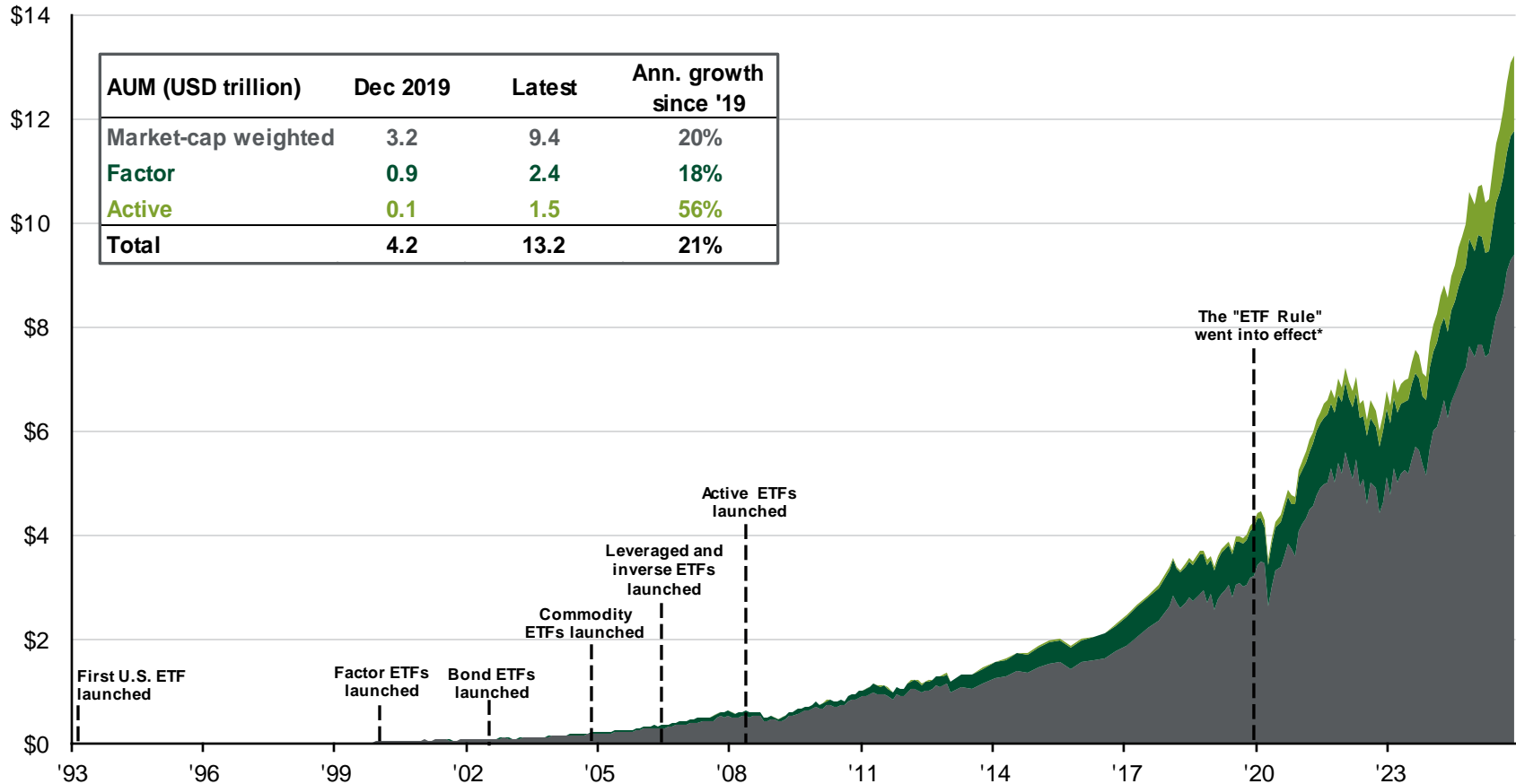
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## Growth in AUM of U.S. ETFs

By ETF investment process, USD trillions



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

"Market-cap weighted" ETFs are index-linked passive investment vehicles. "Factor" ETFs are ETFs that focus on specific factors or characteristics and are passively linked to a custom index. \*The "ETF Rule," officially SEC Rule 6c-11, went into effect in December 2019 and modernized regulation of ETFs as open-ended funds by establishing a clear and consistent framework for most ETFs across both index and actively managed strategies, enabling ETF issuers to bring new strategies to market, and permitting "custom in-kind" creation and redemption baskets to be available for all types of covered ETFs under the new regulation. Data are as of the latest available month, typically with a one-month lag.

This slide comes from our *Guide to ETFs*.

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# J.P. Morgan Asset Management – Index definitions

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All indexes are unmanaged and an individual cannot invest directly in an index. Index returns do not include fees or expenses.

## Equities:

The **Dow Jones Industrial Average** is a price-weighted average of 30 actively traded blue-chip U.S. stocks.

The **MSCI ACWI (All Country World Index)** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets.

The **MSCI EAFE Index (Europe, Australasia, Far East)** is a free float-adjusted market capitalization index that is designed to measure the equity market performance of developed markets, excluding the US & Canada.

The **MSCI Emerging Markets Index** is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets.

The **MSCI Europe Index** is a free float-adjusted market capitalization index that is designed to measure developed market equity performance in Europe.

The **MSCI Pacific Index** is a free float-adjusted market capitalization index that is designed to measure equity market performance in the Pacific region.

The **Russell 1000 Index®** measures the performance of the 1,000 largest companies in the Russell 3000.

The **Russell 1000 Growth Index®** measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values.

The **Russell 1000 Value Index®** measures the performance of those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values.

The **Russell 2000 Index®** measures the performance of the 2,000 smallest companies in the Russell 3000 Index.

The **Russell 2000 Growth Index®** measures the performance of those Russell 2000 companies with higher price-to-book ratios and higher forecasted growth values.

The **Russell 2000 Value Index®** measures the performance of those Russell 2000 companies with lower price-to-book ratios and lower forecasted growth values.

The **Russell 3000 Index®** measures the performance of the 3,000 largest U.S. companies based on total market capitalization.

The **Russell Midcap Index®** measures the performance of the 800 smallest companies in the Russell 1000 Index.

The **Russell Midcap Growth Index®** measures the performance of those Russell Midcap companies with higher price-to-book ratios and higher forecasted growth values. The stocks are also members of the Russell 1000 Growth index.

The **Russell Midcap Value Index®** measures the performance of those Russell Midcap companies with lower price-to-book ratios and lower forecasted growth values. The stocks are also members of the Russell 1000 Value index.

The **S&P 500 Index** is widely regarded as the best single gauge of the U.S. equities market. The index includes a representative sample of 500 leading companies in leading industries of the U.S. economy. The **S&P 500 Index** focuses on the large-cap segment of the market; however, since it includes a significant portion of the total value of the market, it also represents the market.

## Fixed income:

The **Bloomberg 1-3 Month U.S. Treasury Bill Index** includes all publicly issued zero-coupon US Treasury Bills that have a remaining maturity of less than 3 months and more than 1 month, are rated investment grade, and have \$250 million or more of outstanding face value. In addition, the securities must be denominated in U.S. dollars and must be fixed rate and non convertible.

The **Bloomberg Global High Yield Index** is a multi-currency flagship measure of the global high yield debt market. The index represents the union of the US High Yield, the Pan-European High Yield, and Emerging Markets (EM) Hard Currency High Yield Indices. The high yield and emerging markets sub-components are mutually exclusive. Until January 1, 2011, the index also included CMBS high yield securities.

The **Bloomberg Municipal Index** consists of a broad selection of investment-grade general obligation and revenue bonds of maturities ranging from one year to 30 years. It is an unmanaged index representative of the tax-exempt bond market.

The **Bloomberg US Dollar Floating Rate Note (FRN) Index** provides a measure of the U.S. dollar denominated floating rate note market.

The **Bloomberg US Corporate Investment Grade Index** is an unmanaged index consisting of publicly issued US Corporate and specified foreign debentures and secured notes that are rated investment grade (Baa3/BBB or higher) by at least two ratings agencies, have at least one year to final maturity and have at least \$250 million par amount outstanding. To qualify, bonds must be SEC-registered.

The **Bloomberg US High Yield Index** covers the universe of fixed rate, non-investment grade debt. Eurobonds and debt issues from countries designated as emerging markets (sovereign rating of Baa1/BBB+/BBB+ and below using the middle of Moody's, S&P, and Fitch) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included.

The **Bloomberg US Mortgage Backed Securities Index** is an unmanaged index that measures the performance of investment grade fixed-rate mortgage backed pass-through securities of GNMA, FNMA and FHLMC.

The **Bloomberg US TIPS Index** consists of Inflation-Protection securities issued by the U.S. Treasury.

The **J.P. Morgan Emerging Market Bond Global Index (EMBI)** includes U.S. dollar denominated Brady bonds, Eurobonds, traded loans and local market debt instruments issued by sovereign and quasi-sovereign entities.

The **J.P. Morgan Domestic High Yield Index** is designed to mirror the investable universe of the U.S. dollar domestic high yield corporate debt market.

The **J.P. Morgan Corporate Emerging Markets Bond Index Broad Diversified (CEMBI Broad Diversified)** is an expansion of the **J.P. Morgan Corporate Emerging Markets Bond Index (CEMBI)**. The CEMBI is a market capitalization weighted index consisting of U.S. dollar denominated emerging market corporate bonds.

The **J.P. Morgan Emerging Markets Bond Index Global Diversified (EMBI Global Diversified)** tracks total returns for U.S. dollar-denominated debt instruments issued by emerging market sovereign and quasi-sovereign entities: Brady bonds, loans, Eurobonds. The index limits the exposure of some of the larger countries.

The **J.P. Morgan GBI EM Global Diversified** tracks the performance of local currency debt issued by emerging market governments, whose debt is accessible by most of the international investor base.

The **U.S. Treasury Index** is a component of the U.S. Government index.



# J.P. Morgan Asset Management – Definitions

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## Other asset classes:

The **Alerian MLP Index** is a composite of the 50 most prominent energy Master Limited Partnerships (MLPs) that provides investors with an unbiased, comprehensive benchmark for the asset class.

The **Bloomberg Commodity Index** and related sub-indices are composed of futures contracts on physical commodities and represents twenty two separate commodities traded on U.S. exchanges, with the exception of aluminum, nickel, and zinc

The **Cambridge Associates U.S. Global Buyout and Growth Index®** is based on data compiled from 1,768 global (U.S. & ex-U.S.) buyout and growth equity funds, including fully liquidated partnerships, formed between 1986 and 2013.

The **CS/Tremont Hedge Fund Index** is compiled by Credit Suisse Tremont Index, LLC. It is an asset-weighted hedge fund index and includes only funds, as opposed to separate accounts. The Index uses the Credit Suisse/Tremont database, which tracks over 4500 funds, and consists only of funds with a minimum of US\$50 million under management, a 12-month track record, and audited financial statements. It is calculated and rebalanced on a monthly basis, and shown net of all performance fees and expenses. It is the exclusive property of Credit Suisse Tremont Index, LLC.

The **HFRI Monthly Indices (HFRI)** are equally weighted performance indexes, utilized by numerous hedge fund managers as a benchmark for their own hedge funds. The HFRI are broken down into 4 main strategies, each with multiple sub strategies. All single-manager HFRI Index constituents are included in the HFRI Fund Weighted Composite, which accounts for over 2200 funds listed on the internal HFR Database.

The **NAREIT EQUITY REIT Index** is designed to provide the most comprehensive assessment of overall industry performance, and includes all tax-qualified real estate investment trusts (REITs) that are listed on the NYSE, the American Stock Exchange or the NASDAQ National Market List.

The **NFI-ODCE**, short for NCREIF Fund Index -Open End Diversified Core Equity, is an index of investment returns reporting on both a historical and current basis the results of 33 open-end commingled funds pursuing a core investment strategy, some of which have performance histories dating back to the 1970s. The NFI-ODCE Index is capitalization-weighted and is reported gross of fees. Measurement is time-weighted.

## Definitions:

Investing in **alternative assets** involves higher risks than traditional investments and is suitable only for sophisticated investors. Alternative investments involve greater risks than traditional investments and should not be deemed a complete investment program. They are not tax efficient and an investor should consult with his/her tax advisor prior to investing. Alternative investments have higher fees than traditional investments and they may also be highly leveraged and engage in speculative investment techniques, which can magnify the potential for investment loss or gain. The value of the investment may fall as well as rise and investors may get back less than they invested.

**Bonds** are subject to interest rate risks. Bond prices generally fall when interest rates rise.

Investments in **commodities** may have greater volatility than investments in traditional securities, particularly if the instruments involve leverage. The value of commodity-linked derivative instruments may be affected by changes in overall market movements, commodity index volatility, changes in interest rates, or factors affecting a particular industry or commodity, such as drought, floods, weather, livestock disease, embargoes, tariffs and international economic, political and regulatory developments. Use of leveraged commodity-linked derivatives creates an opportunity for increased return but, at the same time, creates the possibility for greater loss.

**Derivatives** may be riskier than other types of investments because they may be more sensitive to changes in economic or market conditions than other types of investments and could result in losses that significantly exceed the original investment. The use of derivatives may not be successful, resulting in investment losses, and the cost of such strategies may reduce investment returns.

**Distressed Restructuring Strategies** employ an investment process focused on corporate fixed income instruments, primarily on corporate credit instruments of companies trading at significant discounts to their value at issuance or obliged (par value) at maturity as a result of either formal bankruptcy proceeding or financial market perception of near term proceedings.

Investments in **emerging markets** can be more volatile. The normal risks of investing in foreign countries are heightened when investing in emerging markets. In addition, the small size of securities markets and the low trading volume may lead to a lack of liquidity, which leads to increased volatility. Also, emerging markets may not provide adequate legal protection for private or foreign investment or private property.

The price of **equity** securities may rise, or fall because of changes in the broad market or changes in a company's financial condition, sometimes rapidly or unpredictably. These price movements may result from factors affecting individual companies, sectors or industries, or the securities market as a whole, such as changes in economic or political conditions. Equity securities are subject to "stock market risk" meaning that stock prices in general may decline over short or extended periods of time.

**Equity market neutral strategies** employ sophisticated quantitative techniques of analyzing price data to ascertain information about future price movement and relationships between securities, select securities for purchase and sale. Equity Market Neutral Strategies typically maintain characteristic net equity market exposure no greater than 10% long or short.

**Global macro strategies** trade a broad range of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard currency and commodity markets.

**International** investing involves a greater degree of risk and increased volatility. Changes in currency exchange rates and differences in accounting and taxation policies outside the U.S. can raise or lower returns. Some overseas markets may not be as politically and economically stable as the United States and other nations.

There is no guarantee that the use of **long and short positions** will succeed in limiting an investor's exposure to domestic stock market movements, capitalization, sector swings or other risk factors. Using long and short selling strategies may have higher portfolio turnover rates. Short selling involves certain risks, including additional costs associated with covering short positions and a possibility of unlimited loss on certain short sale positions.

**Merger arbitrage strategies** which employ an investment process primarily focused on opportunities in equity and equity related instruments of companies which are currently engaged in a corporate transaction.

**Mid-capitalization** investing typically carries more risk than investing in well-established "blue-chip" companies. Historically, mid-cap companies' stock has experienced a greater degree of market volatility than the average stock.

**Price to forward earnings** is a measure of the price-to-earnings ratio (P/E) using forecasted earnings. **Price to book value** compares a stock's market value to its book value. **Price to cash flow** is a measure of the market's expectations of a firm's future financial health. **Price to dividends** is the ratio of the price of a share on a stock exchange to the dividends per share paid in the previous year, used as a measure of a company's potential as an investment.

**Real estate** investments may be subject to a higher degree of market risk because of concentration in a specific industry, sector or geographical sector. Real estate investments may be subject to risks including, but not limited to, declines in the value of real estate, risks related to general and economic conditions, changes in the value of the underlying property owned by the trust and defaults by borrower.

**Relative Value Strategies** maintain positions in which the investment thesis is predicated on realization of a valuation discrepancy in the relationship between multiple securities.

**Small-capitalization** investing typically carries more risk than investing in well-established "blue-chip" companies since smaller companies generally have a higher risk of failure. Historically, smaller companies' stock has experienced a greater degree of market volatility than the average stock.



# J.P. Morgan Asset Management – Risks & disclosures

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Unless otherwise stated, all data are as of December 11, 2025 or most recently available.

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