Capital Markets Outlook and Opportunities
Q1 2024

Latest insights as of 12/29/23

How to use this resource

This capital markets review and outlook is designed to help you stay up to date on the economic influences affecting portfolios as well as specific challenges and opportunities across global asset classes.

As always, please reach out to your Columbia Threadneedle Investments regional consultant with any questions.

Tip: Click or tap on the tabs at the top of every page to jump to the beginning of each section.

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Outlook

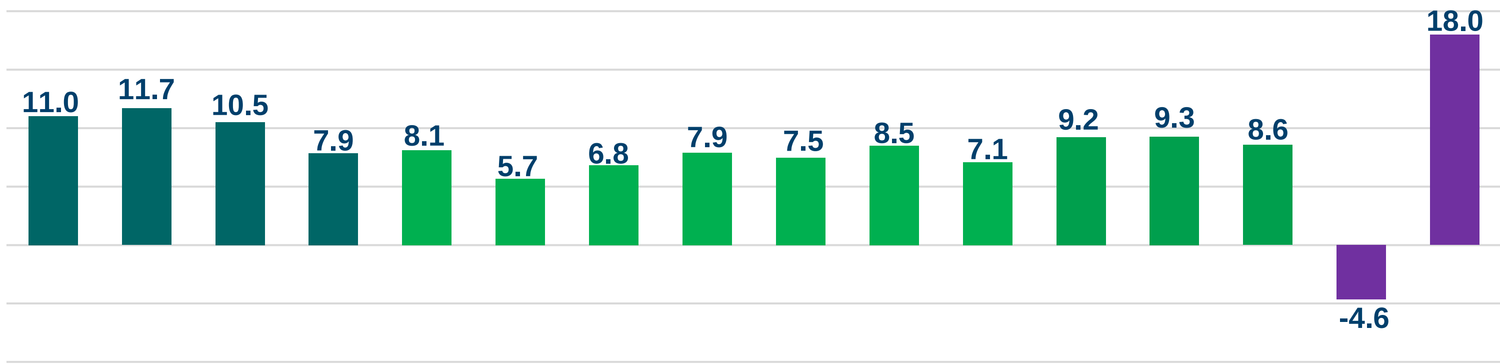
- **Concomitant with the Fed indicating that tightening is over, and easing is likely in 2024, they also indicated that the zero-interest rate policy for the Fed funds rate, in place since the 2008 Global Financial Crisis (GFC), is over. Now economic and financial market norms are being reset. Relevant data needs be examined over longer periods of time than just the post-COVID or post-GFC period.**
- **Over the long-term, moderate levels of inflation are normal, with both CPI and PPI averaging under 2% over the past 200+ years. A return to 2% inflation (the Fed's target) would suggest 10-year U.S. Treasury bond yields around 3% and an S&P 500 P/E in the mid-teens, based on historical relationships.**
- **Core PCE inflation, the Fed's preferred inflation gauge, is 3.2%, down from 5.6%. With pandemic-related shortages resolved, core goods PCE inflation is 0.1%, down from 7.6%. However, core services PCE inflation is 4.3%, down modestly from 5.8%. This largely reflects wage growth only slowing to 5.2% from 6.7%. Labor market conditions remain tight. Services is two-thirds of core PCE.**
- **The outlook for future inflation is well anchored with both the Cleveland Fed 10-year expected inflation model and 5-year forward inflation futures around 2%.**
- **The big question: Soft landing? Rare, but not unprecedented. The last was in 1994. The NY Fed recession model continues to suggest recession by mid-2024. The model has not been infallible, issuing a false signal during late 1960s stagflation and late 1990s dot-com "irrational exuberance."**

Outlook

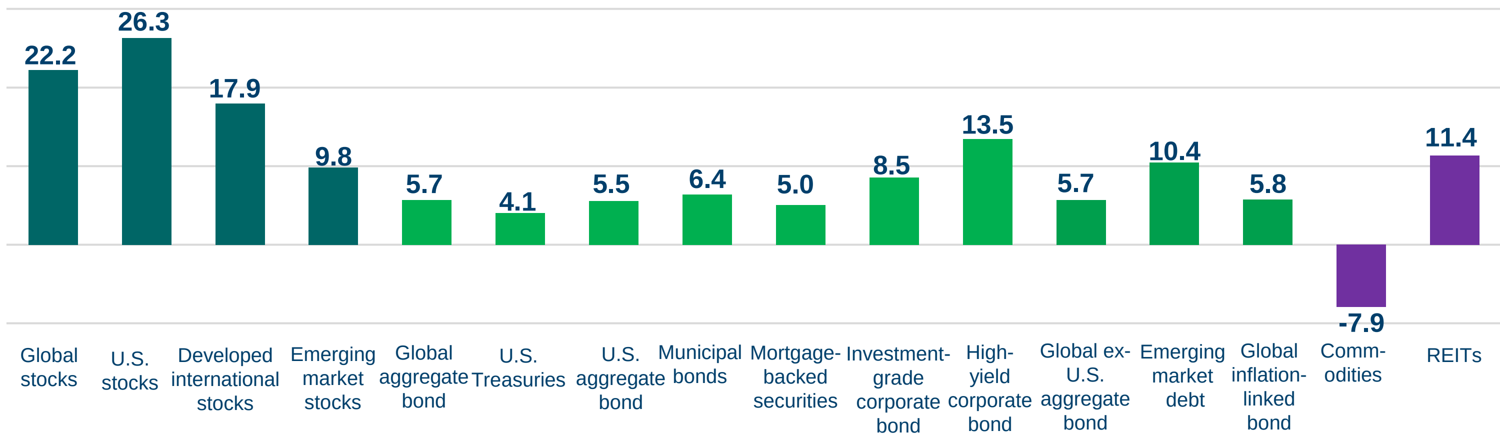
- **Fed Chair Powell stated current inflation was not due to "classic demand overload," but more so to "supply restrictions," both of goods and labor, "because we had a (labor) participation shock." The Fed's dot plot suggests easing when/if labor supply comes into balance and their forecast is for modest GDP growth in 2024, i.e., a soft landing.**
- **Bonds are attractive versus stocks, with 10-year U.S. Treasury yields 223 basis points above equilibrium versus the S&P 500. Historically, yields have peaked about a year before the first Fed easing.**
- **The MSCI U.S. P/E on expected earnings is 24% above its historical average. That valuation reflects consensus earnings growth forecasts of +11% for 2024 and +13% for 2025, seemingly in line with above-trend GDP growth.**
- **Consensus 2023 earnings growth fell markedly, from +10% to +1%, despite no recession. This is not unusual. Historically, beginning of the year consensus earnings forecasts have been 7% above actual earnings for that year, and never forecast an earnings decline, with estimates high 76% of the years. If a recession occurs in 2024, expected +11% earnings growth could be at risk. Historically earnings have declined -16% during a recession.**
- **While 2023 stock market performance was driven by just nine stocks, the market P/E valuation is not; 49% of stocks, (65% of total market value) are above the 22.9x S&P 500 Index P/E on trailing earnings.**

Review: Asset class performance Q4 2023 and YTD

▶ Q4 2023 asset class returns (09/30/23–12/29/23, %)

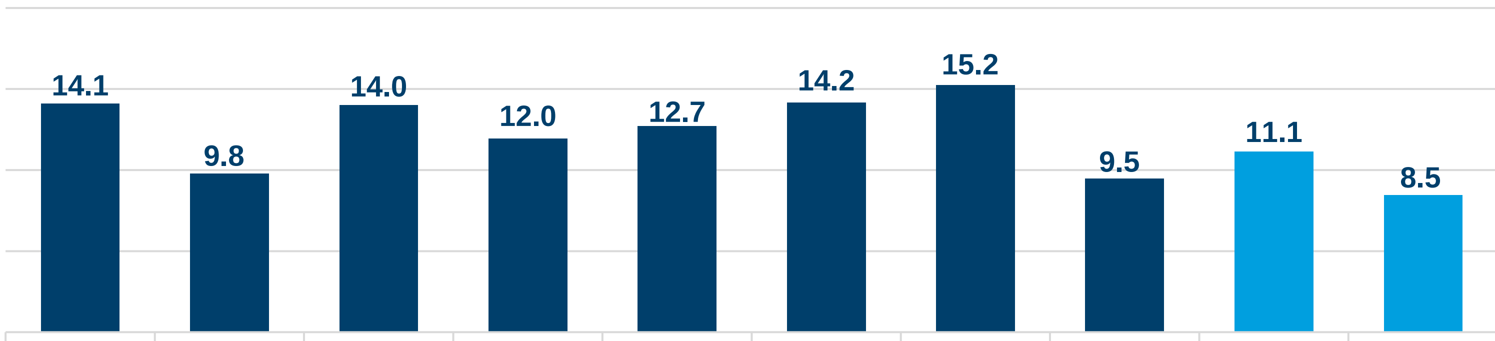


▶ YTD asset class returns (12/31/22–12/29/23, %)

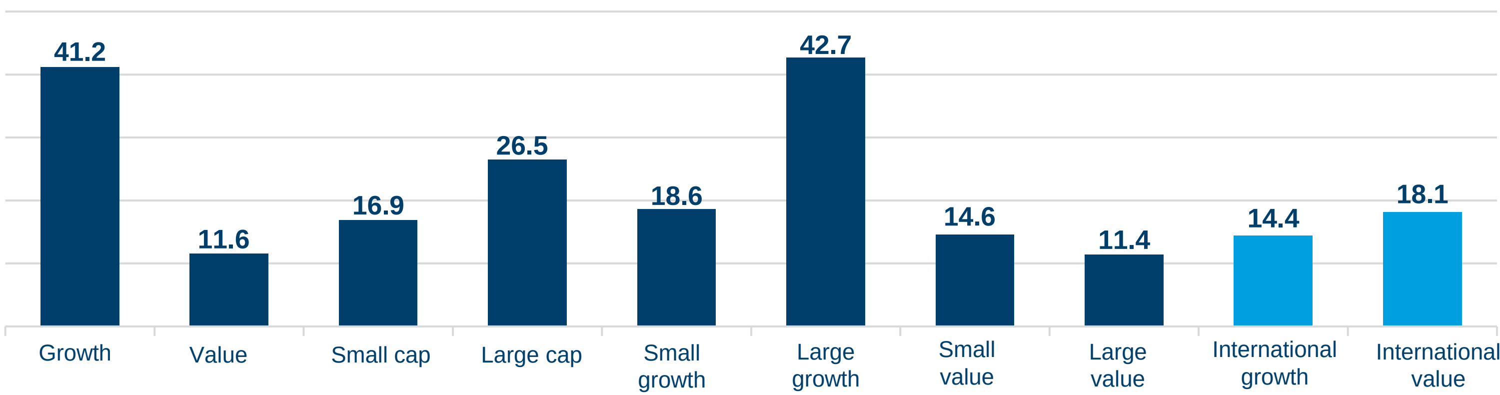


Source: Columbia Management Investment Advisers, LLC. See disclosure for full index descriptions. **Past performance does not guarantee future results. It is not possible to invest directly in an index.**

Q4 2023 style returns (09/30/23–12/29/23, %)

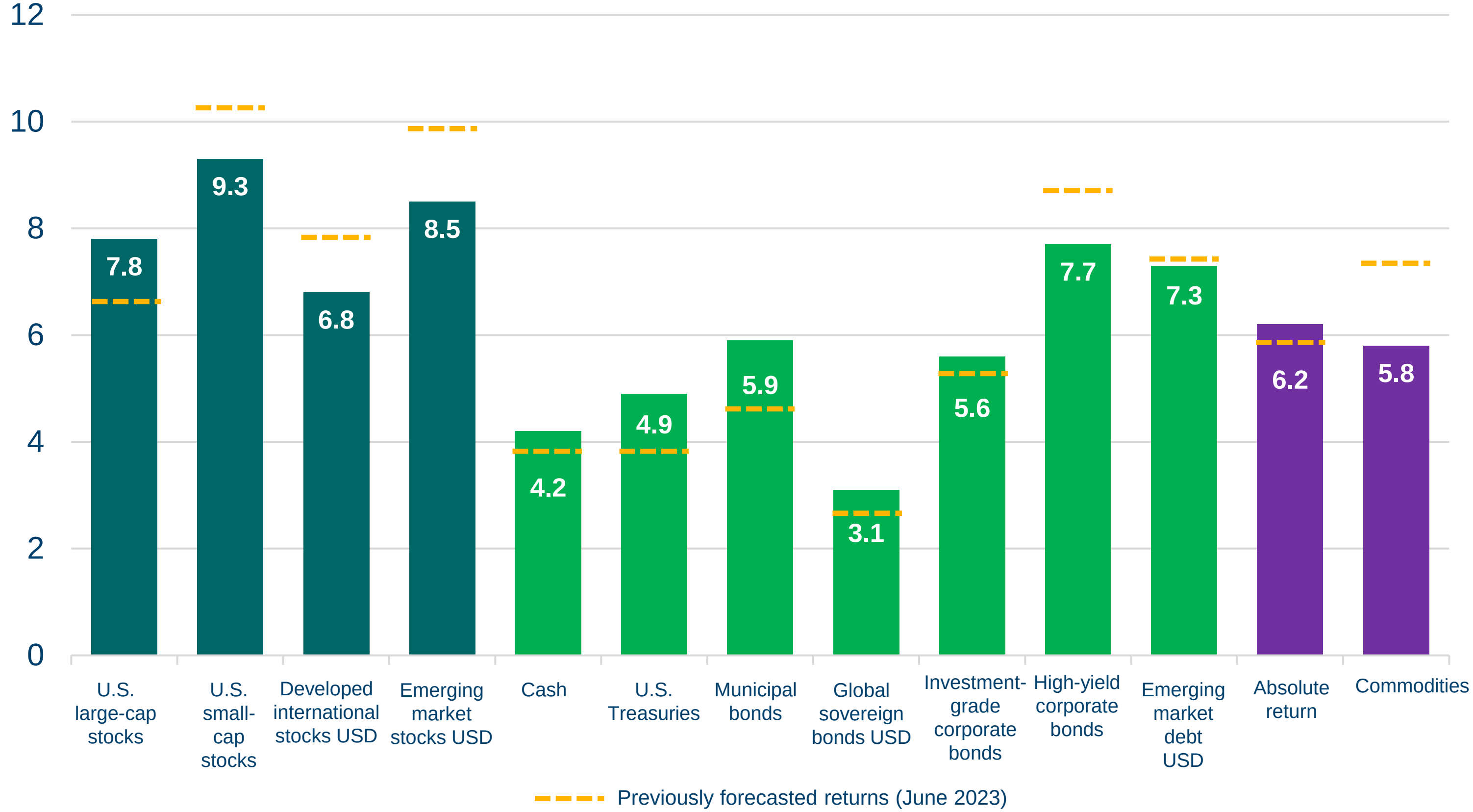


YTD style returns (12/31/22–12/29/23, %)



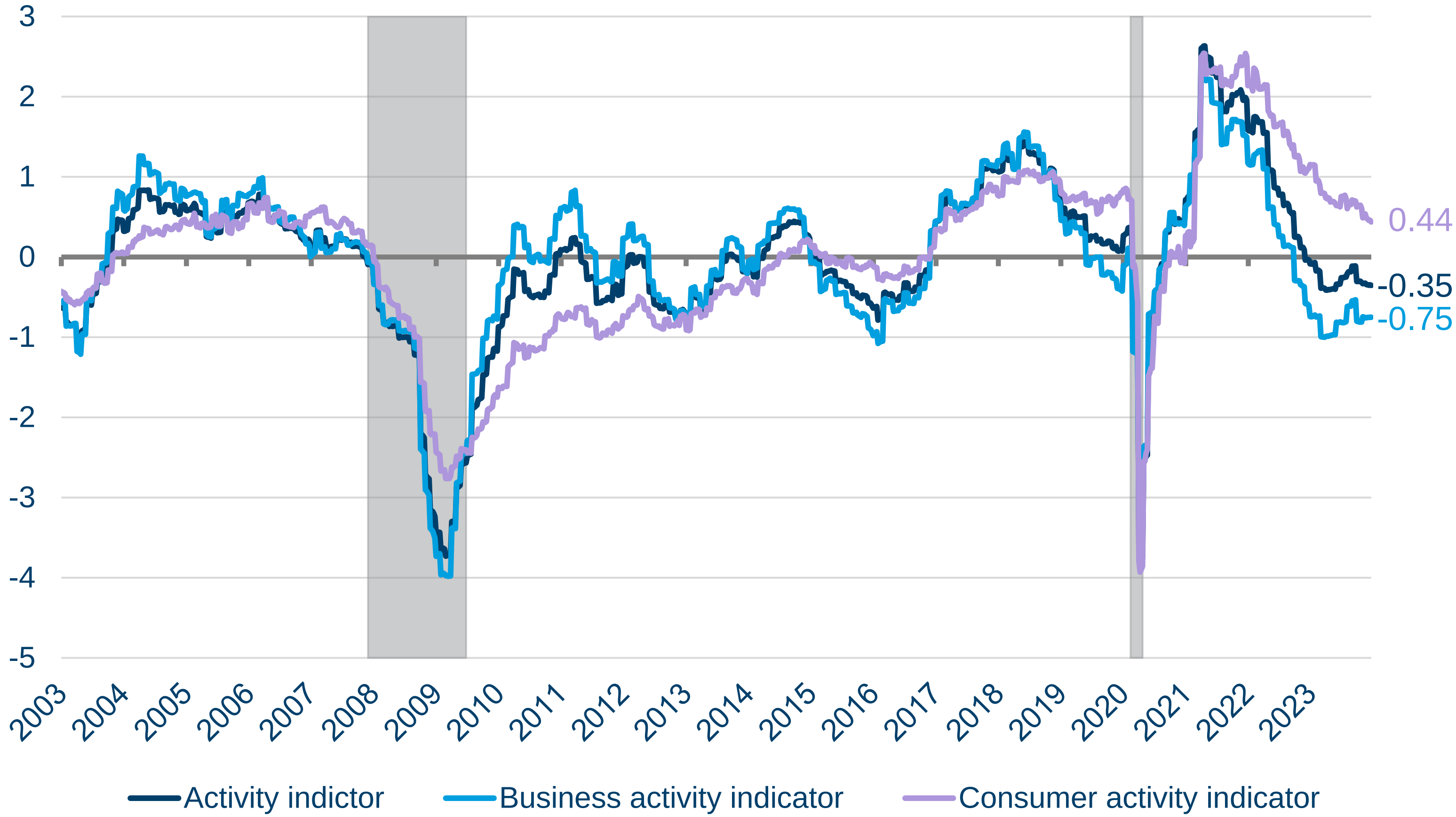
Source: Columbia Threadneedle Investments. **Past performance does not guarantee future results. It is not possible to invest directly in an index.** Growth represented by Russell 3000 Growth Index; value by Russell 3000 Value Index; small cap by Russell 2000 Index; large cap by Russell 1000 Index; small growth by Russell 2000 Growth Index; large growth by Russell 1000 Growth Index; small value by Russell 2000 Value Index; large value by Russell 1000 Value Index; international growth by MSCI ACWI ex USA Growth Index; and international value by MSCI ACWI ex USA Value Index. Please see notes for index descriptions.

Five-year forecasted returns
(updated twice a year, latest data as of December 2023, annualized %)



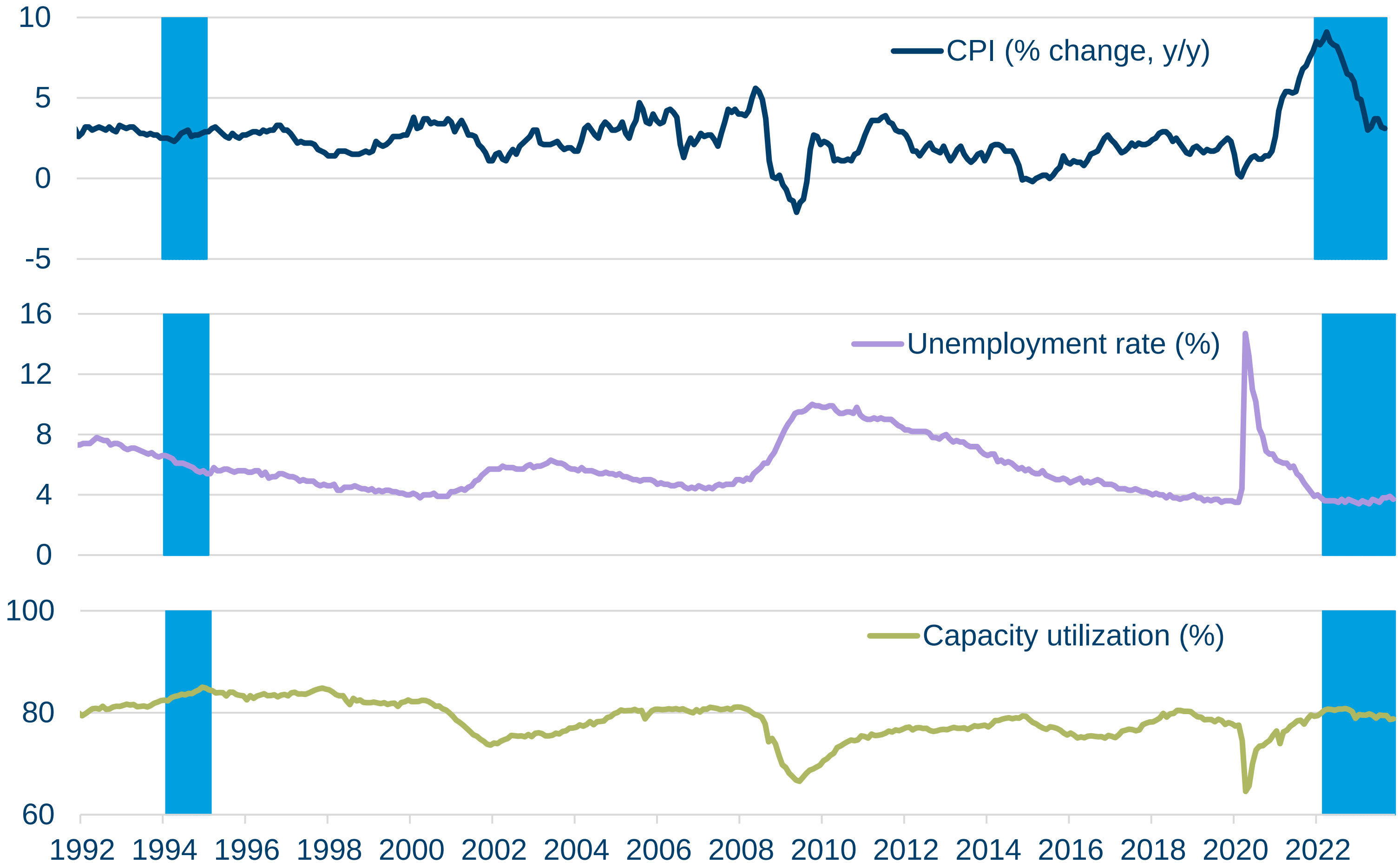
Source: Columbia Threadneedle Investments Global Asset Allocation Team. See disclosure for full index descriptions and methodology.

Current economic activity level is a bit below trend growth, buoyed by consumer economic activity that remains strong (Z score, where 0 = trend)



Source: Columbia Threadneedle Investments as of 12/25/23. The Columbia Threadneedle consumer activity tracker, business activity tracker and combined activity tracker are proprietary measures of economic activity based on established metrics published by the U.S. federal government and other sources. Consumer indicator utilizes consumer sentiment, employment, consumption, housing and income indices. Business indicator utilizes regional Federal Reserve outlooks, GDP forecasts, industrial production, transportation and sales indices. Grey-shaded periods indicate recessions.

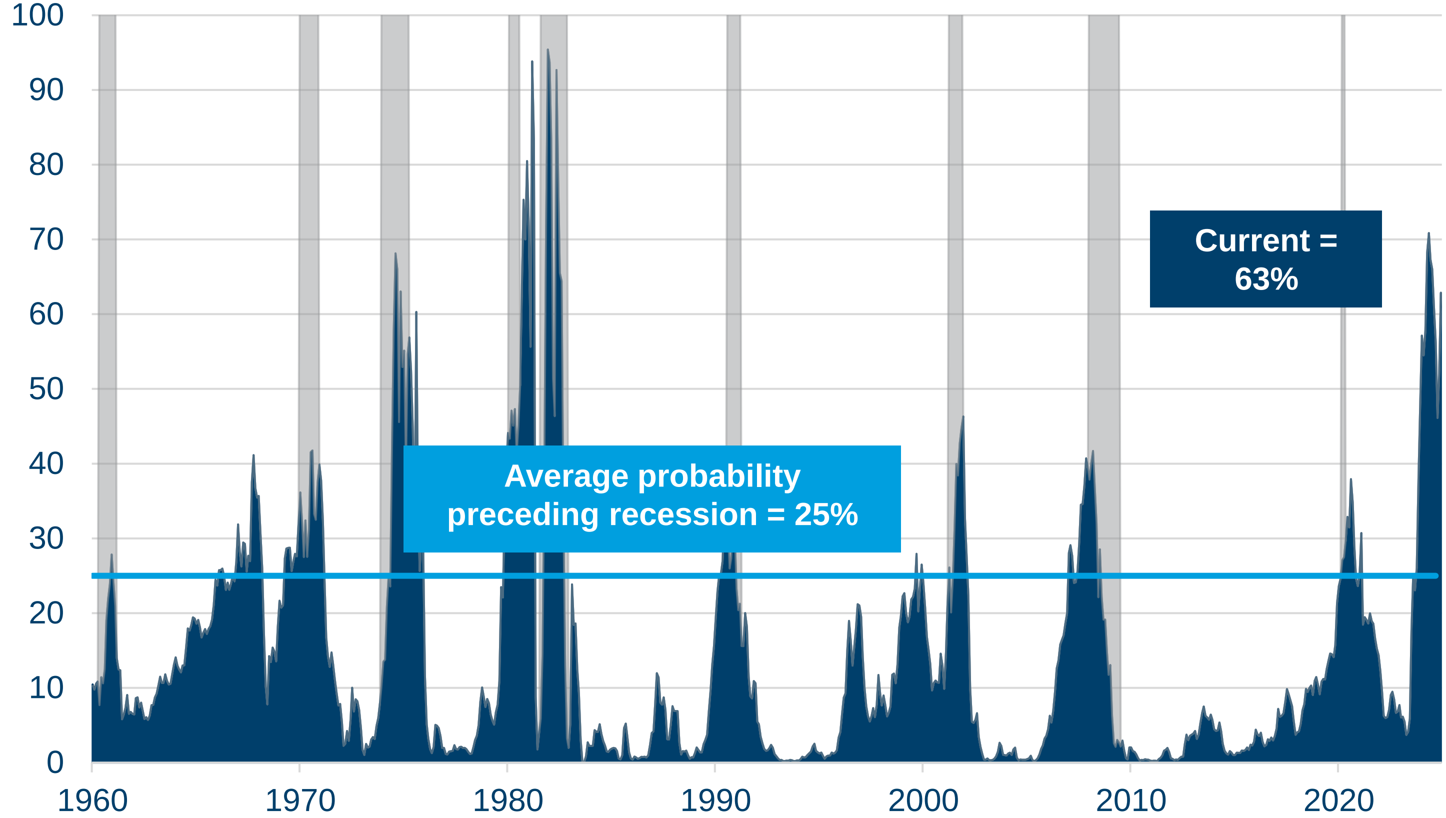
▶ **The last soft landing was 1994, when the Fed was acting proactively in response to falling unemployment and rising capacity utilization, ahead of any inflation increase**



Source: Bureau of Labor Statistics, Federal Reserve, as of 11/30/23. Blue shading indicates 1994 soft landing and the current Fed tightening. Capacity utilization rate measures the percentage of potential output levels that is being achieved.

Fed model: Recession probability

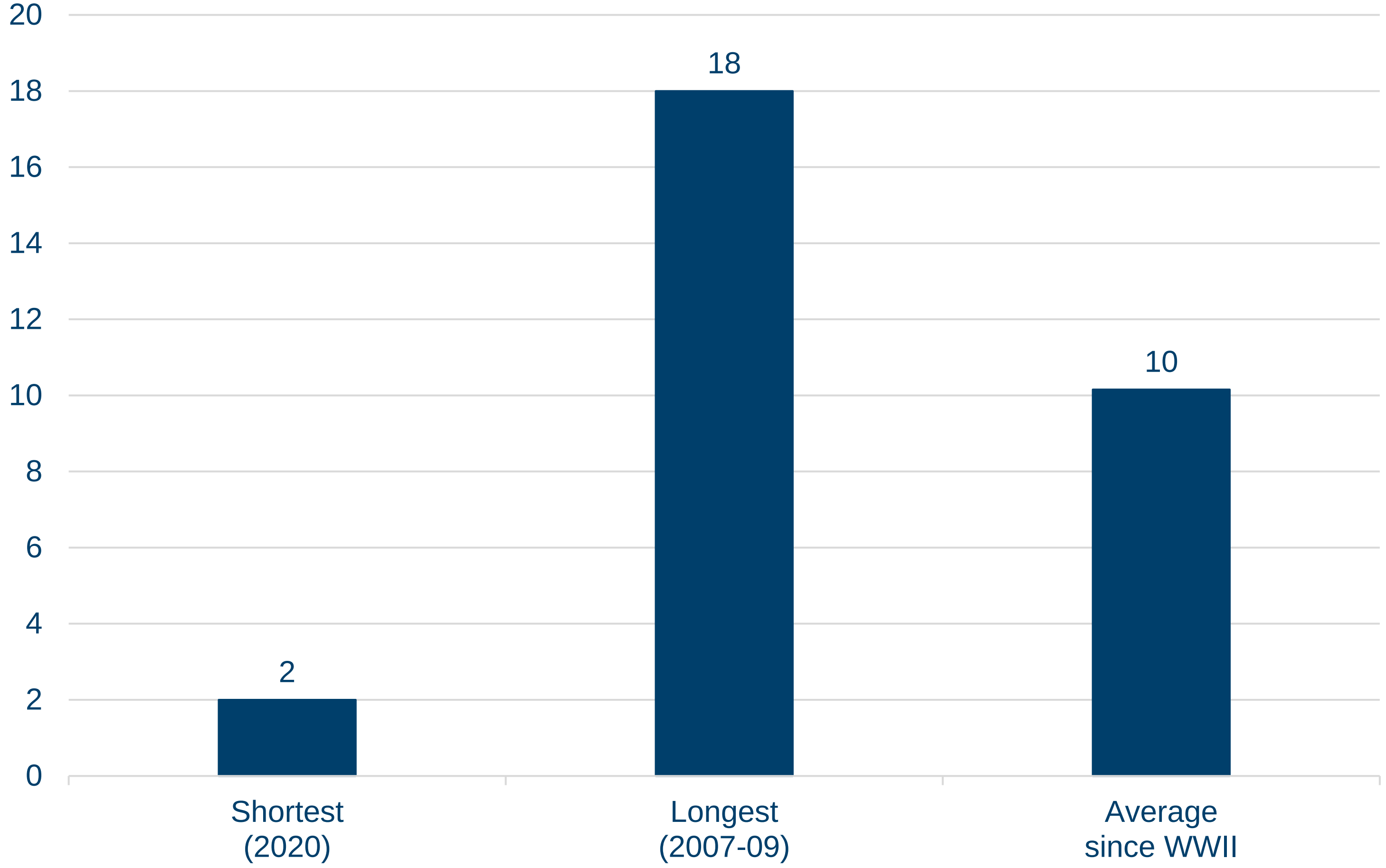
▶ **The NY Fed recession model continues to suggest recession by mid-2024. The model has not been infallible, issuing a false signal during the late 1960s stagflation and the late 1990s dot-com "irrational exuberance."** (Probability, %)



Fed Chair Powell stated current inflation was not due to "classic demand overload," but more so to "supply restrictions," both of goods and labor, "because we had a (labor) participation shock." The Fed's dot plot suggests easing when/if labor supply comes into balance, and their forecast is for modest GDP growth in 2024 i.e., a soft landing.

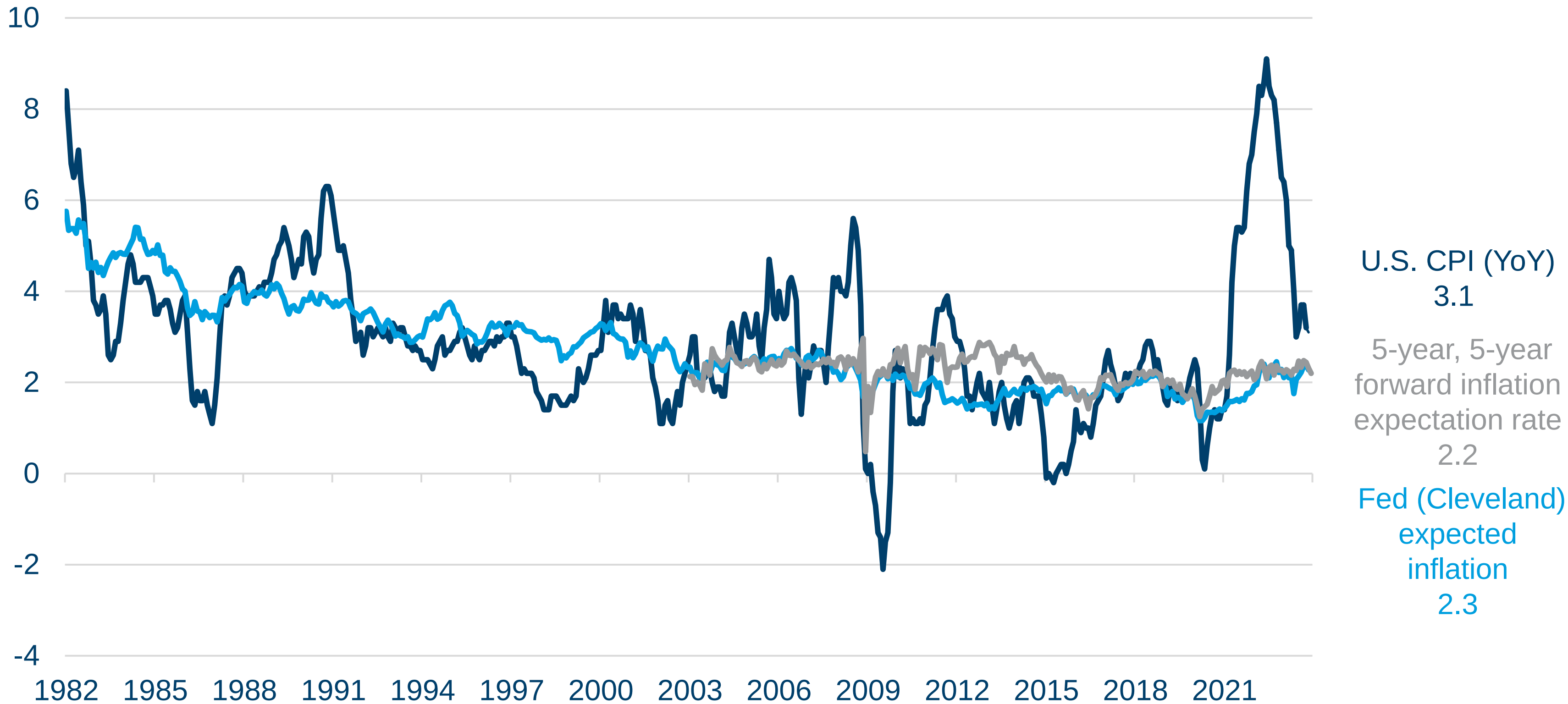
Source: *The Yield Curve as a Predictor of U.S. Recessions*, The Federal Reserve Bank of New York, June 1996. Bloomberg, as of 12/29/23. Parameters estimated using data from January 1959 to December 2009; recession probabilities predicted using data through September 2023. Grey-shaded periods indicate recessions.

▶ **Since WWII, recessions have lasted 10 months on average** (months)



Source: National Bureau of Economic Research. Data is from 1945-2023; thirteen recessions.

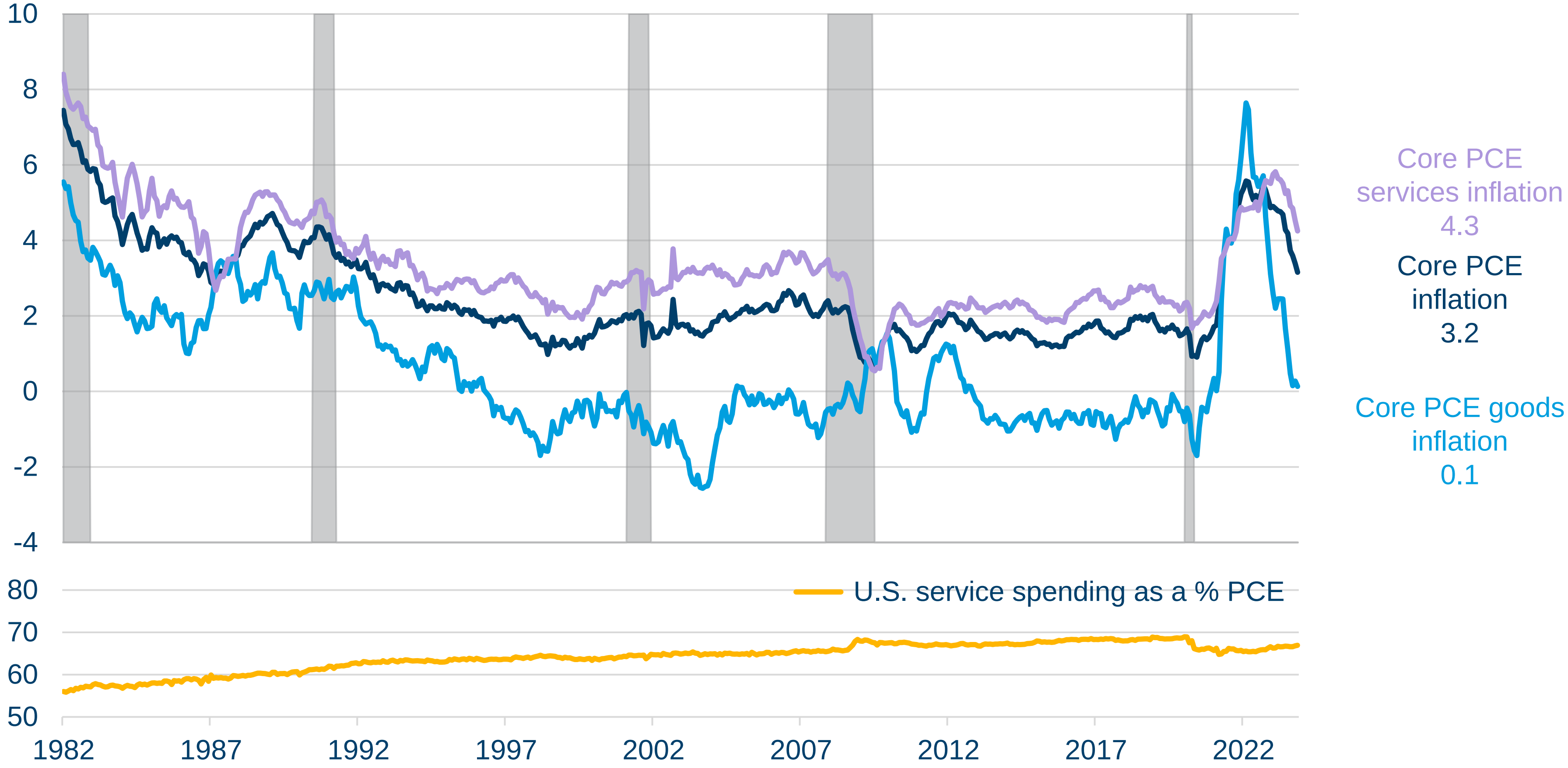
▶ **CPI has declined significantly, from 9.1% to 3.1%, but it is still above the Fed's 2% target, while the outlook for future inflation (e.g., 5-year inflation futures, Cleveland Fed 10-year expected inflation model) remains well anchored** (Inflation, %)



Source: Bureau of Labor Statistics, Federal Reserve Bank of Cleveland, Federal Reserve Bank of St. Louis. CPI as of 11/30/23, 5-year, 5-year forward inflation expectation rate and Cleveland Fed as of 12/29/23. Note: Cleveland Fed estimates of the expected rate of inflation over the next 10 years are calculated using treasury yields, inflation data, inflation swaps and survey-based measures of inflation expectations. 5-year, 5-year forward inflation expectation rate represents a measure of expected inflation derived from 5-year treasury constant maturity securities and 5-year treasury inflation-indexed constant maturity securities.

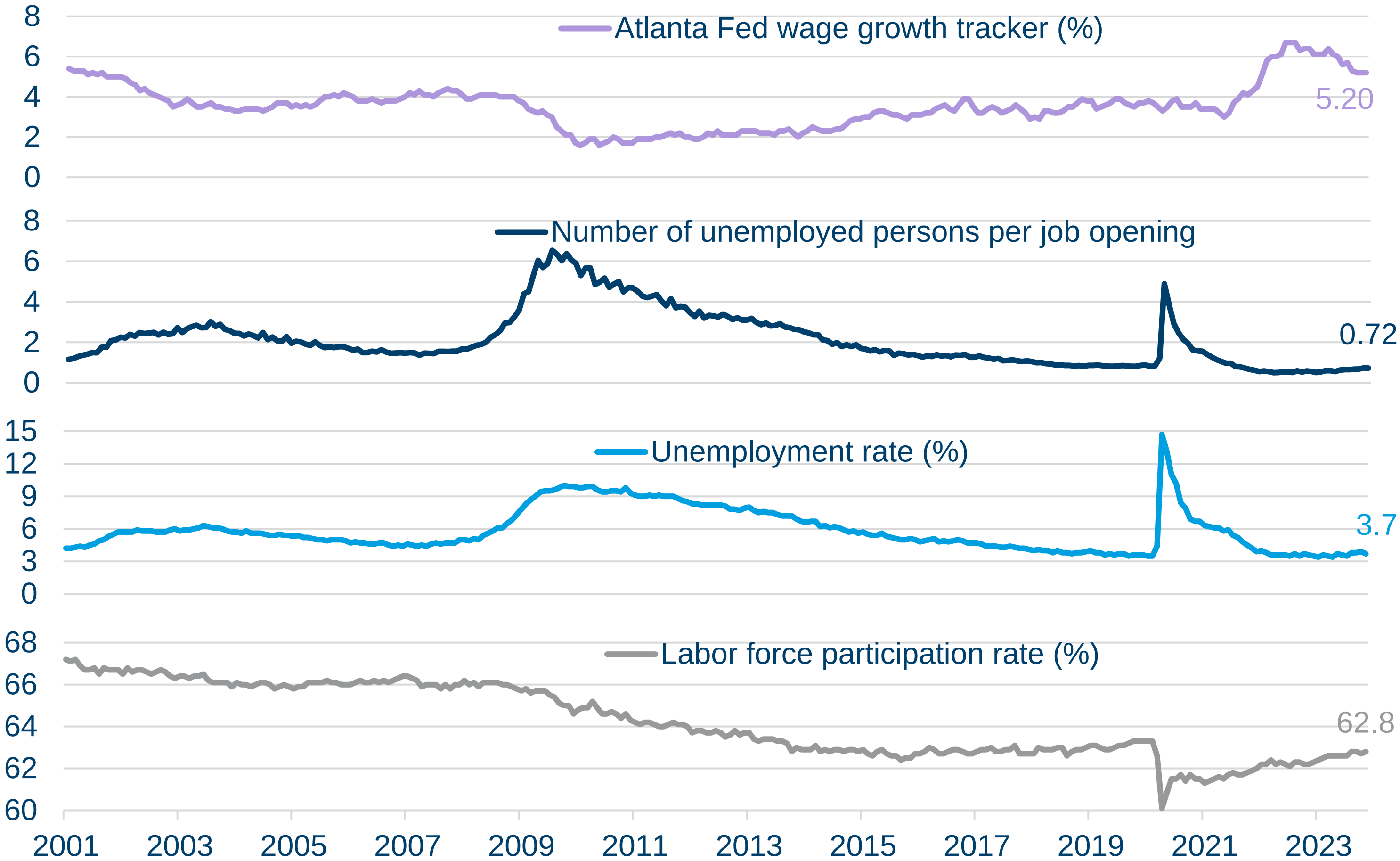
Inflation: PCE (Personal consumption expenditure)

▶ **Core PCE inflation, the Fed's preferred inflation gauge, is 3.2%, down from 5.6%. With pandemic-related shortages resolved, core goods PCE inflation is 0.1%, down from 7.6%. However, core services PCE inflation is 4.3%, down modestly from 5.8%; services is two-thirds of core PCE.** (%)



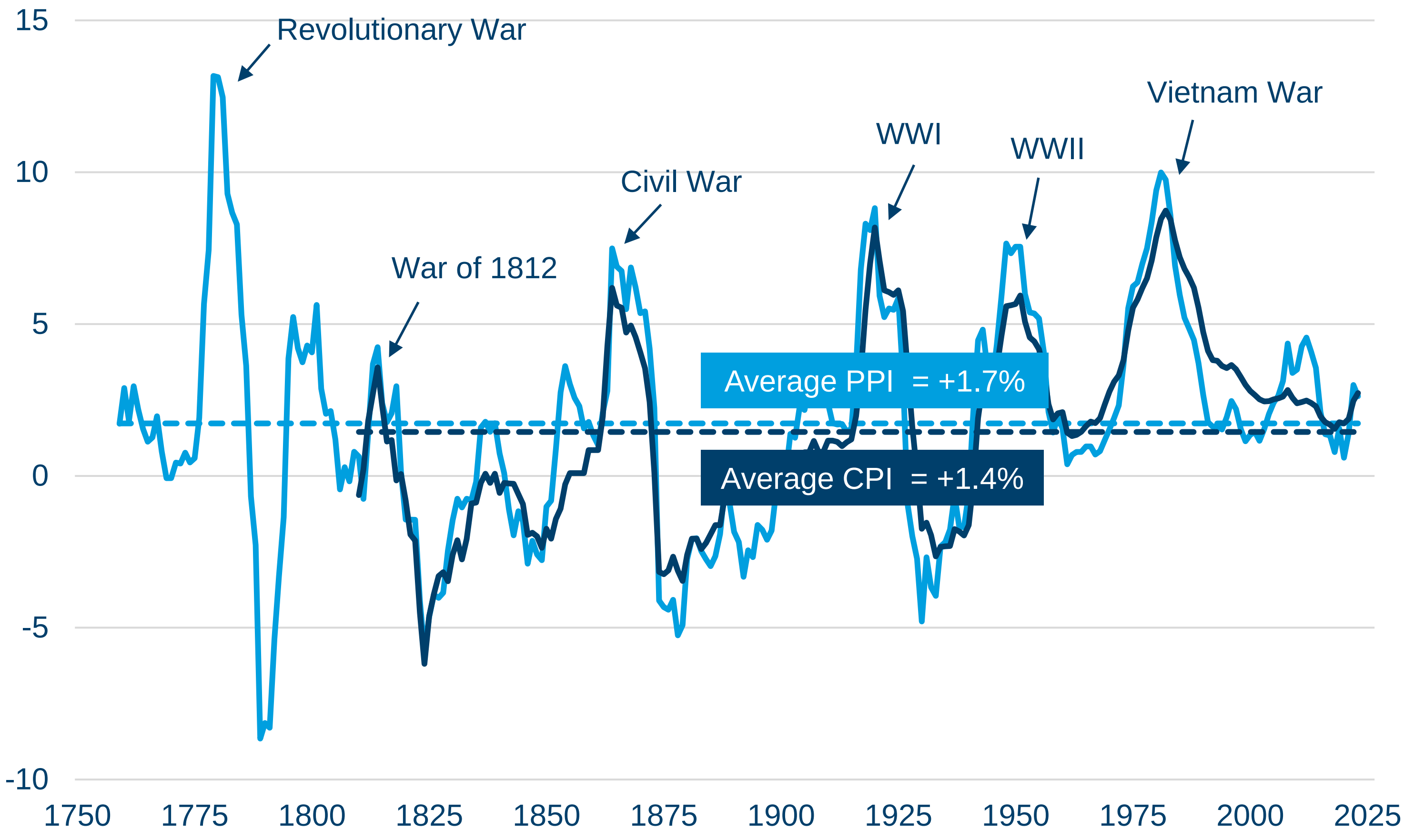
Source: Bureau of Labor Statistics, data as of 11/30/23. Grey-shaded periods indicate recessions.

▶ **Wage growth has slowed from 6.7% to a still high 5.2%, with labor market conditions remaining tight**



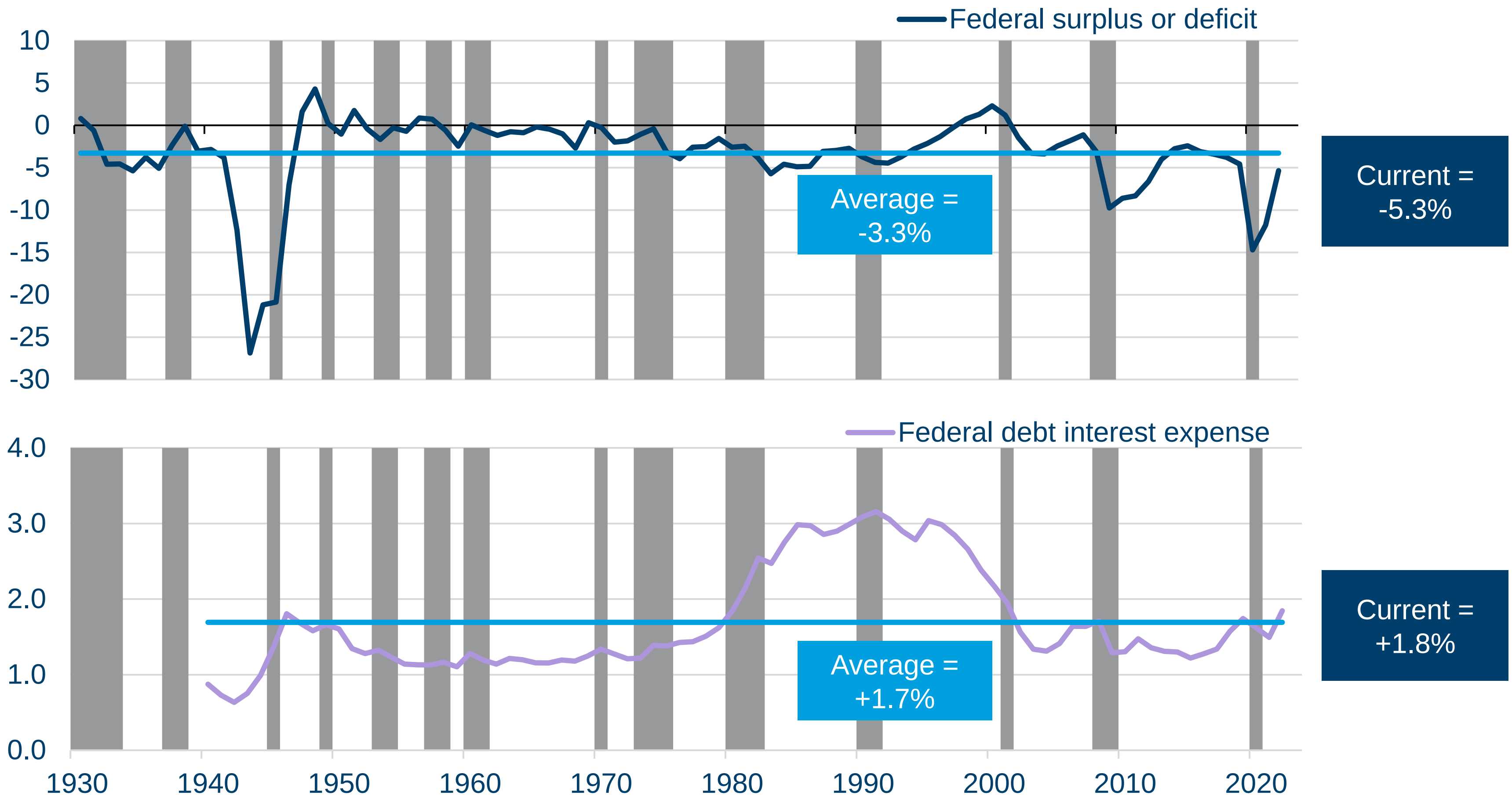
Source: U.S. Bureau of Labor Statistics, data as of 11/30/23.

Over the long term, moderate levels of inflation are normal
(PPI, CPI, rolling 10-yr. average, annually, %)



Source: Historical Statistics of United States, 1975; Bureau of Labor Statistics; Federal Reserve Bank of Minneapolis; Columbia Management Investment Advisers, LLC, data as of 11/30/23.

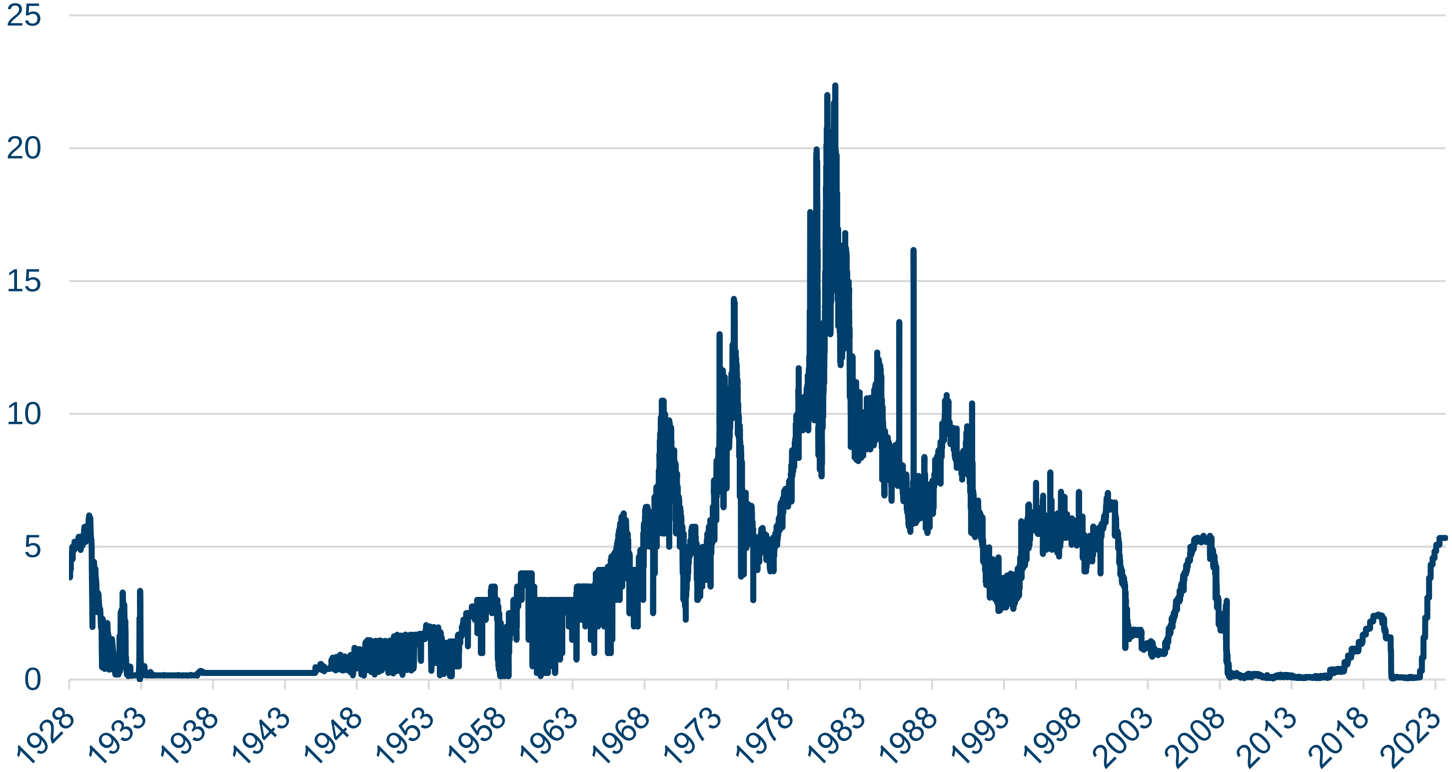
▶ **The Federal government deficit at 5.3% of GDP has been declining and is nearing 3.3% average levels, while the interest on debt is near the 1.7% average** (% of GDP)



Source: U.S. Office of Management and Budget, Federal Surplus or Deficit [-] [FYFSD], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/FYFSD, October 24, 2023. U.S. Office of Management and Budget and Federal Reserve Bank of St. Louis, Federal Outlays: Interest as Percent of Gross Domestic Product [FYOIGDA188S], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/FYOIGDA188S, October 24, 2023. Grey-shaded periods indicate recessions. **Past performance does not guarantee future results.**

Zero interest rate (Fed Funds) policy (ZIRP), in place since the 2008 Global Financial Crisis (GFC), is over

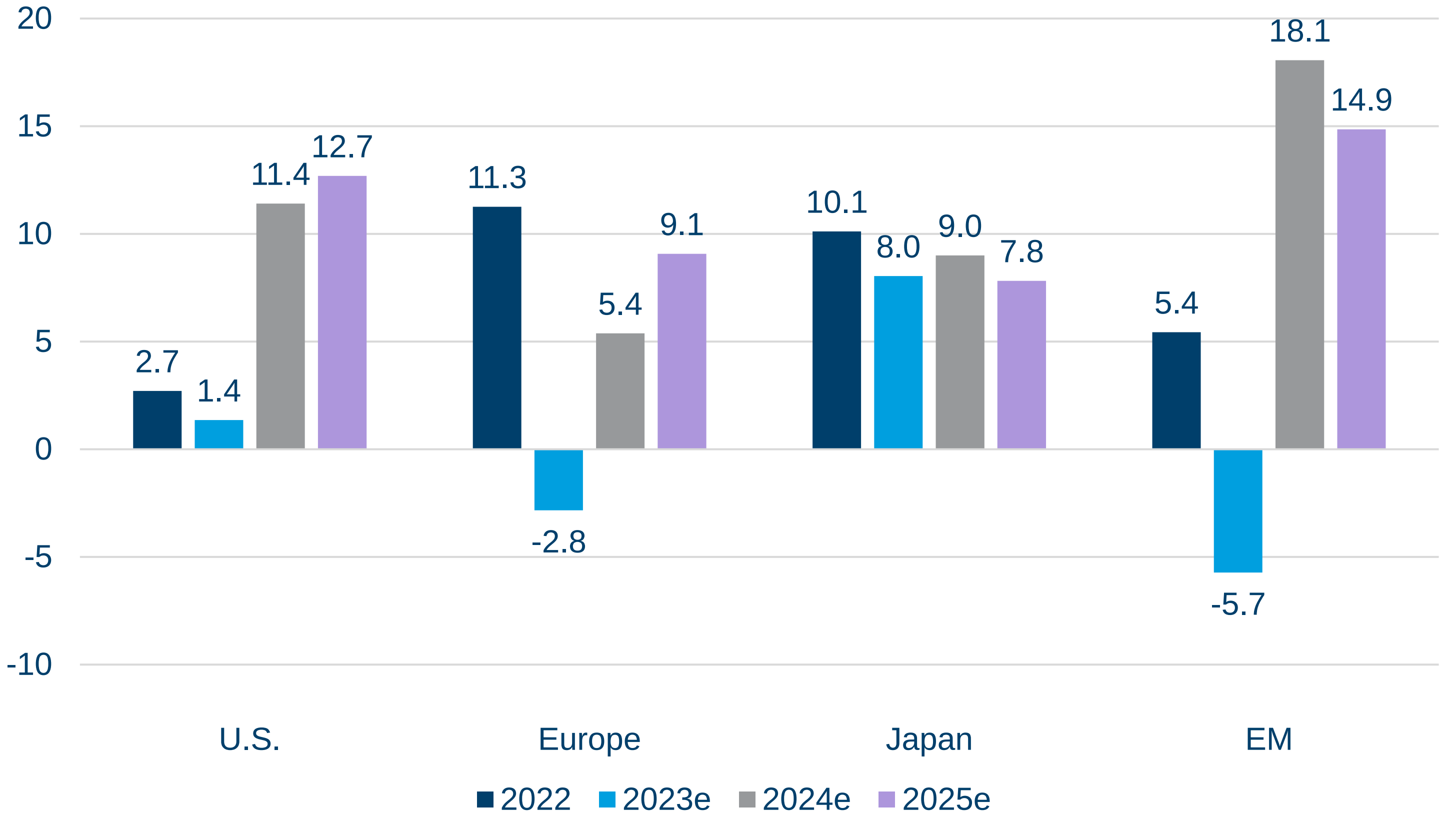
▶ **Economic and financial market norms are being reset. Relevant data needs be examined over longer periods of time than just the post-COVID or post-GFC period.**
(Fed funds rate, %)



Source:. Federal Reserve, Bloomberg, data as of 12/29/2023. The series used is the U.S. Federal Funds Effective Rate. The data is weekly until 1954 and daily series post-1954.

Earnings growth: Consensus forecasts

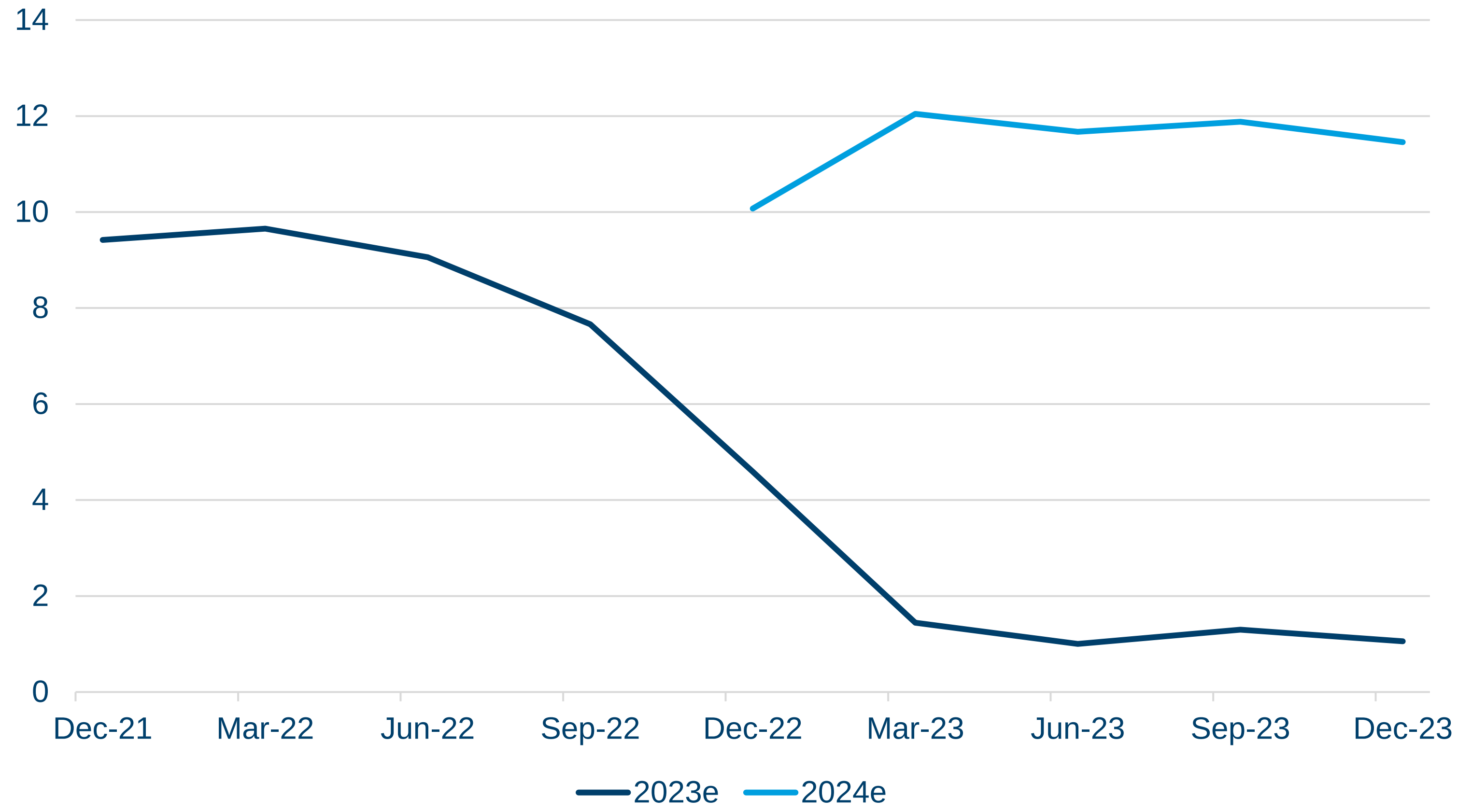
▶ **U.S. consensus earnings growth seems to be in line with above trend GDP growth, with double-digit growth anticipated in 2024 and 2025** (Earnings growth, %)



Source: FactSet, MSCI, data as of 12/29/23. U.S. is represented by MSCI US Index; Europe by MSCI Europe Index; Japan by MSCI Japan Index; EM by MSCI Emerging Markets Index.
It is not possible to invest directly in an index.

Earnings growth: U.S. earnings forecast trend

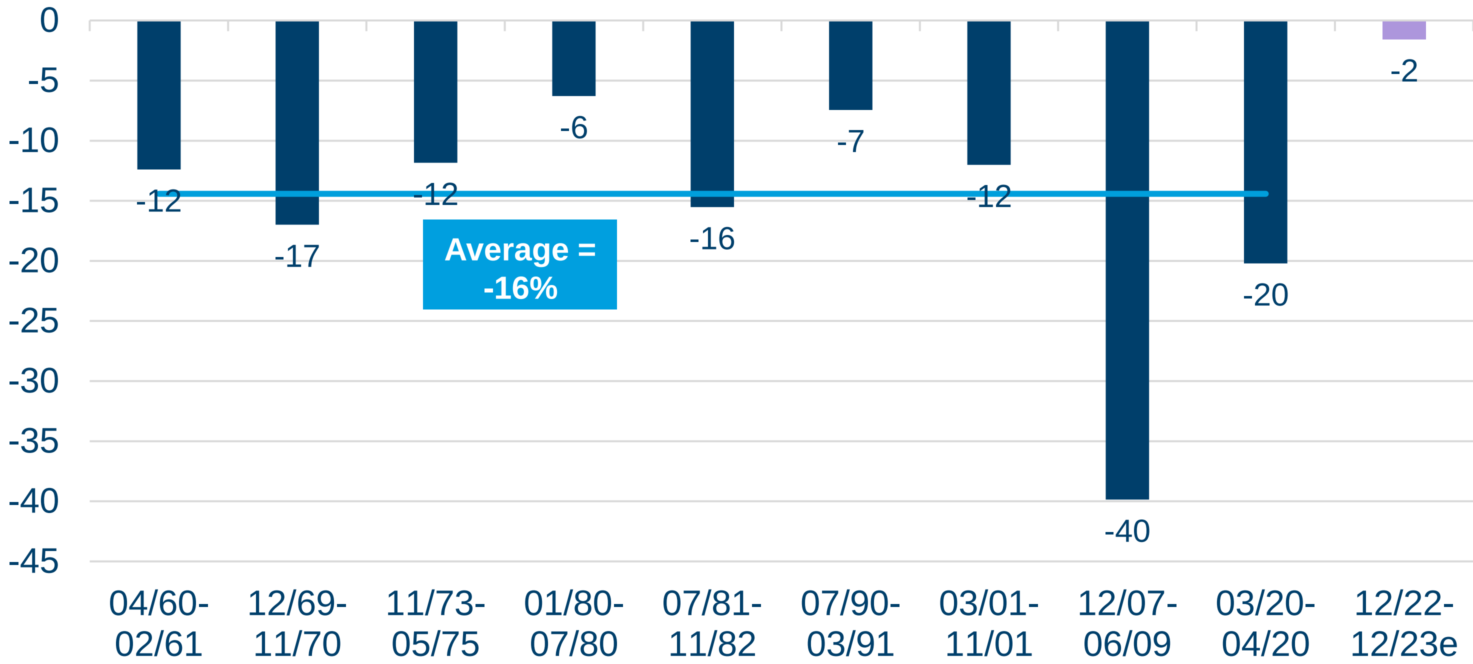
▶ **Consensus 2023 earnings growth fell, from 10% to 1%, despite no recession. This is not unusual. Historically, beginning of the year consensus has been 7% above actual, and has never forecasted an earnings decline, with estimates high 76% of the years[1].** (Earnings growth, %)



Source: FactSet, S&P 500 data as of 12/29/23. [1]Refinitiv DataStream, IBES S&P 500 EPS. **It is not possible to invest directly in an index.**

Earnings growth: EPS change around recession periods

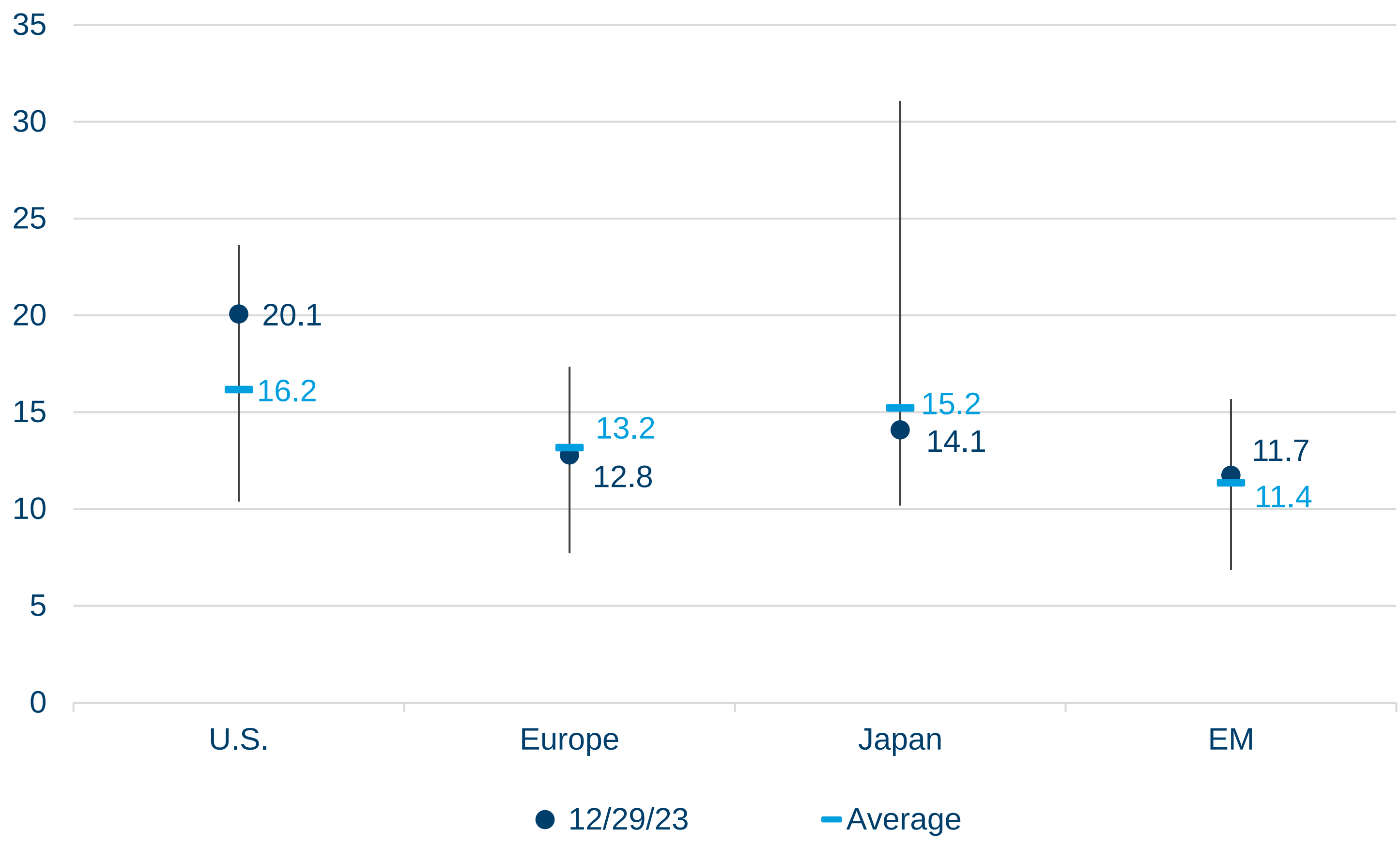
Historically, earnings have declined around recessions and have not bottomed until the recession has ended (Earnings change, %)



Number of months from recession end until earnings trough										Average
-2	-5	0	3	2	0	0	0	8	??	1

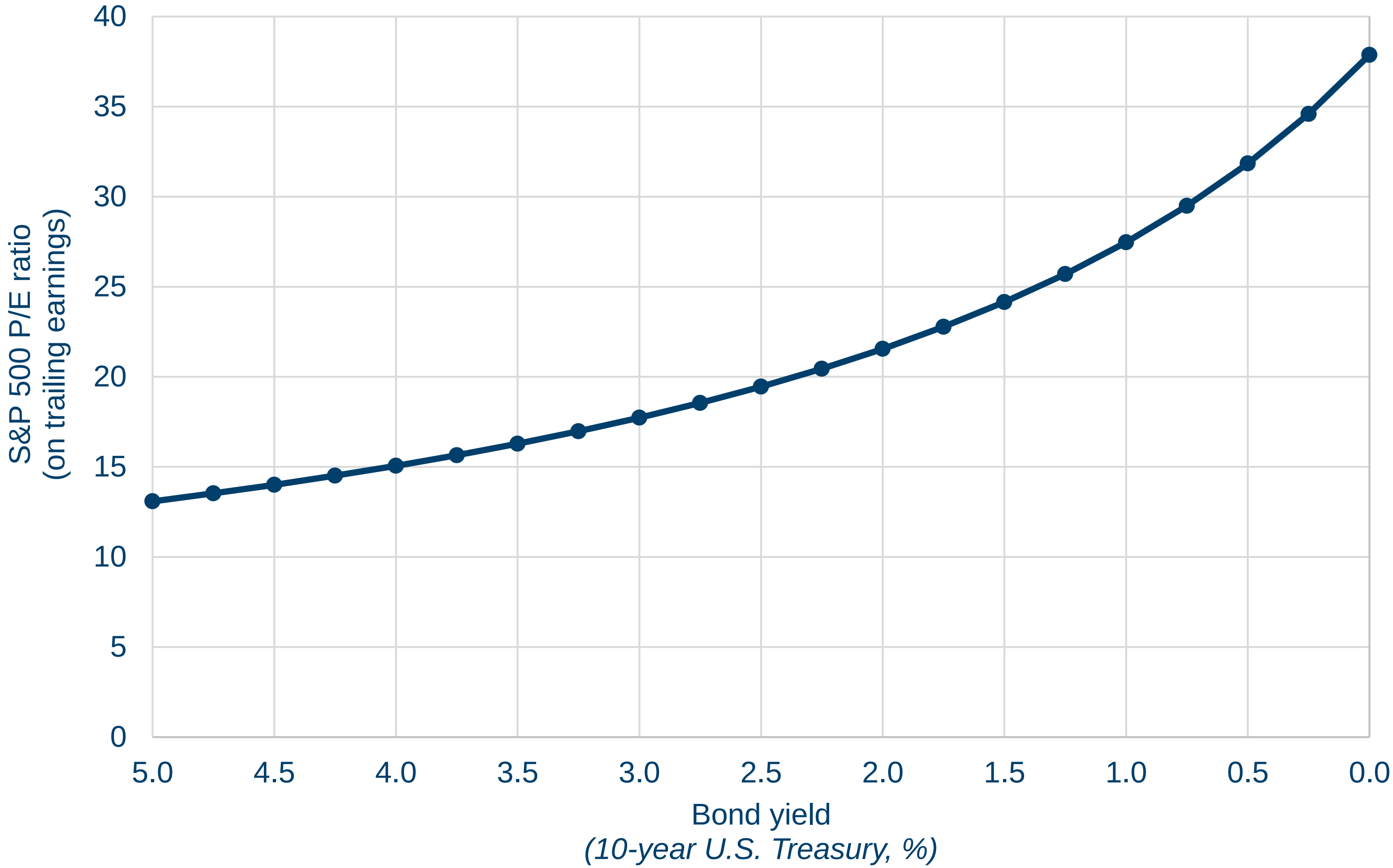
Source: Bloomberg, FactSet, data as of 12/29/23. EPS change is calculated for the S&P 500 Index from peak prior to or during recession to trough. The horizontal axis represents the recessionary period and is not necessarily the peak and trough earnings time period. The light purple bar is showing the current earnings drawdown. **It is not possible to invest directly in an index.**

▶ **The U.S. P/E is 24% above average; Europe is 3% below average; Japan is 7% below average; and EM is 3% above average** (12-month forward P/E ratio)



Source: MSCI, data as of 12/29/23**.** U.S. is represented by MSCI US Index; Europe by MSCI Europe Index; Japan by MSCI Japan Index; EM by MSCI Emerging Markets Index. The data series starts June 2003. Japan's average P/E may not be meaningful because its historical peak P/E reflects an economy whose global position has declined materially, from 18% of global GDP in 1994 to 5% currently**. It is not possible to invest directly in an index.**

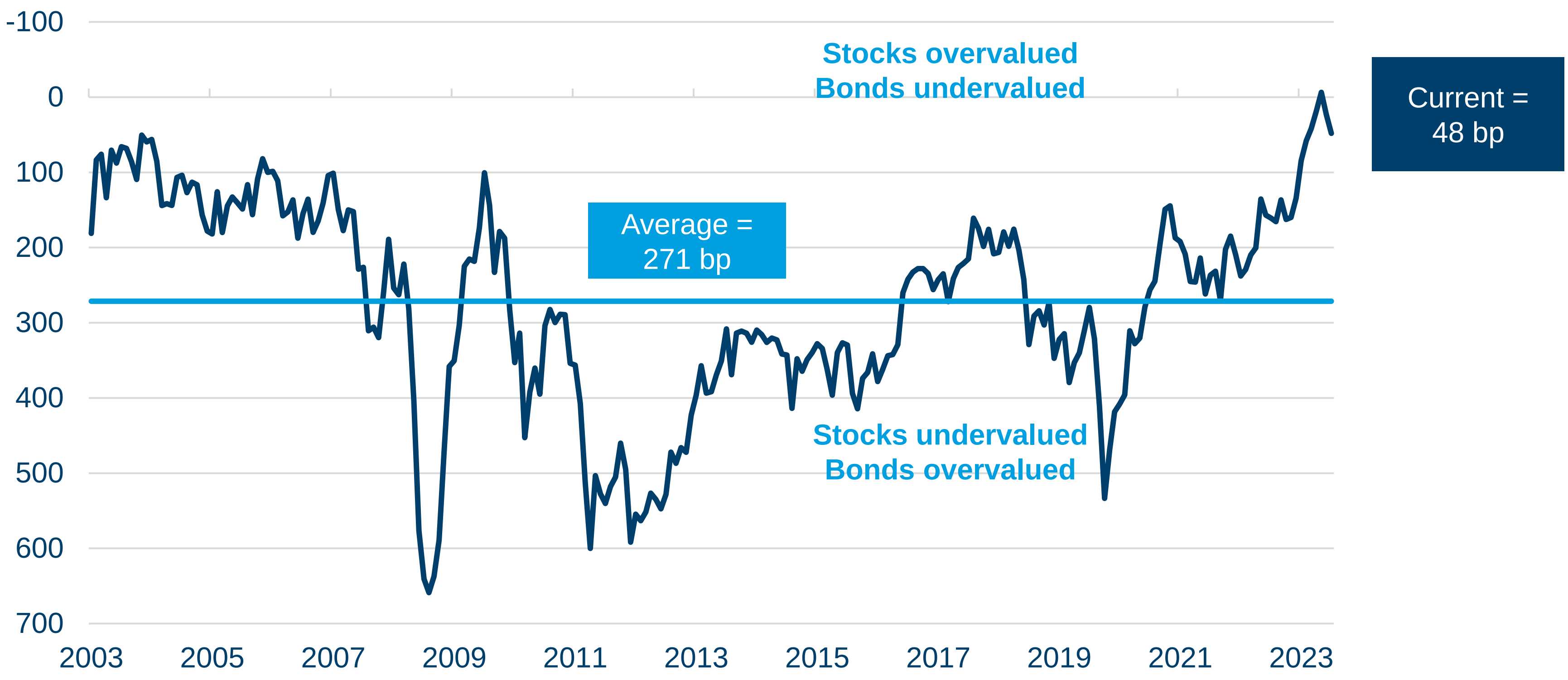
▶ P/E levels tend to rise with lower bond yields, and vice versa



Source: Bloomberg, as of 12/29/23. The calculation for P/E ratio takes into consideration the average spread (from June 2003) of 271 basis points between the S&P 500 Index earnings yield and U.S.10-year bonds. A basis point is 1/100th of a percent. **Past performance does not guarantee future results. It is not possible to invest directly in an index.**

U.S. equity: S&P 500 earnings yield minus 10-year U.S. Treasury yield

▶ **The earnings yield imbalance can be corrected if bond yields (currently 3.88%) fall 223 bp or earnings yield (currently 4.36%) rises 223 bp or a combination of those events. Earnings yield would rise 223 bp if stock prices fall by 34% or earnings rise by 51%.**
(Spread between the S&P 500 Index earnings yield and 10-year U.S. Treasury yield, bp)



Source: Bloomberg as of 12/29/23. The data series starts June 2003. A basis point is 1/100th of a percent. **Past performance does not guarantee future results. It is not possible to invest directly in an index.**

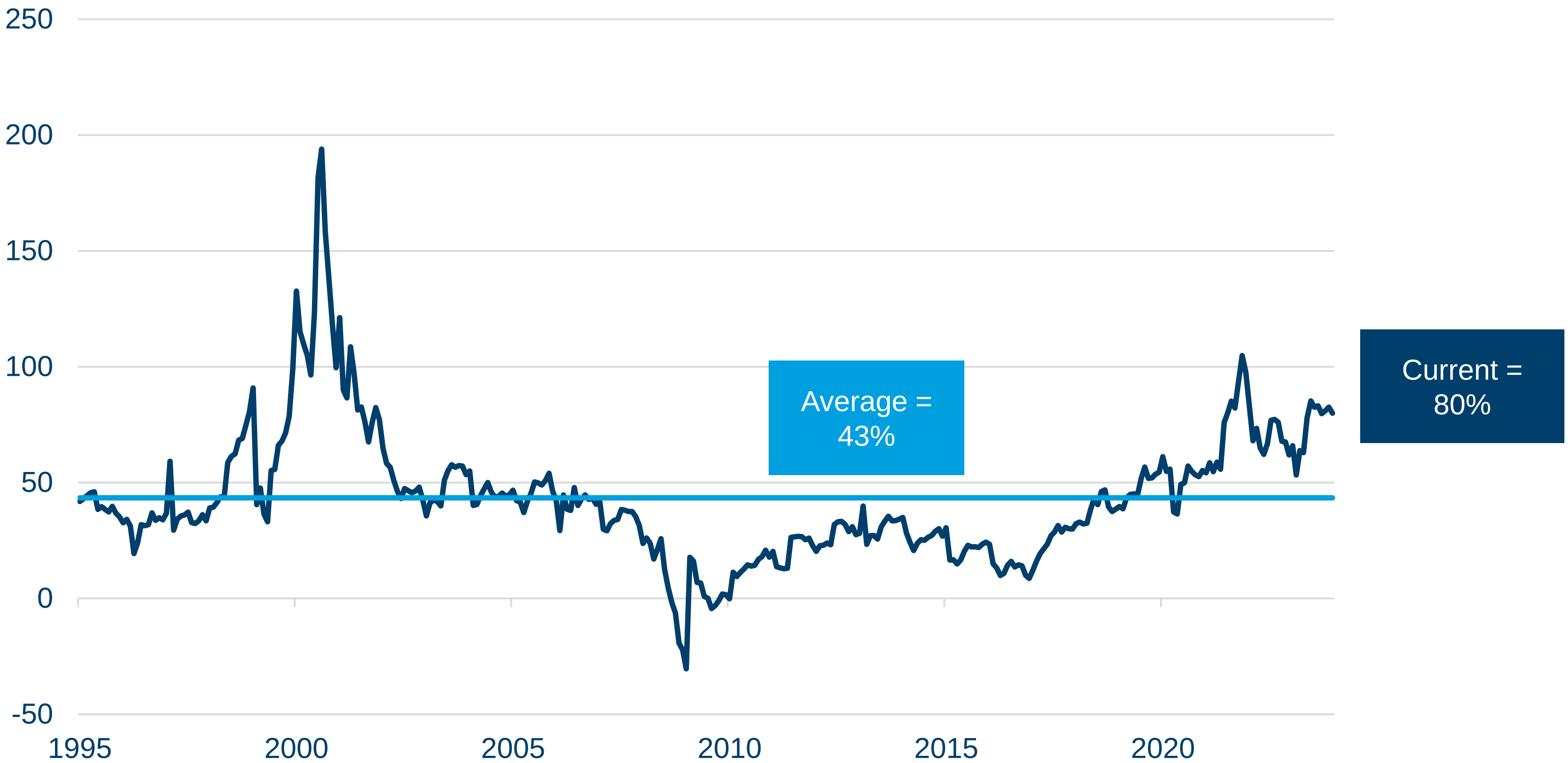
U.S. equity: Factor performance during recessions

▶ **During recessions, the best performing factors have historically been Quality/Value, stocks with high: FCF to EV, EBITDA Margin, ROE and Forward E/P**
(Ranking based on S&P 500 Cumulative Factor Returns, avg. %, during recessions)

Factors	Rank
FCF to EV	1
EBITDA Margin	2
ROE	3
Forward E/P	4
Earnings Quality	5
Share Buyback	5
OCF Surprise	7
Prior 1-Month Return	8
Price Momentum	9
Debt to Assets	10
Revenue Stability	11
Analyst Sentiment	11
Book to Price	13
LT Growth Rate	14
Size	15
Dividend Yield	16
Beta	17

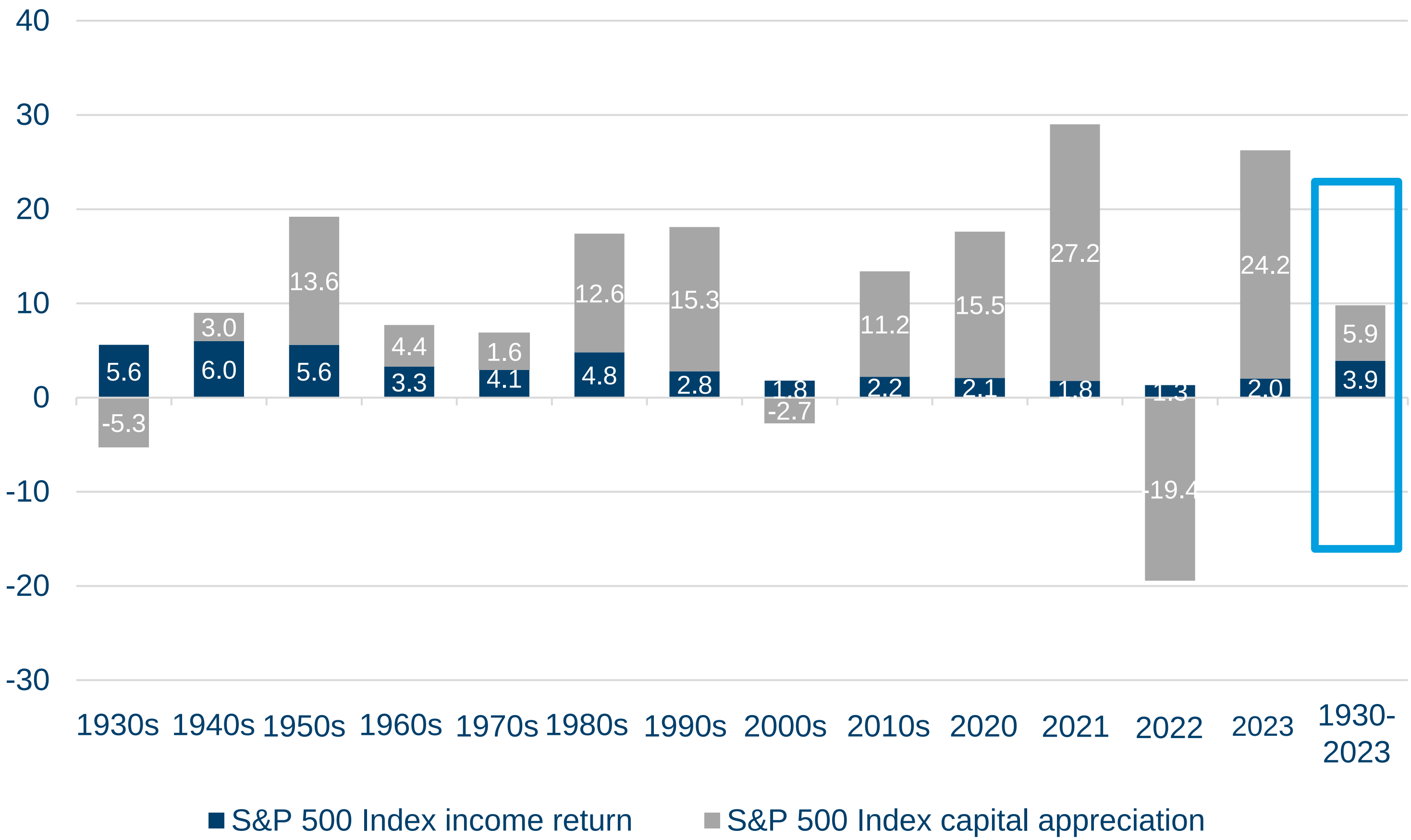
Source: Columbia Threadneedle Investments. The recession periods considered are: dot-com bubble (03/01-11/01), global financial crisis (12/07-06/09) and 2020 pandemic (02/20-04/20). Green color is for top five performers and red for bottom five performers. **Past performance does not guarantee future results. It is not possible to invest directly in an index.**

Growth remains above the average P/E premium to value
(Forward P/E ratio: U.S. growth relative to value, %)



Source: Bloomberg as of 12/29/23. Growth represented by Russell 1000 Growth Index; value by Russell 1000 Value Index. **Past performance does not guarantee future results. It is not possible to invest directly in an index.**

Dividends are an important part of total return
(S&P 500 Index returns by dividend and capital appreciation, average annual return, %)



Source: Ned Davis Research as of 12/31/23. Updated annually. Dividend payments are not guaranteed, and the amount, if any, can vary over time. **Past performance is not a guarantee of future results. It is not possible to invest directly in an index.**

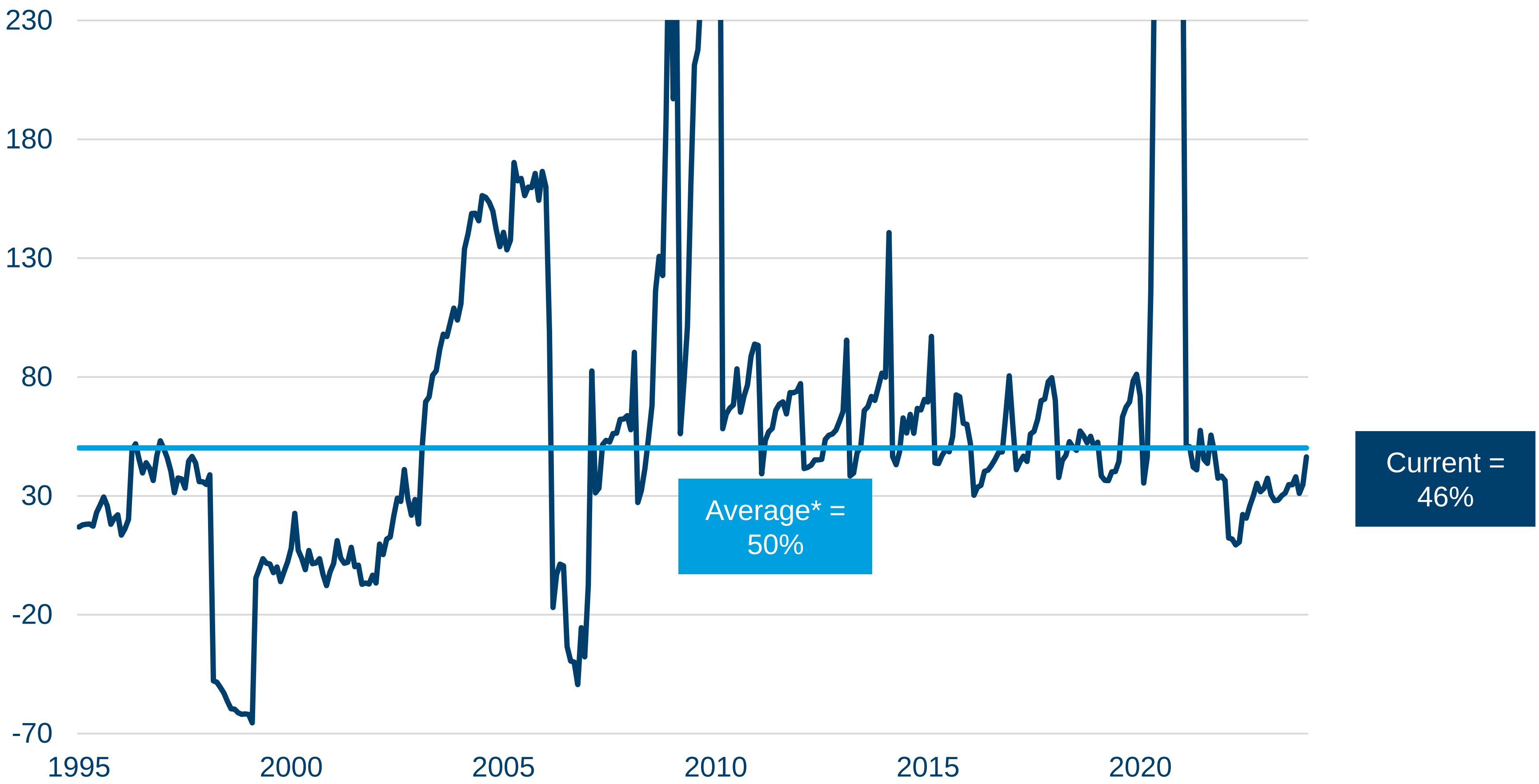
▶ Sustainable dividends drive long-term returns with lower risk

Index comparison: 01/31/73–12/29/23	Annualized return (%)	Volatility (%)
Dividend growers and initiators	10.21	16.16
All dividend-paying stocks	9.18	16.91
Dividend payers w/ no change in dividends	6.75	18.65
Dividend cutters and eliminators	-0.63	25.09
Non-dividend paying stocks	4.28	22.22
S&P 500 geometric equal-weighted total return	7.75	17.78

Source: Ned Davis Research, data as of 12/29/23. Volatility is measured by standard deviation. **Past performance is not a guarantee of future results. It is not possible to invest directly in an index.** There is no guarantee that these trends will continue. This information is intended for illustrative purposes only. It is not intended to be representative of specific portfolio holdings. Categories are based on dividend activity by companies in the S&P 500 Index in the last 12 months.

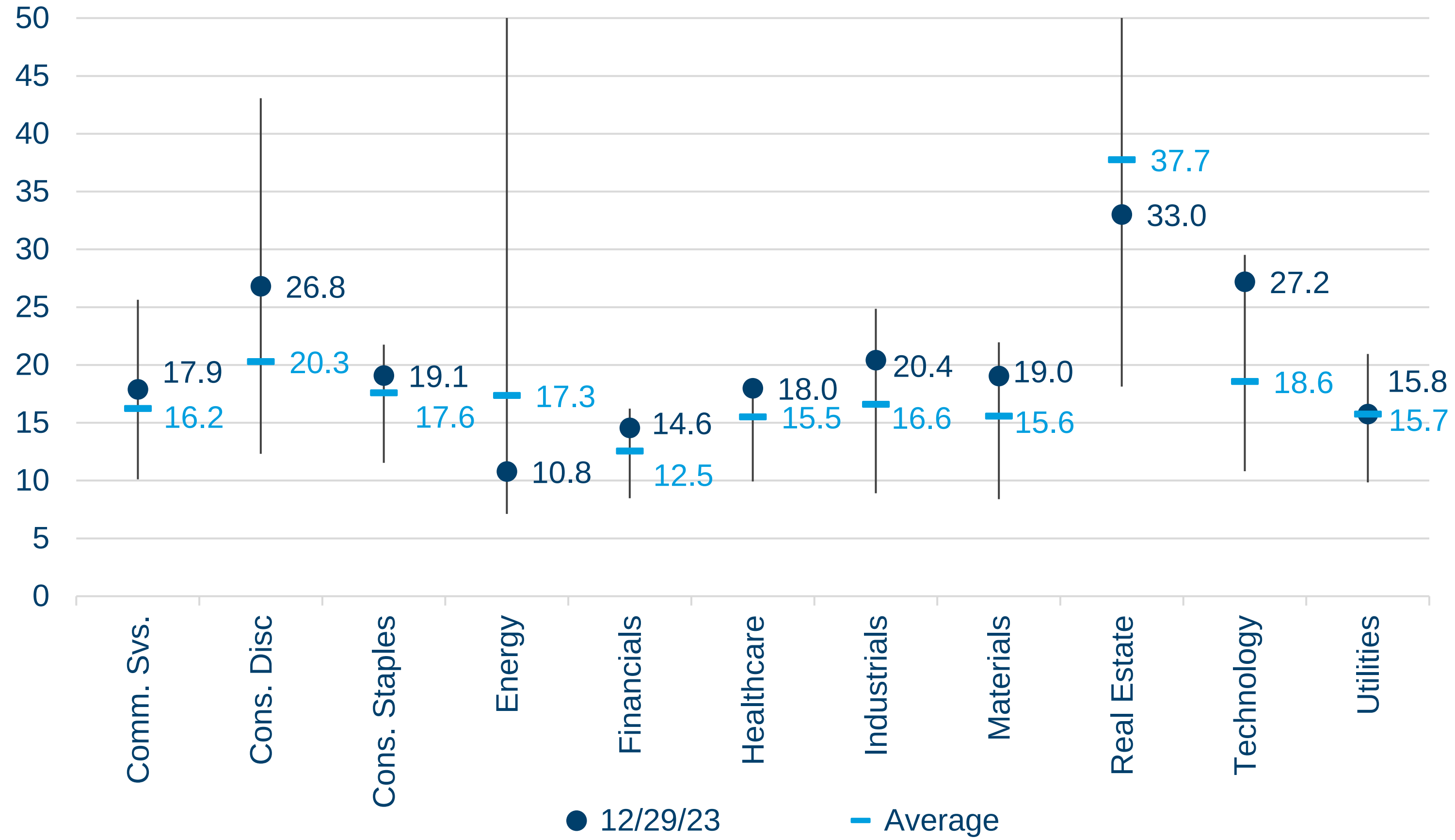
▶ U.S. small cap forward P/Es are around average relative to large cap

(Forward P/E ratio: U.S. small cap relative to large cap, %)



Source: Bloomberg as of 12/29/23. Small cap represented by Russell 2000 Index; large cap by Russell 1000 Index. The average is calculated for values only within +/- 2 standard deviation, as during the 2020 Pandemic period the earnings for small caps briefly fell drastically, making the relative P/E very high. The y-axis is also capped at +2 standard deviation. **Past performance does not guarantee future results. It is not possible to invest directly in an index.**

Energy and Real Estate are below their historical average P/E; the sectors most above their historical average P/E are Technology and Consumer Discretionary
(12-month forward P/E ratio)

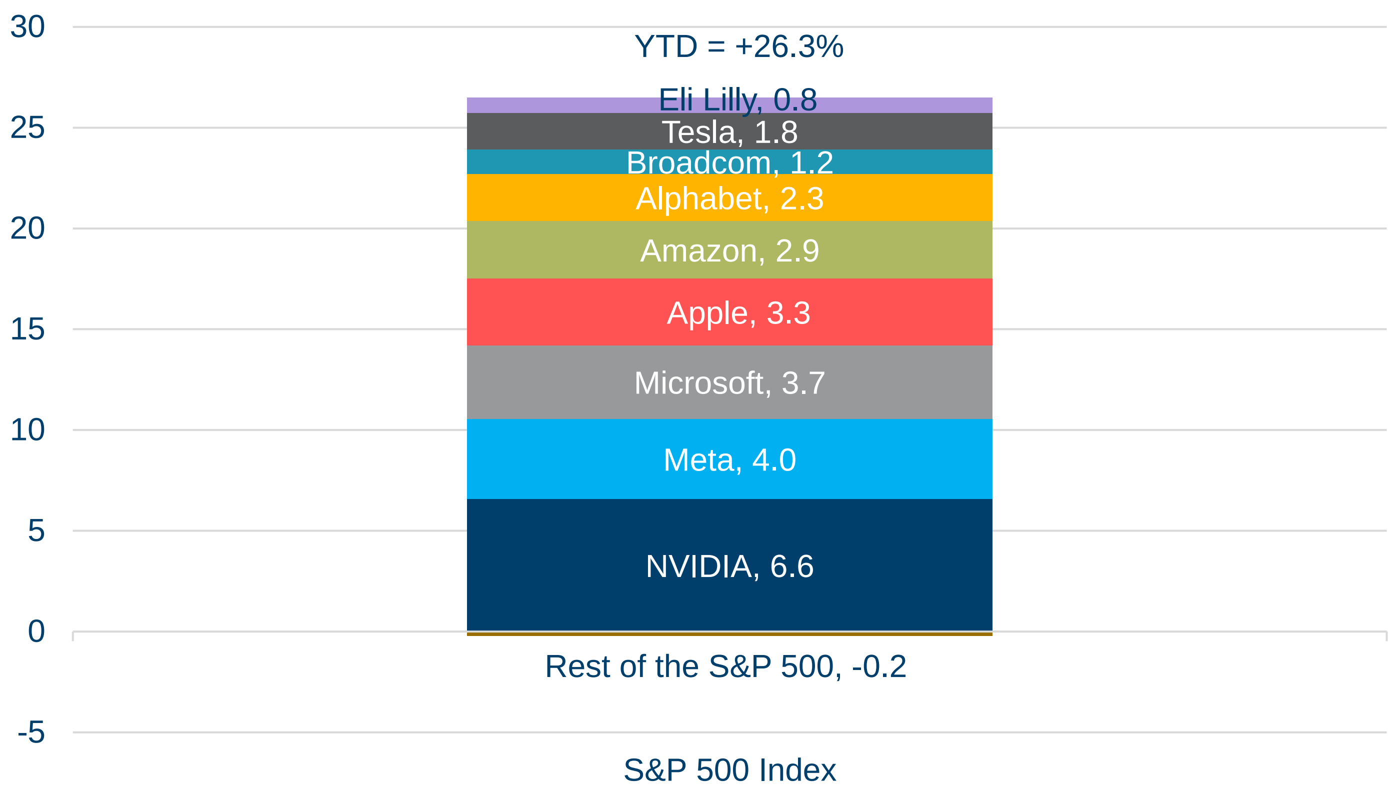


Source: MSCI, data as of 12/29/23. The data series starts June 2003. Y-axis is limited to 50x. **It is not possible to invest directly in an index.**

U.S. equity: Narrow leadership year-to-date

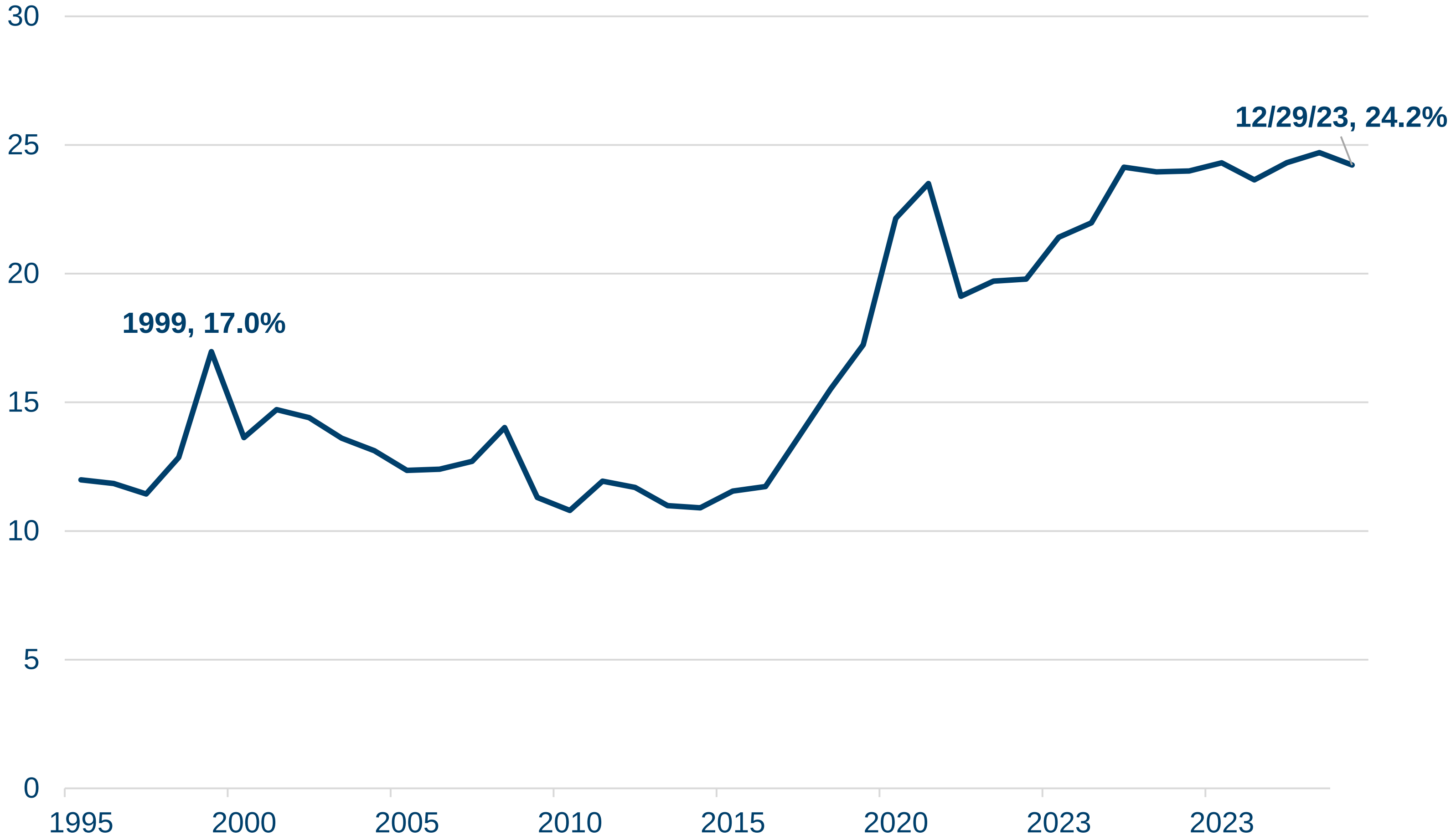
COLUMBIA THREADNEEDLE INVESTMENTS

▶ Nine stocks contributed 101% of the S&P 500 Index gains in 2023 (%)



Source: Bloomberg, as of 12/29/23. **Past performance does not guarantee future results. It is not possible to invest directly in an index.**

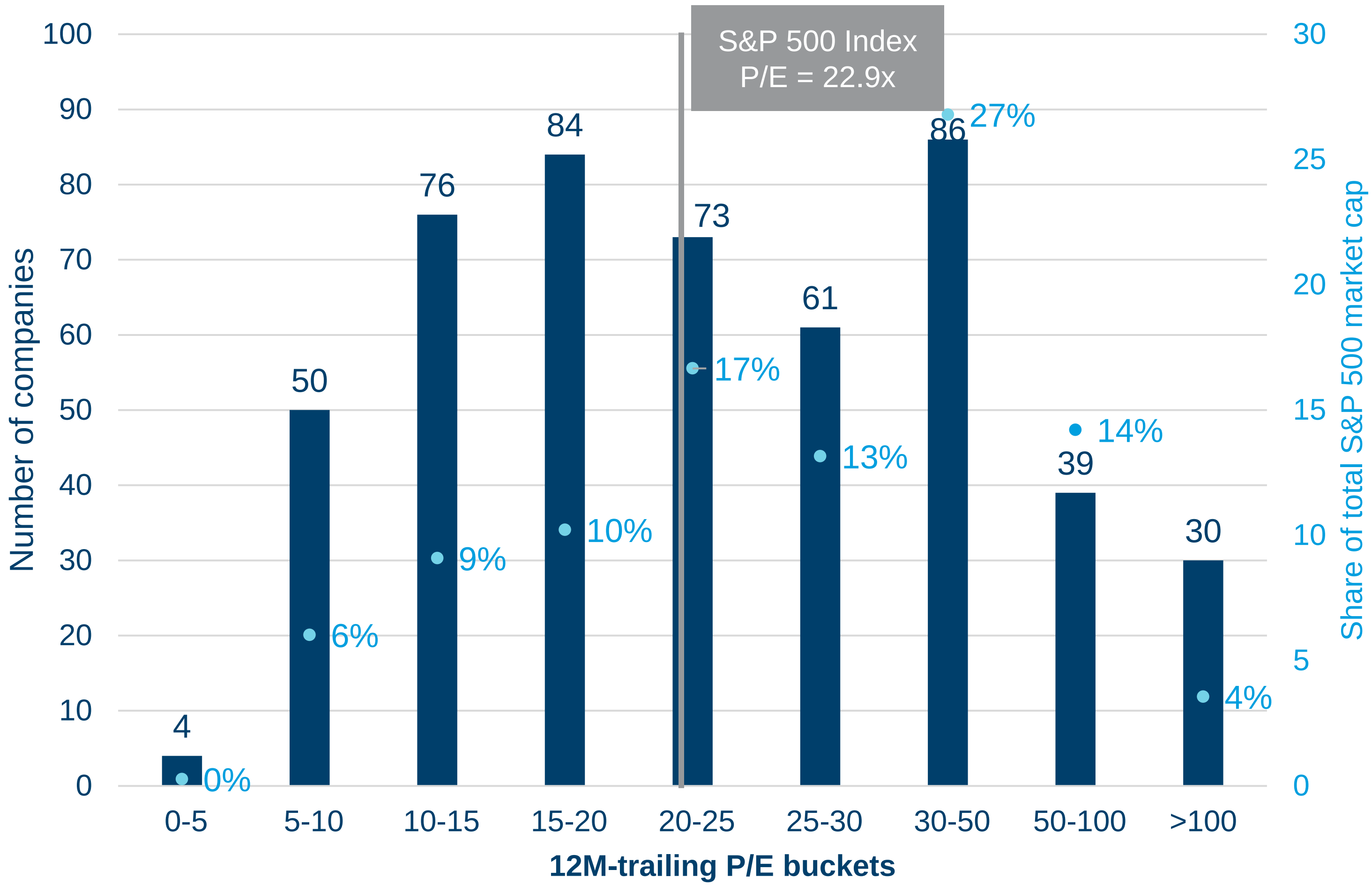
Big is getting bigger (Market value share of five largest stocks in S&P 500, %)



Source: Bloomberg, as of 12/29/23. The data series is annual from 1995–2022, and thereafter it is monthly. **Past performance does not guarantee future results. It is not possible to invest directly in an index.**

U.S. equity: P/E ratio distribution

While stock market performance has been driven by just nine stocks, the market P/E valuation is not (number of companies and market cap for the S&P 500 Index)



49% of stocks above S&P 500 Index P/E

65% of S&P 500 market cap is above S&P 500 Index P/E

Source: Bloomberg, as of 12/29/23. P/E ratio is based on S&P 500 trailing earnings. **Past performance does not guarantee future results. It is not possible to invest directly in an index.**

Artificial intelligence: Opportunities and risks

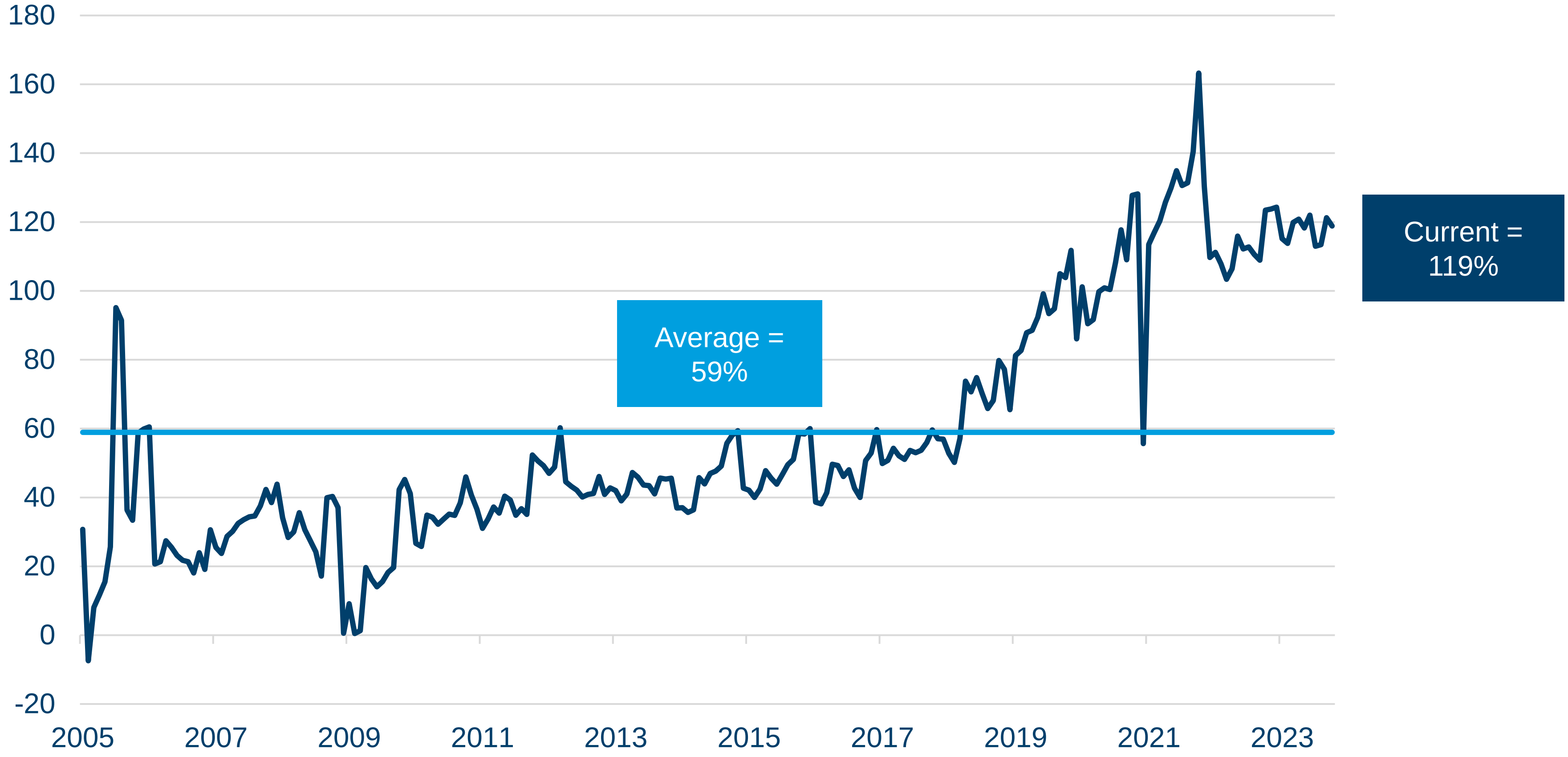
Opportunities
Increased productivity: AI can automate repetitive and time-consuming tasks, leading to increased efficiency and productivity in various industries.
Improved health care: AI can analyze large amounts of medical data and provide personalized treatment recommendations, leading to better health outcomes and cost savings for patients and health care providers.
Enhanced customer experience: AI can be used to personalize customer experiences and improve customer service in various industries.
Innovation: AI is already driving innovation in various fields, including health care, finance, and transportation, leading to new products and services.

Risks
Valuation: Disruptive technology can lead to bubbles. The internet dot com boom led to increased productivity and efficiency, but many early participants failed.
Regulation: AI may face increased regulation from governments and regulatory bodies, which could impact profitability and valuations.
Ethical concerns: There are ethical concerns surrounding the use of AI, such as privacy and bias issues. These concerns could lead to negative public perception and impact the success of AI companies.
Competition: AI may impact some existing businesses' ability to maintain a competitive edge, jeopardizing long-term profits and market share.

Source: Business Horizons, Volume 63, Issue 1, January–February 2020, Pages 37-50 *Rulers of the world, unite! The challenges and opportunities of artificial intelligence*; European Parliament. *Artificial intelligence: Threats and opportunities,* 04-05-2022; Columbia Management Investment Advisers, LLC.

International equity: Growth vs. value

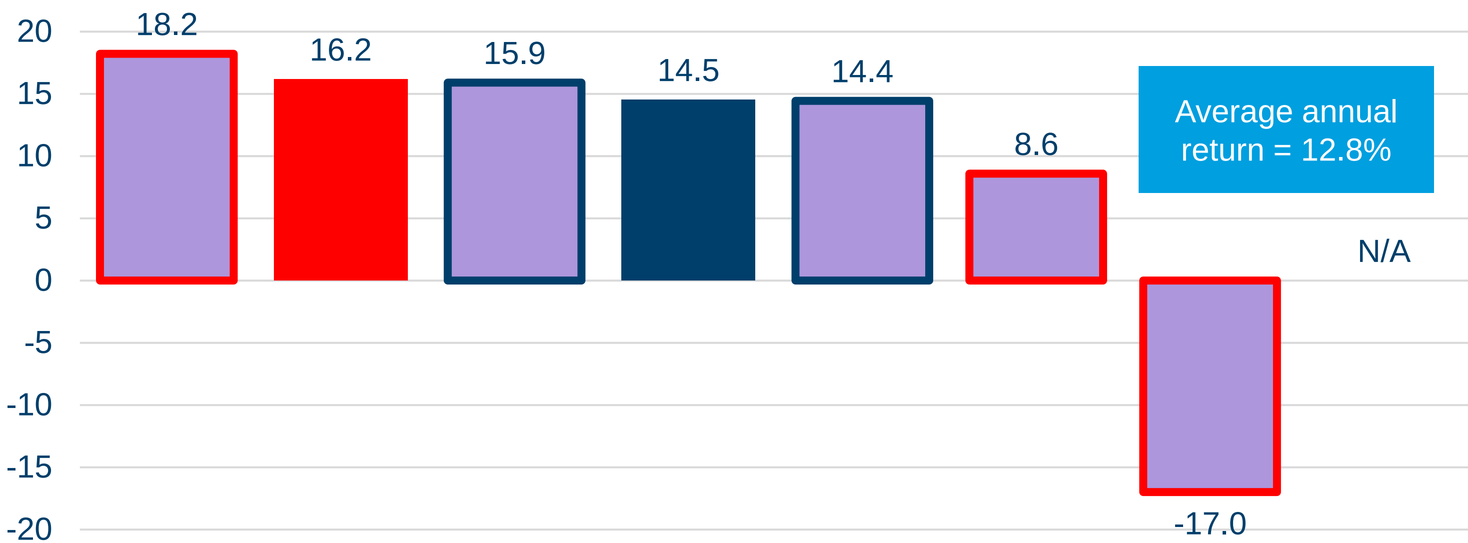
▶ **Forward P/E ratios for international growth stocks are still high relative to value stocks** (Forward P/E ratio: International growth relative to value, %)



Source: Bloomberg as of 12/29/23. Growth represented by MSCI ACWI ex USA Growth Index; value by MSCI ACWI ex USA Value Index. **Past performance does not guarantee future results. It is not possible to invest directly in an index.**

U.S. equity: Election impact on the stock market

▶ **The stock market has performed best with a Republican President and Senate and a Democrat House and worst with a Republican President and House and Democrat Senate** (S&P 500 Index, avg. annual total returns, %)



The best was 1981–86 (President Ronald Reagan) and 2019–20 (President Donald Trump).

The worst was 2001–02 (President George W. Bush).

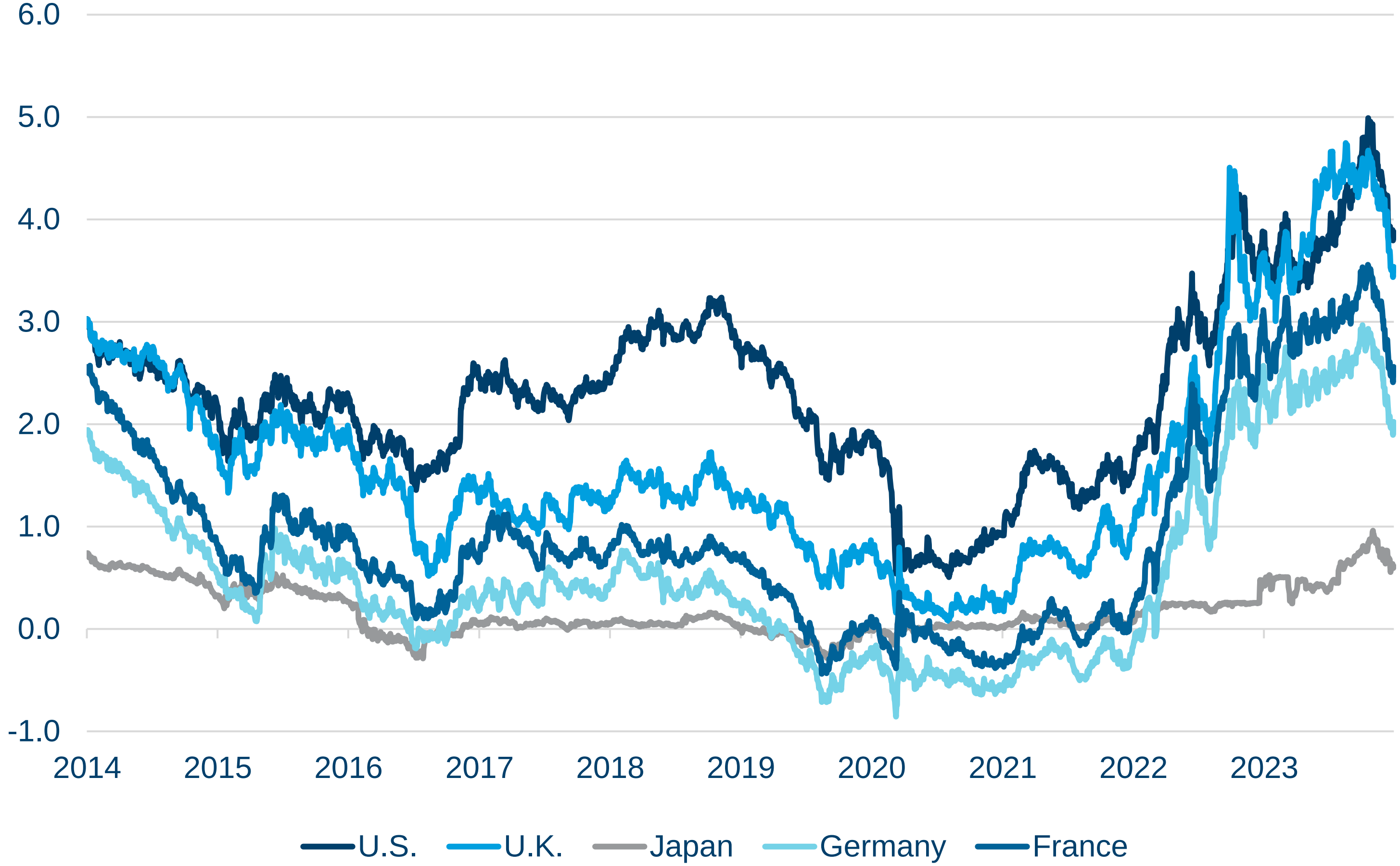
Rep	Rep	Dem	Dem	Dem	Rep	Rep	Dem	**Pres**
Rep	Rep	Rep	Dem	Dem	Dem	Dem	Rep	**Senate**
Dem	Rep	Rep	Dem	Rep	Dem	Rep	Dem	**House**
8	8	10	22	7	22	2	0	**# years**

Blue border = Democrat President Red border = Republican President
Blue fill = Democrat Senate and House Red fill = Republican Senate and House Purple fill = Mixed Senate and House

Source: FactSet, Bloomberg, as of 12/29/23. 1945-2023. **Past performance does not guarantee future results. It is not possible to invest directly in an index.**

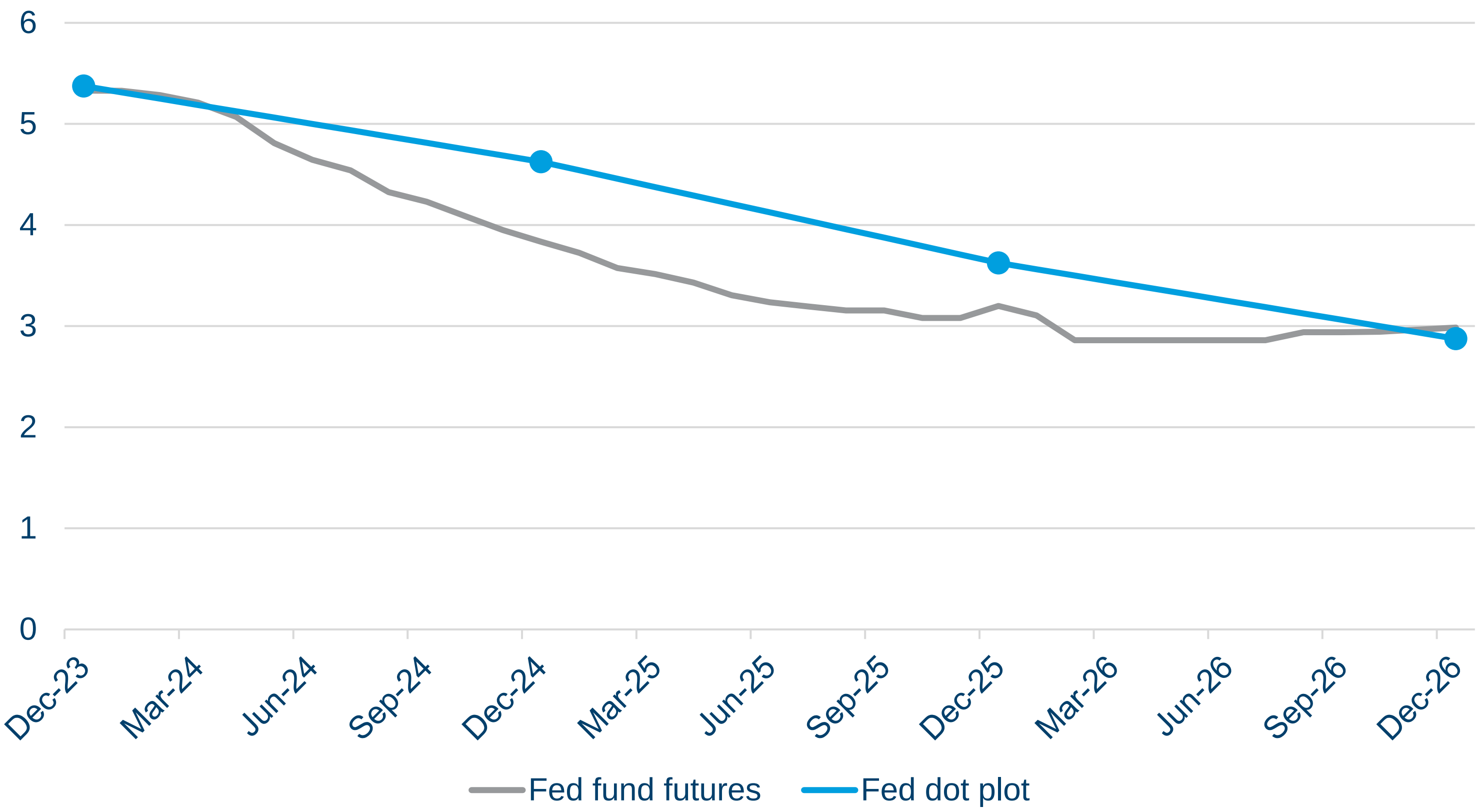
After rising over the first three quarters of 2023, yields dropped in Q4

(Rate for 10-year government bonds, %)



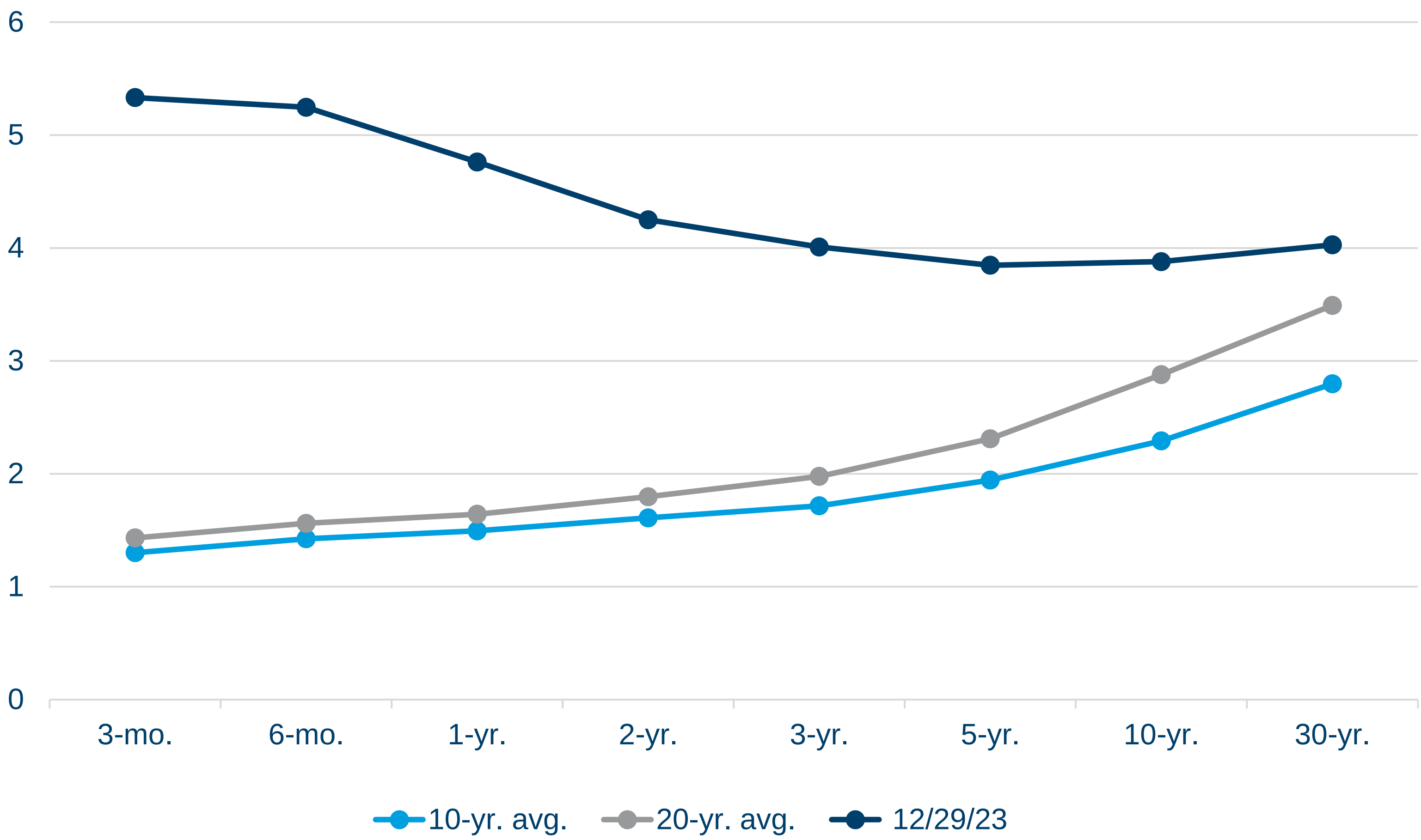
Source: Bloomberg, data as of 12/29/23.

The Fed dot plot projects a cumulative 2.5-point reduction in the fed funds rate by the end of 2026. Fed funds futures are pricing a sharper reduction than the dot plot.
(Fed funds dot plot and futures, %)



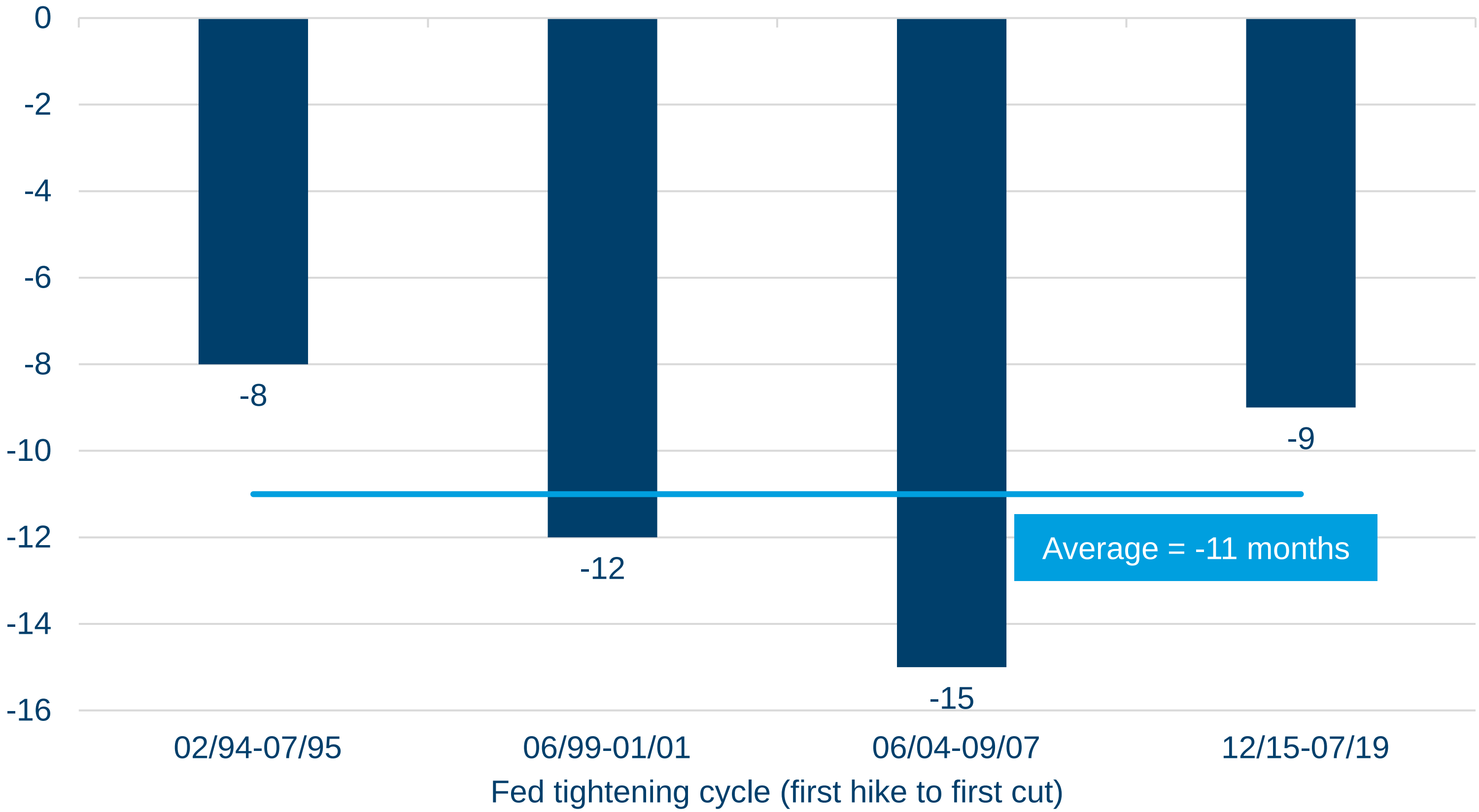
Source: Columbia Threadneedle Investments, data as of 12/29/23.

The yield curve remains inverted (U.S. Treasury yields, %)



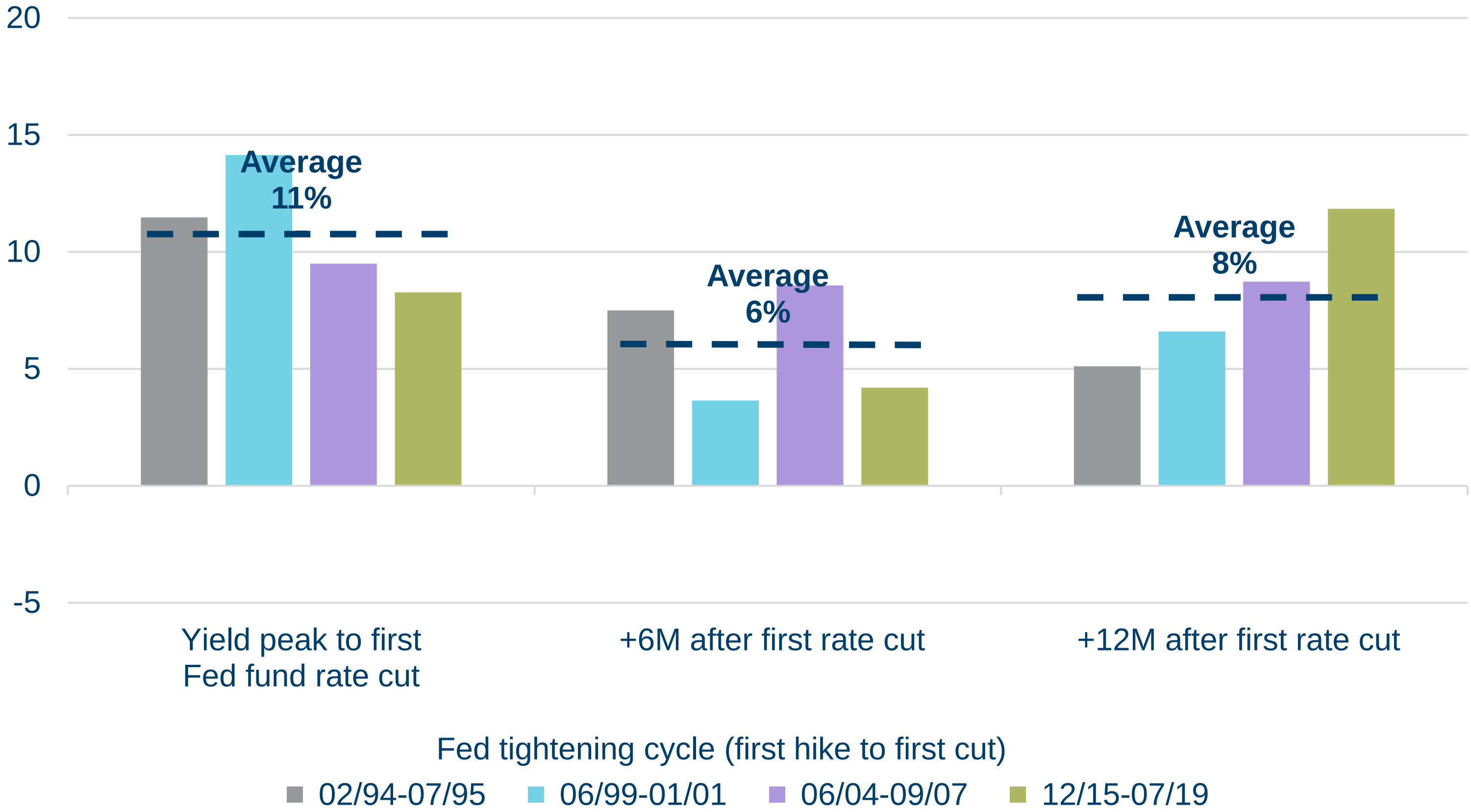
Source: Columbia Threadneedle Investments as of 12/29/23. **Past performance does not guarantee future results.**

▶ **Since the Fed began to target inflation in the mid-1990s, yields have peaked 11 months on average before Fed easing**
(months between first easing after Fed hiking cycle and 10-year U.S. Treasury yield peak)



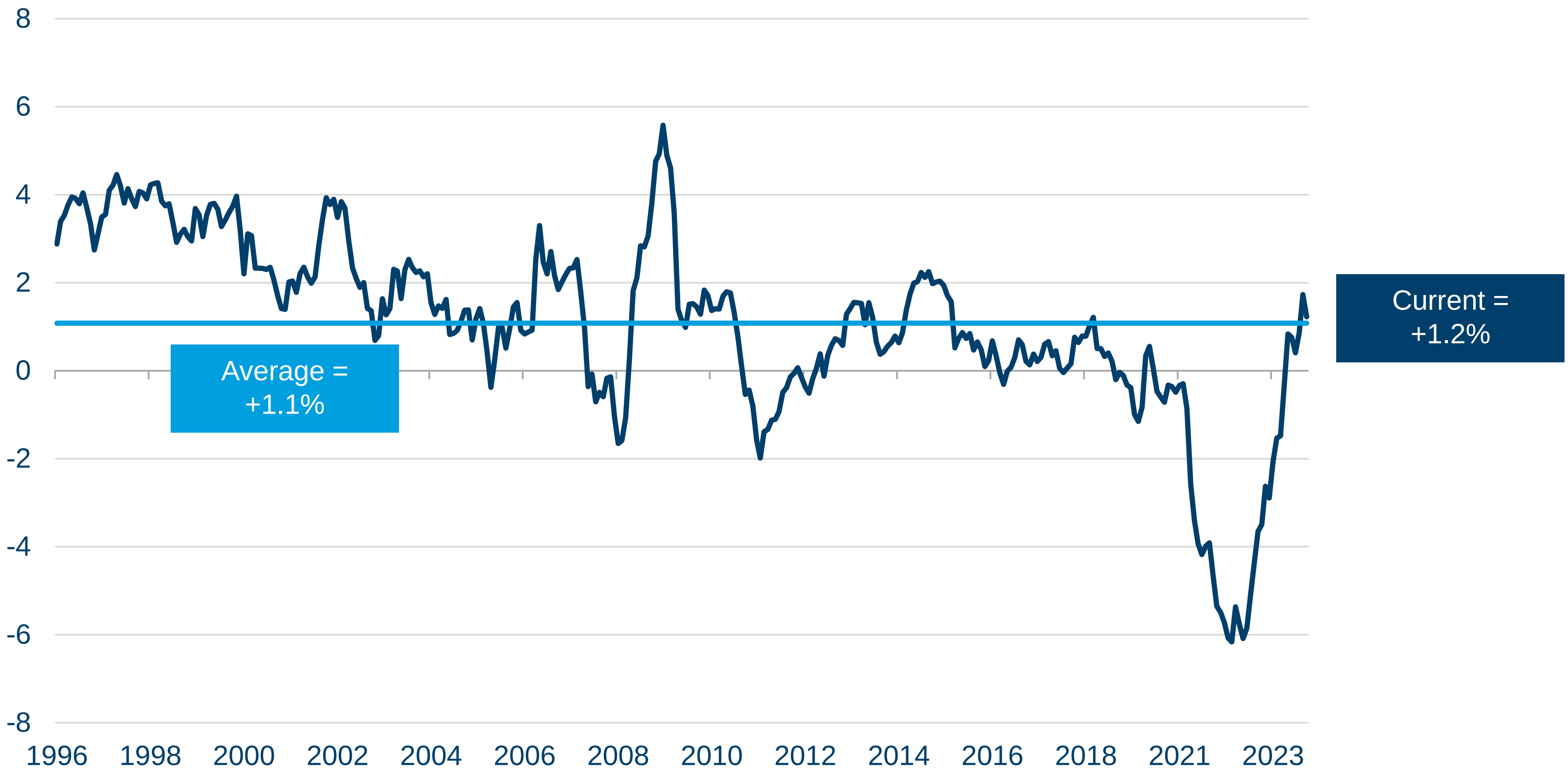
Source: Bloomberg, data as of 12/29/23. The horizontal axis (date) represents the start of the Fed hiking cycle.

▶ U.S. Treasury bond returns have consistently been positive *before* Fed easing, with larger returns on average before the first fed rate cut than 6 and 12 months after
(% return)



Source: Bloomberg, data as of 12/29/23. The performance is measured by the Bloomberg US Treasury Index. **Past performance does not guarantee future results**.

The real yield on the 10-year U.S. Treasury bond is around average
(Real yield = bond yield - CPI, annual, %)



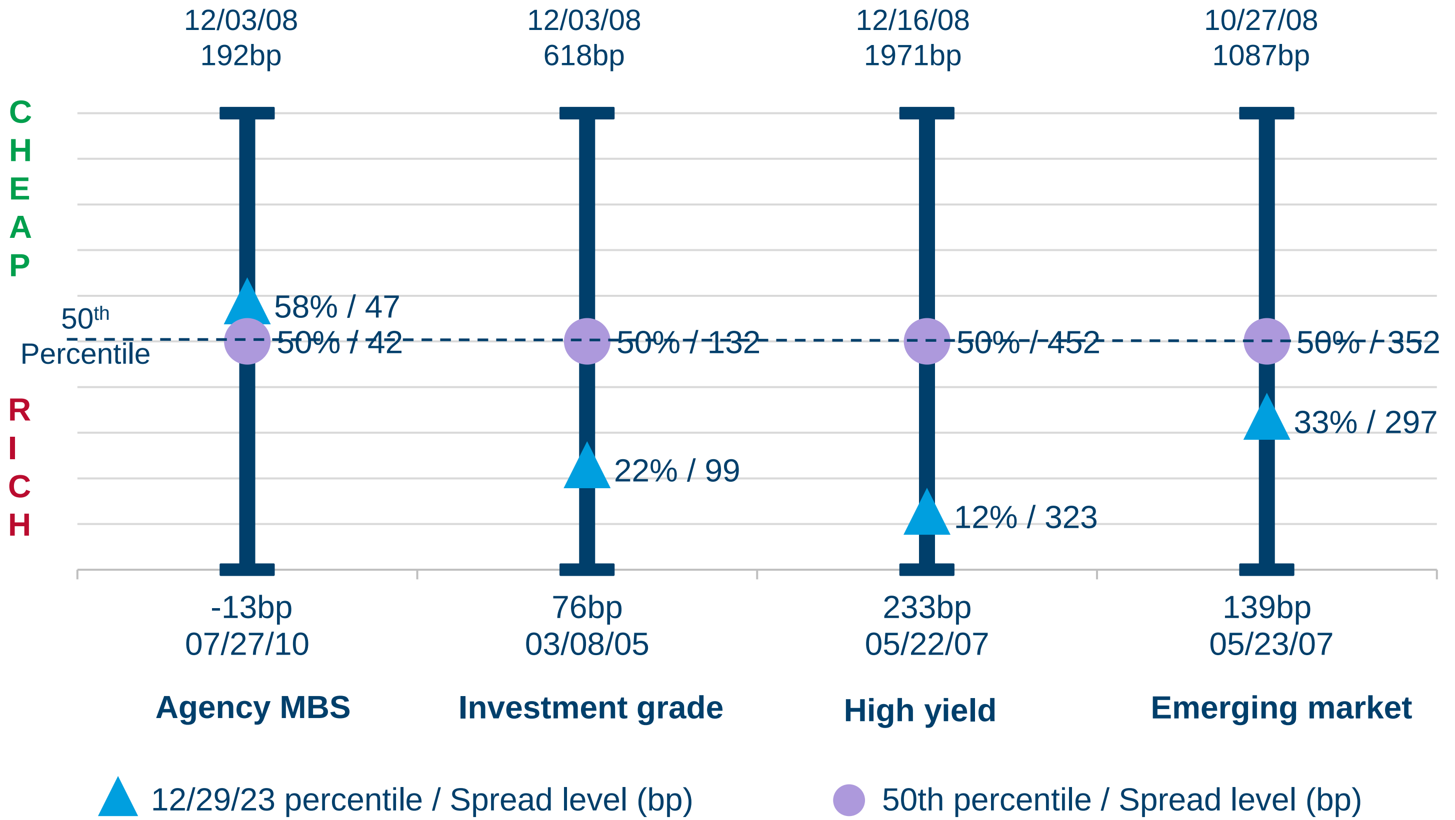
Source: Bureau of Labor Statistics, U.S. Treasury, Columbia Management Investment Advisers, LLC, data as of 11/30/23. Note: Since 1996, Fed policymakers have adopted an inflation rate target, *Fortune 12/12/22*. **Past performance does not guarantee future results.**

Higher bond yields provide a "cushion" when rates increase and larger gains when rates decline (10-year U.S. Treasury bond returns assuming change in yield)

10-year bond starting yield (%)	1-year return (%) assuming change in yield of . . .				
	-100 bp	-50 bp	No change	+50 bp	+100 bp
0.00	10.6%	5.1%	0.0%	-4.9%	-9.5%
0.50	10.8%	5.5%	0.5%	-4.2%	-8.7%
1.00	11.0%	5.9%	1.0%	-3.6%	-8.0%
1.50	11.2%	6.2%	1.5%	-3.0%	-7.2%
2.00	11.4%	6.6%	2.0%	-2.4%	-6.5%
2.50	11.7%	7.0%	2.5%	-1.7%	-5.8%
3.00	11.9%	7.3%	3.0%	-1.1%	-5.0%
3.50	12.2%	7.7%	3.5%	-0.5%	-4.3%
4.00	12.4%	8.1%	4.0%	0.1%	-3.6%
4.50	12.7%	8.5%	4.5%	0.7%	-2.9%
5.00	13.0%	8.9%	5.0%	1.3%	-2.3%

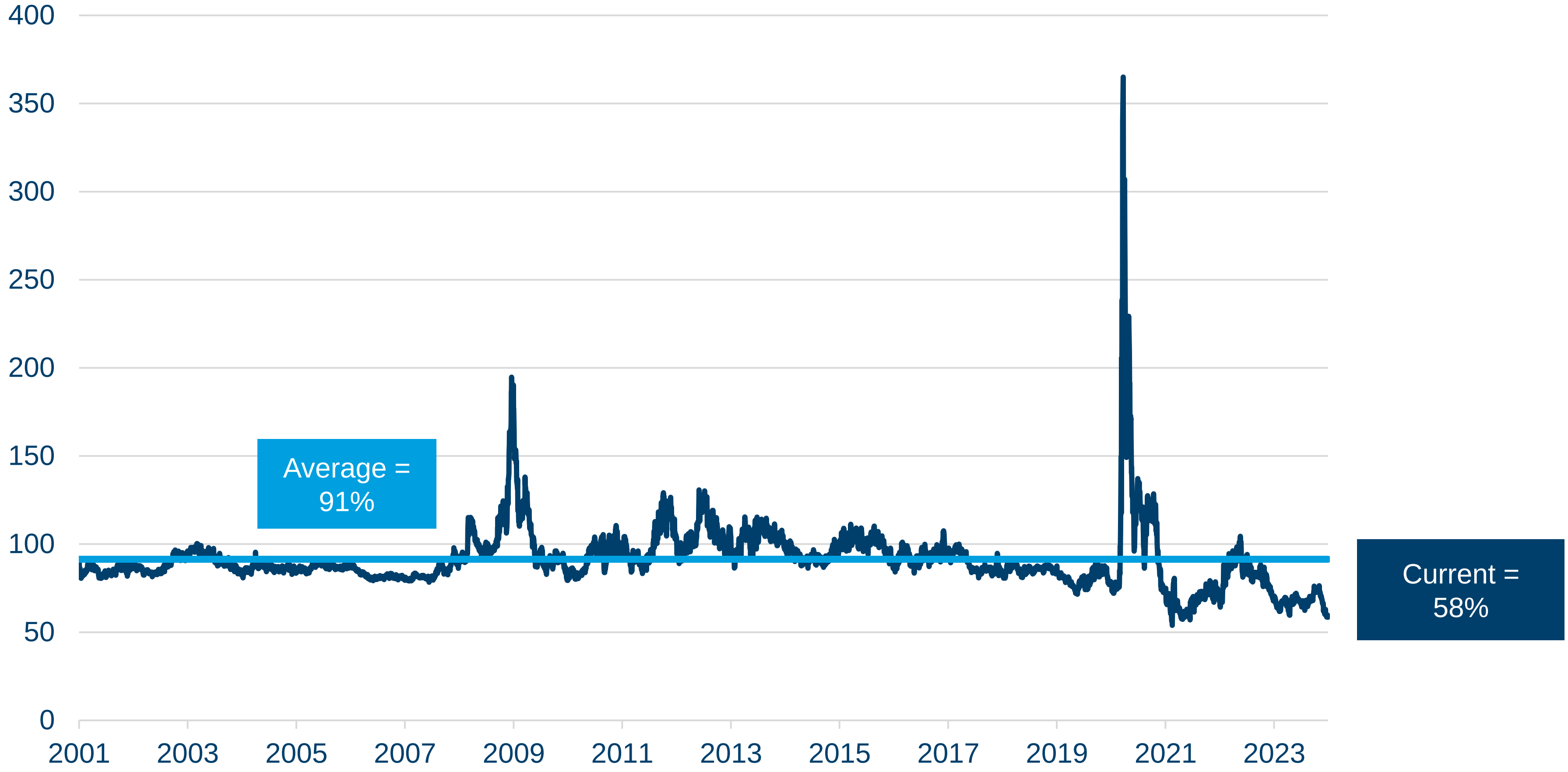
Source: Columbia Threadneedle Investments. **Past performance does not guarantee future results. These hypothetical results were achieved by means of a mathematical formula using the assumptions shown and do not reflect the effect of other factors that could impact returns.** A basis point is 1/100th of a percent.

Agency MBS spreads are above average levels; IG, HY and EM spreads below average
(Fixed-income spreads)



Source: Bloomberg as of 12/29/23. Daily spreads since 2001. See disclosure for index details. **It is not possible to invest directly in an index.** A basis point is 1/100th of a percent. Note: Spread is the difference in quoted rates of return for a security with credit risk over a risk-free security (e.g., Treasuries or 3-month LIBOR).

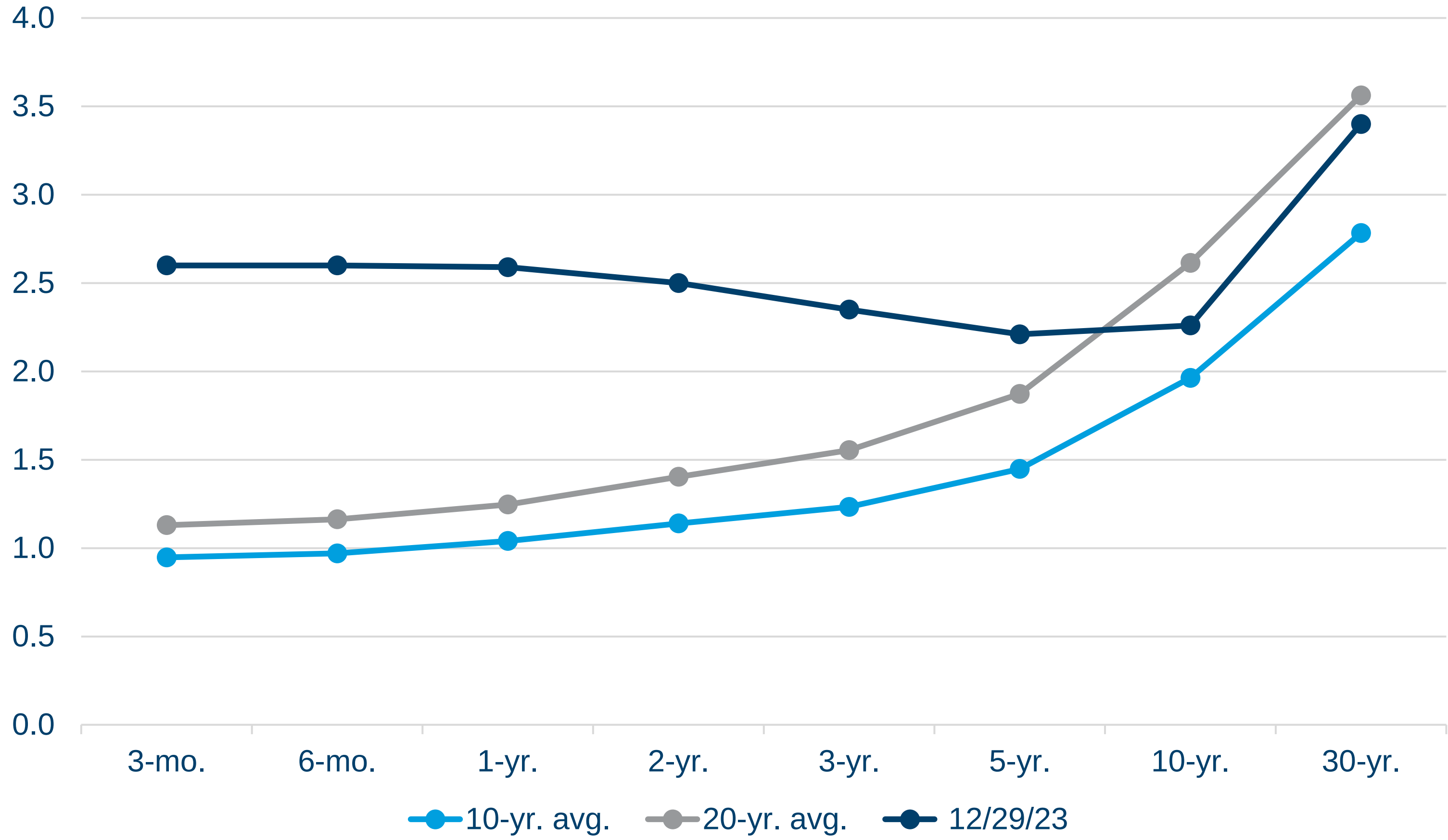
Benchmark Muni yields are below average versus taxable bonds
(AAA Muni to U.S. Treasury yield ratio,10-year, %)



Source: Bloomberg as of 12/29/23. **Past performance does not guarantee future results. It is not possible to invest directly in an index.**

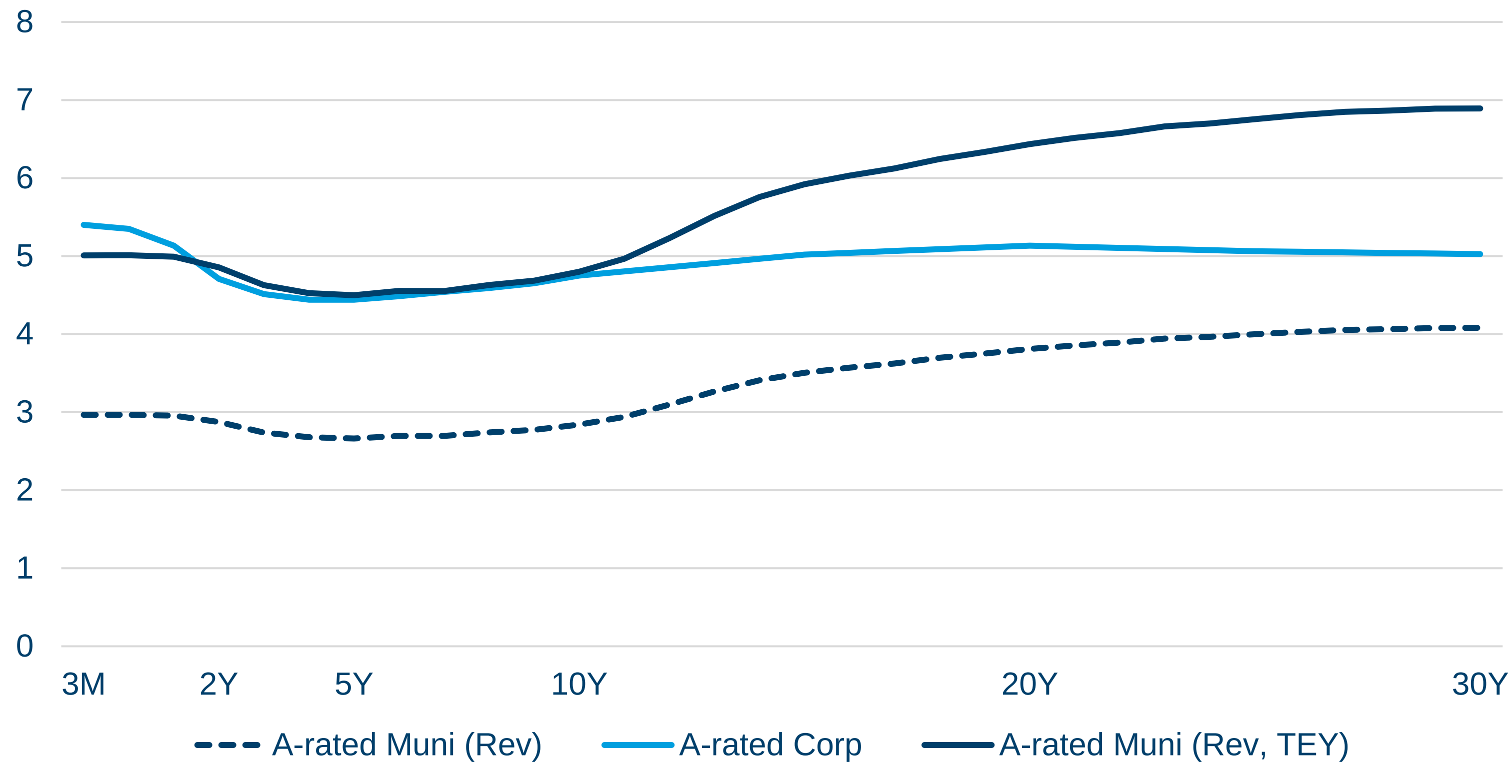
Tax-exempt fixed income: AAA Muni curve

▶ The Muni curve remains inverted, turning sharply positive at the long end
(AAA Muni yields, %)



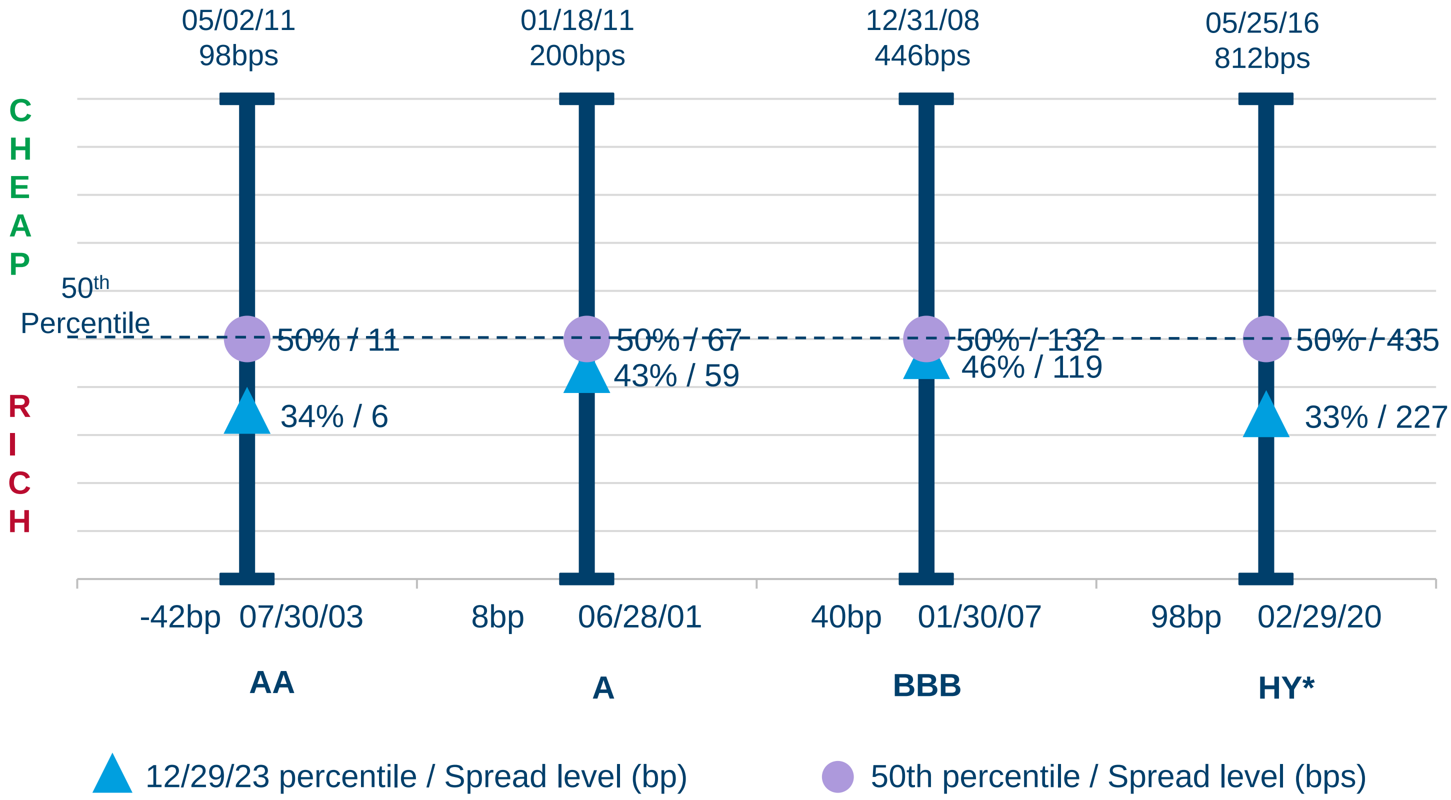
Source: Bloomberg, Columbia Threadneedle Investments as of 12/29/23. **Past performance does not guarantee future results.**

▶ Muni bonds offer attractive taxable-equivalent yield compared to corporate bonds
(Muni yields vs. corporate bond yields, %)



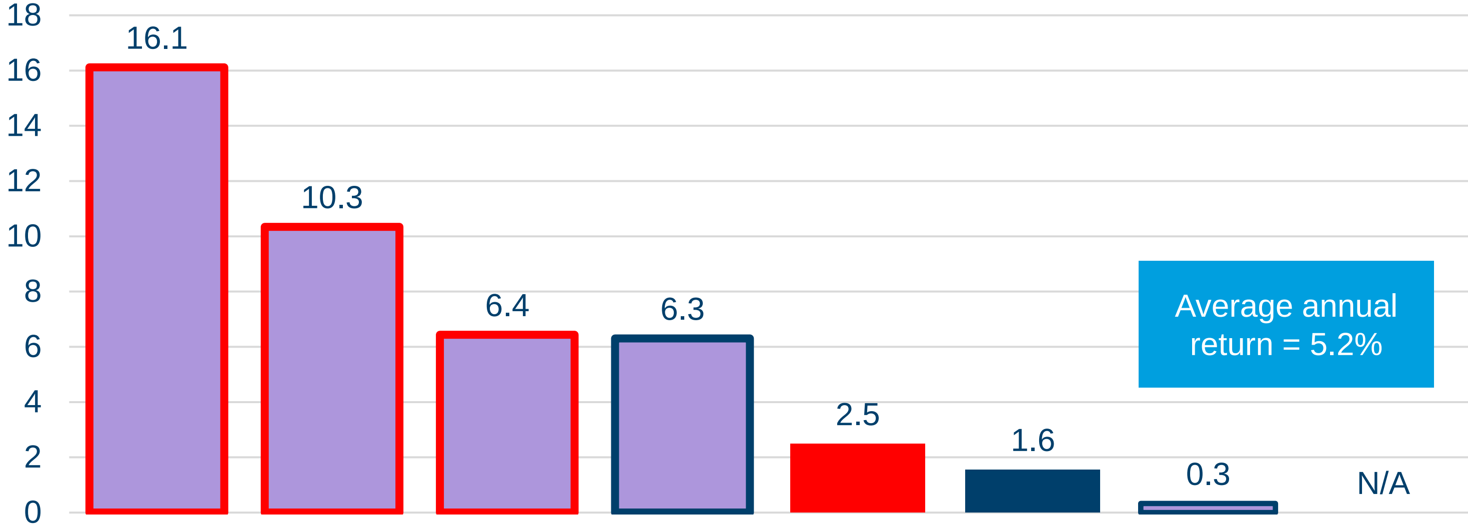
Source: Bloomberg, as of 12/29/23. Based on Bloomberg US Revenue A Muni BVAL Yield Curve and Bloomberg US Corporate A+, A, A- BVAL Yield Curve. TEY is taxable-equivalent yield and assumes federal income tax rate of 40.8% (37% income tax rate + 3.8% Net investment income tax rate). Other taxes are possible. There is no guarantee that the investment objective will be achieved or that return expectations will be met. An investment involves substantial risks, including the loss of principal. **It is not possible to invest directly in an index.**

Muni spread are below average (Muni spreads to AAA Muni, bp)



Source: Bloomberg, as of 12/29/23. Daily spreads since 2001. * For high yield (HY), daily spreads start 2010. See disclosure for index details. A basis point is 1/100th of a percent. **Past performance does not guarantee future results. It is not possible to invest directly in an index.**

▶ **The bond market has performed best with a Republican President and Senate and a Democrat House and worst with a Democrat President and Senate and a Republican House** (10-year U.S. Treasury bond, avg. annual total returns, %)



The best period was 1981–86 (President Ronald Reagan) and 2019–20 (President Donald Trump).

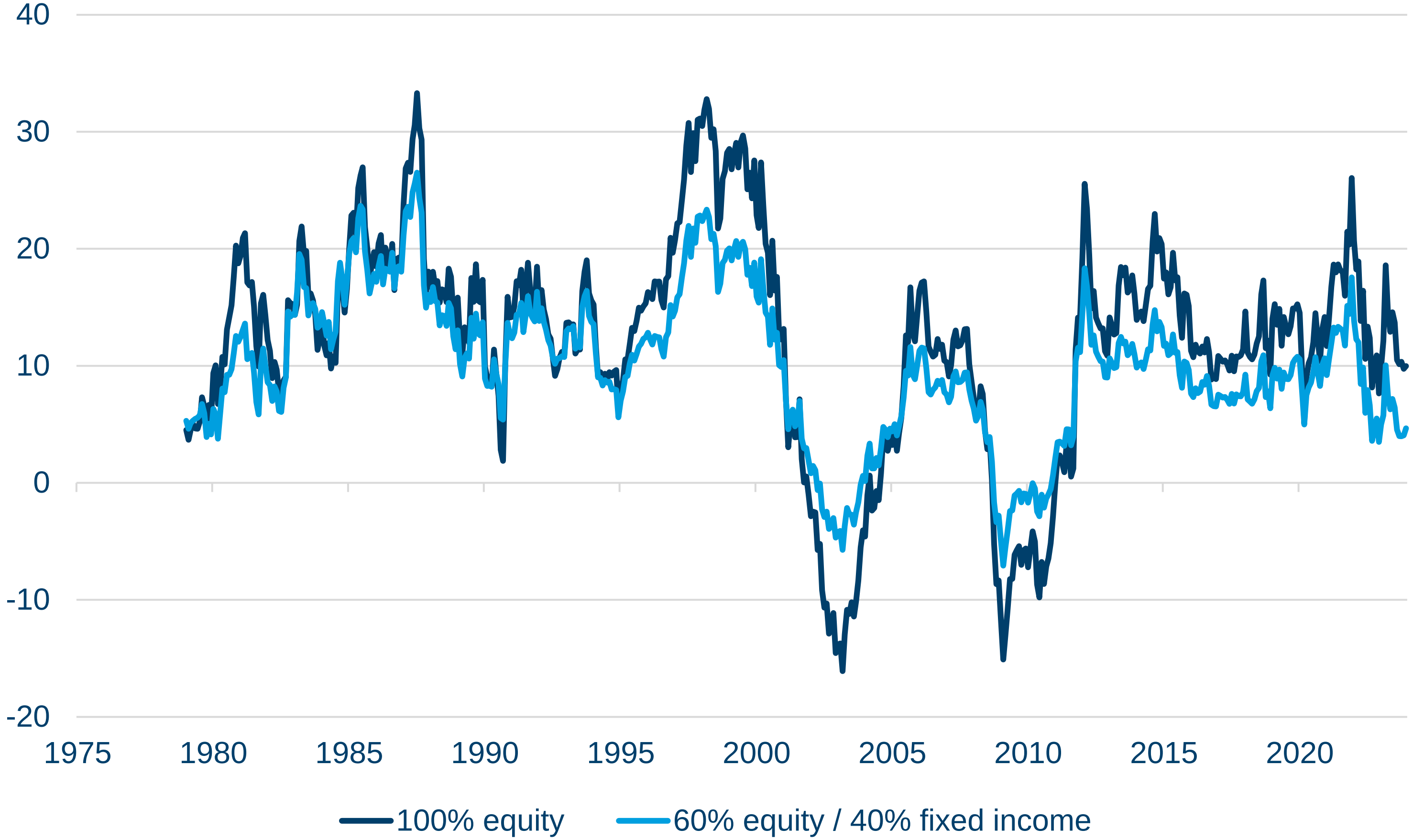
The worst was 2011–14 (President Barack Obama) and 2021–23 (President Joe Biden).

Rep	Rep	Rep	Dem	Rep	Dem	Dem	Dem	**Pres**
Rep	Dem	Dem	Rep	Rep	Dem	Dem	Rep	**Senate**
Dem	Rep	Dem	Rep	Rep	Dem	Rep	Dem	**House**
8	2	22	10	8	22	7	0	**# years**

Blue border = Democrat President Red border = Republican President
Blue fill = Democrat Senate and House Red fill = Republican Senate and House Purple fill = Mixed Senate and House

Source: St Louis Fed, as of 12/29/23. 1945–2023. **Past performance does not guarantee future results. It is not possible to invest directly in an index.**

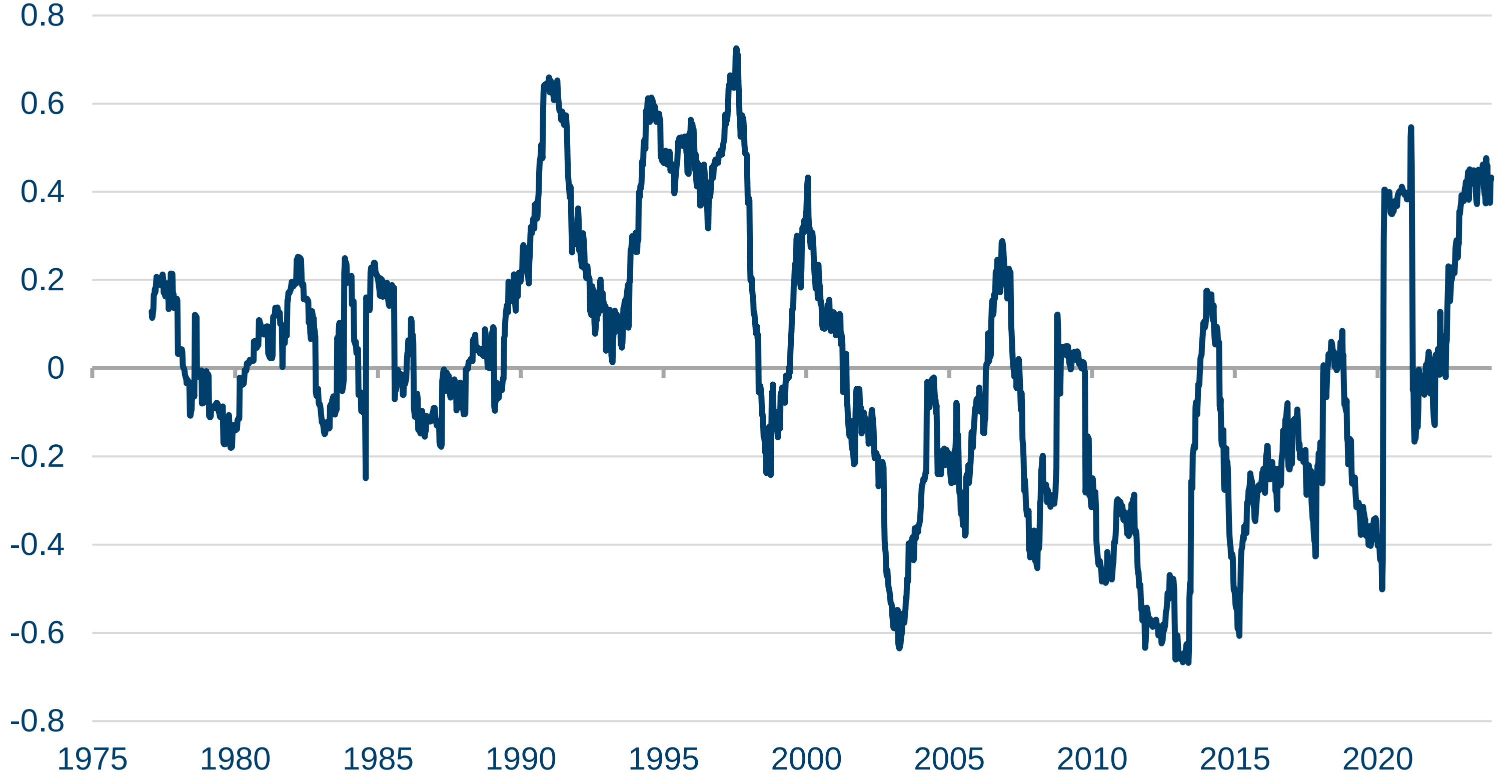
▶ Returns from a traditional 60% equity and 40% fixed-income portfolio have been highly correlated with equity markets (Rolling three-year returns annualized, %)



Sources: Bloomberg, Columbia Threadneedle Investments as of 12/29/23. Equity is represented by S&P 500 Index, and fixed income is represented by the Bloomberg U.S. Aggregate Bond Index. Correlation based on rolling three-year returns annualized (%). **Past performance is not a guarantee of future results. It is not possible to invest directly in an index.** Diversification and asset allocation do not assure a profit or protect against loss.

Multi-asset: Correlation between equities and fixed income oscillates

▶ **Recent research[1] suggests that if the Fed is successful at curbing inflation *volatility*, we may see a return to negative correlation between equities and fixed income** (52-week rolling average)



Sources: Bloomberg, Columbia Threadneedle Investments as of 12/29/23. Equity is represented by S&P 500 Index, and fixed income is represented by the Bloomberg U.S. Aggregate Bond Index.
***** Average is calculated for 52-week rolling correlation. [1]The Journal of Portfolio Management, Multi-Asset Strategies, *A Changing Stock–Bond Correlation: Drivers and Implications*, March 2023.
Past performance is not a guarantee of future results. It is not possible to invest directly in an index. Diversification and asset allocation do not assure a profit or protect against loss.

Multi-asset: Sharpe ratio

COLUMBIA THREADNEEDLE INVESTMENTS

▶ Over the past 20 years, a diversified portfolio consistently avoided low risk-adjusted returns
(Sharpe ratio)

Period Ending (annual)	S&P 500 Index	Russell 2000 Index	MSCI EAFE Index Net	MSCI EM Index Net	Bloomberg US Agg - Treasury Index	Bloomberg US Agg- Investment Grade	Bloomberg US Agg - High Yield Index	JP Morgan EMBI Global Diversified Index	HFRX Global Hedge Fund Index	DJ UBS Commodity Index	Equal Blend
2002	-1.21	-1.01	-0.98	-0.40	1.79	1.68	-0.27	1.25	1.02	2.15	-0.25
2003	2.52	2.97	2.68	3.76	0.17	1.02	4.98	2.91	4.99	1.54	3.96
2004	1.37	1.22	2.08	1.61	0.48	0.84	2.55	1.33	0.44	0.63	1.90
2005	0.24	0.11	1.09	1.65	-0.07	-0.36	-0.07	1.46	-0.08	1.25	1.06
2006	2.03	1.04	2.39	1.53	-0.65	-0.16	3.21	0.97	1.17	-0.18	1.52
2007	0.05	-0.55	0.67	1.95	1.11	-0.16	-0.53	0.26	-0.13	1.03	0.78
2008	-1.94	-1.31	-1.76	-1.54	1.83	-0.54	-1.36	-0.74	-2.32	-1.17	-1.62
2009	1.23	0.96	1.29	2.83	-0.72	2.85	4.65	4.36	3.73	1.19	2.24
2010	0.81	1.15	0.35	0.93	1.42	2.33	2.18	1.89	1.14	0.91	1.28
2011	0.13	-0.19	-0.66	-0.79	2.73	1.83	0.53	1.06	-1.92	-0.72	-0.23
2012	1.58	1.31	1.08	0.96	0.66	2.77	4.11	3.34	1.14	-0.08	1.54
2013	3.98	3.71	1.95	-0.24	-1.06	-0.35	1.61	-0.63	2.30	-1.11	1.39
2014	1.73	0.33	-0.53	-0.17	2.45	2.48	0.56	1.33	-0.20	-1.32	0.26
2015	0.10	-0.32	-0.06	-0.89	0.23	-0.18	-0.74	0.26	-0.86	-1.69	-0.74
2016	1.18	1.20	0.05	0.64	0.16	1.21	2.90	1.43	0.59	0.96	1.40
2017	5.57	1.86	6.08	5.82	0.86	3.24	3.19	3.93	4.55	0.15	7.65
2018	-0.43	-0.70	-1.32	-1.11	-0.29	-1.39	-1.16	-1.22	-1.77	-1.46	-1.30
2019	2.37	1.36	1.79	1.02	1.04	3.10	2.56	2.60	2.54	0.58	2.04
2020	0.71	0.55	0.28	0.71	1.63	0.91	0.44	0.27	0.77	-0.19	0.60
2021	2.71	1.33	1.20	-0.24	-0.71	-0.28	2.14	-0.36	1.30	2.01	1.63
2022	-0.89	-0.89	-0.77	-1.04	-2.20	-1.62	-1.13	-1.36	-2.04	0.73	-1.05
2023	1.51	0.51	0.82	0.28	-0.13	0.36	1.23	0.68	-0.64	-1.19	0.53
Average	**1.15**	**0.66**	**0.81**	**0.78**	**0.49**	**0.89**	**1.44**	**1.14**	**0.71**	**0.18**	**1.12**

Sources: FactSet, Columbia Threadneedle Investments as of 12/29/23. Data based upon monthly rebalancing. Equal blend is a hypothetical portfolio with equal weights to all the asset classes in the table. Returns used to calculate Sharpe Ratios are monthly. The cells highlighted in red and green show the bottom 3 and top 3 performers, respectively, for the particular year. **Past performance is not a guarantee of future results. It is not possible to invest directly in an index.** Diversification and asset allocation do not assure a profit or protect against loss. Indices are unmanaged and do not reflect the impact of fees

Disclosures

Index definitions

It is not possible to invest directly in an index.
The **Bank of America Merrill Lynch All Convertibles All Qualities Index** is a widely used index that measures convertible securities' performance. It measures the performance of U.S. dollar denominated convertible securities not currently in bankruptcy with a total market value greater than $50 million at issuance.
The **Bloomberg Emerging Markets Bond Index** includes USD-denominated debt from sovereign, quasi-sovereign and corporate EM issuers.
The **Bloomberg Global Aggregate Bond Index** is an unmanaged, broad-based, market-capitalization-weighted index that is designed to measure the broad global markets for U.S. and non-U.S. corporate, government, governmental agency, supranational, mortgage-backed and asset-backed fixed-income securities.
The **Bloomberg Global Inflation Linked Bond Index** is designed to include those markets in which a global government linked fund is likely and able to invest.
The **Bloomberg Global Treasury Index ex-U.S**. tracks fixed-rate, local currency government debt of investment grade countries, including both developed and emerging markets but excluding the U.S.
The **Bloomberg Multiverse Index** provides a broad-based measure of the global fixed-income bond market. The index represents the union of the Global Aggregate Index and the Global High-Yield Index and captures investment-grade and high-yield securities in all eligible currencies.
The **Bloomberg Municipal Bond Index** is an unmanaged index that is considered representative of the broad market for investment-grade tax-exempt bonds with a maturity of at least one year.
The **Bloomberg Muni BBB rated index** is an unmanaged index of tax-exempt bonds with a BBB credit rating.
The **Bloomberg U.S. Aggregate Corporate Bond Index** consists of publicly issued, fixed-rate, nonconvertible, investment-grade debt securities.
The **Bloomberg U.S. Corporate Investment Grade Index** measures the investment-grade, taxable corporate bond market.
The **Bloomberg U.S. High Yield Corporate Bond Index** represents the universe of fixed-rate, non-investment grade debt.
The **Bloomberg U.S. Mortgage-Backed Securities Index** includes 15- and 30-year fixed-rate securities backed by mortgage pools of Government National Mortgage Association (GNMA), Federal Home Loan Mortgage Corporation (FHLMC) and Federal National Mortgage Association (FNMA).
The **Bloomberg U.S. Treasury Index ("U.S. Treasuries")** measures U.S. dollar-denominated, fixed-rate, nominal debt issued by the U.S. Treasury.
The **Bloomberg Commodity Index** (formerly, DJ UBS Commodity Index) is a broadly diversified index composed of commodities traded on U.S. exchanges, with the exception of aluminum, nickel and zinc, which trade on the London Metal Exchange (LME).
The **BofA Merrill Lynch 10-Year T-Bill Index** is an unmanaged market index of U.S. Treasury securities that assumes reinvestment of all income.
The **ICE BofA Merrill Lynch U.S. High Yield Constrained Bond index** is a commonly used benchmark index for high-yield corporate bonds.
The **Bloomberg Treasury Index** tracks the total return of U.S. Treasury notes.
Floating rate loans are represented by the **Credit Suisse Leveraged Loan Index**, also known as the Bank Loan Index, which provides broad and comprehensive total return metrics of the universe of syndicated term loans.
Th **FTSE Broad Investment-Grade (BIG) Index** tracks the performance of U.S. dollar-denominated bonds issued in the U.S. investment-grade bond market.
The **FTSE National Association of Real Estate Investment Trusts (NAREIT) Index** is an index that reflects performance of all publicly traded equity real estate investment trusts.
The **FTSE U.S. Domestic 3-month T-Bill Index** is intended to track the daily performance of 3-month U.S. Treasury bills.
The **FTSE World Government Bond Index** measures the performance of fixed-rate, local currency, investment-grade sovereign bonds.
The **JPMorgan Emerging Market Bond Index** tracks total returns for traded external debt instruments in emerging markets and is an expanded version of the JPMorgan EMBI+. As with the EMBI+, the EMBI Global includes U.S.-dollar-denominated Brady bonds, loans and Eurobonds with an outstanding face value of at least $500 million. It covers more of the eligible instruments than the EMBI+ by relaxing somewhat the strict EMBI+ limits on secondary market trading liquidity.
The **JPMorgan Leveraged Loan Index** is designed to mirror the investable universe of U.S. dollar institutional leveraged loans.

Index definitions

The **MSCI ACWI Index** is a market capitalization weighted index designed to provide a broad measure of equity-market performance throughout the world.
The **MSCI ACWI ex USA Growth Index** is a market capitalization weighted index designed to provide a broad measure of growth stocks outside the U.S.
The **MSCI ACWI ex USA Value Index** is a market capitalization weighted index designed to provide a broad measure of growth stocks outside the U.S.
The **MSCI Europe, Australasia, Far East (EAFE) Index** captures large- and mid-cap stocks across developed market countries around the world, excluding the U.S. and Canada.
The MSCI Em**erging Markets Index**, an unmanaged market-capitalization weighted index, is compiled from a composite of securities markets of 27 emerging market countries.
The **MSCI Japan Index** is designed to measure the performance of the large- and mid-cap segments of the Japanese markets.
The **MSCI U.S. Index** is designed to measure the performance of the large- and mid-cap segments; it aims to represent ~85% of the U.S. market.
The **MSCI USA High Dividend Yield Index** is based on the MSCI USA Index, its parent index, and is designed to reflect the performance of equities with higher dividend income and quality characteristics.
The **MSCI World ex-U.S. Index** captures large- and mid-cap representation across 22 of 23 Developed Markets (DM) countries, excluding the United States.
The **Russell 1000 Value Index** is a stock market index that represents stocks from the Russell 3000 Index with lower price-to-book ratios and lower expected growth rates.
The **Russell 1000 Growth Index** is a market-capitalization-weighted index of those firms in the Russell 1000 with higher price-to-book ratios and higher forecasted growth values.
The **Russell 2000 Index** is composed of the smallest 2,000 companies in the Russell 3000 Index, representing approximately 8% of the Russell 3000 total market capitalization.
The **Russell 3000 Index** measures the performance of the 3,000 largest publicly held companies incorporated in America as measured by total market capitalization.
The **S&P 500 Index** tracks the performance of 500 widely held, large-capitalization U.S. stocks. Index returns assume the reinvestment of all distributions unless otherwise indicated.
The **S&P 500 Geometric Equal-Weighted Total Return Index** is the returns based on monthly equal-weighted geometric average of total returns of the S&P 500 component stocks, with components reconstituted monthly.
The **S&P GSCI** is a composite index of commodity sector returns that represents a broadly diversified, unleveraged, long-only position in commodity futures. The index's components qualify for inclusion in the index based on liquidity measures and are weighted in relation to their global production levels.
The **S&P U.S. Preferred Stock Index** is designed to serve the investment community's need for an investable benchmark representing the U.S. preferred stock market.
The **U.S. Dollar Index** is an index of the value of the United States dollar relative to a basket of foreign currencies. It is a weighted geometric mean of the dollar's value relative to the following select currencies: Euro (EUR) 57.6%, Japanese yen (JPY) 13.6%, Pound sterling (GBP) 11.9%, Canadian dollar (CAD) 9.1%, Swedish krona (SEK) 4.2%, Swiss franc (CHF) 3**.6%.**
VIX is the ticker symbol for the Chicago Board Options Exchange's CBOE Volatility Index, a measure of the stock market's expectation of volatility based on S&P 500 index options.

Disclosure

YTD asset class returns slides: The shown asset class descriptors reference the following indices: MSCI ACWI Index (Global stocks), S&P 500 Index (U.S. stocks), MSCI World ex-U.S. Index (International developed equity), MSCI Emerging Markets Index (Emerging market equity), Bloomberg Treasury Index (Treasuries), Bloomberg US Aggregate Bond Index (U.S. aggregate bond), Bloomberg Municipal Bond Index (U.S. municipal bond), Bloomberg Global Aggregate TR USD (Global aggregate bond), Bloomberg US MBS TR USD (Mortgage-backed securities), FTSE Broad Investment-Grade (BIG) Index (Investment-grade corporate bond), Merrill Lynch US High Yield Constrained Index (High-yield corporate bond), Bloomberg Global ex-U.S. Aggregate TR USD (Global ex-US aggregate Bond), JP Morgan EM Bond Index (Emerging market bond), Bloomberg Global Infl Linked TR USD (unhedged) (Global Inflation-linked bond), Bloomberg Commodity Index (Commodities), FTSE All Equity NAREIT Index (REITs).

Five-year forecast slide: Equity forecasts are based on three components: expected dividend payments, expected earnings growth and change in valuation levels (price-to-earnings ratios). Expected earnings growth is driven by expected economic growth, input cost changes and pricing power. Fixed-income forecasts are based on the shape of the yield curve, direction of interest rates, increase/decrease in yield spreads and timing of those changes. To calculate the five-year forecast, we use a baseline scenario that incorporates our most probable growth and inflation expectations. The major asset classes are based on the following indices: U.S. large-cap stocks (S&P 500 Index), U.S. small-cap stocks (Russell 2000 Index), Developed market stocks USD (MSCI EAFE Index), Emerging market stocks USD (MSCI EM Index), Cash (FTSE U.S. Domestic 3-Month T-Bill Index), U.S. Treasuries (Bloomberg U.S. Treasury Index), Municipal Bonds (Bloomberg Municipal Bond Index), Global sovereign bonds USD (Bloomberg Global Treasury Index, excl. U.S.), Investment-grade corporate bonds (Bloomberg U.S. Aggregate Credit Index), High-yield corporate bonds (Bloomberg Corporate High Yield Index), Emerging market debt USD (JPMorgan EMBI Global Diversified Index), Absolute return (FTSE U.S. Domestic 3-Month T-Bill Index), Commodities (Bloomberg Commodity Index).

Factor calculations are based on the S&P 500 and are calculated monthly. Factor spreads reflect the top 20% of stocks minus bottom 20% of stocks based on square root market cap weighted. Free Cash Flow to Enterprise Value (FCF to EV) – Trailing twelve months (TTM) of free cash flow divided by enterprise value. Earnings before interest, taxes, depreciation, and amortization. (EBITDA) Margin – TTM EBITDA dividend divided by TTM revenues. Return on Equity (ROE) – TTM net income scaled by average common equity over past year. Forward Earnings to Price (E/P) – Next twelve-month earnings per share forecast divided by current price. Earnings Quality – Twelve-month change in net operating assets scaled by average total assets over past year. Otherwise known as Total Operating Accruals factor. Share Buyback – Twelve-month change in common shares outstanding reported on balance sheet. Operating Cash Flow (OCF) surprise – Change in reported OCF vs result from four quarters ago scaled by standard deviation of OCF surprises over past 12 quarters. Final factor is weighted average of past four quarters of change. Prior 1-month Return – Return of stock over past one month. Price Momentum – Twelve-month price momentum excluding most recent month. Debt to Assets – Average total debt over past year scaled by average total assets over past year. Revenue Stability – Standard deviation of past 12 quarters of Revenue scaled by average of past 12 quarters of revenue multiplied by -1. Analyst Sentiment – Change in analyst earnings per share (EPS) forecasts. Book to Price – Current common equity divided by current market cap. Long term (LT) Growth Rate – Analyst forecast of LT Earnings Growth. Size – Market Cap of company. Dividend Yield – Current Dividend per share forecast scaled by current price. Beta – Stock's correlation with overall market over past two years

The Agg is not diversified slide: Bloomberg U.S. Treasury Index (U.S. Treasuries), Bloomberg Global Treasury x-U.S. Index (Global Treasury ex-U.S.), Bloomberg U.S. Mortgage-Backed Securities Index (Agency MBS), Bloomberg Emerging Markets Bond Index (Emerging market), Bloomberg U.S. Corporate Index (Investment grade corporate), Bloomberg U.S. High Yield Index (U.S. Corporate high yield). Data starts from January 2006.

Fixed-income spread slide: Bloomberg US MBS Fixed Rate (Agency MBS); Bloomberg US Agg Corporate Index (Investment Grade); Bloomberg US Corporate High Yield Index (High Yield); Bloomberg EM USD Agg Index (Emerging Markets); Bloomberg US Agg CMBS (CMBS).

Municipal spread slide: ICE BofA AA U.S. Municipal Securities Index (AA); ICE BofA A U.S. Municipal Securities Index (A); ICE BofA BBB U.S. Municipal Securities Index (BBB); ICE BofA U.S. Municipal High Yield Securities Index (HY).

Multi-asset annual return slide: The chart represents returns of an equally weighted portfolio comprising the following asset class (with their proxy): U.S. Equity (S&P 500 Index); Non U.S. Developed Equity (MSCI EAFE); Emerging Markets (MSCI EM Equity Index); U.S. Treasuries (Bloomberg U.S. Treasury Total Return Unhedged USD Index); Global Bonds (FTSE World Government Bond Index); Emerging Market Bonds (J.P. Morgan EM Bond Index Global Index); Investment Grade Bonds (Bloomberg U.S. Corporate Total Return Index); High Yield (Bloomberg U.S. Corporate High Yield Total Return Index); Mortgage-backed Securities (Bloomberg U.S. MBS Index); TIPS (Bloomberg Global Inflation-Linked Total Return index); REITs (FTSE NAREIT ALL Equity REITs Index); Commodities (Bloomberg Commodity Index).

Disclosure

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