TIAA Wealth Management

Q1 2025
CHARTBOOK

From the Wealth Management Chief Investment Office: A guide to interpreting the economy & markets

WEALTH CHIEF INVESTMENT OFFICE

The Wealth Chief Investment Office is dedicated to helping our clients achieve financial wellness through the delivery of insightful thought leadership, disciplined management of high quality, diversified portfolios tailored to each client's needs and objectives, and differentiated Wealth Planning services.

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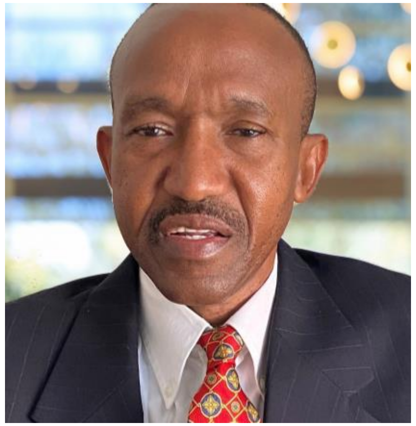

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CIO Overview

During 2024, many of the distorting impacts from the pandemic years began to normalize. The U.S. economy exhibited more organic growth driven by an improvement in private sector consumption, by the moderation of inflation towards long-term historical levels, by labor market supply and demand coming into better balance, and by corporate earnings growing at a steady rate after two flat years (which were preceded by the booming earnings growth of 2021). The stock market reacted in kind, with the S&P 500 higher by 25%—up more than 20% for a second consecutive year. The enthusiasm around artificial intelligence (AI) as a transformative technology was another catalyst powering large cap secular growers forward. The bond market was volatile, whipped around by shifting expectations for inflation and monetary policy, but still provided 1.3% returns for the year.

2024 was a landmark year in human history for elections, with roughly 70 countries going to the polls. Political uncertainty was the name of the game, and results were generally not favorable for incumbents—from the U.K. to France to India to America. In the second half of the 2020s, new governments coming to power will be navigating powerful economic and geopolitical issues such as domestic polarization and income divides, rising government debt levels, proliferation of AI, climate change, and immigration related challenges—not to mention the hot wars, cold wars, technology wars and trade wars occurring around the world.

We are nearing the halfway point for this decade. We maintain our view that there is a lot to like about the U.S. economy in the long run—highlighted by accelerating innovation, new business formation, reshoring of supply chains, industrial policies towards infrastructure upgrades, high end manufacturing facilities, and demographic tailwinds keeping a bid on housing and financial assets. For 2025 though, the Republican trifecta creates opportunities and risks for the economy and investors. On one hand, growth is still resilient, the Federal Reserve (Fed) prefers to ease monetary policy, and optimism is increasing. On the other, the threat of tariffs looms, government financial obligations keep growing, and a segment of consumers is becoming exhausted due to inflationary pressures.

Equities may continue to drift higher supported by broadening corporate profits and market friendly deregulations. However, given higher starting valuations, our expectation is for moderate returns going forward, compared to recent years. Despite higher valuations, U.S. assets remain better positioned compared to developed international and emerging markets. The threat of higher tariffs can further hurt sentiment towards China and Europe, where economic activity and corporate earnings momentum has been lackluster to begin with. The U.S. dollar can remain elevated due to higher relative interest rates, continued U.S. exceptionalism, stronger productivity, and the growing innovation gap. However, we maintain the importance of having international exposure in long-term portfolios given attractive valuations, diversification benefits and yield opportunities.

For fixed income, the prospects for large and growing budget deficits are likely to keep bond volatility elevated. Interest rates could rise further from current levels, providing opportunities to lock in higher yields during the year.

The U.S. elections have ushered in a new paradigm for the economy, policy, and geopolitics. The market narrative will be sensitive to what policies are prioritized by the new administration. Volatility will be more prevalent as sentiment wavers between soft landing and no landing—or even a hard landing (recession) for the economy. This unusually complex environment requires investors to have a flexible approach, while staying invested and anchored to their long-term asset allocation per their financial plan.

January 2025

Niladri 'Neel' Mukherjee
Chief Investment Officer, TIAA Wealth Management

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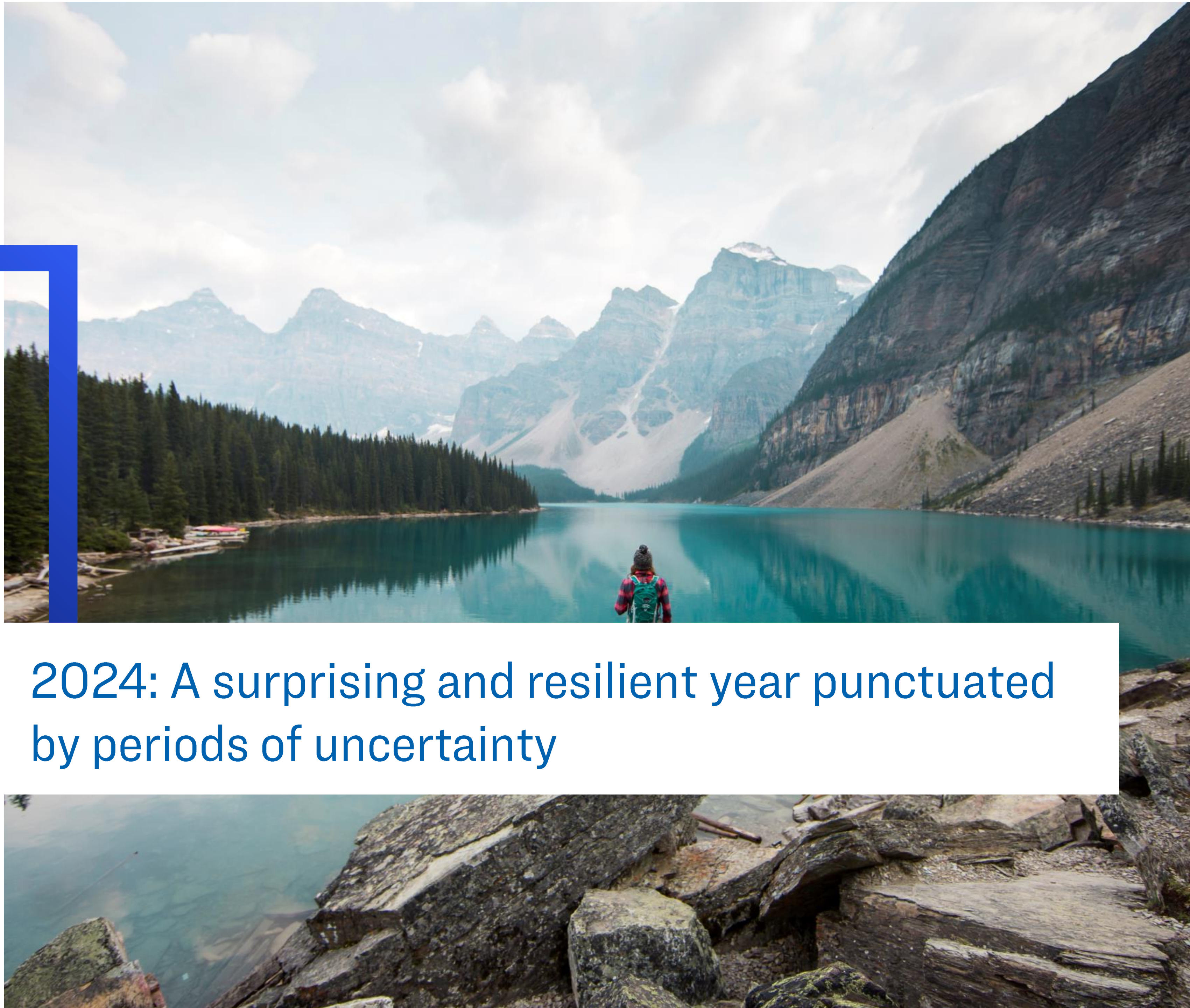
MARKET RECAP

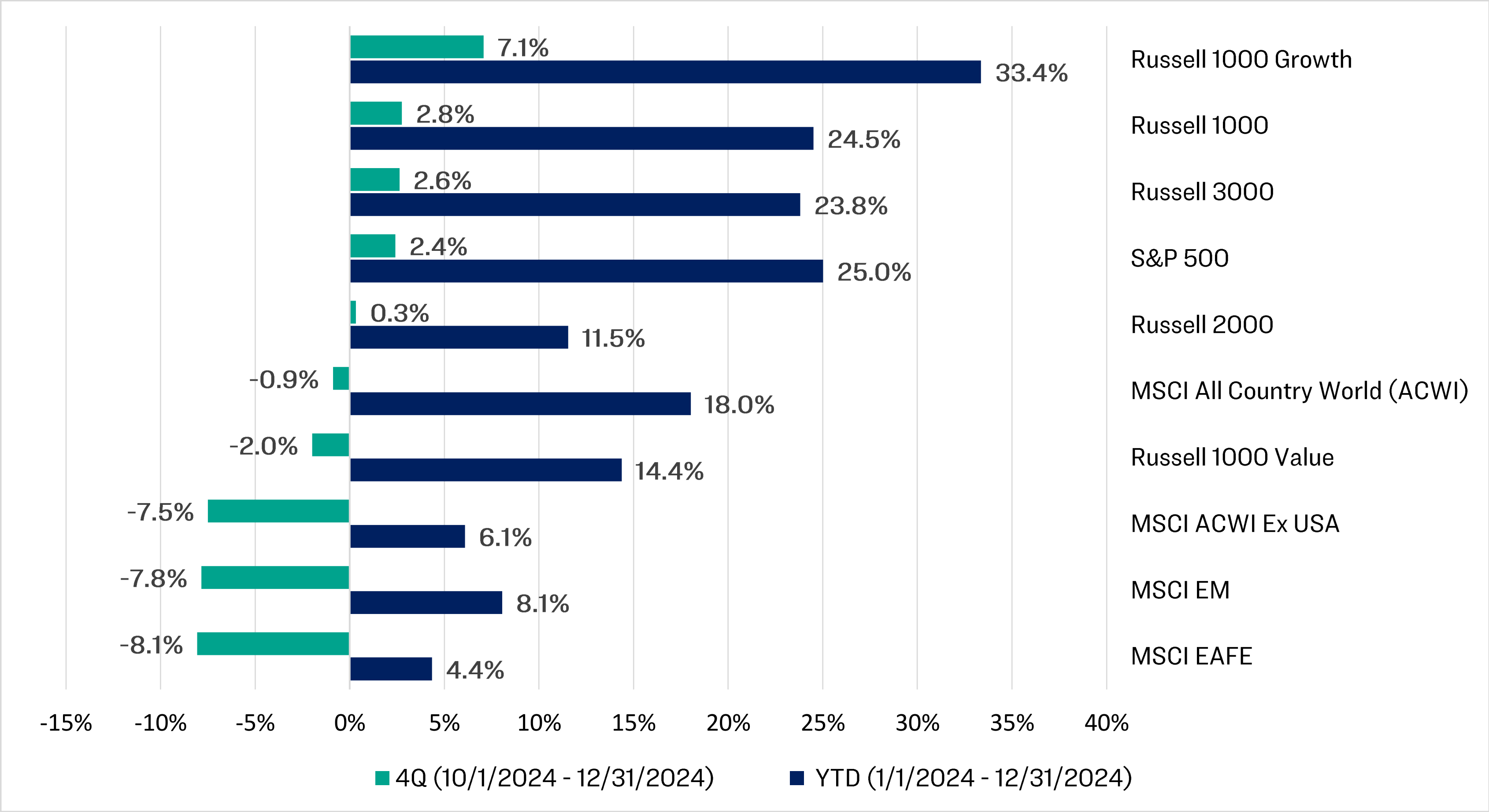
2024: A surprising and resilient year punctuated by periods of uncertainty



Large cap U.S. Growth stocks outperformed again in 2024, led by artificial intelligence (AI)[1]

Equities

- The S&P 500 finished 2024 with a total return (price return plus reinvested dividends) of 25%, marking the second consecutive year of gains exceeding 20%.
- Large cap U.S. stocks have now posted gains of at least 23% in four of the past six years.
- The broad U.S. stock market (Russell 3000) again beat non-U.S. stocks, with the Russell 3000 up 24% versus the 6% gain for non-U.S. stocks (MSCI ACWI-ex. U.S.).
- U.S. dominance in AI was a key driver of U.S. outperformance, but a 7% gain in the value of the U.S. dollar versus the currencies of major U.S. trading partners was a major contributor as well.

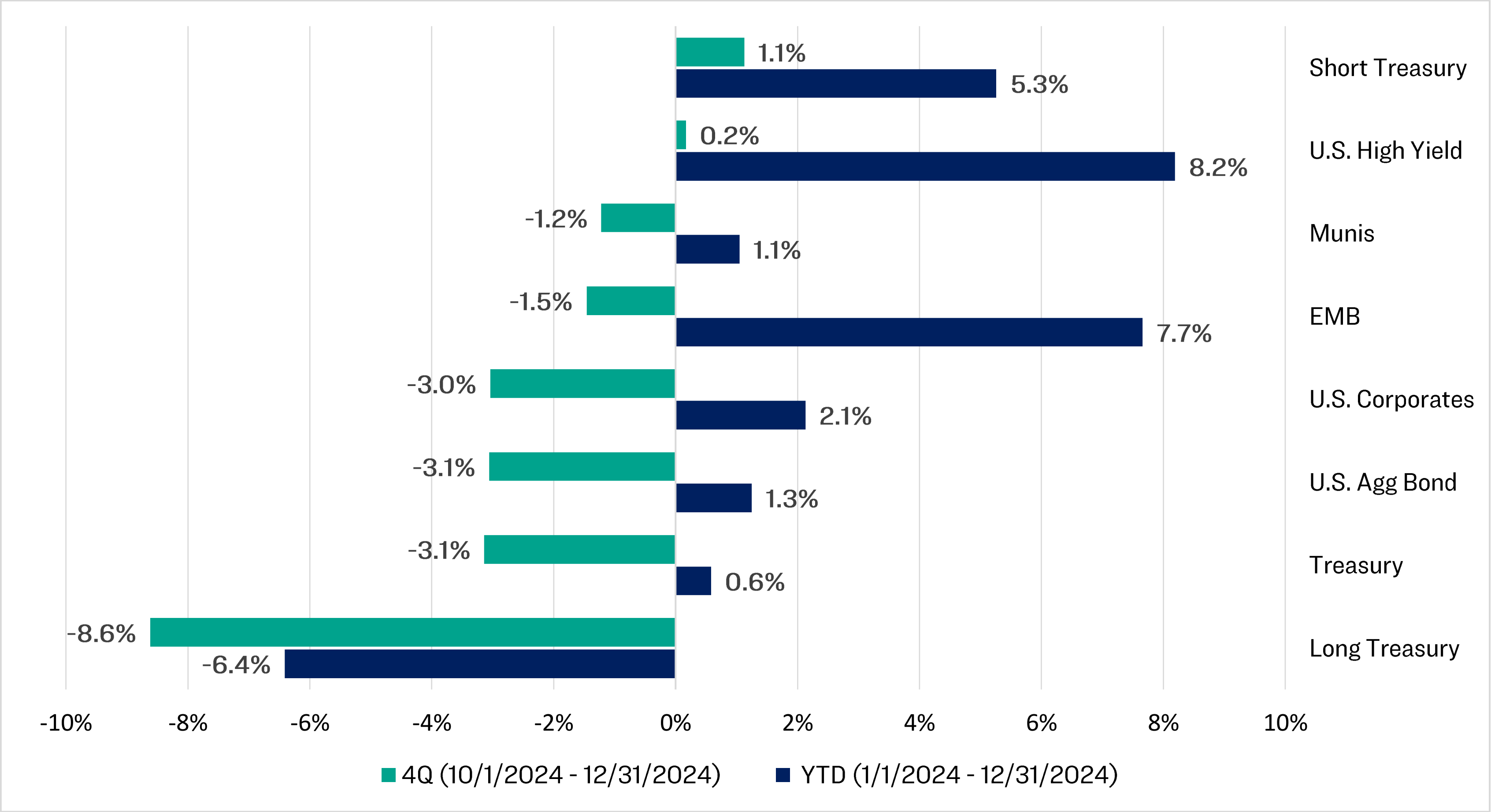


[1] Chart is sorted on most recent full quarter total return data. Source: Morningstar Direct, TIAA Wealth Chief Investment Office.

As inflation waned, the broad bond market rallied and finished 2024 in positive territory[1]

Fixed Income

- The broad U.S. investment grade bond market eked out a 1.3% total return in 2024, following the 6% gain in 2023, as the bond market continues to recover from the battering it took in 2021 and 2022 as the Fed raised rates aggressively to combat the worst inflation in 40 years.
- Lower rated bonds beat higher rated bonds in 2024, and short-term bonds beat long-term bonds as the market began to worry about another uptick in inflation.
- Mirroring the taxable bond market's performance, municipal bonds also recorded a modest 1.1% gain in 2024, the third annual gain in the past four years.
- The "last mile" for inflation reaching the Fed's 2% target already proved challenging during the second half of 2024. In addition, the potential implementation of sweeping tariffs and subsequent retaliatory actions is inherently inflationary, with a wide, unknowable range of possible effects.
- The Fed's job will undoubtedly be more challenging in 2025 as it digests and responds to this new mix of variables.

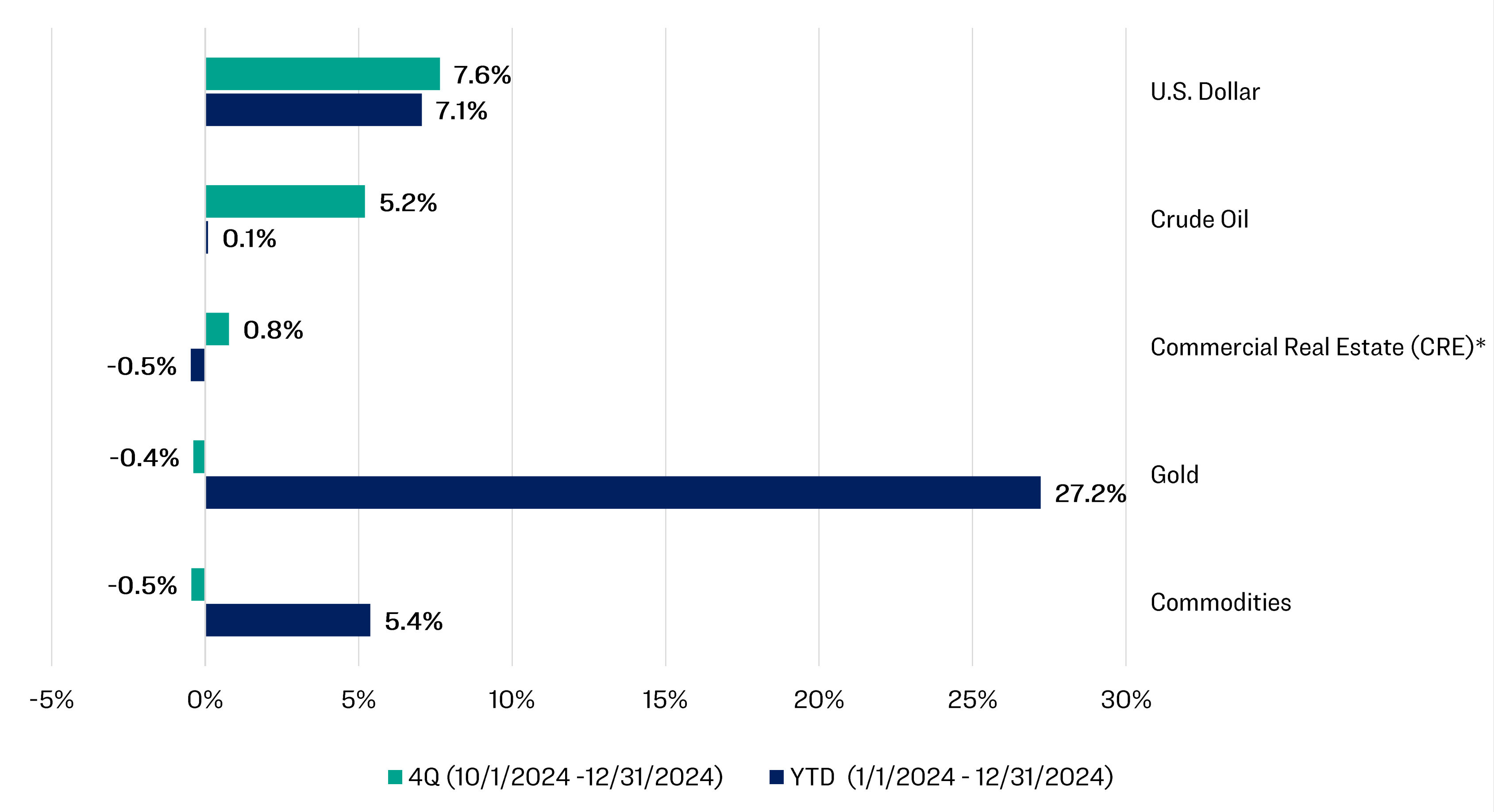


[1] Chart is sorted on most recent full quarter total return data. Source: Morningstar Direct, TIAA Wealth Chief Investment Office.

Amid slowing inflation and escalating geopolitical risks, oil struggled but gold surged[1]

Other Asset Classes

- The U.S. dollar jumped in late 2024 in the wake of the U.S. election and amid the ongoing surge in global investment in AI, which is centered in the U.S.
- The rise in the dollar, along with weaker global demand and oversupply just about offset rising geopolitical tensions in the Middle East, and crude oil ended the year unchanged from the end of 2023.
- Although gold struggled in Q4 amid the jump in the dollar, the precious metal surged 27% in 2024. Investors often view gold as a hedge against geopolitical or economic uncertainty.



[1] Chart is sorted on most recent full quarter total return data. Source: Morningstar Direct, Bloomberg, TIAA Wealth Chief Investment Office. *CRE data through 3Q 2024.

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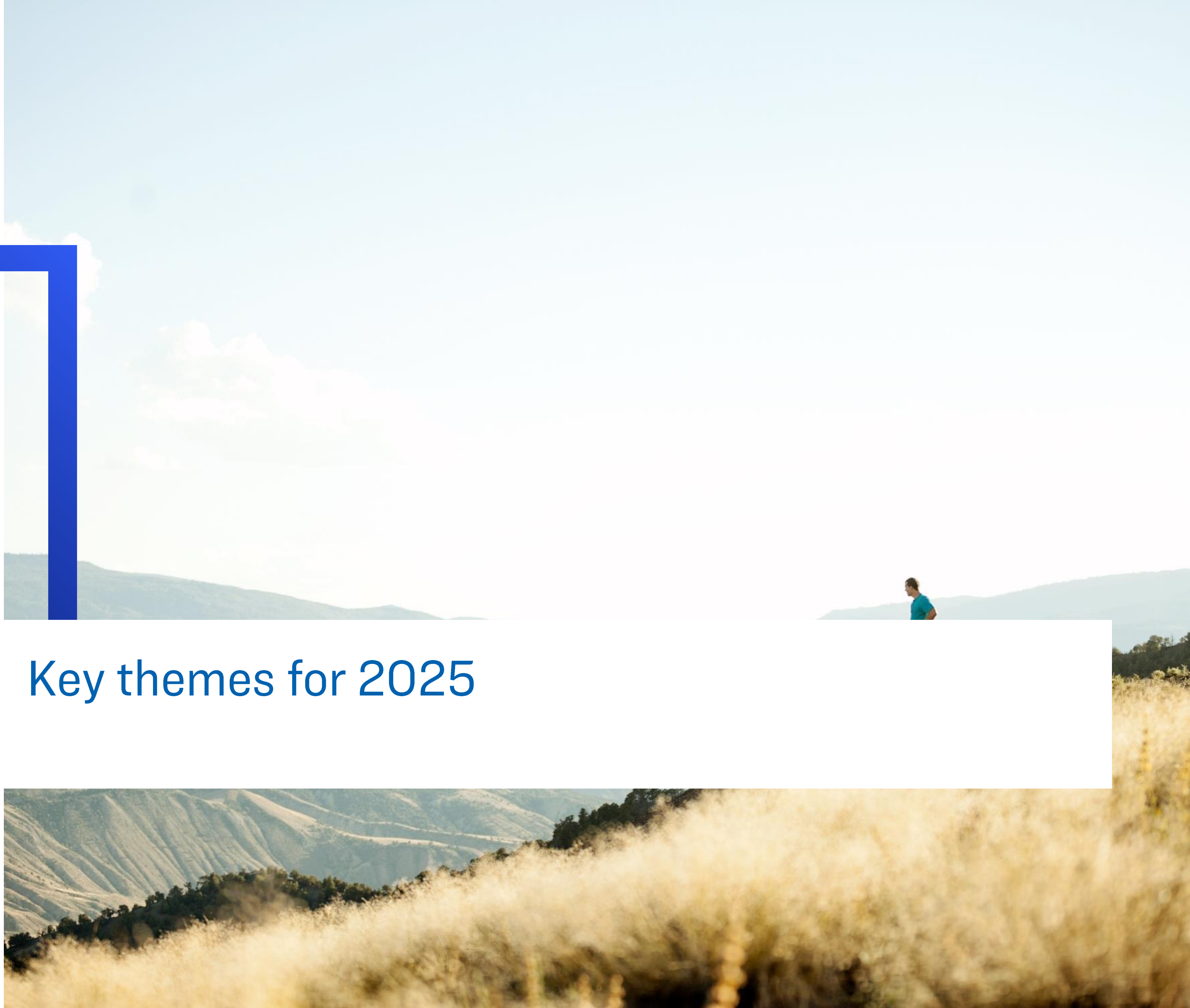
2025 OUTLOOK



Key themes for 2025

Four key macro themes impacting our base case for how 2025 might evolve

U.S. ECONOMIC GROWTH OUTPERFORMS THE REST OF THE WORLD

- The U.S. consumer and labor market remain resilient for now. However, the lagged impact of higher interest rates is still working its way through the economy and causes the demand for labor and consumer spending to moderate.
- Pro-growth domestic policies such as deregulation, less stringent antitrust enforcement, prospects for lower taxes and continued reshoring should boost business confidence and investments into manufacturing facilities and equipment, supporting productivity growth.
- European growth remains hobbled by loss of competitiveness and underperforming corporate earnings.
- Pressure ramps up on Chinese authorities to support the economy in a more forceful fashion, amidst a backdrop of lackluster consumer sentiment and spending and rising tensions with the U.S.

TWO-SIDED RISKS TO INFLATION KEEP BOND VOLATILITY HIGH

- Moderation in services sector spending, slowing shelter inflation, and productivity growth all keep inflation on a stable, downward trajectory. But core inflation remains above the Fed's 2% target.
- However, medium-term inflation expectations remain elevated, given the potentially inflationary side effects of the Trump 2.0 agenda.
- Interest rates remain volatile to these expectations and sensitive to the need for higher Treasury issuances to fund future tax cuts and spending. In a non-recessionary scenario, the 10-year Treasury yield remains elevated, with a higher term premium.

FISCAL POLICY DRIVES SHIFTING MARKET AND MONETARY POLICY OUTCOMES

- Congress and the White House pursue their agenda for extending tax cuts, raising tariffs (or using the threat of it for trade negotiations), and curbing immigration.
- Given the already weaker fiscal dynamics of higher deficits, debt and interest rates, there is not insignificant risk that the bond market forces the new administration to adopt a more prudent approach to fiscal management and/or sequence their agenda to calm investor concerns.
- The Fed is biased towards cutting interest rates, focusing on the recent path of inflation and the labor market, rather than trying to preempt fiscal policy. However, they remain data dependent and wary about easing too aggressively, given uncertainty about the level of the neutral rate.

GLOBAL ECONOMIC FRAGMENTATION ACCELERATES

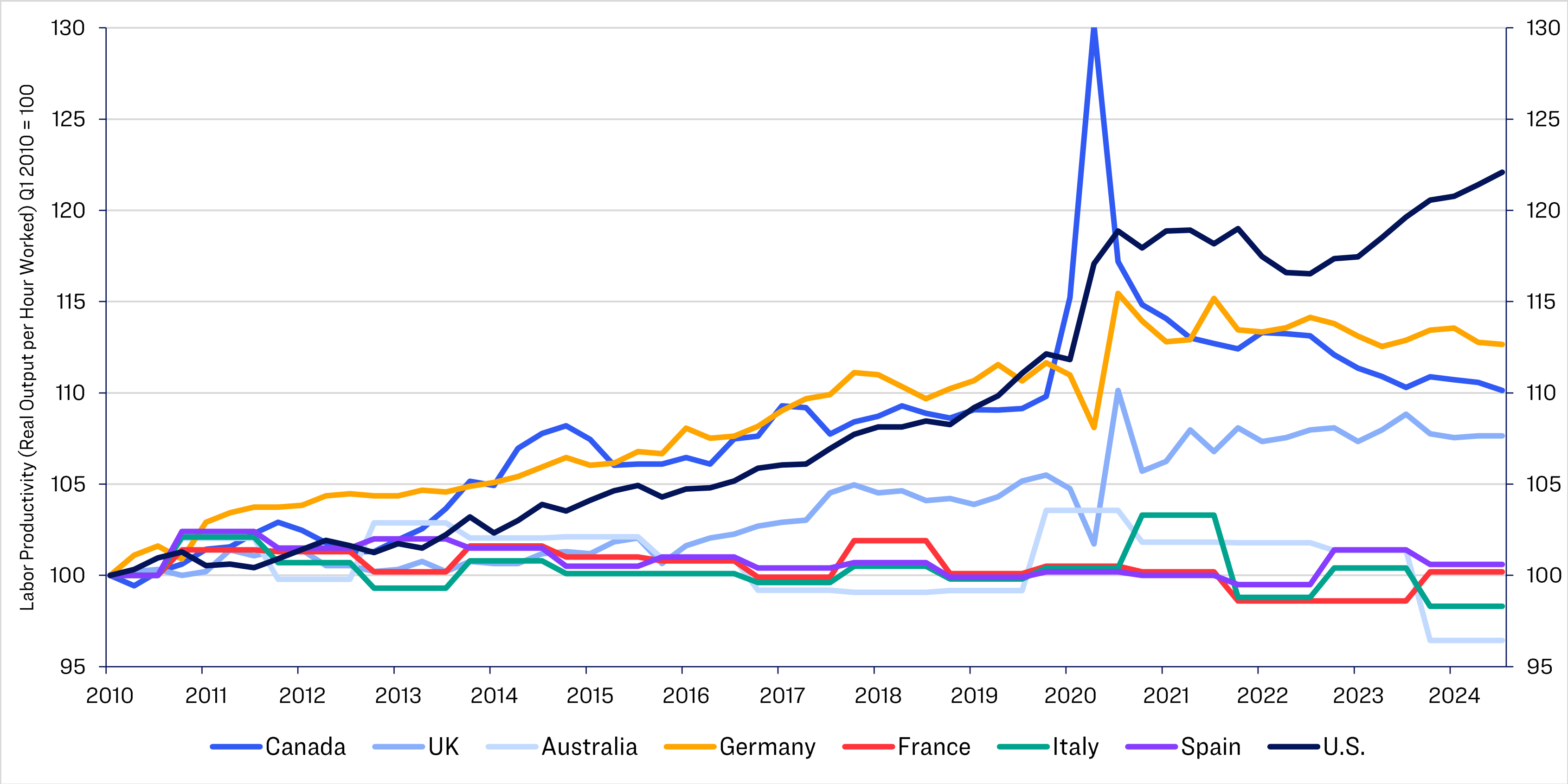
- U.S. and China relationship comes under further stress due to the new administration's threat of higher tariffs, export controls for key technologies and the possibility of retaliatory tariffs. Investors struggle to price in the impact of tariffs on growth and inflation.
- U.S. tensions rise with allies in Europe over trade, Ukraine support and long-term security arrangements. A growing need to be more self-reliant and to lessen dependencies on foreign markets leads to increasing investments in domestic production, research, and defense capabilities across major economic blocs.
- Globalization continues to morph. In deciding their manufacturing and sourcing plans, companies pay as much attention to the risks around global shocks like the pandemic, supply chain disruptions and geopolitical upheaval, as to efficiency and cost savings.

U.S. economic growth outperforms the rest of the world, led by better productivity

U.S. Economic Growth

- One of our key themes for 2025 is that U.S. economic growth outperforms the rest of the world.
- The U.S. consumer and labor market remain resilient for now. However, the lagged impact of higher interest rates is still working its way through the economy and could cause the demand for labor and consumer spending to moderate. Economic weakness is not imminent, but the risk is higher than average.
- Pro-growth domestic policies such as deregulation, less stringent antitrust enforcement, prospects for lower taxes and continued re-shoring should boost business confidence and investments into manufacturing facilities and equipment, supporting productivity growth.
- Long-term economic growth potential is a byproduct of labor force and productivity growth, both of which are much more promising in the U.S.. This indicates the U.S. economy's potential for outperformance relative to other developed markets.
- International economies are facing both structural and cyclical headwinds, from low productivity, to declining labor forces, to geopolitical risks, to the fresh risk of escalating trade tensions.
- Productivity growth has averaged 1.6% annually in the U.S. since 2010, compared to 1% in the Euro Area and 0.75% in Canada.

Labor productivity in the U.S. has outperformed since mid-2020



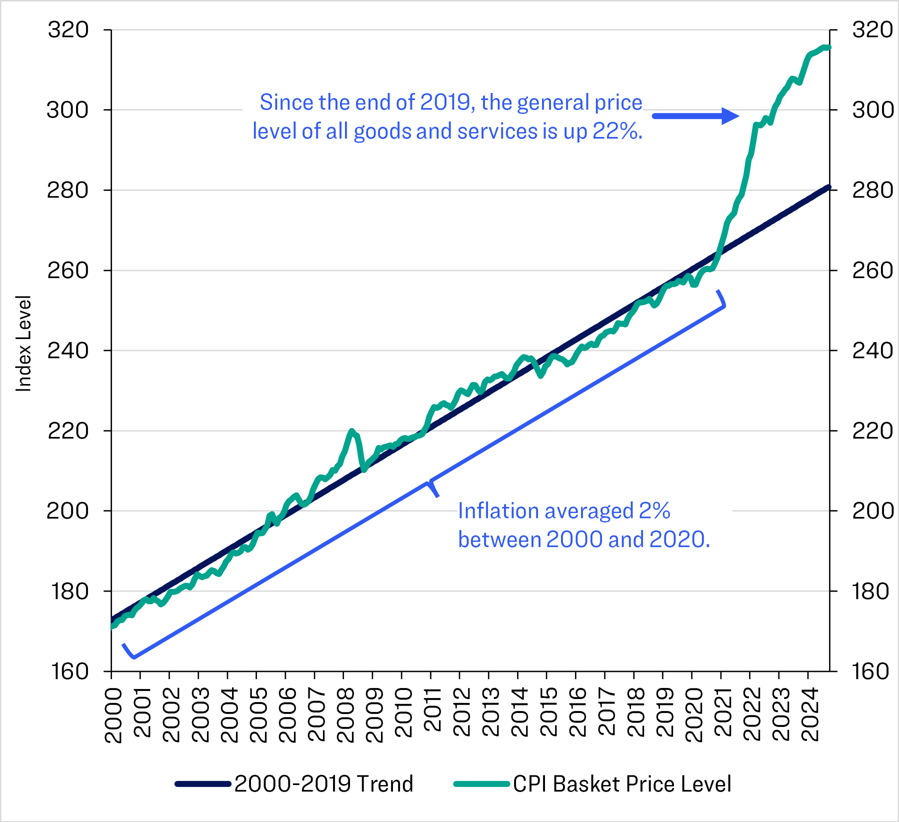
Source: National statistical agencies, TIAA Wealth CIO. Data through 9/30/2024.

Two-sided risks to inflation keep bond volatility high

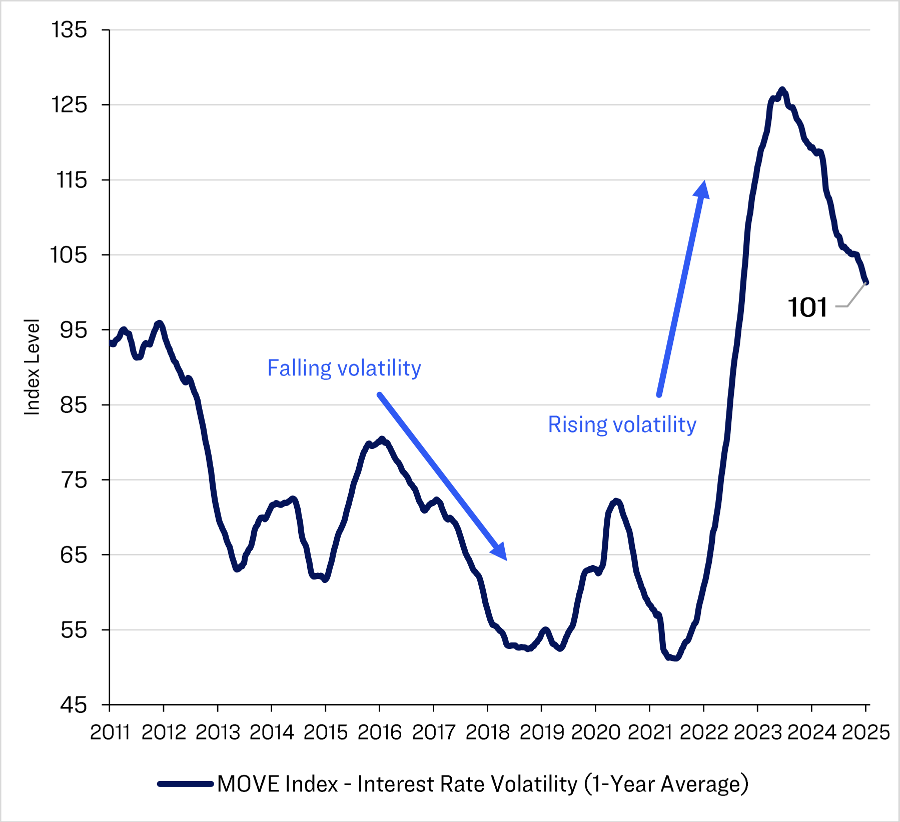
Inflation

- The consumer price index (CPI) measures the general price level of goods and services purchased by U.S. consumers. Inflation is the rate at which CPI is increasing (or decreasing).
- Inflation averaged 2% between 2000 and 2020. Since the end of 2019, the general price level of all goods and services households buy has risen by 22%, or more than 4% a year, which is double the long-term average of 2% (left panel).
- The Fed has targeted 2% inflation to fulfill its dual mandate of low inflation and low unemployment.
- Interest rates remain volatile to these expectations and sensitive to the need for higher Treasury issuances to fund future tax cuts and spending. Volatility in the bond market (MOVE Index) since 2020 reflects the uncertainty and distorting impacts from the pandemic years (right panel).

Inflation is coming down, but prices remain high



Bond market volatility peaked in 2023 but remains elevated



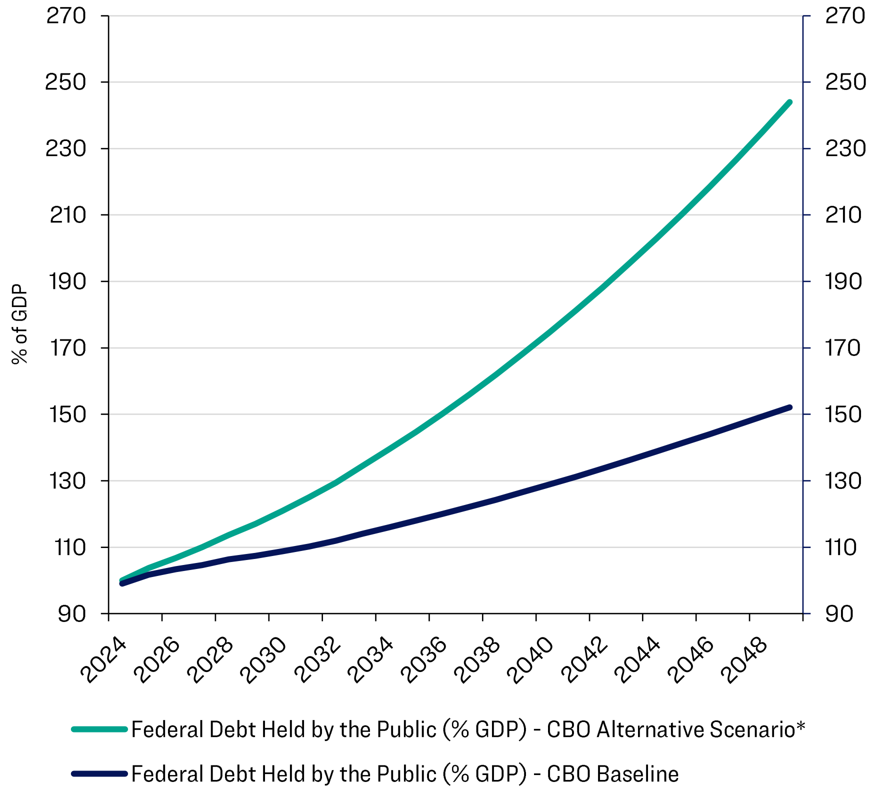
Source: Bloomberg, Bureau of Labor Statistics (BLS), TIAA Wealth Chief Investment Office. Data through 12/31/2024 (left panel) and 1/5/2025 (right panel).

Fiscal policy drives shifting market and monetary policy outcomes

Fiscal Policy

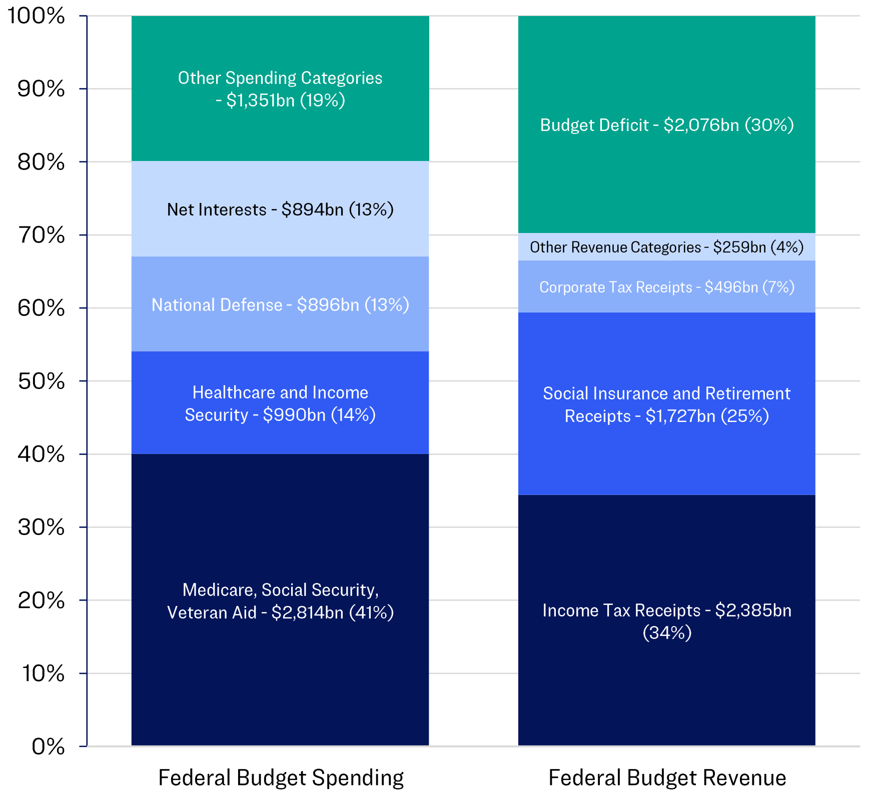
- The baseline projection by the Congressional Budget Office (CBO) shows the Treasury debt growing from 100% of GDP to 122% by 2034.
- The baseline projection includes the assumption that all Tax Cuts and Jobs Act (TCJA) provisions expiring at the end of 2025 won't be extended. If they do, as it seems likely, that would be estimated to cost around $4 trillion and would push the blue line much closer to the green line, unless the government finds ways to cut spending and fund these extensions.
- Given the already weaker fiscal dynamics of higher deficits, debt and interest rates, there is a not insignificant risk that the bond market forces the new administration to adopt a more prudent approach to fiscal management and/or sequence their agenda to calm investor concerns.

Federal debt owned by the public is projected to soar



* Under this scenario, federal revenues and spending are in line with historical averages, as opposed to the baseline projection where revenues are higher and spending declines.

A large share of federal budget expenditures are very challenging to cut



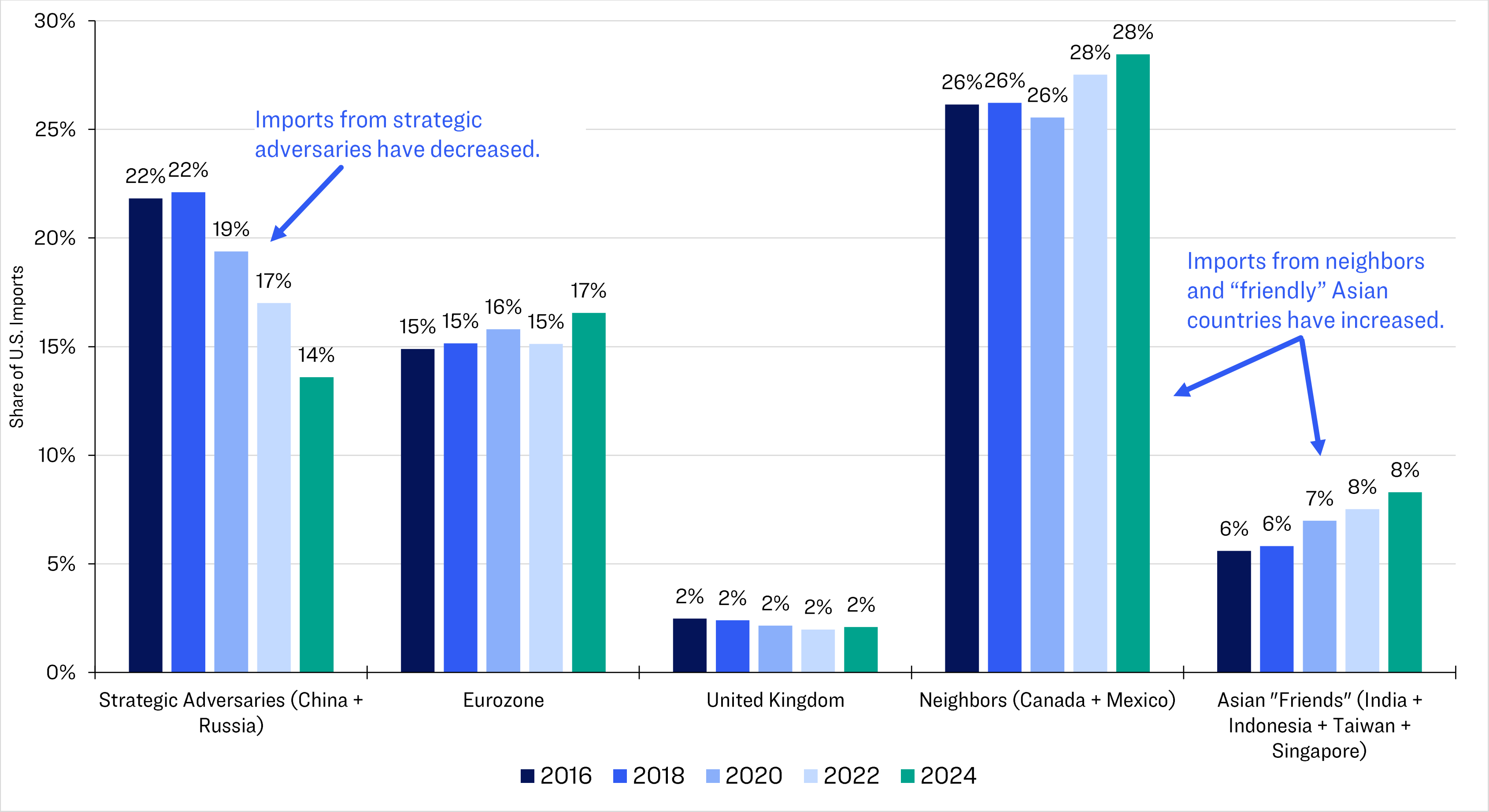
Source: Congressional Budget Office, TIAA Wealth Chief Investment Office. Data through 6/30/2024 (left panel) and 12/31/2024 (right panel) most recent 12-month period.

Global economic fragmentation accelerates

U.S. Imports

- The U.S./China relationship will come under further stress due to the new administration's threat of higher tariffs, export controls for key technologies and the possibility of retaliatory tariffs. Investors struggle to price in the impact of tariffs on growth and inflation.
- U.S. tensions rise with allies in Europe over trade, Ukraine support and long-term security arrangements. A growing need to be more self-reliant and to lessen dependencies on foreign markets leads to increasing investments in domestic production, research, and defense capabilities across major economic blocs.
- Globalization continues to morph. In deciding their manufacturing and sourcing plans, companies pay as much attention to the risks around global shocks like the pandemic, supply chain disruptions and geopolitical upheaval, as to efficiency and cost savings.
- In the past 8 years, U.S. imports from strategic adversaries have decreased while imports from neighbors and "friendly" Asian countries have increased.

Share of U.S. imports since 2016 highlights changing global trade trends



Source: Bureau of Economic Analysis (BEA), TIAA Wealth Chief Investment Office. Data through 11/30/2024.

Macro drivers and how they may play out in our base case, best case, and worst case scenarios.

Scenarios	Base Case	Best Case	Worst Case
Government Policy	Balanced mix of prudent and pro-growth fiscal policy, only targeted and not blanket tariffs, and deregulation.	The imposition of tariffs is only threatened but never implemented, and the Trump administration focuses on prudent and pro-growth fiscal policy and widespread deregulation.	The Trump administration prioritizes large and broad tariffs and significant immigration curbs. The implementation of tax cuts is delayed to the end of the year, while the negotiating process engenders fiscal sustainability concerns given the expected impact on the federal budget deficit and debt.
Economic Growth	Income growth and therefore household consumption slow down only marginally from above-trend levels, in line with cooler but still healthy labor market conditions. Deregulation adds another tailwind to productivity growth.	Income growth and therefore household consumption continue to run above-trend thanks to a rebound in labor market conditions, and wage growth reaccelerates. Deregulation adds another tailwind to productivity growth.	The combination of a rapid deceleration in income growth and rising inflation dents consumer confidence and spending, unemployment rate rises, and short-term productivity growth falls as business investments slow down.
Inflation	The targeted nature of trade tariffs limits their impact on consumer prices, and inflation stabilizes, albeit at levels higher than 2%.	Despite strong spending and wage growth, productivity growth minimizes the inflationary impact of elevated consumer demand and higher labor costs.	Aggressive trade tariffs lift goods prices for households and businesses. However, higher prices cause a drop in household spending and corporate profit margins. As a result, weaker demand offsets the tariff-induced price increases after the initial spike.
Monetary Policy	The Fed is able to continue cutting rates gradually towards "neutral."	The Fed establishes that the "neutral" rate is between 3.5% and 4% and stops cutting rates in early 2025 as the economy has entered a new phase and is able to generate solid growth at higher levels of interest rates relative to the post-2008 decade.	The Fed faces a very challenging combination of rising prices as a result of tariffs, and rising unemployment as a result of business uncertainty and falling profit margins. It cuts rates slowly at first, but then has to ease aggressively to stimulate weak economic and labor market conditions.
Potential Implications for Financial Markets	In this scenario, we would expect equity performance to moderate after two consecutive years of 20%+ total returns. Given elevated valuation levels, the bulk of equity returns would come from earnings growth (~13% expected in 2025 for S&P 500 companies), with a narrowing differential between the Magnificent 7 stocks and the average large cap stock. Bond volatility could stabilize, leading to positive fixed income returns driven by coupon payments.	In this scenario, earnings growth could surpass current expectations and drive another year of above-average performance for U.S. stocks. We would expect small caps and value stocks to outperform. High yield bonds would continue to outperform investment grade and Treasury bonds.	In this scenario, earnings growth would come in well below current expectations, and equity valuations would contract from elevated levels, leading to a market correction and a rise in volatility. Treasury bonds would likely outperform equities, while riskier bonds would underperform.

04

MACRO OVERVIEW

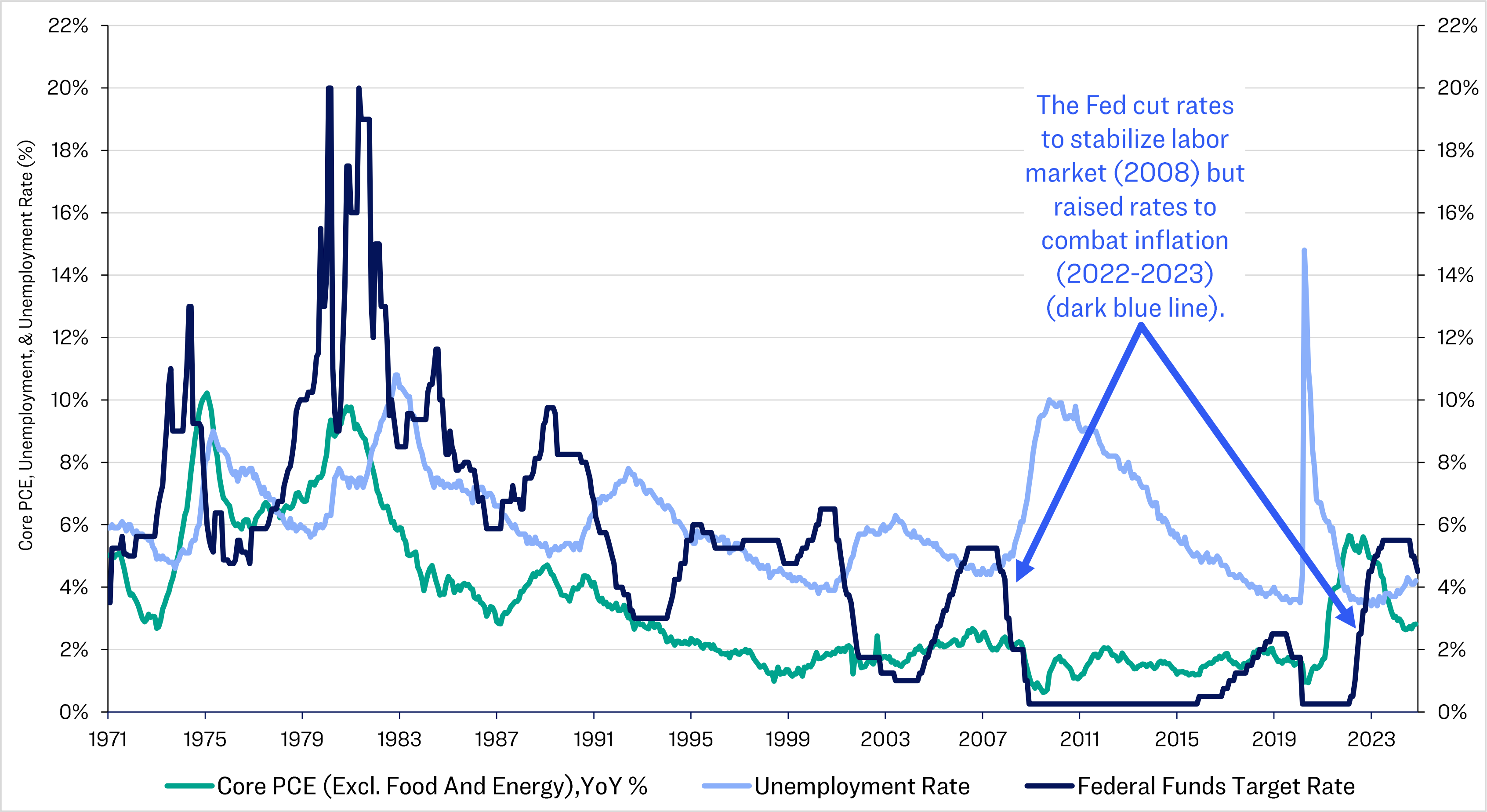
The Fed, inflation, labor market and consumer health

The Fed's dual mandate

Monetary Policy

- The Fed has a dual mandate from Congress to keep the economy running at full employment while maintaining low and stable inflation.
  - Notice how the unemployment rate surged in 2008 while Core CPI decreased, and the Fed's response was to drop its target rate to protect the labor market.
  - Most recently, notice how unemployment temporarily surged in 2020, followed by a jump in Core CPI in 2021 and 2022, prompting the Fed to implement a series of target rate hikes.
- The Fed uses the Fed funds rate and its balance sheet to conduct monetary policy to achieve its dual mandate.
- In 2021, 2022 and 2023, the Fed's primary focus was on the inflation side of its dual mandate because inflation reached a 40-year high in 2022.
- However, as 2024 progressed, the Fed became more satisfied with the inflation progress and began to cut rates to prevent an unwanted deterioration in the labor market.

The Fed manages monetary policy to achieve the dual mandate of stable prices and full employment



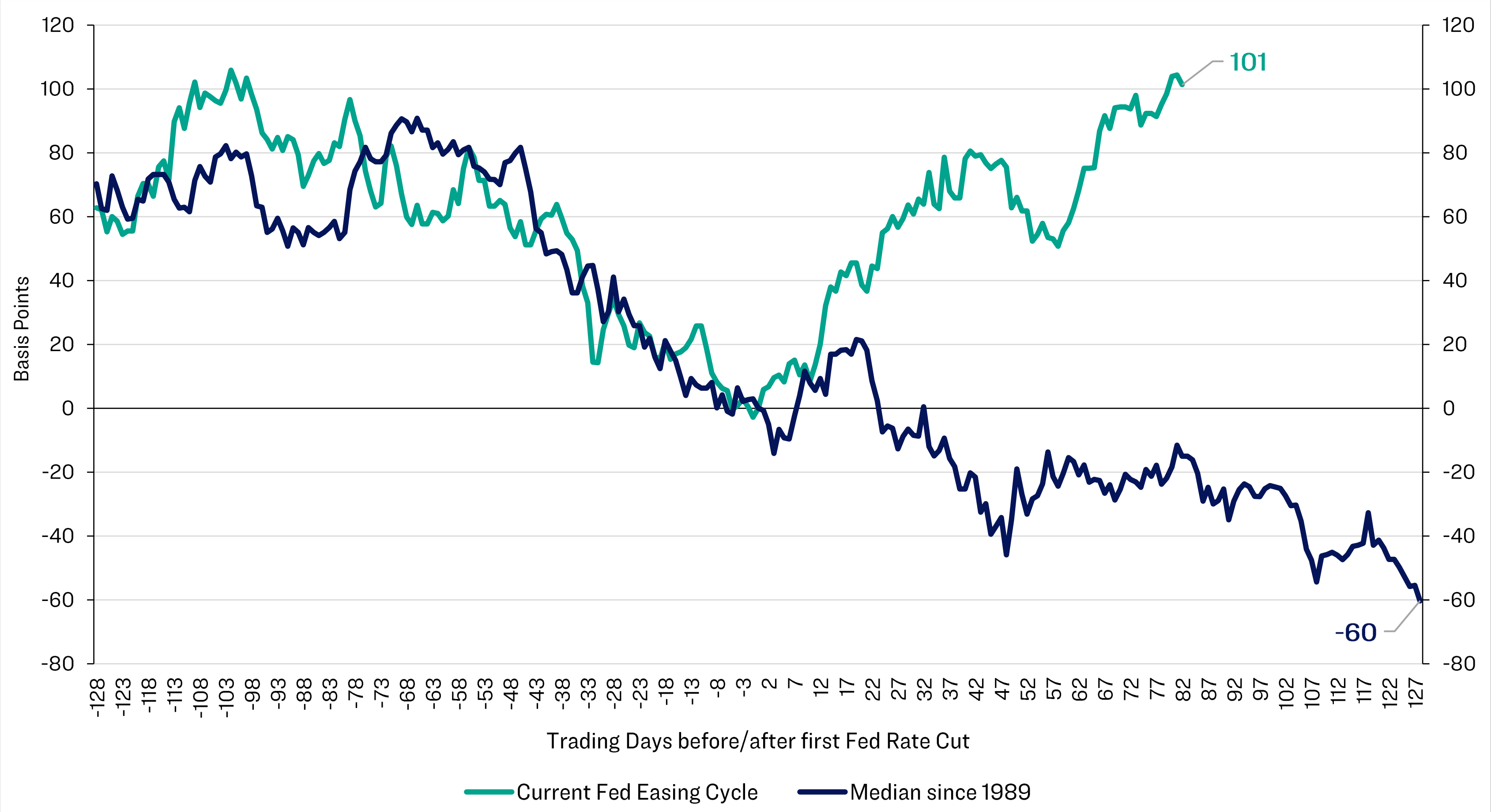
Source: FactSet Financial Data Analytics, TIAA Wealth Chief Investment Office. Fed Funds Rate through 12/31/2024; Core PCE & Unemployment through 11/30/2024.

10-year Treasury note yield is rising, not falling, despite Fed rate cuts

Factors Influencing 10-Year Treasury Note

- The Fed raises and lowers the Fed funds rate to influence the trajectory of the economy and inflation.
- Short-term interest rates (generally less than 2 years maturity) are heavily influenced by Fed policy (aka the Fed funds rate).
- However, yields on notes and bonds with longer maturities (like the 10-year Treasury note) are determined by a variety of factors, including, but not limited to:
    - The outlook for the U.S. federal deficit and debt
    - Supply of Treasuries (determined by the U.S. fiscal situation)
    - Demand for Treasuries by domestic and foreign investors
    - The outlook for inflation and economic growth
    - The value of the U.S. dollar
    - Fed policy
    - When the Fed is cutting rates
- Typically, when the Fed cuts rates, the yield on the 10-year note drops; however, in the rate cut cycle that began in September 2024, the yield on the 10-year is higher, reflecting market concerns over higher inflation, larger deficits and more Treasury supply.

Change in the 10-year Treasury yield before and after the first Fed rate cut



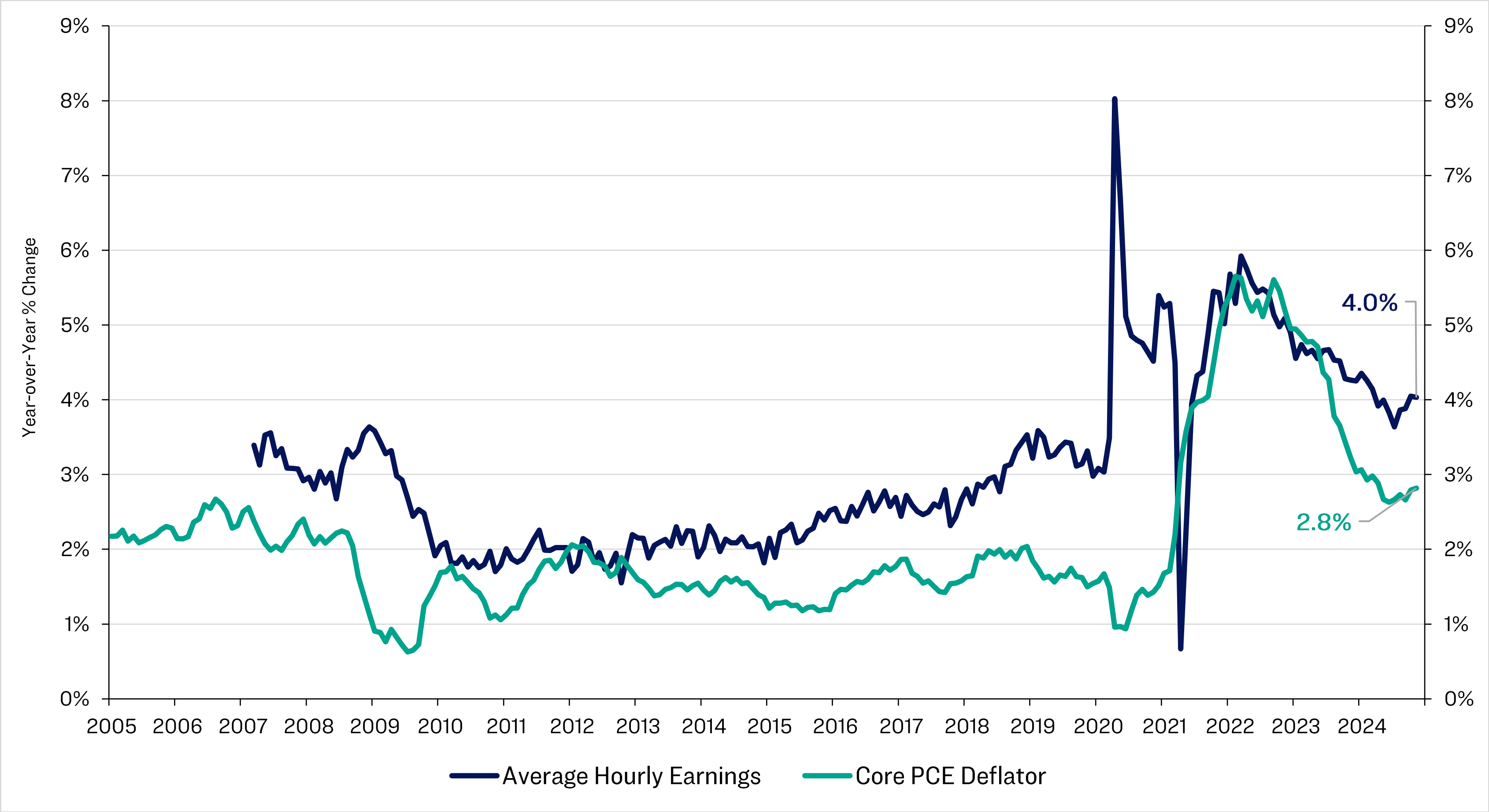
Source: Bloomberg, TIAA Wealth Chief Investment Office. Dates include all initial rate cuts to 1988.

Core and wage inflation have decelerated, but remain high

U.S. Inflation & Wage Growth

- Labor costs (a proxy for which is average hourly earnings) account for roughly 2/3 of business costs. Other business costs include raw materials, transportation, taxes, insurance, interest payments, etc.
- As a result, wage inflation is a key metric to gauge the overall pace of inflation economywide, measured here by the Core PCE (personal consumption expenditures) deflator, the Fed's preferred inflation gauge.
- In general, average hourly earnings growth in the 2.5%–3.5% is consistent with the Fed's 2% target for core inflation. Current levels of wage growth might become consistent with the 2% inflation target if productivity growth continues to average 2% or more.
- Wages reaccelerated in late 2024, and remain close to 4%, inconsistent with 2% core inflation, historically speaking.
- While price stability and full employment are seen as better balanced, the Fed cautioned at its December 2024 FOMC meeting that the pace of further rate cuts will likely taper in 2025.

Wage growth remains faster than it was on average before the pandemic, creating upside risks to inflation



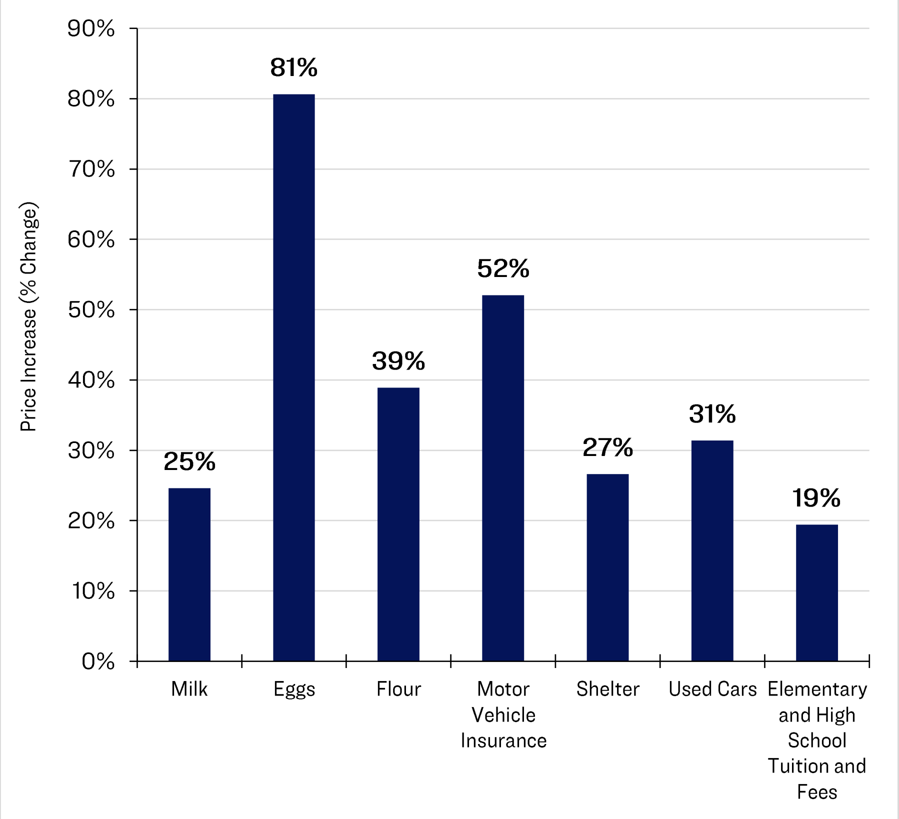
Source: FactSet Financial Data Analytics, TIAA Wealth Chief Investment Office. Data through 11/30/2024.

Contributors impacting headline and core inflation

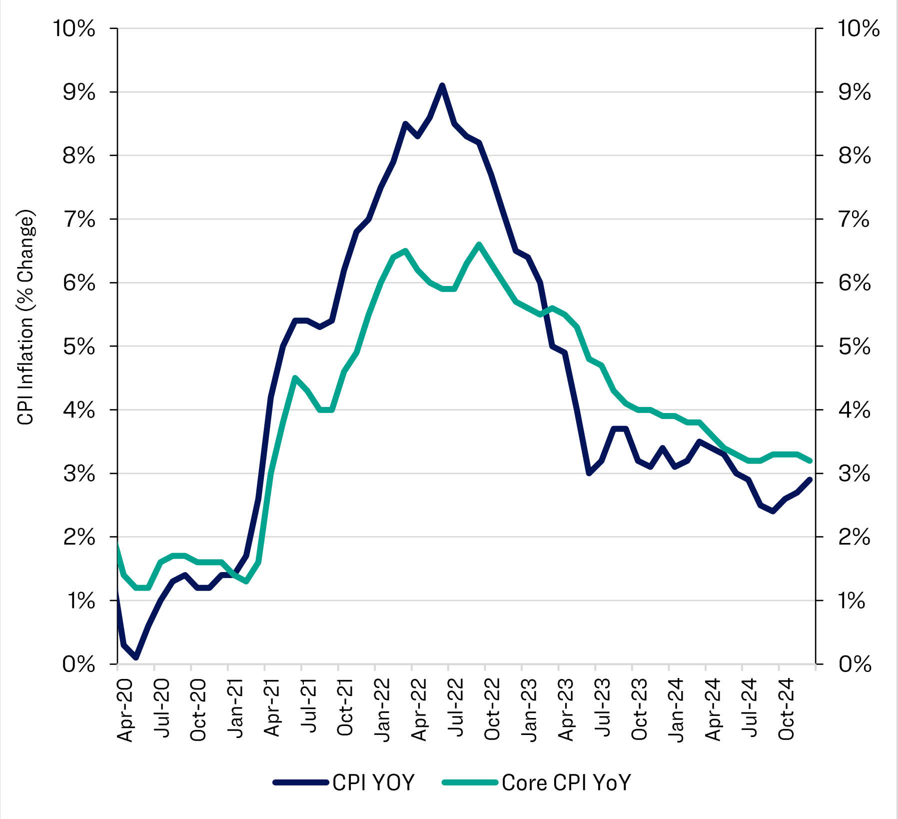
Inflation Contributors

- Prices of common items like milk, eggs, flour, used cars, motor vehicle insurance, housing (shelter), furniture, tuition, etc. are still 15–60% higher than pre-pandemic levels owing to disrupted supply chains, COVID dislocations, etc. (left panel).
- However, the pace at which prices are rising has slowed, due, in part, to the Fed's rate hikes and a return to (almost) normal for global supply chains.
- The lagged impact of interest rate hikes that the Fed executed between 2022 and 2023 is slowly having an effect on inflation, though the last mile (to the Fed's target of 2%) is proving difficult. The rate of inflation (the change in the level of prices) is slowing/decelerating (right panel).

Price Increase for key goods & services since end of 2019



Core CPI Inflation



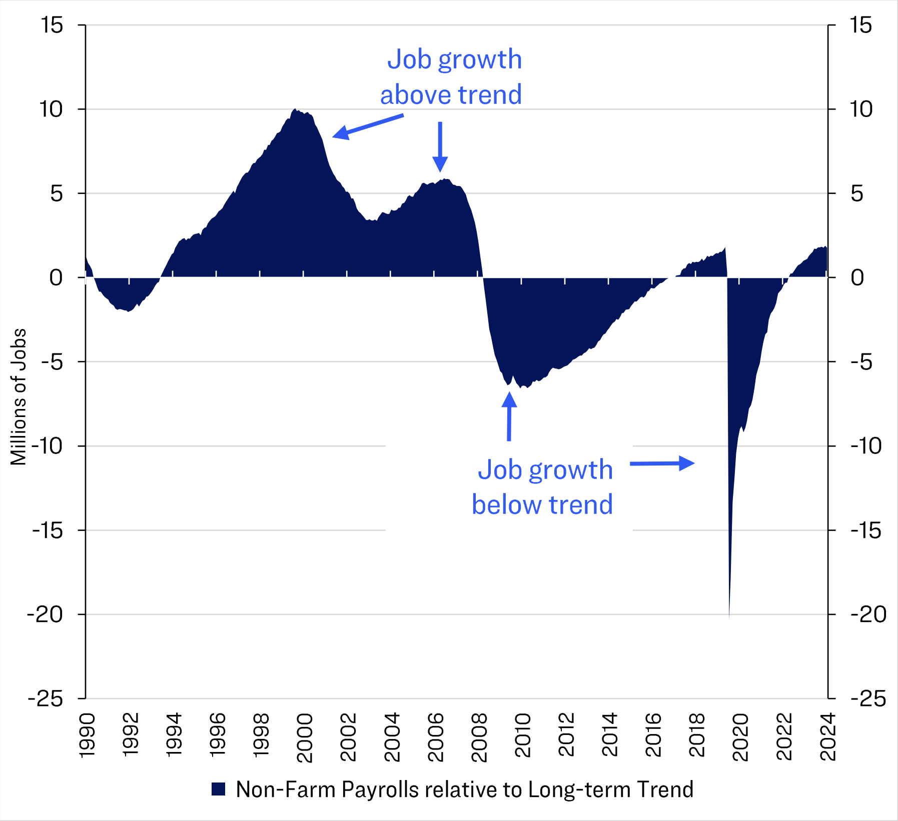
Source: BLS, TIAA Wealth Chief Investment Office. Data through 12/31/2024.

Labor market is beginning to cool and normalize

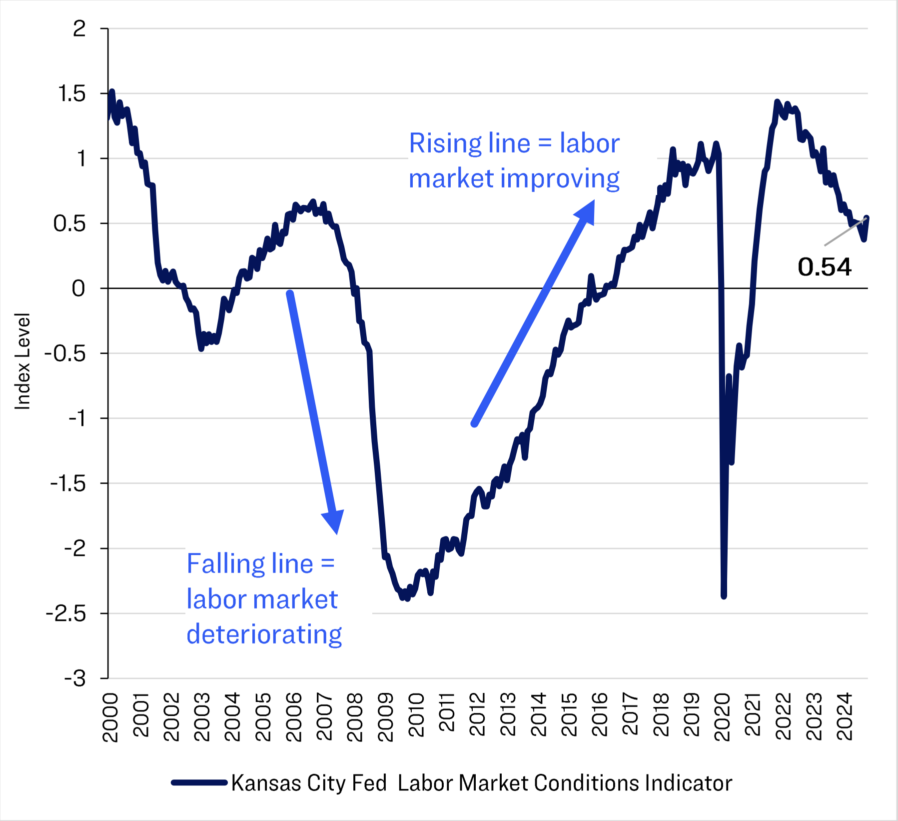
Labor Market

- The health of the labor market is part of the Fed's dual mandate (via Congress) of conducting monetary policy to ensure that the economy runs at full employment and that inflation is low and stable.
- One gauge of labor market health is the number of employees on non-farm payrolls. The labor market struggled badly during and after the economic disruptions caused by the pandemic, but in recent years, job growth is now back above trend (left panel).
- However, with the start of its rate cutting campaign in September 2024, the Fed is now focused on the labor market as well, as labor market conditions deteriorated (right panel).
- Given the mounting pressure that many households are facing and the fading fiscal stimulus, the continued health of the labor market is essential to supporting consumer spending going forward, as consumer spending makes up ~70% of GDP.
- While there are no signs of widespread layoffs at this point, there is growing evidence of a cooler job market, where finding a job is becoming increasingly difficult.

Total non-farm payrolls



Labor market conditions



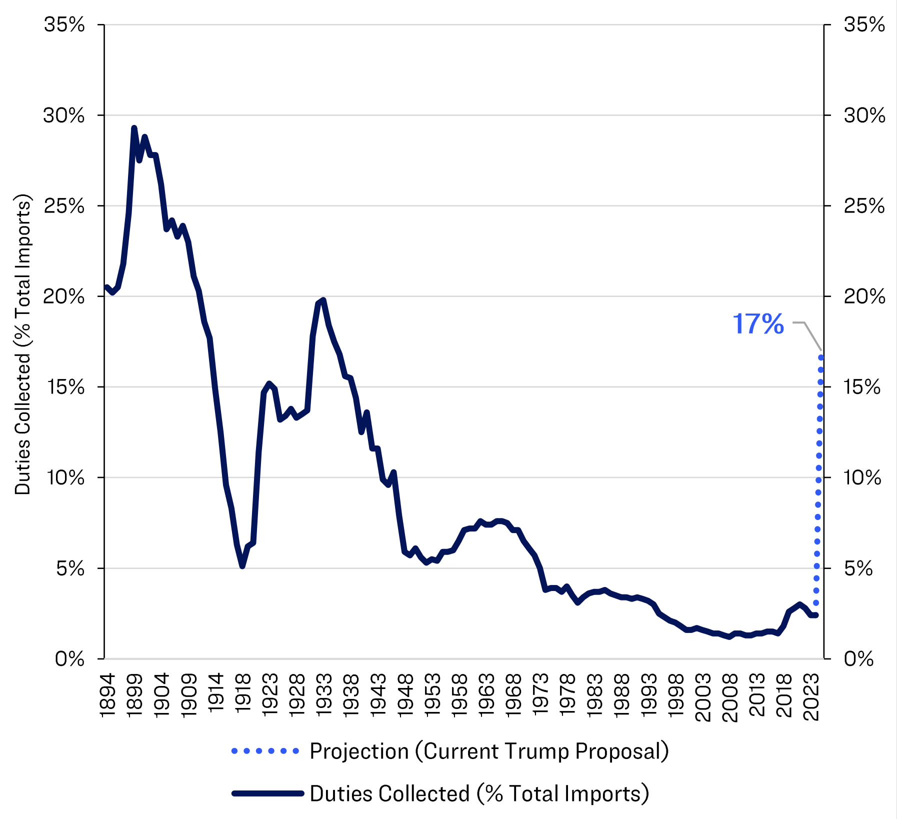
Source: Kansas City Federal Reserve, BLS, TIAA Wealth Chief Investment Office. Data through 12/31/2024.

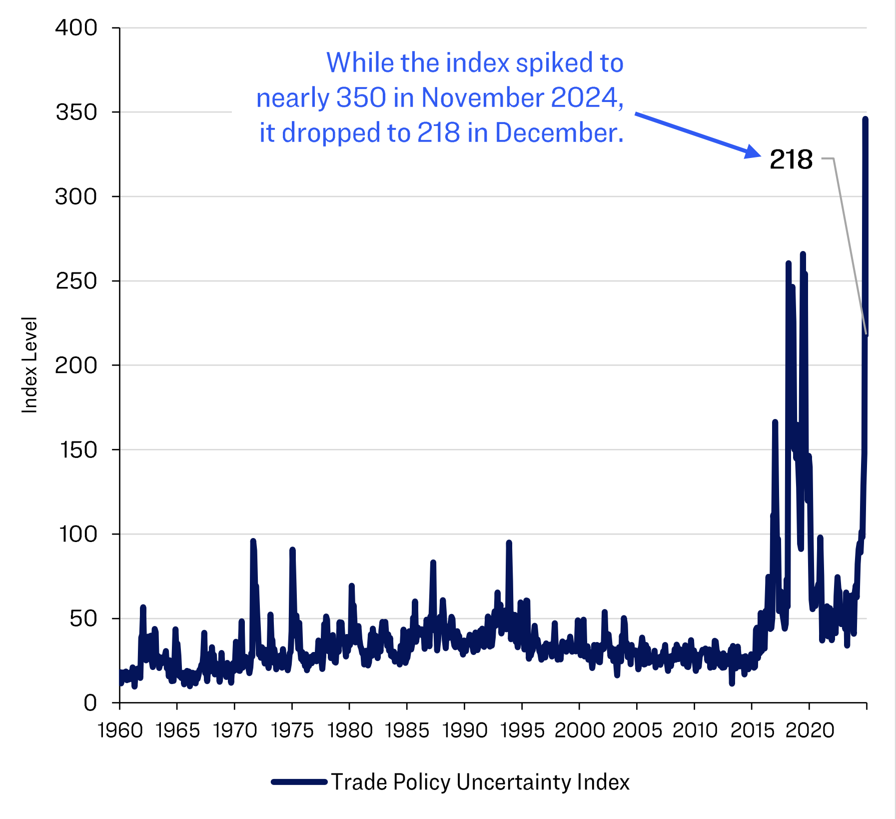
Trump’s economic agenda and the impact of tariffs

Tariffs

- Since the mid-1970s, duties collected on imports into the U.S. have remained below 5% (as a percentage of total imports).
- Projections of President Trump’s new tariff proposals would increase duties collected to roughly 17%—a level not seen since 1935 (left panel).
- We are monitoring trade tensions particularly closely, with an eye looking back to the 2018 experience of rising tariff rates. Back then, the price of goods impacted by higher duties rose materially throughout the year, bucking the trend of otherwise muted goods inflation.
- This effect went relatively unnoticed, given the targeted nature of tariffs and the low inflation environment (PCE prices rose 5% between 2017 and 2019).
- Our view is that the risks are higher today, given the threat of a much broader implementation of trade tariffs (right panel), as well as already challenging price affordability (PCE prices have climbed almost 18% since 2020).

Trade tariffs in their current proposed version would be significantly larger than in 2018. This is driving a spike in trade policy uncertainty.





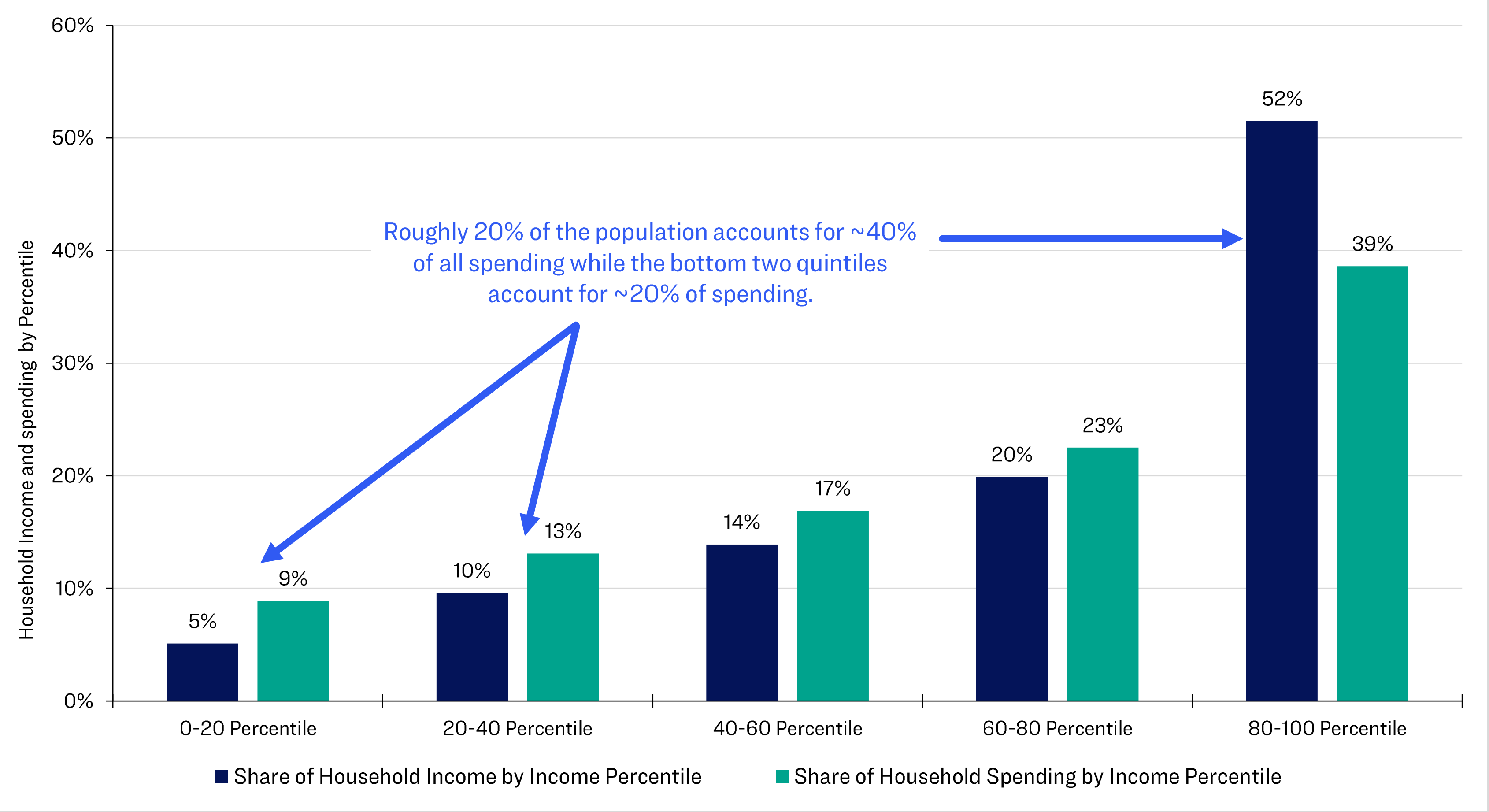
Source: U.S. International Trade Commission, TIAA Wealth Chief Investment Office. Data through 12/31/2024.

Lower income households are struggling

Consumer Liquidity

- Given their higher propensity to spend, emerging cracks in the consumption behavior of lower-income households is raising concerns about the overall health of the economy.
- While higher-income households can still count on a healthy liquidity buffer that was accumulated during the pandemic, the same can't be said about lower-income households.
- Given the steady normalization of excess liquidity buffers that were built during COVID, a healthy labor market is key to the ongoing health of the U.S. consumer. Further weakening in employment data could test the resilience of households.
- While there are some cracks appearing at the low end, because the high-end consumer spends twice as much, there's not yet concern over the overall health of the consumer.

Household income and spending by percentile



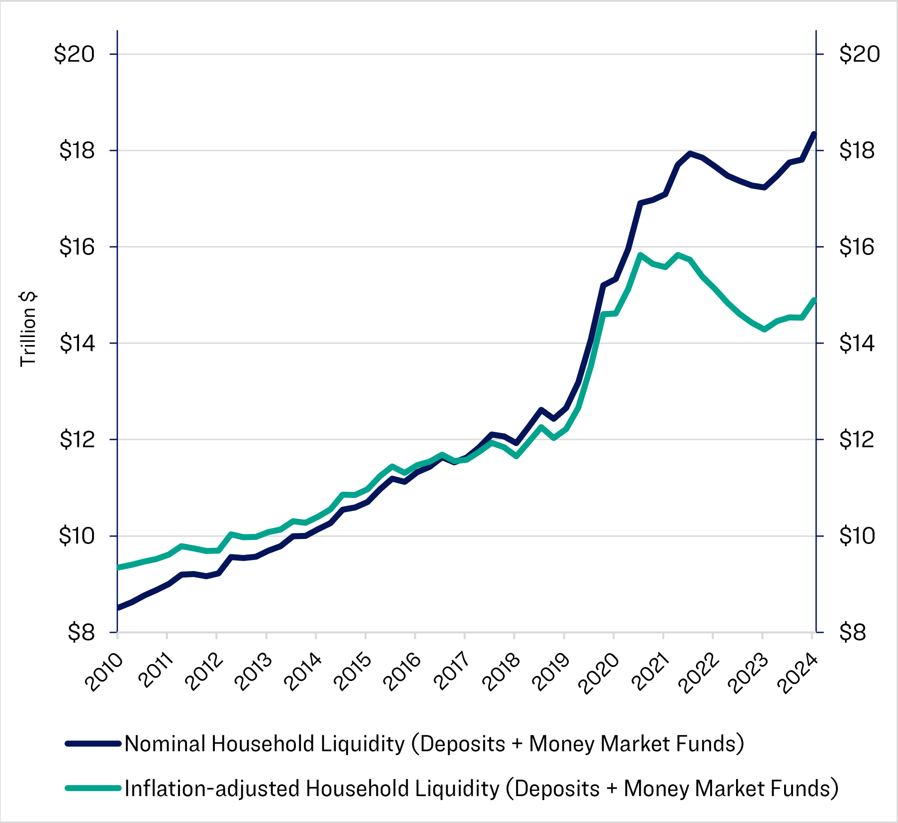
Source: BEA, BLS (Consumer Expenditures Survey), TIAA Wealth Chief Investment Office. Income data through 12/31/2022. Spending data through 12/31/2023.

Sizeable increases in household liquidity acts as a buffer for the consumer

Consumer Liquidity

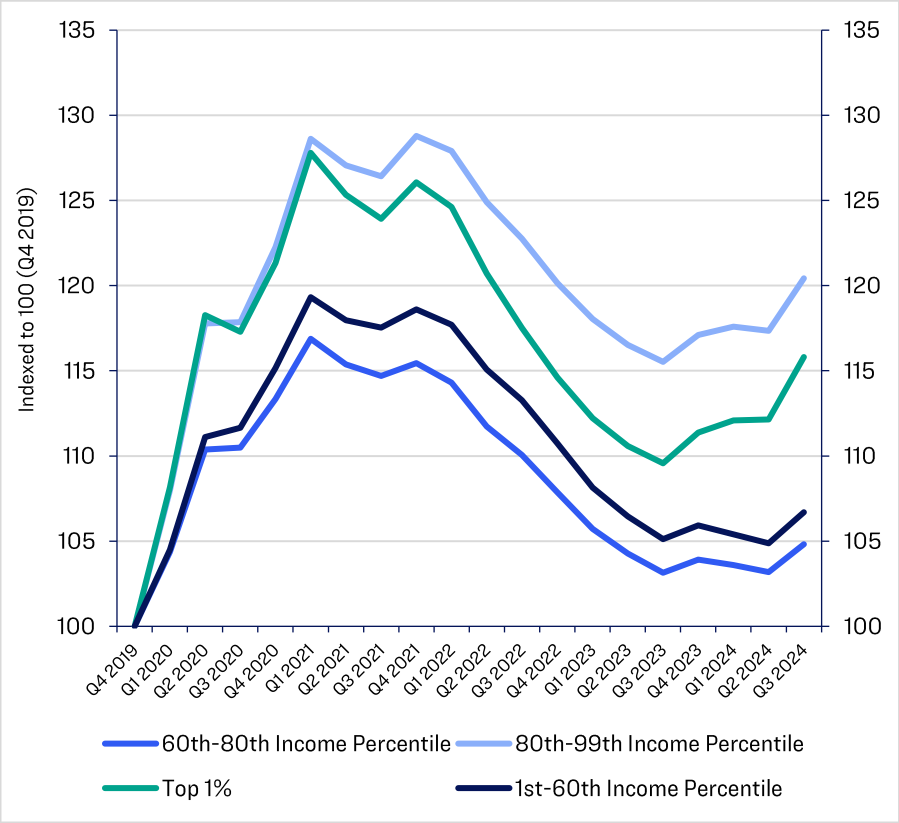
- In aggregate, the large rise in total liquidity (deposits + money market funds) provides a buffer for consumers. However, roughly 50% of the nominal increase has been eroded by inflation (left panel).
- While higher-income households can still count on a healthy liquidity buffer that was accumulated during the pandemic, the same can't be said about lower-income households (right panel).
- In fact, their liquid assets (deposits + money market funds) have declined significantly in inflation-adjusted terms since late 2021.

Household liquidity*



*Liquidity defined as sum of deposits and money market funds.

Household inflation-adjusted liquidity (per capita)



Source: Federal Reserve, BLS (Consumer Expenditures Survey), TIAA Wealth Chief Investment Office. Data through 9/30/2024.

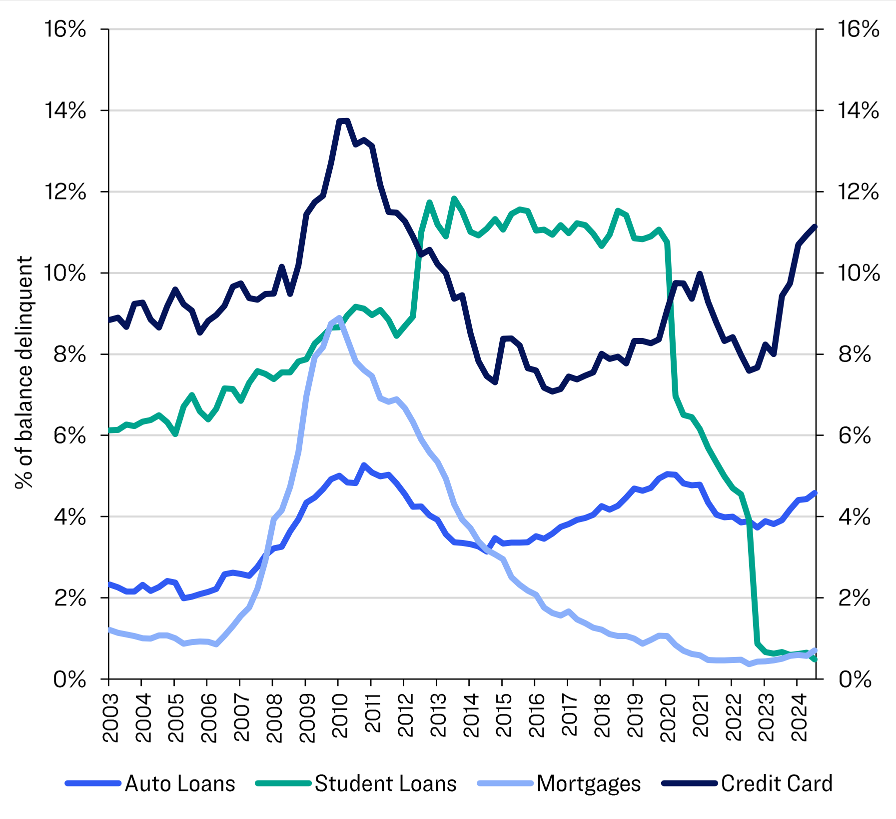
Consumer health is beginning to feel stress, but it's not 2008

Consumer Spending

- There are signs of accumulated inflationary stress and the slowdown in the labor market is weighing on consumers, especially in the low-income cohort, who have been tapping into their credit cards to spend.
- The cascading pressures on lower-income households are evident in the rising number of credit card and auto loan delinquencies since last summer (left panel).
- The delinquencies show inflation has had a much more pronounced impact on households living paycheck to paycheck, as the increased cost of living exceeds the nominal increase in available cash.
- That said, household debt service payments as a percent of disposable personal income are far lower than they were during the 2007-2009 financial crisis; 9.8% in Q2 2024 vs. 13.3% in Q4 2007 (right panel).

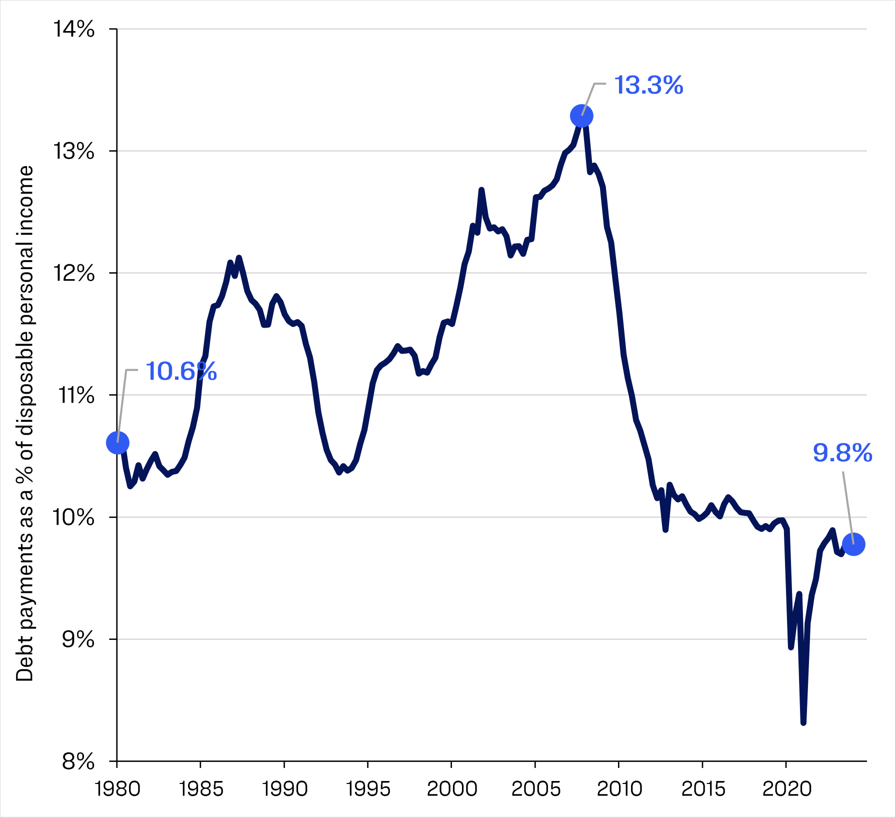
Flows into early delinquencies

% of balance delinquent 90+ days through Q2 2024



Household debt service ratio

Debt payments as a % of disposable personal income through Q2 2024, SA[1]



[1] Seasonally adjusted

Source: Federal Reserve, BEA, TIAA Wealth Chief Investment Office. Data through 9/30/2024 (left panel) and 3/31/2024 (right panel).

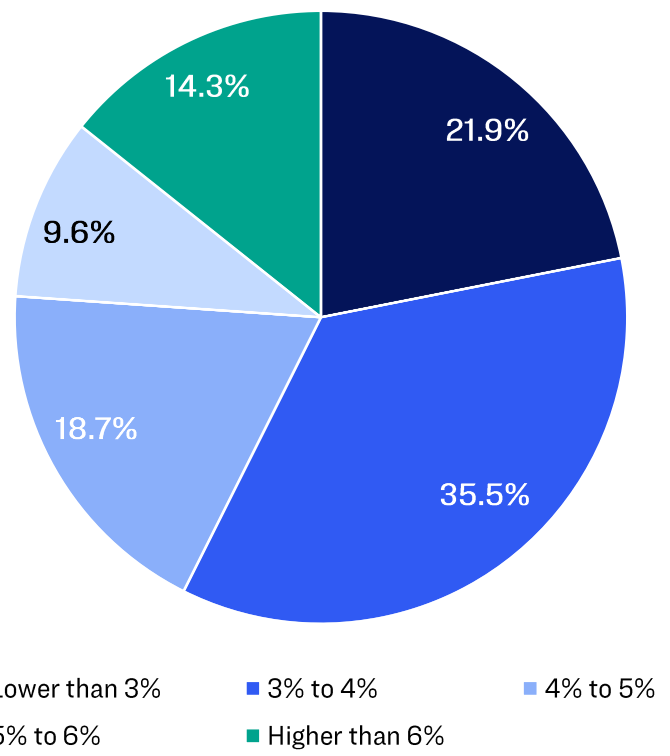
HOUSING MARKET

The housing market remains under pressure due to several factors

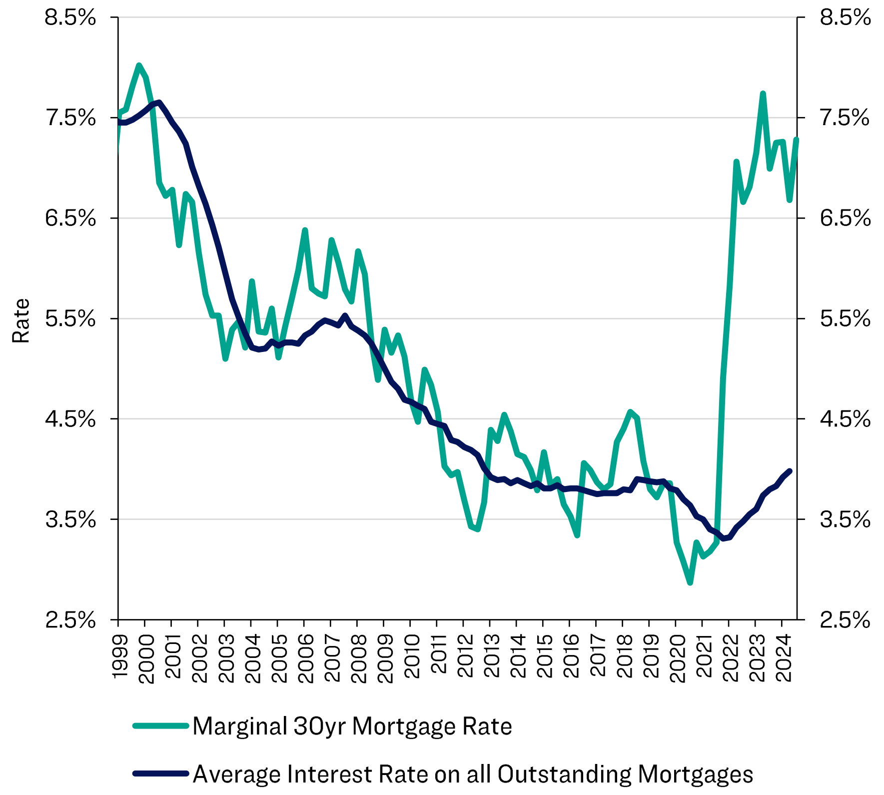
Housing Inflation & Mortgage Rates

- The housing market is "stuck" via a combination of historically low affordability, limited supply, and higher mortgage rates.
- 77% of existing homeowners have mortgages with rates of 5% or less (left panel).
- While mortgage rates declined marginally in Q3 2024, they were not enough to spur significant new housing demand. Rates began ticking back up in Q4 2024 and new mortgage applications remain extremely low (right panel).
- Mortgage rates have remained stubbornly high despite recent rate cuts because they are tied to the 10-year Treasury yield, which has also remained high due to ongoing concerns about inflation and economic uncertainty.
- As a result, pressures on the housing market are not likely to ease in the near term.

Outstanding Mortgages by Interest Rate



Current mortgage rates are trading at historically elevated levels



Source: Mortgage Bankers Association, Federal Housing Finance Agency, TIAA Wealth Chief Investment Office. Data through 12/31/2024 .

05

EQUITIES

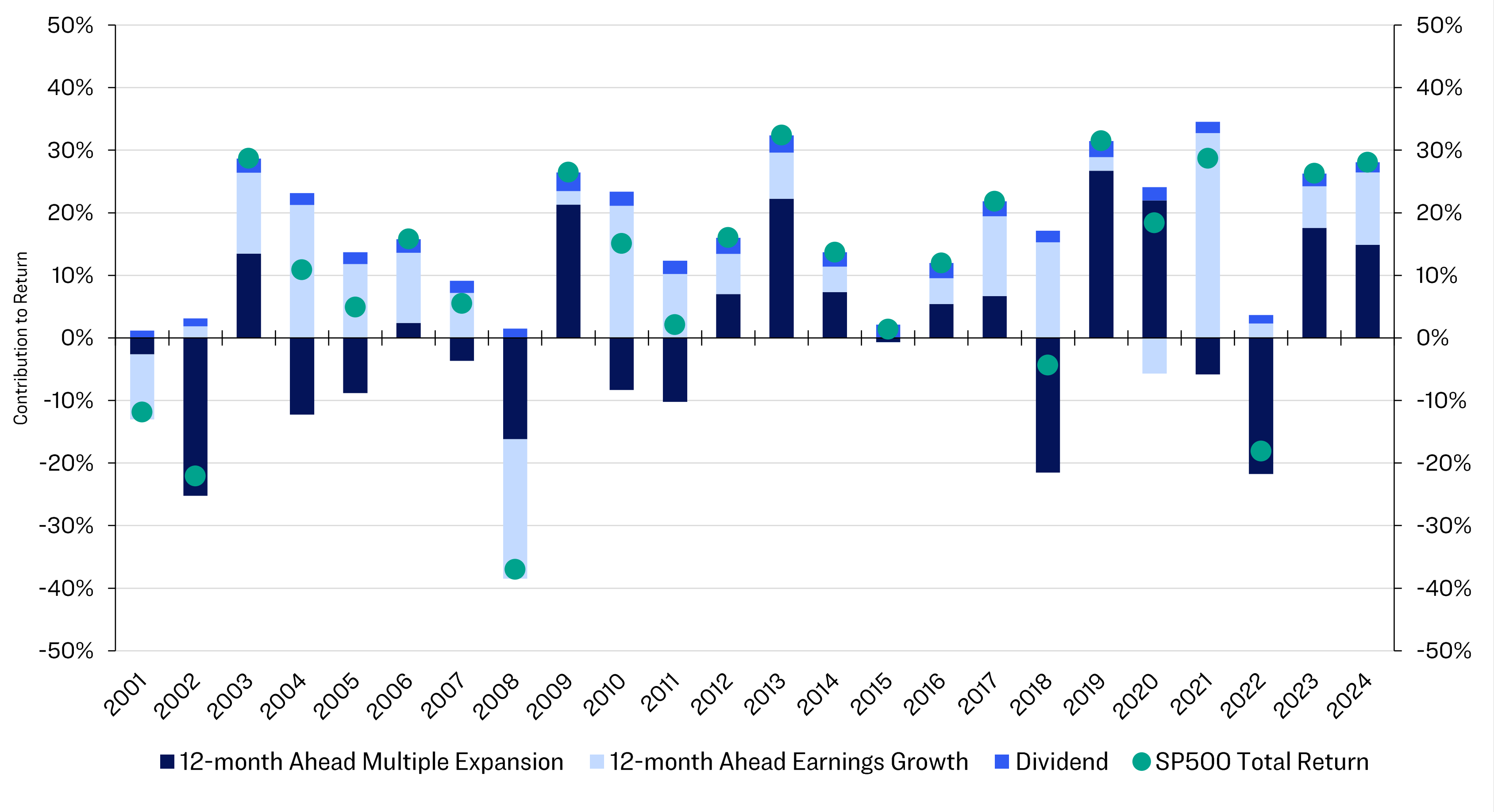
2024 delivered another strong year for stocks despite periodic volatility

Drivers of returns in 2024

Key Drivers of Stock Prices

- Approximately 50% of the S&P 500 returns in 2024 were driven by a rise in the price-to-earnings (P/E) ratio, with the balance from earnings. Looking at the Russell 2000 over the past year, 100% of returns have come from multiple expansion (not shown).
- Over the past 25 years, on average, 60% of S&P 500 annual returns stem from earnings growth, 22% from multiple expansion and 18% from dividend payments.
- In general, given the mean-reverting nature of equity valuations, multiples are not a significant driver of long-term equity performance, which instead hinges on earnings growth and dividend payments. Between the end of 2000 and the end of 2024, 57% of the 602% total return for the S&P 500 index stems from earnings growth, 43% from dividend payments, and close to 0% from multiple expansion.
- Given the elevated market multiple, we believe price growth will have to come from earnings going forward.

Equity returns are the byproduct of earnings growth, multiple expansion[1] and dividend payments



[1]Investors pay a "multiple" of a stock's earnings to own it (Price/Earnings ratio). When the multiple expands, investors are willing to pay more for the same amount of earnings.

Source: Bloomberg, TIAA Wealth Chief Investment Office. Data through 12/31/2024.

The impact of a potential corporate tax rate cut

A Corporate Tax Rate Cut Would Boost Corporate Earnings Growth

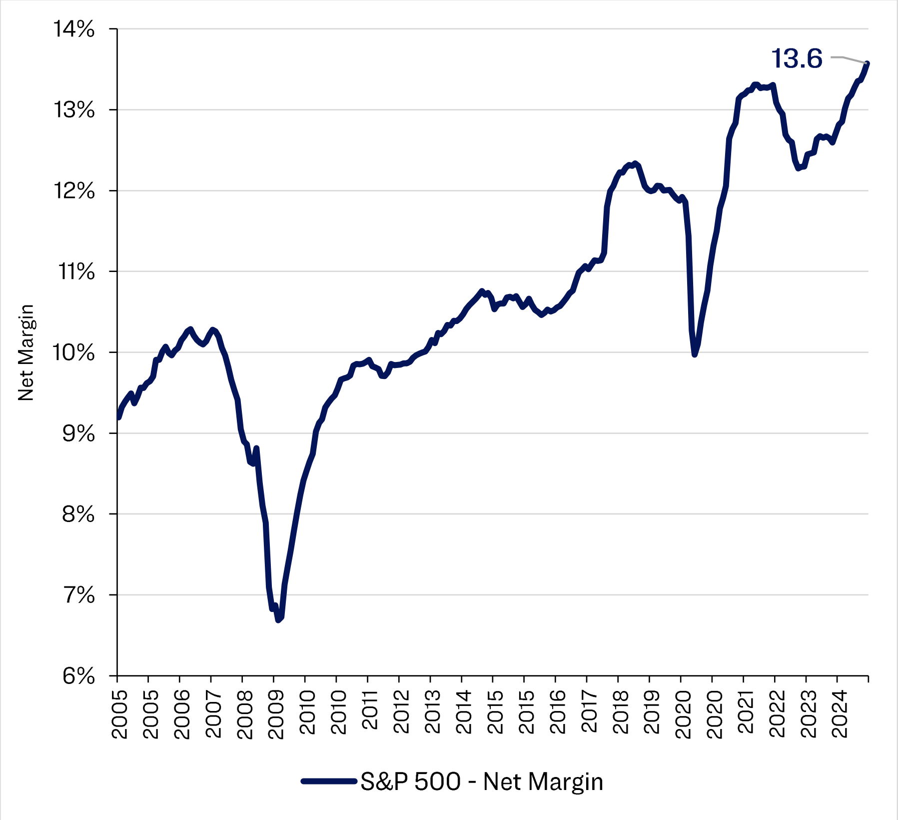
- If enacted, the proposal to cut corporate tax rates from 21% to 15% would be a tailwind as it would increase the reported earnings per share (EPS)* of S&P 500 companies by roughly 4% (left panel).
- As the Fed raised rates in 2022 and 2023, corporate profit margins (right panel) shrank amid higher interest costs, higher raw materials and transportation costs and, of course, higher labor costs.
- Now, wage growth is moderating and interest costs are ebbing, which could also provide tailwinds for corporate margins.

*EPS indicates how much money a company makes for each share of its stock and is a widely used metric for estimating corporate value.

A cut in the corporate tax rate would benefit S&P 500 EPS

Sector	Potential EPS Benefit
Consumer Discretionary	6.8%
Communication Services	5.1%
Financials	4.6%
Health Care	4.3%
Industrials	4.3%
Consumer Staples	3.4%
Information Technology	3.2%
Materials	2.8%
Energy	1.7%
Real Estate	0.5%
Utilities	0.1%
S&P 500	4.0%

S&P 500 average profit margin



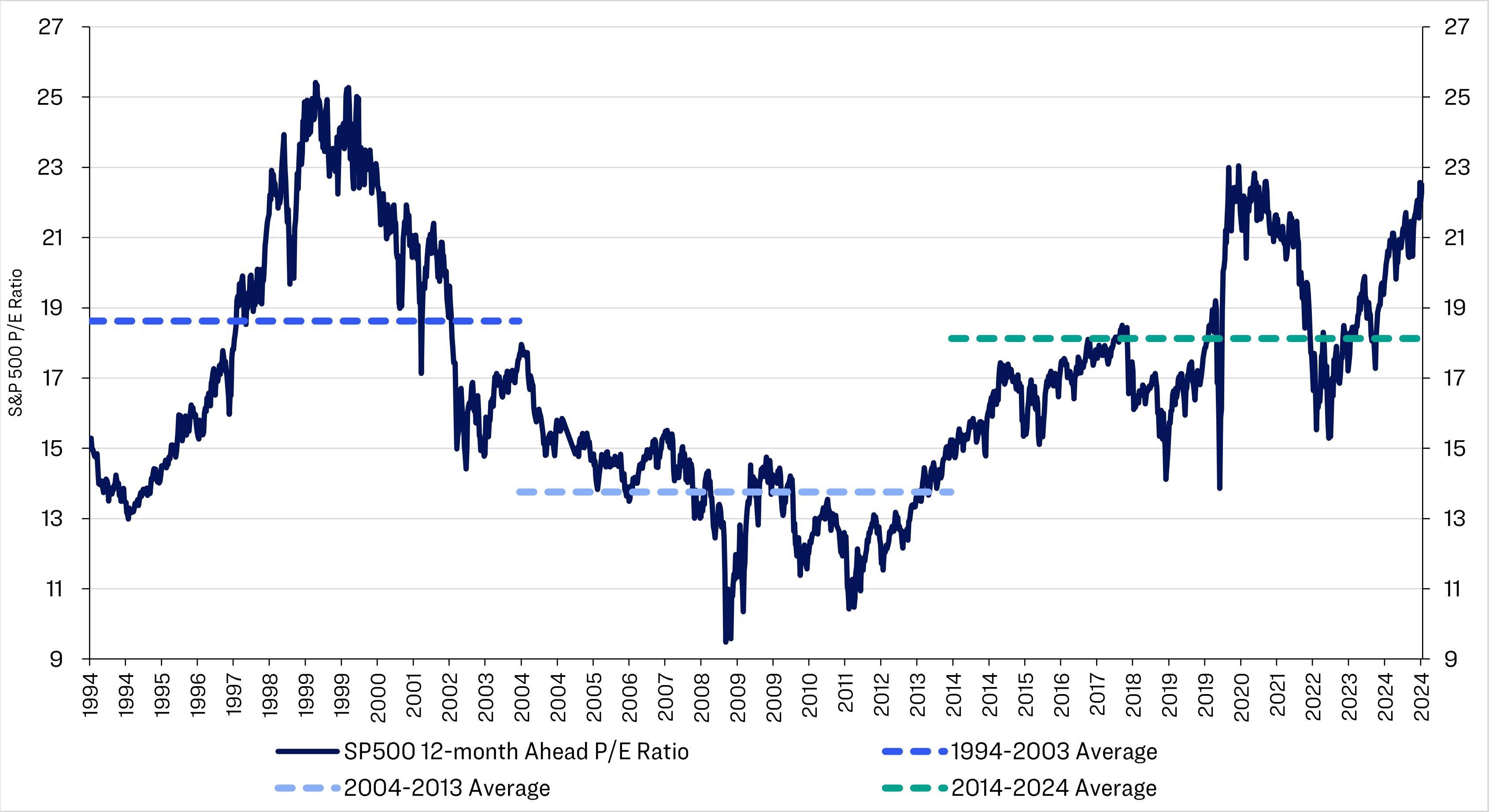
Source: Bank of America Global Research, FactSet Financial Data and Analytics; monthly data for the 20-year period ending 12/31/2024; TIAA Wealth Chief Investment Office.

P/E ratio for S&P 500

Valuations remain stretched

- The S&P 500 is now trading at 22x its forward 12-month estimates (98th percentile), which is above its 5-year average of 20x, and its 10-year of 18x.
- With valuations stretched, we're unlikely to get much more price-to-earnings (multiple) expansion, so the upside for stocks is likely to be dependent on earnings growth materializing as interest rates come down.
- Analysts are looking for a ~13% expansion in S&P 500 earnings per share over the next year.
- The biggest wild card will be interest rates (yet again). If rates head higher because of a re-emergence of inflation, and Chair Powell is forced to pause, the equity market could stall.
- If the Fed can deliver another 75 to 100 basis points (bps) in cuts in 2025, we could reasonably expect stock prices to rise in the high single digits.

The S&P 500's P/E ratio has risen well above its 10-year average



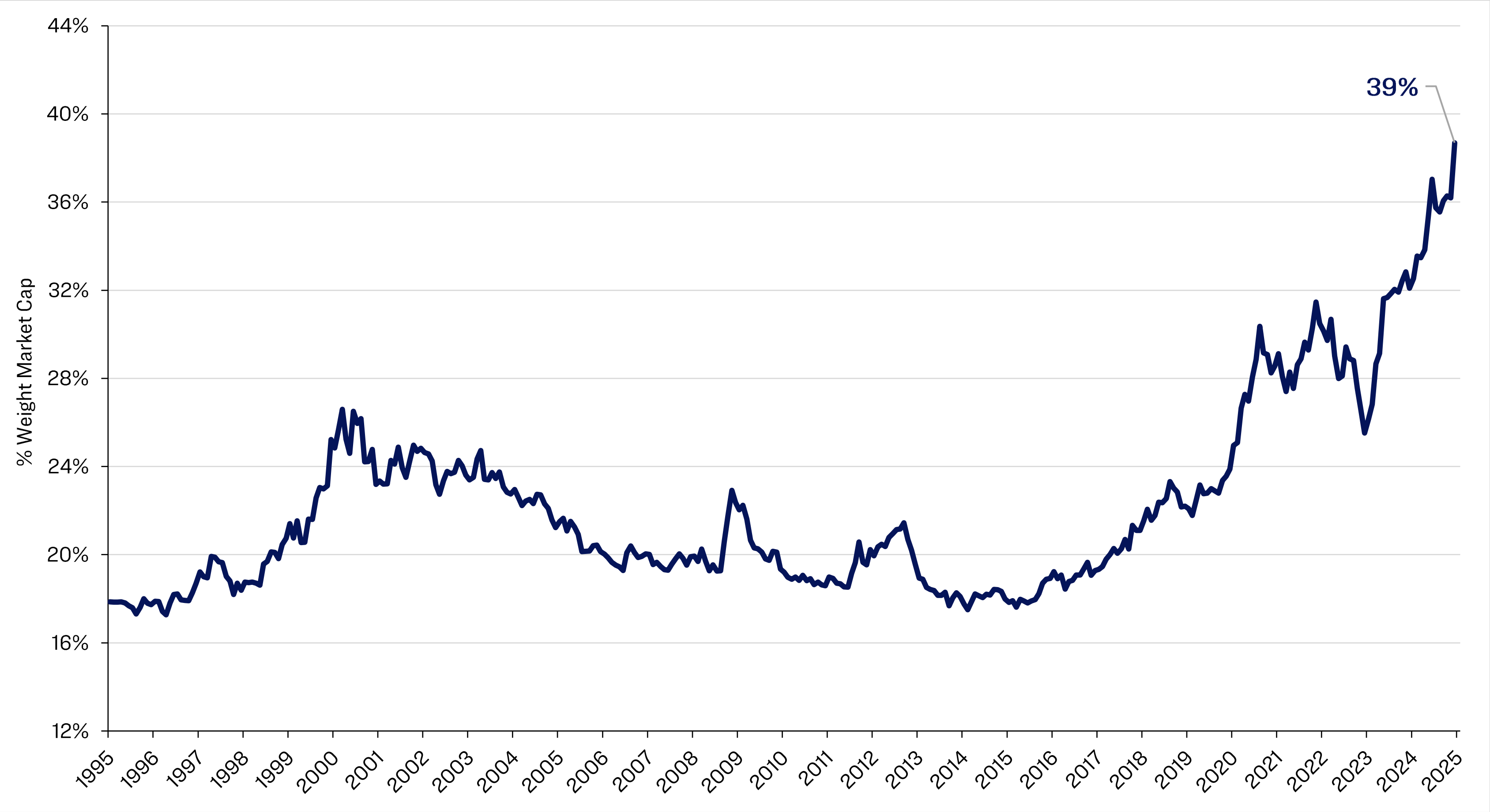
Source: Bloomberg, TIAA Wealth Chief Investment Office. Data through 12/31/2024.

Top 10 Stocks in the S&P 500 account for 39% of the index

S&P 500 Concentration

- The AI-related enthusiasm surrounding the Magnificent 7—Alphabet, Amazon, Apple, Meta, Microsoft, Nvidia, and Tesla—helped to drive S&P 500 returns last year.
- Despite rich equity valuations and poor market breadth, these indicators are mostly a timely representation of the current state of markets rather than reliable indicators of future performance.
- Some commentators point to similarities with the periods immediately preceding the 2000 and 2008 market crashes, but we caution against drawing causality between valuations, market breadth, and future market performance (See slide 35).
- In fact, going back to 1990, the median 12-month forward performance for the S&P 500 following similar episodes of low market breadth is around 18%.

The S&P 500 has become increasingly concentrated, with the top 10 stocks accounting for almost 40% of the total market capitalization for the index

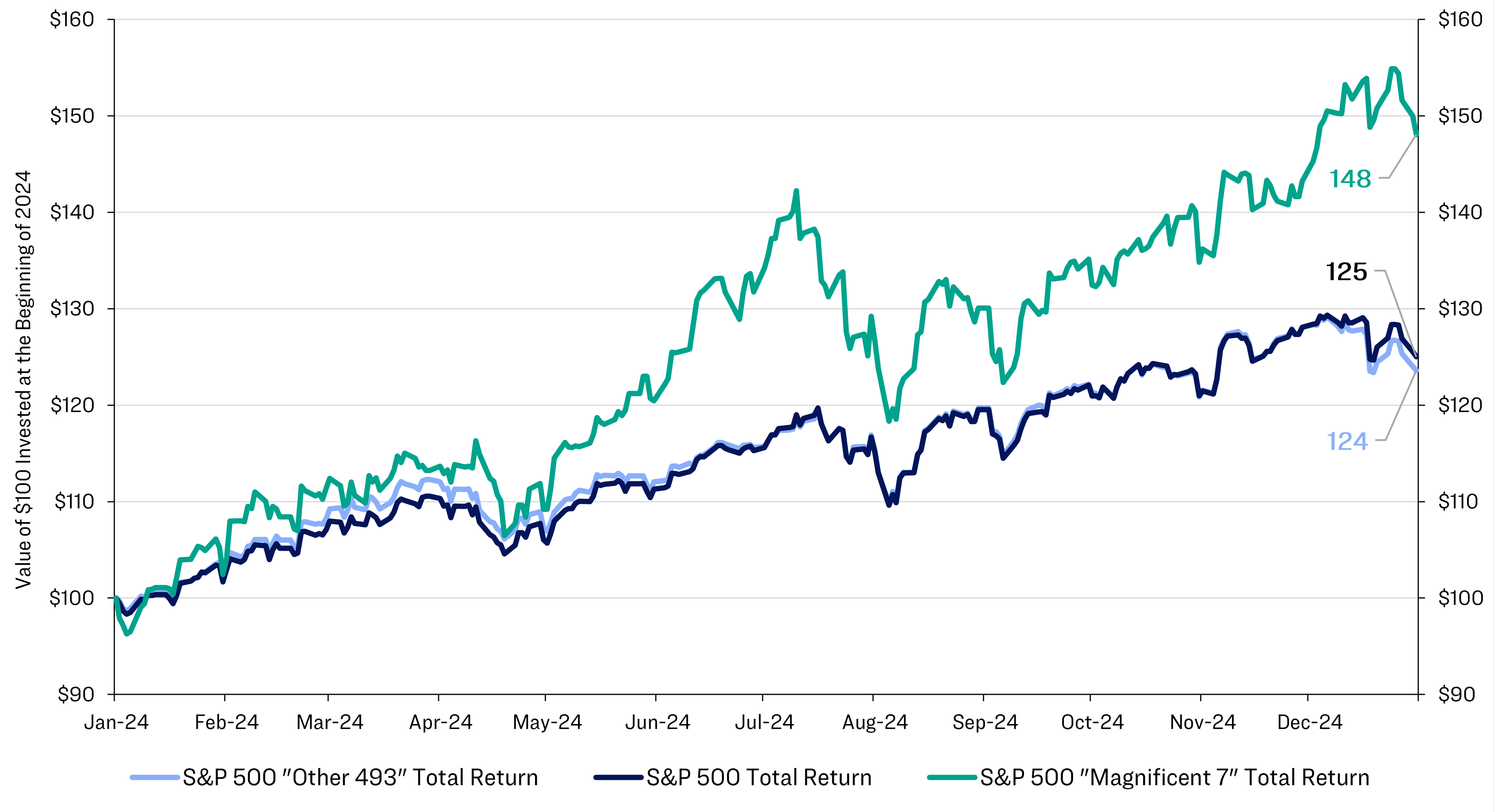


Source: FactSet Financial Data and Analytics, TIAA Wealth Chief Investment Office. Data for the 30-year period ending 12/31/2024.

S&P 500 "Magnificent 7" vs. "Other 493" performance in 2024

Magnificent 7 Outperformed Again

- Despite two brief pullbacks in mid-July and late August, the S&P 500 posted a 25% total return for the year.
- The Magnificent 7 group of stocks — Alphabet, Amazon, Apple, Meta, Microsoft, Nvidia, and Tesla—posted a total return of 48%; and the other 493 stocks a 24% total return.
- Due to their outsized market capitalizations, Magnificent 7 stocks hold a disproportionate influence on the market-cap weighted Nasdaq composite and S&P 500 indexes.
- The ongoing investor optimism around AI has helped the Magnificent 7 outperform the rest of the S&P 500.



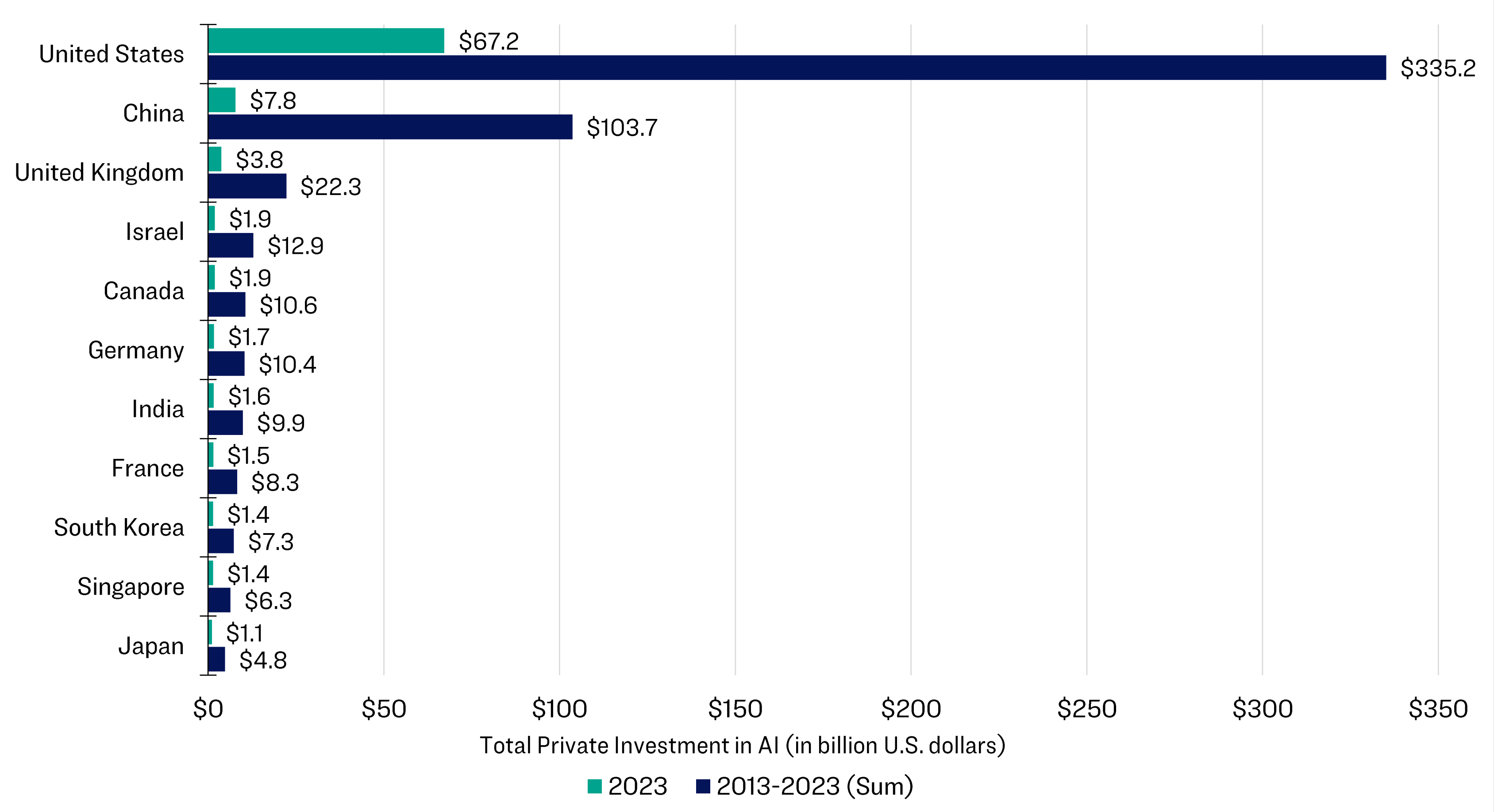
Source: FactSet Financial Data and Analytics, TIAA Wealth Chief Investment Office. Data through 12/31/2024.

U.S. leads the way in corporate spending on AI

AI Capital Expenditures (Capex)

- AI is expected to be at the core of productivity gains over the next several years, and this chart shows the staggering first-mover, competitive advantage the U.S. economy is building on that front.
- Increased capital spending on AI boosts the overall economy, not just the tech sector.
- As uses for AI become more visible, we have seen increased corporate investment in AI services and infrastructure. The mega-cap tech companies have accelerated spending meaningfully over the last decade.
- While the ultimate return on investment is uncertain, these companies appear well-positioned to participate in the long-term growth of AI.

The United States has built a robust first-mover advantage on the AI front



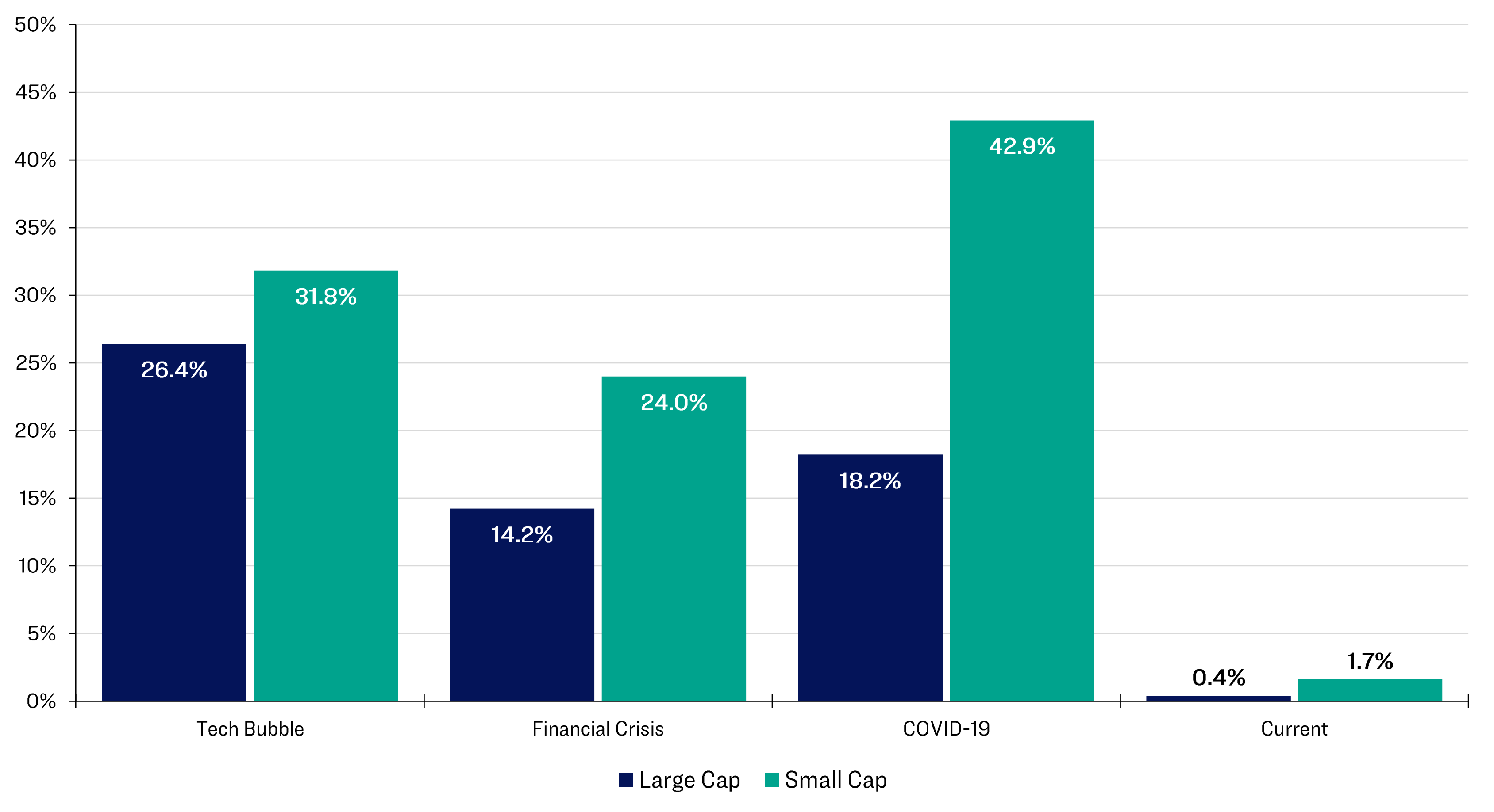
Source: Stanford University, TIAA Wealth Chief Investment Office. Data through 12/31/2023.

Far fewer unprofitable companies today vs. 1999

Stock Prices

- This chart looks at the share of unprofitable companies in the large cap (S&P 500) and small cap (S&P Small Cap 600) indexes during different financial crises and Q4 2024 based on the number of companies with negative earnings (measured by negative net income).
- Data for the percent of unprofitable companies in each index are from the following quarters: Tech bubble = Q4 2001, Financial crisis = Q4 2008, COVID-19 = Q1 2020 and Current = Q4 2024.

Percent of unprofitable companies during previous financial crises vs. Q4 2024



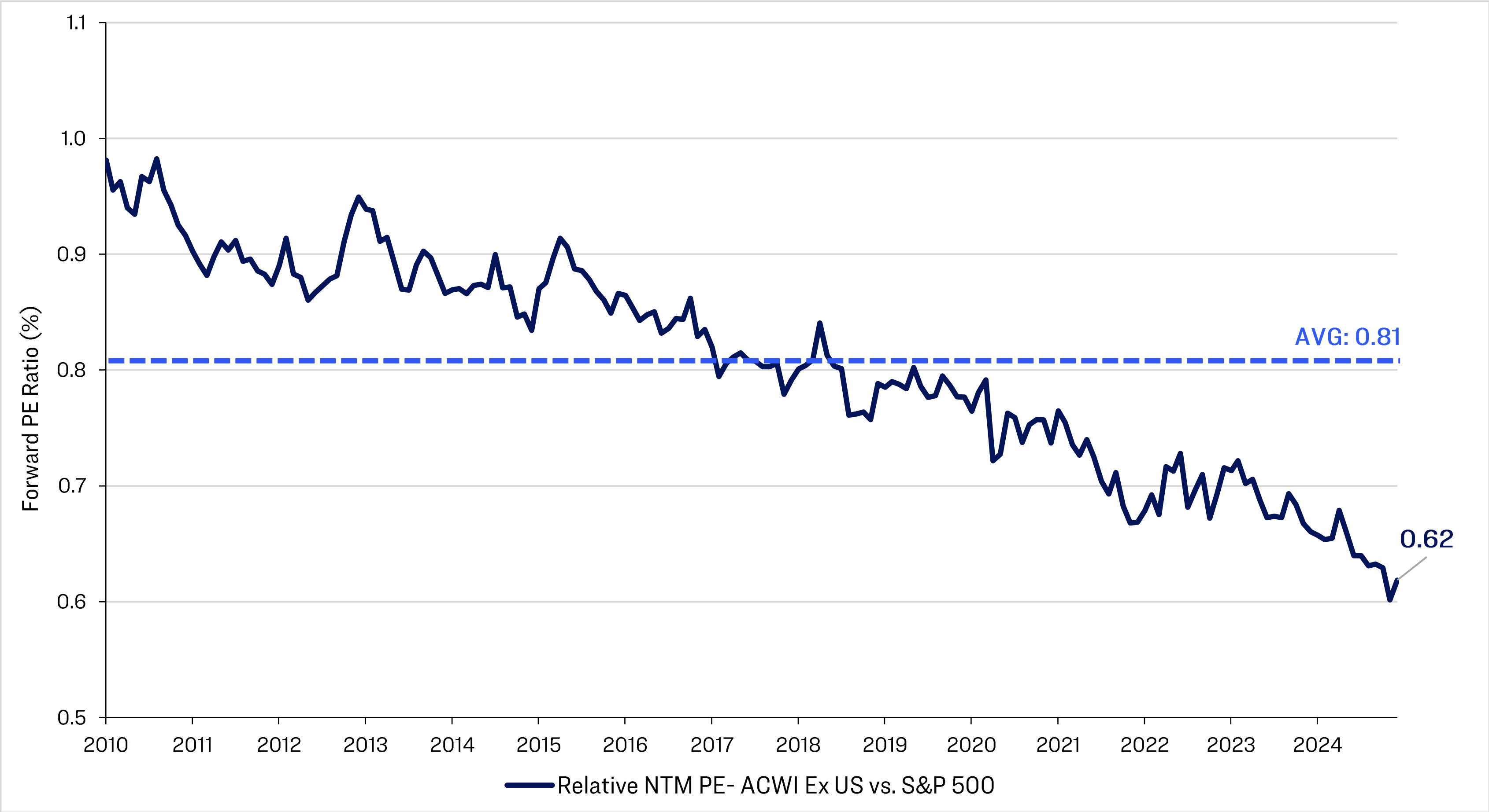
Source: FactSet Financial Data and Analytics; large cap is represented by S&P 500 index, while small cap is represented by S&P Small Cap 600 Index; based on negative net income for companies in each index over each time period; TIAA Wealth Chief Investment Office.

Non-U.S. equities are cheap relative to U.S. equities

Non-U.S. Equity Valuations

- After outperforming U.S. equities in 2022, non-U.S. equities lagged their U.S. counterparts in 2023 and 2024.
- The sector composition of the U.S. equity market (34% technology versus the non-U.S. market, which is 14% technology[1]) helps to explain why U.S. stocks have outpaced non-U.S. stocks, as continued interest in AI technologies remains high.
- In addition, sluggish economic growth, higher inflation, and a strong U.S. dollar hurt European stocks.
- Nonetheless, valuation is not a good predictor of near-term returns, so despite the attractive valuation level for non-U.S. equities relative to U.S. equities, other factors may drive performance of non-U.S. equities in the short- and medium-terms.

U.S. large cap stocks (S&P 500) are trading at a historically high premium vis-à-vis international large cap stocks (MSCI ACWI ex-U.S.)



[1]Source: Morningstar Direct of 12/31/2024

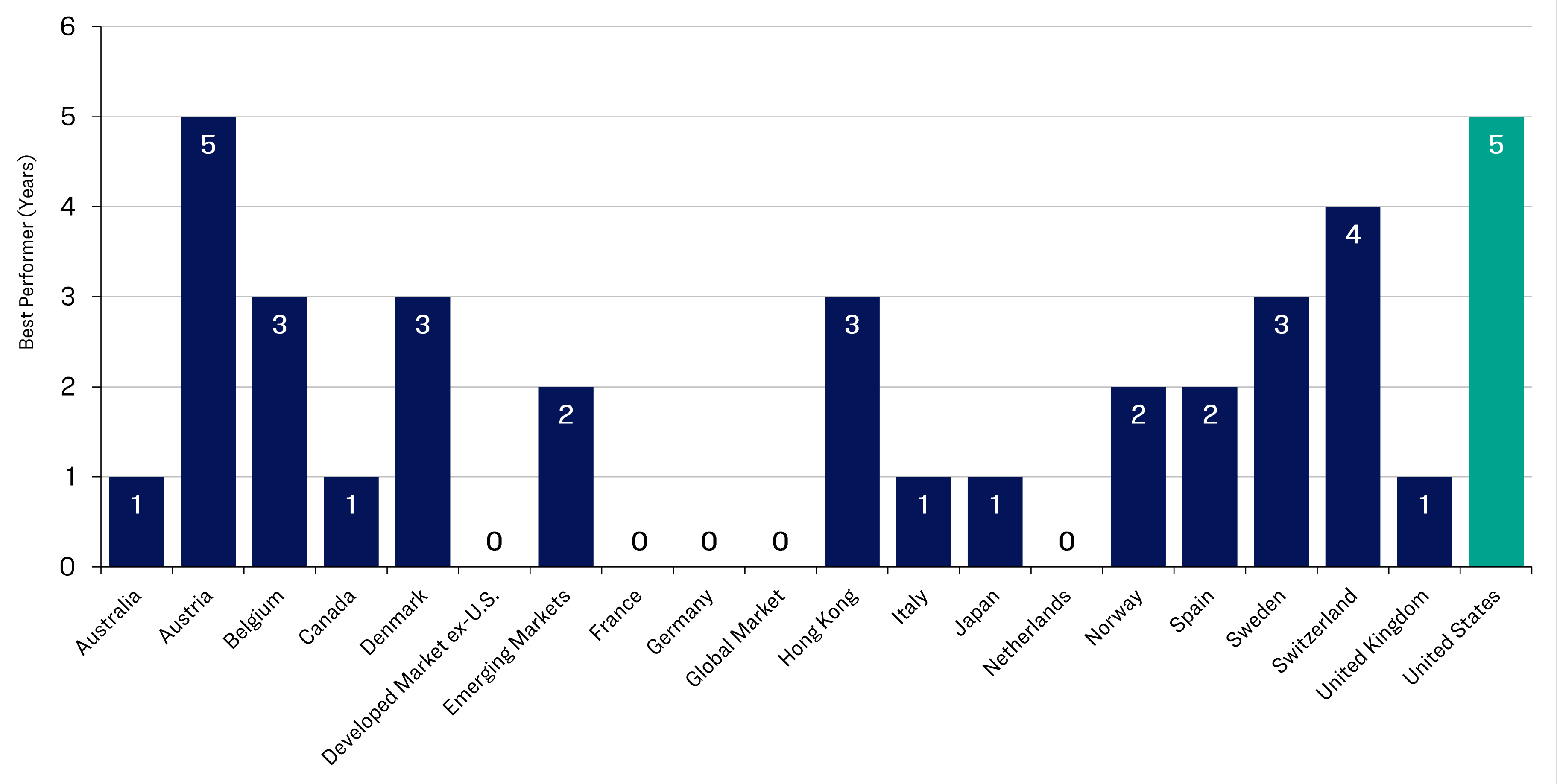
Source: FactSet Financial Data and Analytics, TIAA Wealth Chief Investment Office. Data through 12/31/2024.

Why invest in international equities?

International Diversification

- U.S. equities are naturally most exposed to the narrow economic forces of the U.S. market. In contrast, international stocks can provide exposure to a wider array of economic and market forces across regions and nations.
- Over time, the diversification of returns provided by exposure to international investments can benefit investors. In any market environment, diversified investments across domestic and international opportunities can position portfolios to benefit from the region or regions that are performing well at a particular time and help offset areas that may be underperforming.
- Historically, the U.S. equity market has matched Austria and been the top performer five times since 1988.

Number of times each country's equity market has been top performer



Source: Morningstar Direct and TIAA Wealth Chief Investment Office. Country returns are represented by MSCI Country GR USD indexes; the global market, including both developed and emerging markets is represented by the MSCI All Country World GR USD Index. All data are from 1/1/1988 through 12/31/2024 (monthly returns) because 1988 is the common inception date for all indexes; U.S. dollars.

Why invest in international equities?

International Diversification

- Broadly speaking, “international” stocks include those developed international markets such as Germany, England, Japan, and France, which have advanced economies, developed infrastructures, and a higher standard of living.
- The other group of non-U.S. stocks comes from emerging markets, such as China, India, Taiwan, and Brazil.
- Our fundamental approach is one of diversification, and international stocks are an important component of a well-diversified, long-term investment portfolio.

U.S. stocks maintain an outsized share

While U.S. stocks comprise roughly 66% of the MSCI ACWI Index’s market capitalization, there are important distinctions in other economies that make them attractive as diversification instruments and growth opportunities.[1]

Global populations

The U.S. makes up just 4% of global population, but the Asia/Pacific region and the EU account for 56% and 6%, respectively.[2]

GDP size

The U.S. accounts for roughly 27% of global GDP, but the Asia/Pacific region and the EU account for 35% and 18%, respectively.[2]

Number of stocks

The U.S. has 5,704 stocks listed on its exchanges, but other developed markets (i.e., Japan, Canada, Australia, Europe, U.K.) have 15,981 stocks, and emerging markets (i.e., China, India, Korea) have 10,044 stocks on their respective exchanges.[3]

Dividends

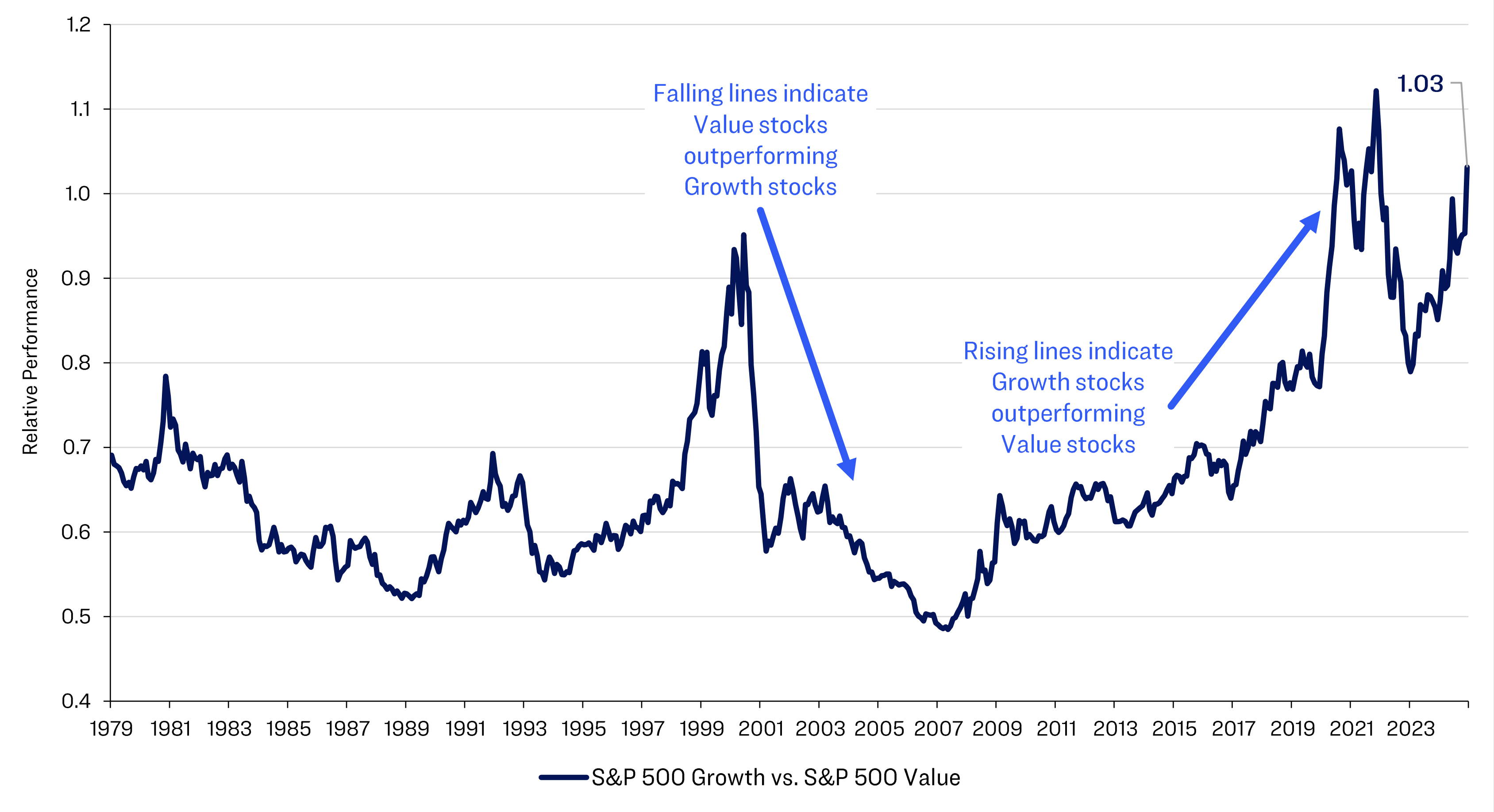
Stocks in non-U.S. indexes offer a ~3% dividend yield on average, while the U.S. stock index is about 1%.[4]

[1] The MSCI ACWI Index captures large and mid-cap representation across 23 Developed Markets and 24 Emerging Markets. MSCI, data as of 12/31/2024.
[2] International Monetary Fund, 2024.
[3] Source: Statista. Number of listed companies at largest stock exchange operators worldwide as of December 2023.
[4] Source: FactSet Financial Data and Analytics

Growth equities are outperforming, but broadening AI capabilities may benefit value equities in the longer term

Growth vs. Value

- Growth equities tend to perform well when the economy is slowing, and markets are looking for earnings growth.
- Value equities tend to perform well when rates are rising, and the yield curve is steep. The financials sector comprises some of the biggest value companies, including the largest banks.
- However, growth equities are richly valued in the current market compared to value.
- The AI surge has benefitted growth equities recently but eventually, growth and value companies will both benefit from expanding AI capabilities.

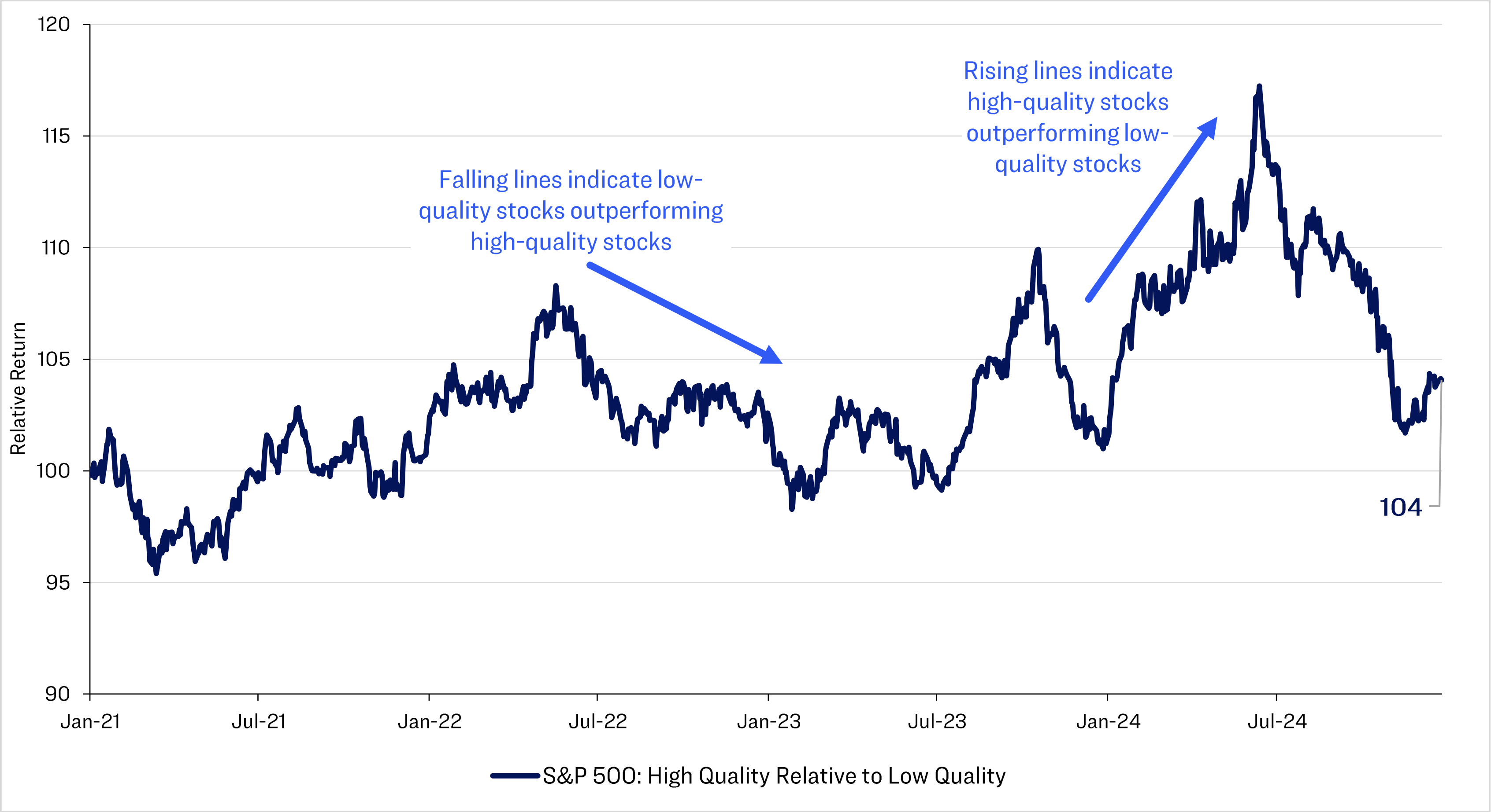


Source: FactSet Financial Data and Analytics, TIAA Wealth Chief Investment Office. Data through 12/31/2024.

High-quality equities tend to outperform in uncertain markets

High Quality Equities

- “Quality” within equites is broadly defined as companies with strong balance sheets, strong return on equity, low earnings variability and stable business models able to better withstand periods of economic, geopolitical or earnings uncertainty.
- Higher quality companies may be able to pass through elevated costs and maintain profit margins in a higher wage and inflation environment.
- In general, when earnings and economic growth slow, investors often seek out the more reliable earnings streams that are often associated with high-quality companies on the growth side of the equity market.
- For example, high-quality equities outperformed low-quality as COVID created a great deal of uncertainty around future earnings of many companies.



Source: FactSet Financial Data and Analytics, TIAA Wealth Chief Investment Office. Data through 12/31/2024.

06

FIXED INCOME

Back-to-back annual gains in 2023 and 2024 for bonds, but inflation remains a challenge

Diversified investment grade bonds - calendar year performance (%)[1]

Historical Bond Market Performance

- Fixed income indexes have delivered just eight periods of negative returns over the past 99 years.
- In each of the negative periods, however, investors who stayed the course were eventually rewarded (highlighted in blue boxes).
- The broad U.S. investment grade bond market eked out a 1.3% total return in 2024 following the 6% gain in 2023, as the bond market continues to recover from the battering it took in 2021 and 2022 when the Fed raised rates aggressively to combat the worst inflation in 40 years.

Year	Total Return
1926	5.38
1927	4.52
1928	0.92
1929	6.01
1930	6.72
1931	-2.32
1932	8.81
1933	1.83
1934	9.00
1935	7.01
1936	3.06
1937	1.56
1938	6.23
1939	4.52
1940	2.96
1941	0.50

Year	Total Return
1942	1.94
1943	2.81
1944	1.80
1945	2.22
1946	1.00
1947	0.91
1948	1.85
1949	2.32
1950	0.70
1951	0.36
1952	1.63
1953	3.23
1954	2.68
1955	-0.65
1956	-0.42
1957	7.84

Year	Total Return
1958	-1.29
1959	-0.39
1960	11.76
1961	1.85
1962	5.56
1963	1.64
1964	4.04
1965	1.02
1966	4.69
1967	1.01
1968	4.54
1969	-0.74
1970	16.86
1971	8.72
1972	5.16
1973	4.61

Year	Total Return
1974	5.69
1975	7.83
1976	15.60
1977	3.04
1978	1.39
1979	1.93
1980	2.71
1981	6.25
1982	32.62
1983	8.36
1984	15.15
1985	22.10
1986	15.26
1987	2.76
1988	7.89
1989	14.53

Year	Total Return
1990	8.96
1991	16.00
1992	7.40
1993	9.75
1994	-2.92
1995	18.47
1996	3.63
1997	9.65
1998	8.69
1999	-0.82
2000	11.63
2001	8.44
2002	10.26
2003	4.10
2004	4.34
2005	2.43
2006	4.33

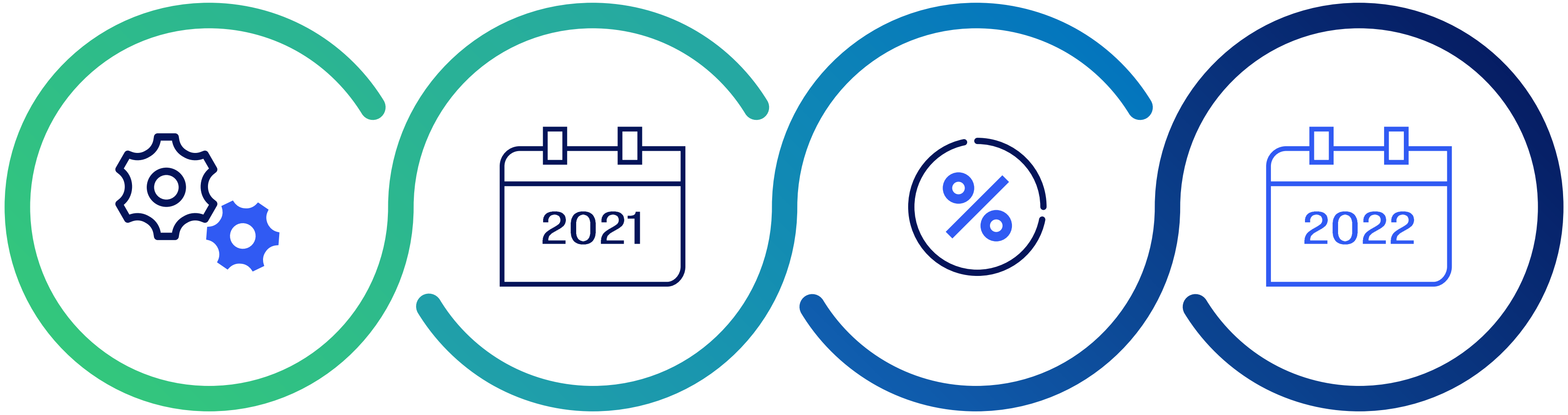
Year	Total Return
2007	6.97
2008	5.24
2009	5.93
2010	6.54
2011	7.84
2012	4.21
2013	-2.02
2014	5.97
2015	0.55
2016	2.65
2017	3.54
2018	0.01
2019	8.72
2020	7.51
2021	-1.54
2022	-13.01
2023	5.53
2024	1.25

[1] U.S. Fixed Income: IA SBBI IT Govt Bonds TR USD from 1926-1975; Bloomberg U.S. Agg Bond from 1976 thereafter.
Source: Morningstar Direct, TIAA Wealth Chief Investment Office. Data through 12/31/2024.

Bonds suffered their worst year on record in 2022

Bond Market Performance in 2022

- Coming off a challenging year in 2021, the bond market experienced record negative performance in 2022 due to a confluence of factors including high inflation, aggressive monetary policy tightening, surging Federal budget deficits, and a resilient U.S. economy.
- While 2022 was a tough year, the bond market bounced back in late 2023 following the pattern that occurred during other negative years (slide 42).
- The Bloomberg Aggregate Bond index was up +5.5% by the end of 2023 and +1.3 at the end of 2024.



Drivers of Bond Returns

- Coupon, or interest payment
- Price
- Yield
- Credit spread valuation

Start with 2021

- Bond Coupon
  All-Time Low
- Bond Prices
  All-Time High
- Bond Yield
  Near All-Time Low
- Credit Spread
  Near All-Time Low

Mix in

- Global pandemic
- Massive fiscal stimulus
- The Great Resignation
- Supply chain issues
- Significant monetary stimulus
- GDP growth at 6% (long-term average is 2%)

Results in 2022

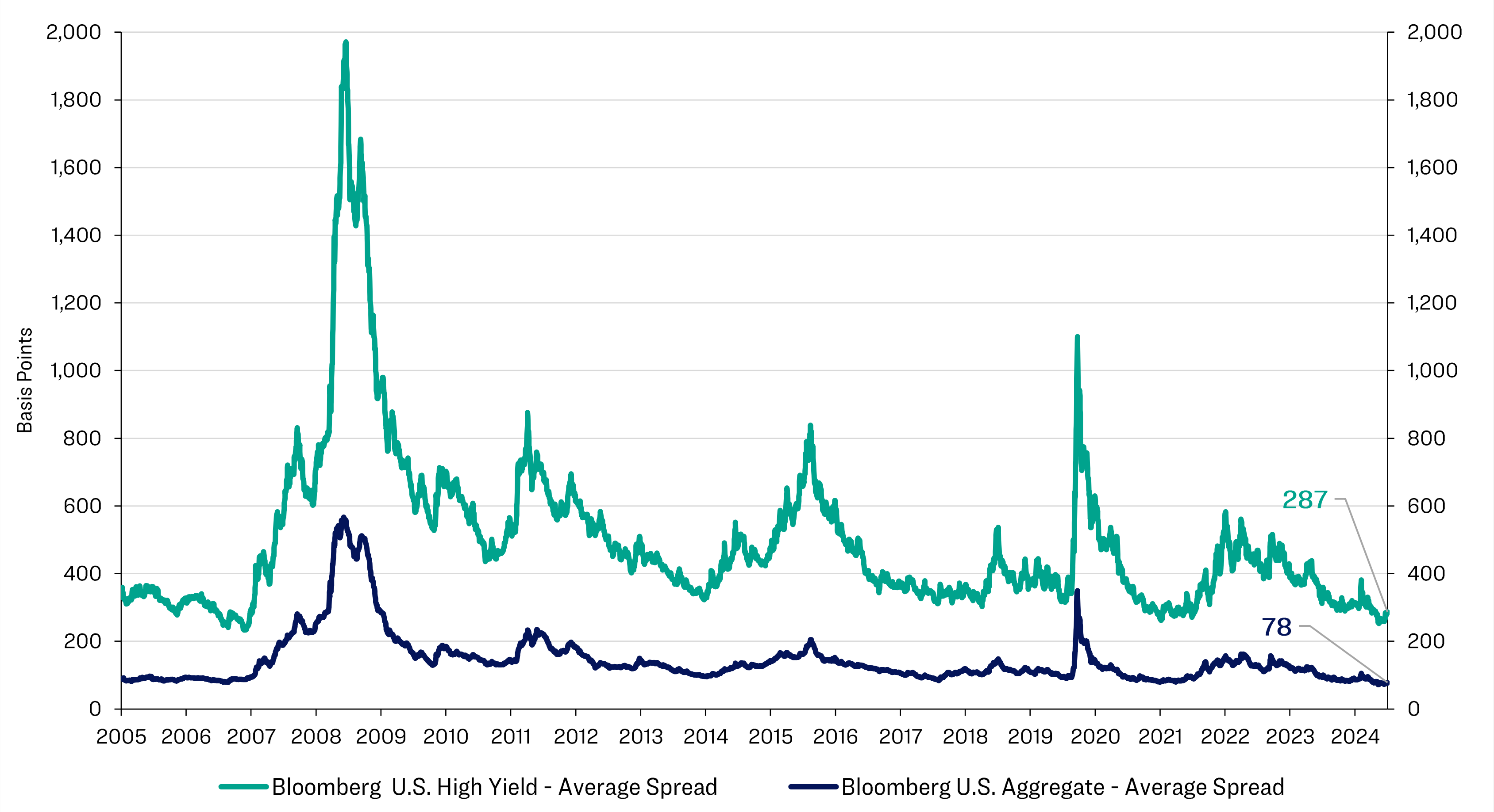
- The highest inflation in 40 years and...
- ... the most aggressive Fed rate hike campaign on record...
- ... leading to the worst bond market decline ever

Source: TIAA Wealth Chief Investment Office.

Corporate bond credit spreads are often a good barometer of economic health

Corporate Bond Market Performance

- Investment grade and high yield credit spreads have tightened significantly since late 2023, reaching some of the lowest levels of the past four decades.
- Tough economic times tend to send corporate bond spreads higher. When the economy gets rocky, investors seek safe havens such as U.S. Treasury bonds (and investment grade corporate bonds), which drives up prices and sends their yields lower.
- As a result, investors who watch bond spreads can get a pretty good idea of overall risk sentiment in the financial markets.
- Corporate bond credit spreads are often a good barometer of economic health—widening (bad) and narrowing (good).
- Yield spreads get wider or tighter depending on several factors, including supply and demand, credit risk, and the overall state of the economy.



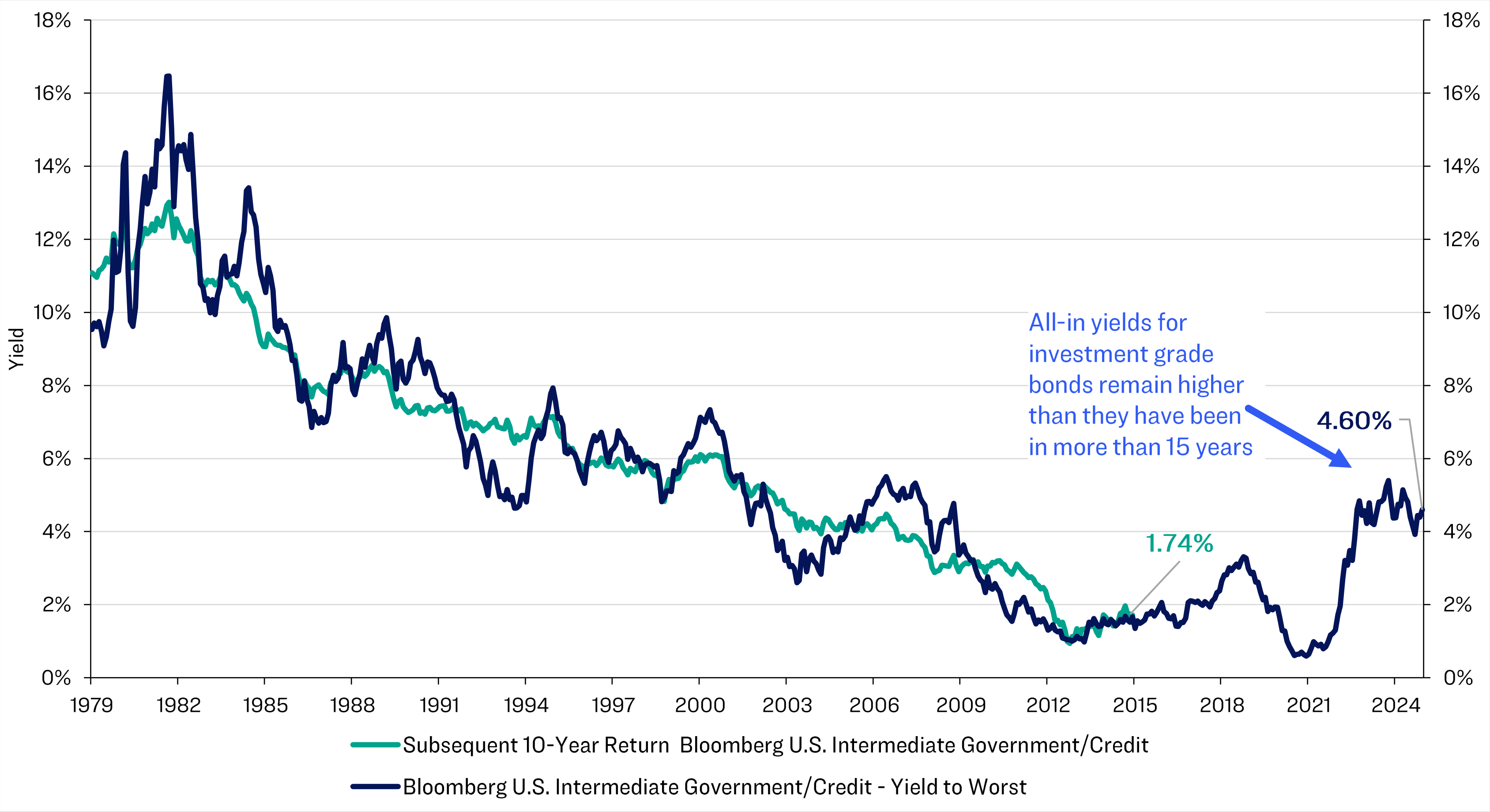
Source: FactSet Financial Data and Analytics, TIAA Wealth Chief Investment Office. Data through 12/31/2024.

Current bond yields look attractive for long-term investors

Bond Yields and Returns

- As of 12/31/2024, bond yields were 4.6% (vs. 1% in late 2021) on the intermediate bond index (dark blue line).
- This trend may be a good proxy for bond returns over the next 10 years (green line).
- Our view is that bonds still make sense in a 60/40 portfolio.
- The investment grade bond market continues to recover from the significant setbacks it experienced in 2021 and 2022 when the Fed raised rates aggressively to combat the worst inflation in 40 years.

Rising bond yields act as a drag on short-term fixed income performance, but boost the long-term attractiveness of bonds



Source: FactSet Financial Data and Analytics, TIAA Wealth Chief Investment Office. Data through 12/31/2024.

Municipal bond yields are near their record highs

Municipal Bonds Performance

- Municipal bond yields remain attractive on an after-tax basis, offering higher-taxed individuals the ability to generate high-quality income.
- Credit quality for municipal issuers has historically remained exceptionally strong, evidenced by low default rates.
- Current fiscal conditions for most municipalities remain resilient despite some slowdown in tax collections.
- Active management and credit selection will be essential, given interest rate volatility and potentially slower economic growth ahead.

Bloomberg Municipal Index Tax-Equivalent Yield @ 40.8% tax rate

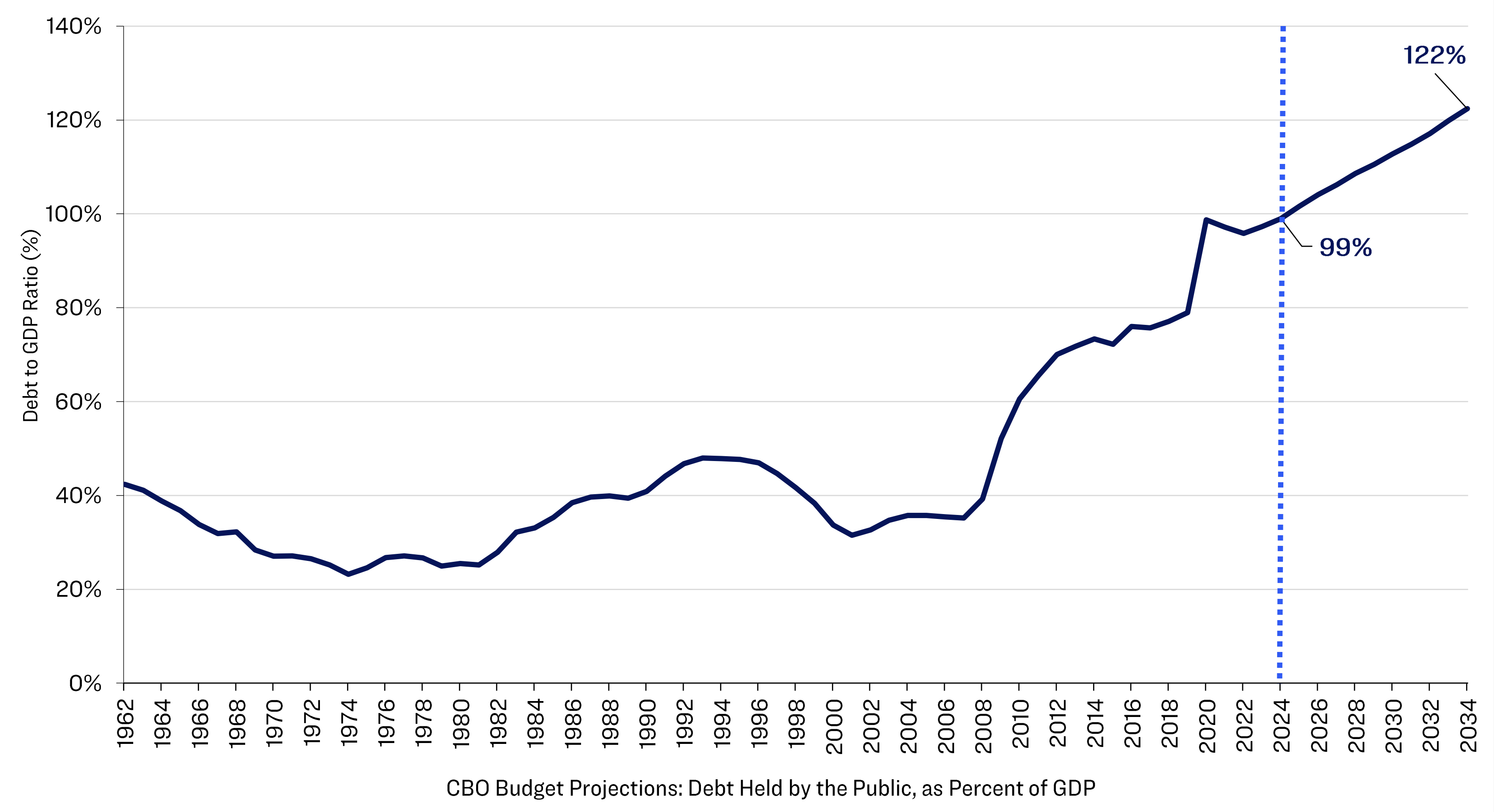
Source: Bloomberg, TIAA Wealth Chief Investment Office. Data through 12/31/2024.

Debt to GDP ratio is rising and may weigh on bond returns in the future

Fiscal Policy May Impact Bond Markets

- U.S. government debt has soared since 2008 and continues to grow. As the Fed hiked interest rates to contend with a spike in inflation, those debt burdens remain as an increasing source of concern that could ripple through the bond market.
- Current fiscal plans do not suggest a plan to tighten budgets. If interest rates do not decrease, it may further compound an increasing cost to the economy via higher interest rates.
- Excluding intragovernmental debt, the ratio of debt held by the public as a percentage of GDP is currently 100%, and the Congressional Budget Office (CBO) is projecting it to rise to 122% by the end of 2034.
- There are no easy fixes to the deficit issue. Some combination of less Federal spending on major programs and more revenue (via higher taxes) will ultimately be required.

The ratio of Treasury debt held by the public as a percentage of GDP is projected to rise significantly over the next 10 years



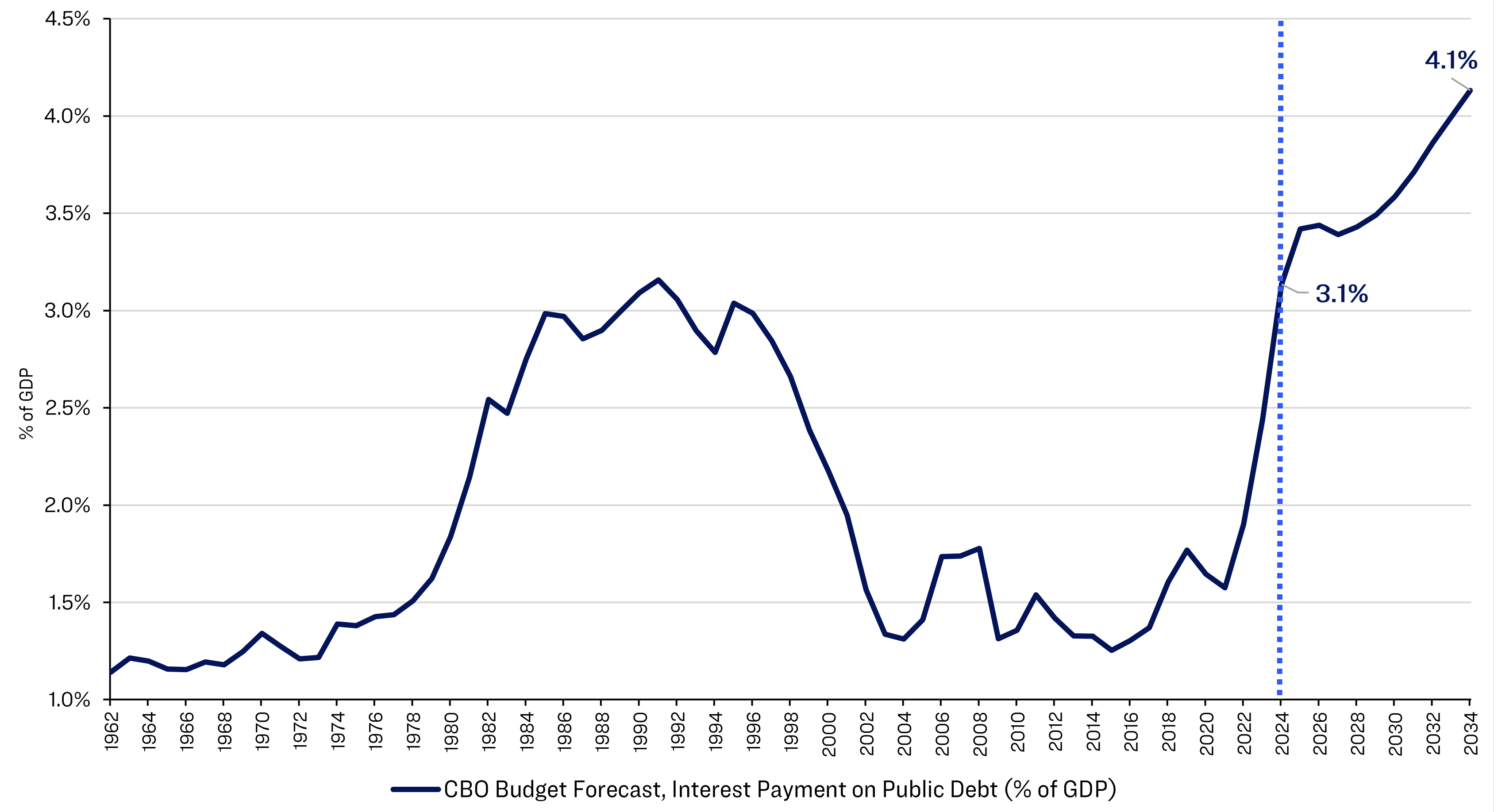
Source: FactSet Financial Data and Analytics, CBO, TIAA Wealth Chief Investment Office. Data through 12/31/2034. CBO forecast data is right of the dotted line.

Interest payments on public debt continue to soar

Fiscal Policy May Impact Bond Markets

- In fiscal year 2024, U.S. interest payments on its debt amounted to 3.1% of GDP. The CBO projects that it will increase to more than 4% by 2034, surpassing the previous high of 3.2%, set in the 1980s.
- The CBO estimates that debt and interest payments will continue to grow, with federal spending expected to jump ~50% to more than $10 trillion, compared to less than $7 trillion in 2024.
- Much of the increase is due to soaring costs for mandatory spending programs, including Social Security and Medicare, due to the aging U.S. population, and inflationary pressures.
- Rising debt, deficits and the interest payments required to finance deficit spending pose several risks to the economy, the financial system, and the post-WWII geopolitical order.
- According to the CBO, “Debt that is high and rising as a percentage of GDP could slow economic growth, push up interest payments to foreign holders of U.S. debt, heighten the risk of a fiscal crisis, elevate the likelihood of less abrupt adverse effects, make the U.S. fiscal position more vulnerable to an increase in interest rates, and cause lawmakers to feel more constrained in their policy choices.”

Interest payments by the federal government are projected to climb to more than 4% of GDP over the next decade



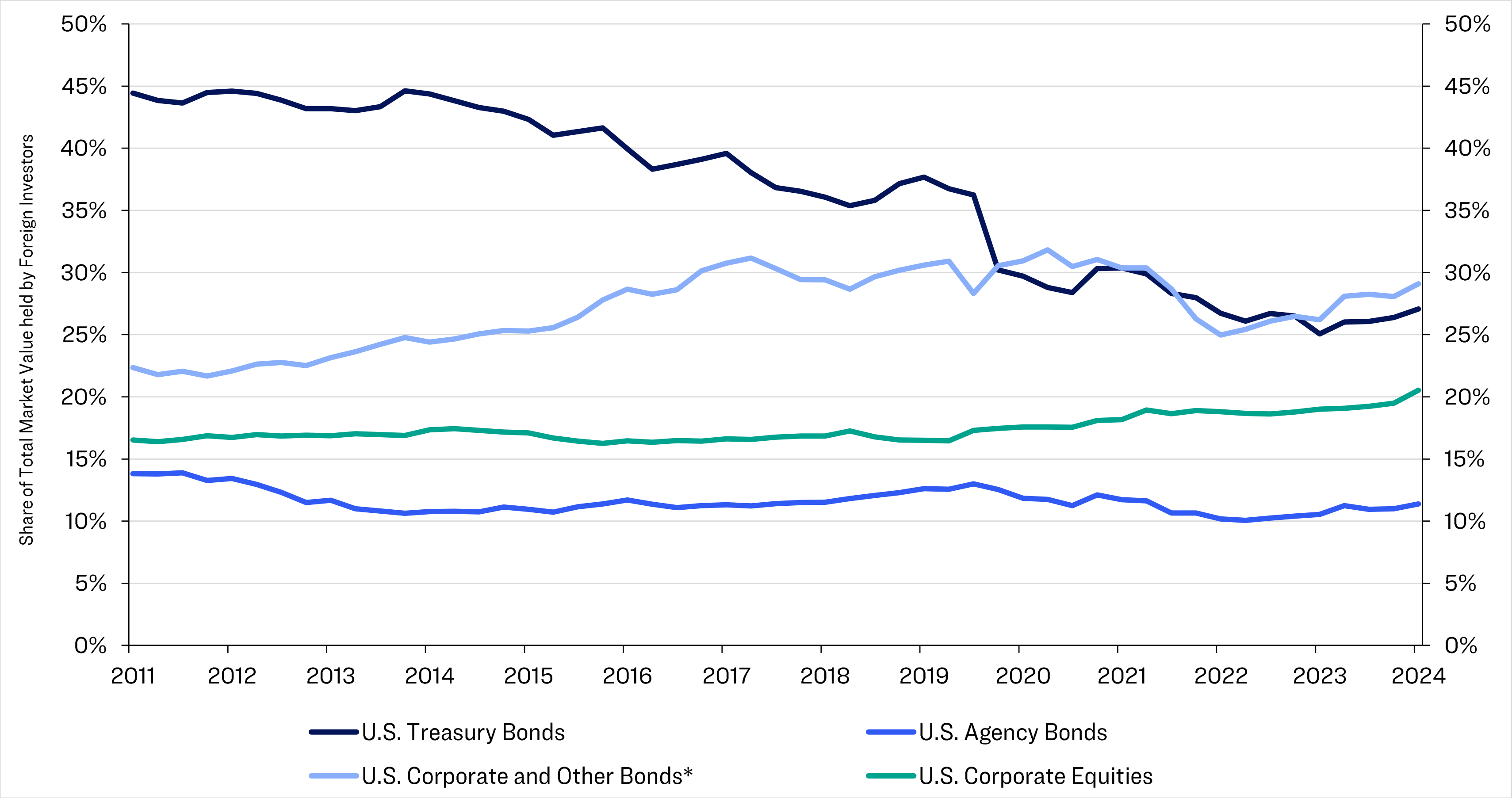
Source: FactSet Financial Data and Analytics, CBO, TIAA Wealth Chief Investment Office. Data through 12/31/2034. CBO forecast data is right of the dotted line.

Who owns U.S. assets & debt

Foreign Investors Own a Significant Share of U.S. Financial Assets

- The share of U.S. Treasuries owned by foreigners has declined from over 45% in the early 2010s but remains high at more than 25%.
- Foreigners own nearly 30% of corporate debt, but only 20% of U.S. equities.
- Escalating fiscal concerns in the U.S. may lead foreign investors to demand a higher premium (from lower valuations to a weaker dollar) to remain invested in U.S. assets.
- An increasingly protectionist stance by the U.S. could drive more integration and cooperation abroad, including a significant step up in fiscal stimulus and investments in both Europe and China.

Foreign investors own a material share of U.S. financial assets, from stocks to corporate and Treasury bonds

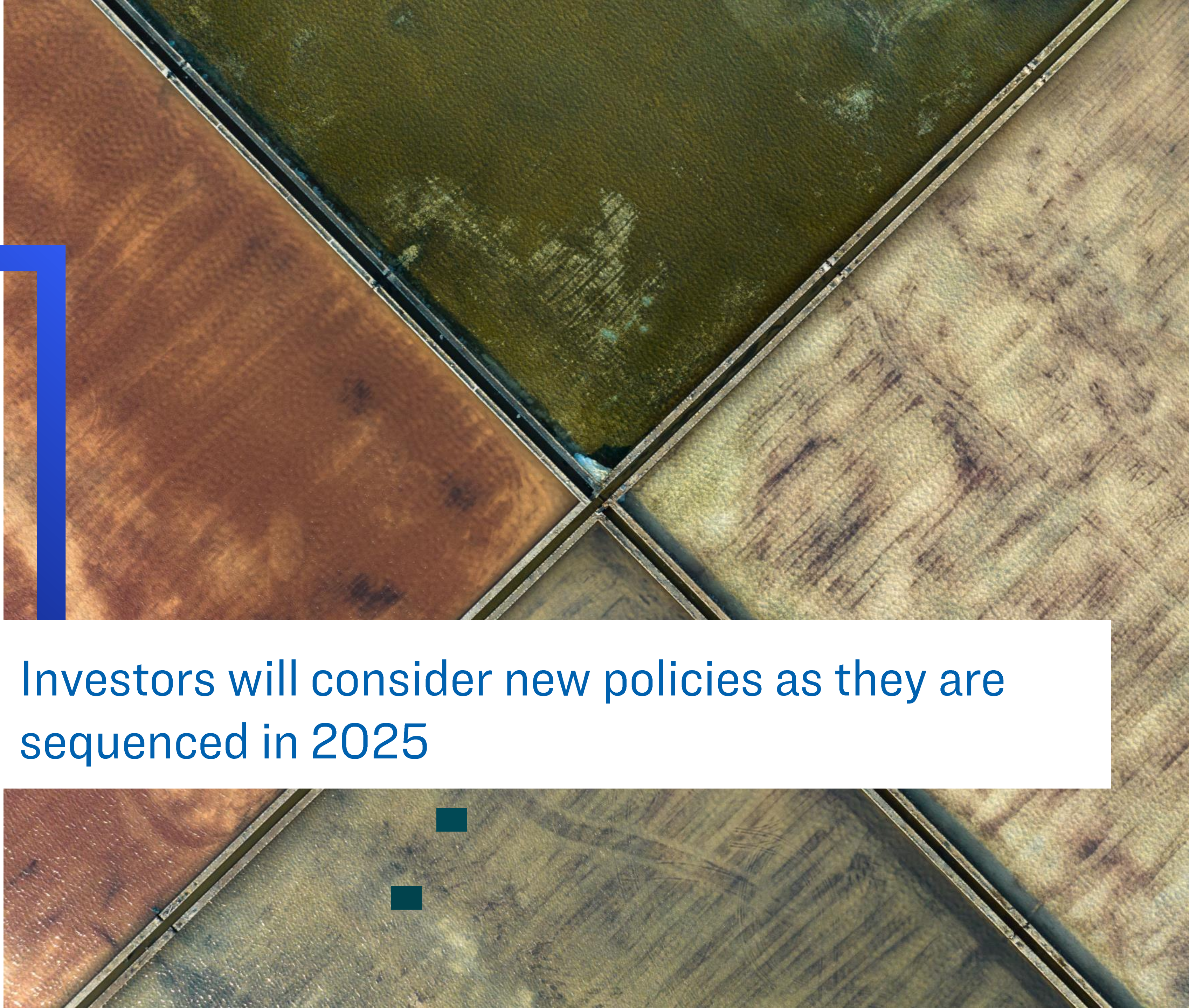


* Municipal bonds and securitized products.

Source: Federal Reserve, TIAA Wealth CIO. Data through 9/30/ 2024.

07

2024 U.S. ELECTIONS



Investors will consider new policies as they are sequenced in 2025

What investors might expect from the second Trump Administration

What Can Trump do on His Own?

- Encouraged by the electoral win, Congress and the White House are likely to pursue their agenda for extending tax cuts, raising tariffs (or using the threat of it for trade negotiations), and curbing immigration.
- President Trump can control some agenda items on his own, via executive orders/actions, but will need help from Congress and the Supreme Court to deliver on other election promises.

Campaign Proposal	Executive Action Alone	Congressional Legislation Required	Likely Court Challenge
Tariffs			
Blanket tariffs on all imports to the U.S.	●		●
Tariffs imposed on grounds of national security or foreign trade malpractices	●		●
Fed Policy			
Demote or replace Jerome Powell*	●		●
Enact more presidential control over rates		●	●
Taxes			
Extend 2017 tax cuts		●	
Lower corporate tax rate from 21% to 15%		●	

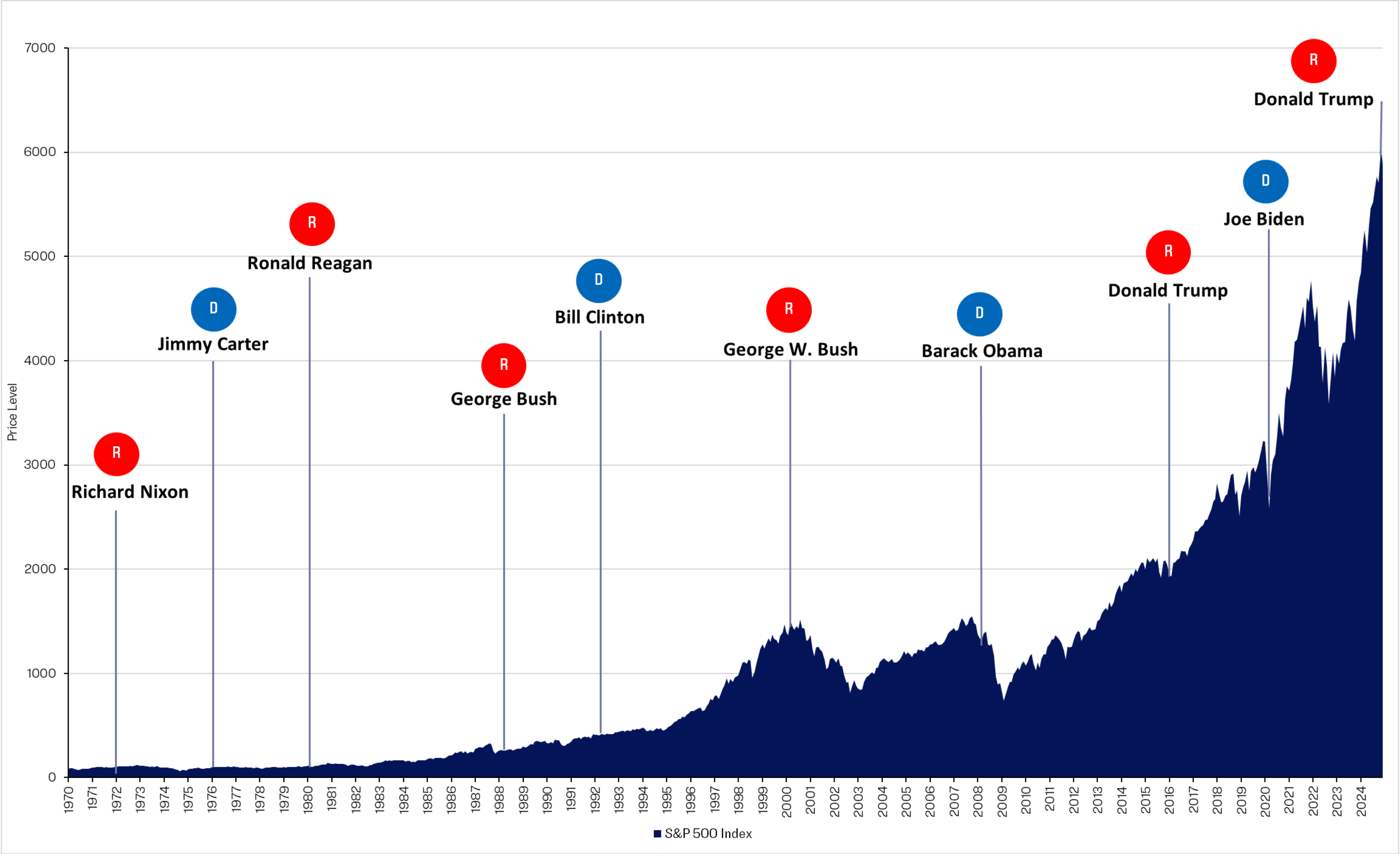
* New Fed chair is subject to confirmation by the Senate.

Sources: Bloomberg News Reporting. TIAA Wealth Chief Investment Office.

U.S. presidents (respective parties) and the S&P 500 Index since 1970

Presidential Terms: S&P 500 Performance

- The impacts of individual presidential elections on investment performance are muted over time.
- However, over the past 55 years, the S&P 500 has continued to grow despite periods of high uncertainty, driven by unique economic and geopolitical events, and U.S. presidential elections.
- The bottom line is that presidential elections don't often affect stock and bond returns—and more importantly, the economy—as much as we tend to think.



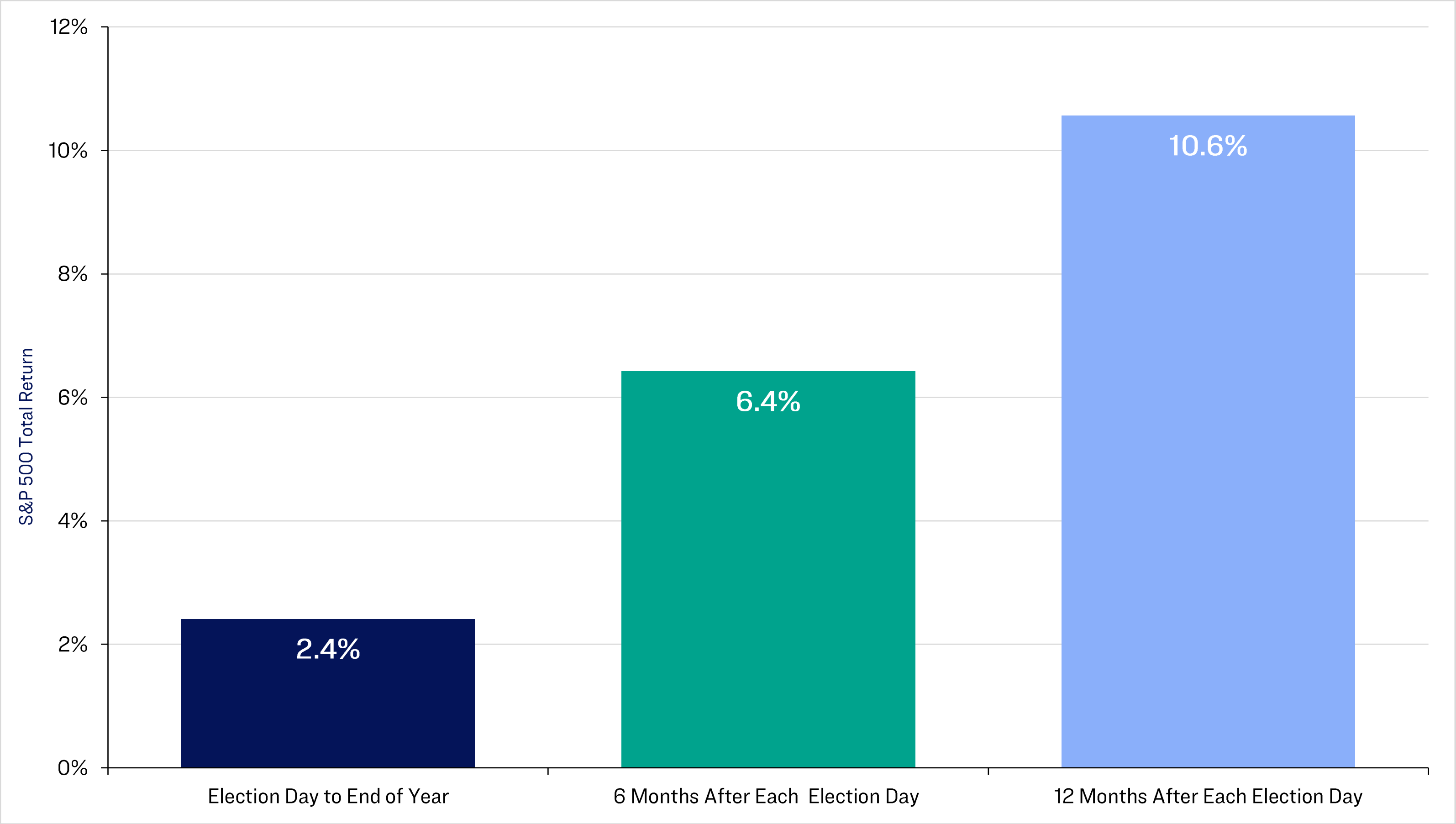
Source: Morningstar Direct, TIAA Wealth Chief Investment Office. Data through 12/31/2024.

On average, stocks are up 11% twelve months after presidential election day

S&P 500 After Election Day

- There have been 25 presidential election years since 1928.
- The market has been higher between Election Day and the end of the year in 20 of those 25 years and has been down in only 5 years.
    - In 4 of those 5 years, the economy was in, or about to enter a recession.
- Election Day to end of year top 3:
    - 2020: 11.8%
    - 1952: 9.4%
    - 1928: 8.2%
- Election Day to end of year bottom 3:
    - 2008: -9.6%
    - 2000: -7.6%
    - 1948: -2.5%
- Since 1928, on average, the S&P 500 has returned 2.4 % between Election Day and the final trading day of the election year. The best performance was in 2020, with a 12% gain, but that was boosted by good news on a widely available vaccine for COVID-19.
- The worst post-election day run for stocks from Election Day to the end of the year was in 2008, amid the Global Financial Crisis.
- The S&P 500 is higher, on average, by 6% six months after the election and 11% higher after 12 months.

S&P 500 Index average total return after each presidential election day



Source: Bloomberg, TIAA Wealth Chief Investment Office. Data from presidential election years 1928-2024, including full calendar year data from 2021.

Historical market and 60/40 portfolio performance under various administrations and congressional makeup

Historical Performance

- Each administration has differing views on the economy, fiscal, trade and foreign policy, etc., and markets typically adjust as they become more comfortable with the political environment.
- The infographic suggests there may be some performance benefit to a Democrat in the White House, but it doesn't provide a complete picture.
- Since 1928, Democrats have controlled the Presidency, House and Senate (or an alternative arrangement in which they maintain a majority) for more total years than Republicans (see "Number of Years" column).
- The 2024 election resulted in GOP control over the Presidency, House and Senate, and the party will have significant latitude to pursue key agenda items. Historical returns for this dynamic are highlighted in the blue box to the right.

	Annual Returns			
	Large Cap Stocks (S&P 500)[1]	Fixed Income (Intermediate-term Bonds)[2]	60/40 Portfolio[3]	Number of Years[4]
Democratic President All Inauguration Years (from 1929)[5]	14.6%	3.3%	10.2%	52
Democratic House	11.6%	5.3%	9.1%	68
Democratic Senate	12.6%	4.2%	9.1%	64
Democratic Control (President, House, & Senate)	14.2%	2.5%	9.4%	37
Democratic President, Democratic Senate & Republican House	16.2%	2.4%	10.7%	6
Democratic President, Republican Senate & Republican House	15.9%	5.7%	11.8%	10

	Annual Returns			
	Large Cap Stocks (S&P 500)[1]	Fixed Income (Intermediate-term Bonds)[2]	60/40 Portfolio[3]	Number of Years[4]
Republican President All Inauguration Years (from 1929)[5]	5.8%	7.3%	6.7%	44
Republican House	11.9%	4.9%	9.0%	28
Republican Senate	9.9%	7.4%	8.9%	32
Republican Control (President, House, & Senate)	5.2%	4.7%	4.8%	12
Republican President, Republican Senate & Democratic House	9.4%	12.2%	11.0%	10
Republican President, Democratic Senate & Democratic House	8.6%	6.8%	7.7%	22

[1] Large Cap Stocks: Ibbotson Associates (IA) SBBI Large Stock TR USD Ext from 1/1929 - 1/1970; S&P 500 TR USD thereafter.
[2] Fixed Income: IA SBBI IT Govt Bonds TR USD from 1929-1975; Bloomberg U.S. Agg Bond from 1976 thereafter.
[3] 60/40 Portfolio is rebalanced monthly.
[4] "Number of Years" = actual number of combined years the respective party presidents, senators, and house members are in office.
[5] For All Inaugurations, each presidential term runs from 1/1 of each election year through 1/31 of the next inauguration year.
Source: Morningstar Direct, TIAA Wealth Chief Investment Office. Monthly returns from 1/1/1926 - 12/31/2024.

U.S. presidential elections and value of $100,000 invested in U.S. large cap equites over subsequent 48 months

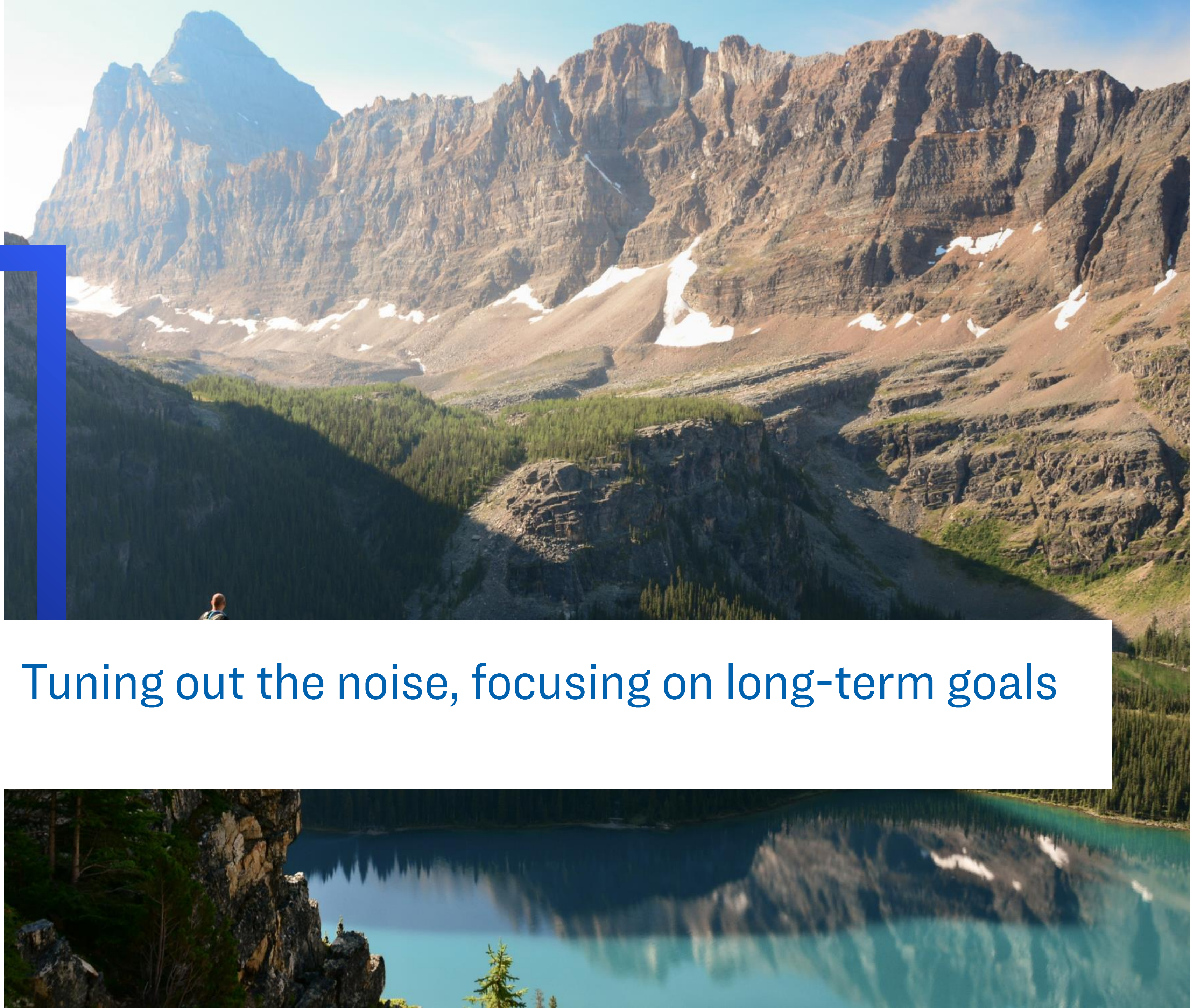
Presidential Terms & $100K Investments

- This chart illustrates what would have happened to $100,000 invested in U.S. large cap equites (S&P 500 Total Return Index) the day before each election over the four-year presidential term since 1972.
- Each line represents a different presidential term with the president's party highlighted by color (red=Republican and blue=Democrat).
- Over the medium term, or 48 months, the results vary dramatically. But the trendline (green) illustrates the median growth of a $100,000 investment across all terms, which smooths out the dramatic peaks and valleys.
- The performance of the S&P 500 at the end of 2024 (and end of Biden's term) exceeded the median performance in election years since 1972.

Source: Morningstar Direct, TIAA Wealth Chief Investment Office. Data through 12/31/2024.

08

PORTFOLIO STRATEGY



Tuning out the noise, focusing on long-term goals

Near- and long-term investment views[1]

12- to 18-Month Tactical View

- Sequencing of the Trump agenda is unclear in early Q1 2025, but a balanced mix of prudent and pro-growth fiscal policy, as well only targeted tariffs and deregulation could act as tailwinds to the markets.
- Income growth and household consumption may slow marginally from above-trend levels, in line with cooler but still healthy labor market conditions.
- The targeted nature of trade tariffs could limit their impact on consumer prices and inflation may stabilize, albeit at levels higher than 2%. In this scenario, the Fed is able to continue cutting rates gradually towards "neutral."
- Long-term investors will likely be best served by remaining diversified across various asset classes, regions, and styles. We prefer neutral positioning with a higher quality bias.

[1] As of January 2025

Long-Term Secular View

- We believe that the U.S. economy is fundamentally strong from a long-term perspective and that markets over time will reflect this. In our view, the business cycle of the future will likely be driven by:
  - Accelerating innovation across all sectors of the economy, as Artificial Intelligence and robotics become further embedded into business practices. This should drive an uptick in productivity growth broadly.
  - Geopolitical differences and national security concerns driving capital expenditures and government investment into higher value-added industries such as manufacturing, semiconductors, and healthcare supply chains.
  - The millennial generation aging into its prime years for earning, consuming, and investing.
  - Investments toward the transition to the new energy economy, including traditional and green commodities that are expected to be in deficit relative to projected long-term demand.

5 steps to stay on track toward your long-term investment goals

1. **Understand investor sentiment and reactions to market volatility, and manage expectations**

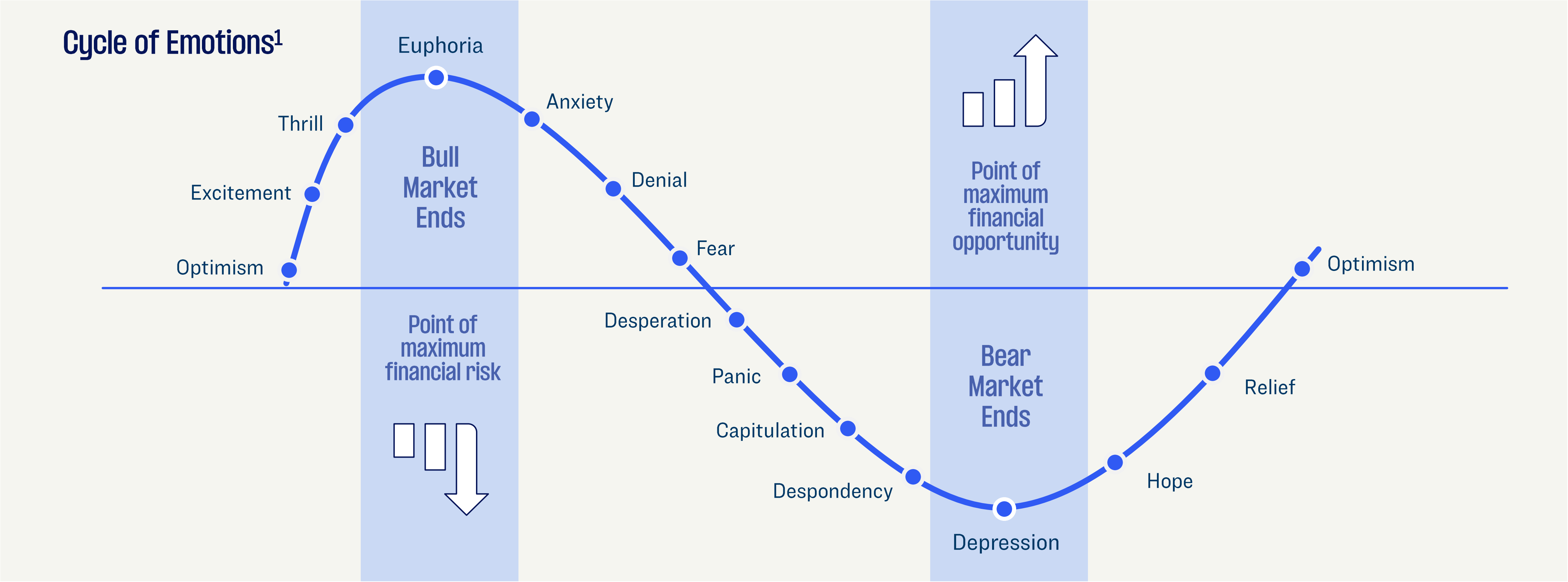
2. **Diversify your investment portfolio**

3. **Rebalance to stay well-positioned and aligned with your risk appetite**

4. **Take advantage of downturns by harvesting investment losses**

5. **Stick with your strategy. Time in the market is more important than attempting to time the market.**

Investors tend to see short-term volatility as extremely disruptive. This volatility can influence investor sentiment, which can sometimes drive investors to rush to judgement, then buy and sell assets at inappropriate times.



[1] For illustrative purposes only

THINKING OF EXITING THE MARKET IN THE SHORT TERM?

Investors worried about short-term volatility who want to exit the market must make two correct decisions back-to-back: when to get out, and when to get back in. Can you make confident decisions based on answers to these important, related questions?

1. Why am I worried, and what am I watching/reading to inform my decision making?
2. Who am I talking to about these concerns? Do they have the expertise to help?
3. When will I exit the market, and in which account(s)? 403(b)? Brokerage? Roth?
4. Which asset classes will I sell first, and why?

Exiting the Market

1. Where will I put the money, and how will I rebalance after I sell?
2. When will I get back in the market, and are these the same signals I used to exit?
3. What if I'm scared to get back in and too much time has passed?
4. What will I buy first (which asset classes, sectors, and how much of each)?

Re-Entering the Market

DIVERSIFICATION MATTERS

A well-diversified portfolio improves the likelihood of more consistent outcomes. By holding a variety of investments, poor performance of any one investment can potentially be offset by the better performance of another, leading to a more consistent overall returns over time.

Higher return ↑ / Lower return ↓

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	15-Yr Annualized Return
Small Cap 26.85	TIPS 13.56	Emerging Market Stocks 18.22	Small Cap 38.82	S&P 500 13.69	Large Growth 5.67	Small Cap 21.31	Emerging Market Stocks 37.28	Bonds 0.01	Large Growth 36.39	Large Growth 38.49	S&P 500 28.71	Large Value -7.54	Large Growth 42.68	Large Growth 33.36	Large Growth 16.45
Mid Cap 25.48	Bonds 7.84	Large Value 17.51	Mid Cap 34.76	Large Value 13.45	S&P 500 1.38	Large Value 17.34	Large Growth 30.21	TIPS -1.26	S&P 500 31.49	Small Cap 19.96	Large Growth 27.60	High Yield Bond -11.19	S&P 500 26.29	S&P 500 25.02	S&P 500 13.88
Emerging Market Stocks 18.88	High Yield Bond 4.98	International Stocks 17.32	Large Growth 33.48	Mid Cap 13.22	Bonds 0.55	High Yield Bond 17.13	International Stocks 25.03	Large Growth -1.51	Mid Cap 30.54	S&P 500 18.40	Large Value 25.16	TIPS -11.85	International Stocks 18.24	Mid Cap 15.34	Mid Cap 12.09
Large Growth 16.71	Large Growth 2.64	Mid Cap 17.28	Large Value 32.53	Large Growth 13.05	International Stocks -0.81	Mid Cap 13.80	S&P 500 21.83	High Yield Bond -2.08	Large Value 26.54	Emerging Market Stocks 18.31	Mid Cap 22.58	Bonds -13.01	Mid Cap 17.23	Large Value 14.37	Large Value 10.75
Large Value 15.51	S&P 500 2.11	Small Cap 16.35	S&P 500 32.39	60 & 40 Diversified Portfolio* 6.39	TIPS -1.44	S&P 500 11.96	Mid Cap 18.52	S&P 500 -4.38	Small Cap 25.52	Mid Cap 17.10	Small Cap 14.82	International Stocks -14.45	Small Cap 16.93	Small Cap 11.54	Small Cap 10.33
High Yield Bond 15.12	60 & 40 Diversified Portfolio* 1.41	S&P 500 16.00	International Stocks 22.78	Bonds 5.97	60 & 40 Diversified Portfolio* -1.46	Emerging Market Stocks 11.19	60 & 40 Diversified Portfolio* 15.20	60 & 40 Diversified Portfolio* -5.61	International Stocks 22.01	60 & 40 Diversified Portfolio* 13.48	60 & 40 Diversified Portfolio* 12.52	60 & 40 Diversified Portfolio* -15.34	60 & 40 Diversified Portfolio* 15.03	60 & 40 Diversified Portfolio* 10.41	60 & 40 Diversified Portfolio* 7.78
S&P 500 15.06	Large Value 0.39	High Yield Bond 15.81	60 & 40 Diversified Portfolio* 15.85	Small Cap 4.89	Mid Cap -2.44	60 & 40 Diversified Portfolio* 8.57	Small Cap 14.65	Large Value -8.27	60 & 40 Diversified Portfolio* 20.44	TIPS 10.99	International Stocks 11.26	Mid Cap -17.32	High Yield Bond 13.44	High Yield Bond 8.19	High Yield Bond 6.44
60 & 40 Diversified Portfolio* 13.25	Mid Cap -1.55	Large Growth 15.26	High Yield Bond 7.44	TIPS 3.64	Large Value -3.83	Large Growth 7.08	Large Value 13.66	Mid Cap -9.06	Emerging Market Stocks 18.44	International Stocks 7.82	TIPS 5.96	S&P 500 -18.11	Large Value 11.46	Emerging Market Stocks 7.50	International Stocks 5.24
International Stocks 7.75	Small Cap -4.18	60 & 40 Diversified Portfolio* 12.96	Bonds -2.02	High Yield Bond 2.45	Small Cap -4.41	TIPS 4.68	High Yield Bond 7.50	Small Cap -11.01	High Yield Bond 14.32	Bonds 7.51	High Yield Bond 5.28	Emerging Market Stocks -20.09	Emerging Market Stocks 9.83	International Stocks 3.82	Emerging Market Stocks 3.01
Bonds 6.54	International Stocks -12.14	TIPS 6.98	Emerging Market Stocks -2.60	Emerging Market Stocks -2.19	High Yield Bond -4.47	Bonds 2.65	Bonds 3.54	International Stocks -13.79	Bonds 8.72	High Yield Bond 7.11	Bonds -1.54	Small Cap -20.44	Bonds 5.53	TIPS 1.84	TIPS 2.86
TIPS 6.31	Emerging Market Stocks -18.42	Bonds 4.21	TIPS -8.61	International Stocks -4.90	Emerging Market Stocks -14.92	International Stocks 1.00	TIPS 3.01	Emerging Market Stocks -14.58	TIPS 8.43	Large Value 2.80	Emerging Market Stocks -2.54	Large Growth -29.14	TIPS 3.90	Bonds 1.25	Bonds 2.37

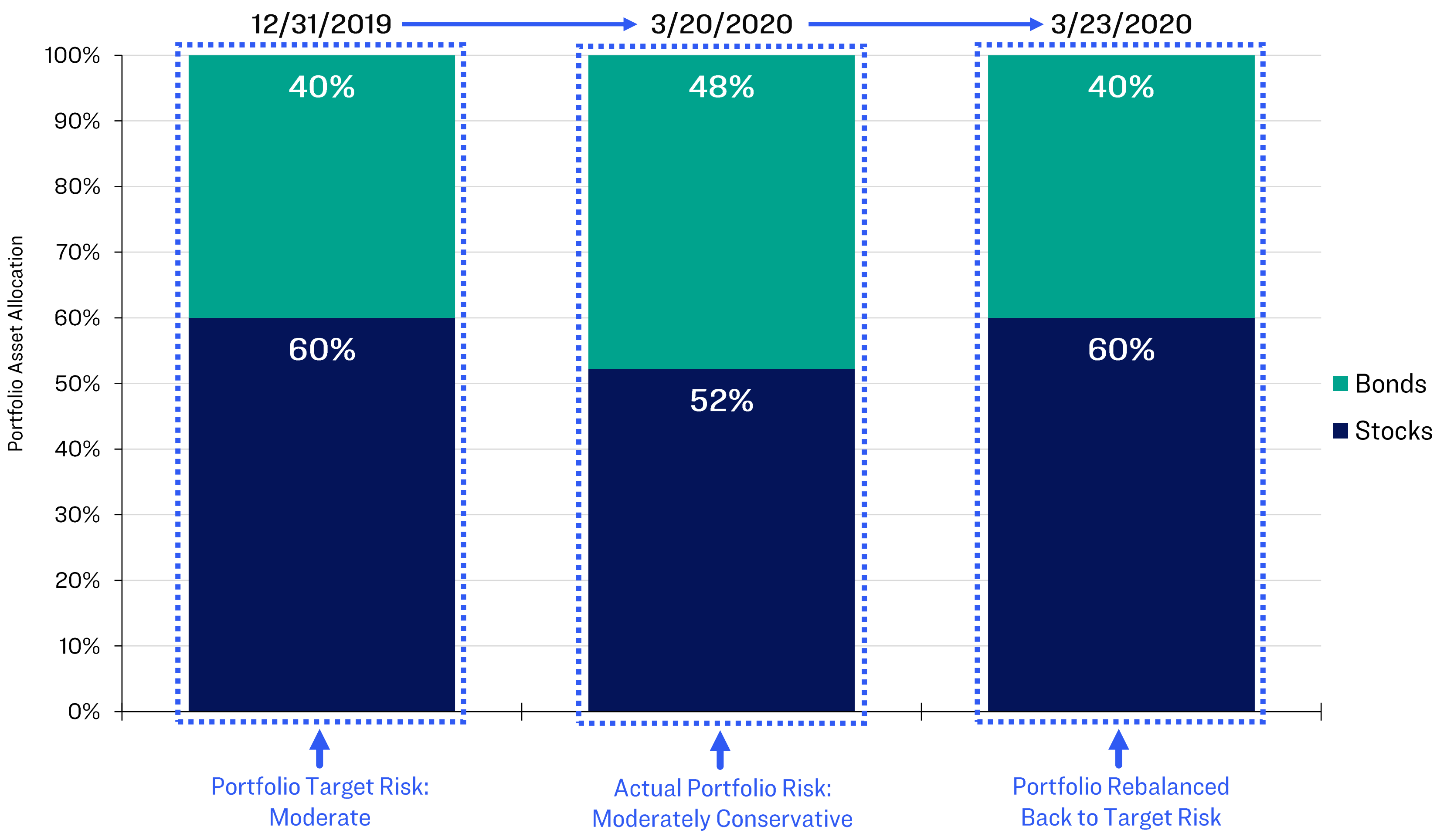
Emerging Market Equity · Large Cap Growth · TIPS · International Stocks · Bonds · Mid Cap · S&P 500 · High Yield Bonds · Large Cap Value · Small Cap · 60/40 Diversified Portfolio

Source: Data derived from Morningstar Direct. All data represents total returns for the stated period. Past performance does not guarantee future returns. This material is for informational or educational purposes only and does not constitute a recommendation or investment advice in connection with a distribution, transfer or rollover, a purchase or sale of securities or other investment property, or the management of securities or other investments, including the development of an investment strategy or retention of an investment manager or advisor. This material does not take into account any specific objectives or circumstances of any particular investor, or suggest any specific course of action. Investment decisions should be made in consultation with an investor's personal advisor based on the investor's own objectives and circumstances. The TIAA group of companies does not provide legal or tax advice. Please consult your independent legal or tax advisor for advice specific to your needs.

Benefits of Regular Portfolio Rebalancing

Consistent Rebalancing

- Regular rebalancing ensures each portfolio remains aligned to its target asset allocation that reflect the unique risk tolerance, goals, and long-term financial plan of each investor.
- As market conditions change, the percentages of different assets in a portfolio may shift, leading to an asset mix that no longer aligns with personal risk tolerance. Without rebalancing, a portfolio that was initially conservative in its makeup could become more aggressive, increasing risk and the potential for losses.
- A real-world example of portfolio drift can be seen at the beginning stages of the COVID pandemic in early 2020. In this hypothetical example, the portfolio began with 60% stocks and 40% bonds at the start of 2020. As market turmoil quickly ensued and the equity markets dropped in response, the asset allocation fell to 52% stocks, which pushed the portfolio into a more conservative risk tolerance.



Source: TIAA Wealth Chief Investment Office.

TAX MANAGEMENT

Benefits of tax-loss harvesting

Consistent Tax Approach

- Tax-loss harvesting (TLH) is a proactive strategy to lower current taxes paid by deliberately selling an investment at a loss in order to offset taxes owed on an investment sold at a profit (i.e., a capital gain).
- This allows investors to realize a tax benefit while simultaneously maintaining market exposure to avoid missing out on returns. Tax-loss harvesting is relevant only for taxable investment accounts, and the benefit is tax deferral—not tax cancellation.
- TLH is often used to offset capital gains that are already being realized in the portfolio. But when there are no capital gains to offset—or the total losses harvested exceed the total gains for the year—taxpayers are allowed to deduct net capital losses of up to $3,000 (for both single and joint filers) against their ordinary income per year.[2]
- This process can occur throughout the year on opportunistic capture dates.[3]

Sample Tax-Loss Harvesting Strategy

1

- Recognize decline in market value
- Identify alternate investment
- Simultaneously sell original investment and purchase alternate investment

2

30

- Hold replacement investment for 30-day wash sale[1] holding period

3

$

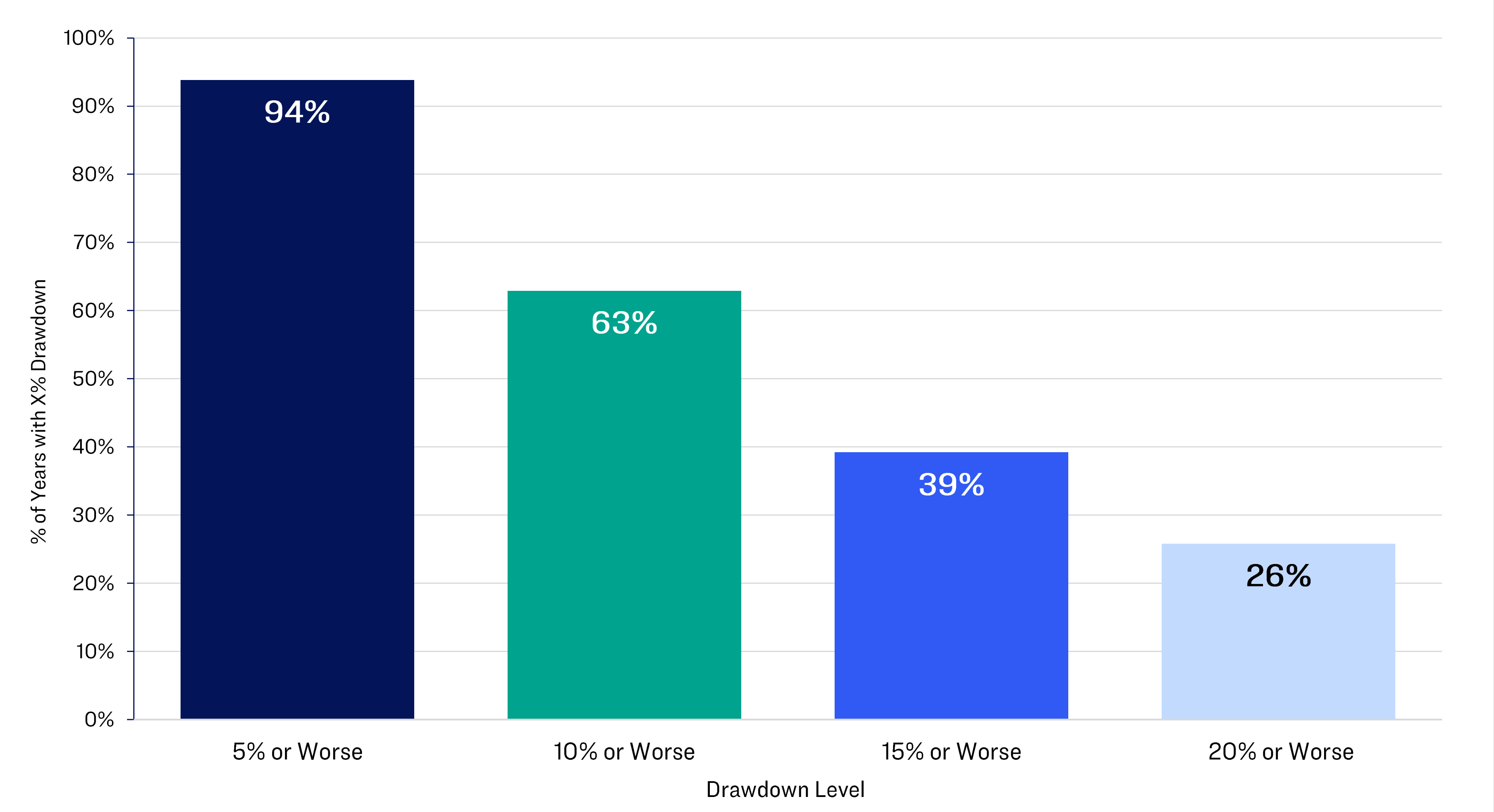
- Simultaneously sell alternate investment and repurchase original investment

[1] Capture dates are opportunities throughout the calendar year as described in the Portfolio Advisor ADV; the frequency is subject to change.
[2] TIAA does not provide tax advice. Please consult a tax advisor regarding your personal situation. IRS deductions are subject to change. Visit the IRS website for up-to-date information regarding deduction limits.
[3] A wash sale occurs when an investor purchases a security 30 days before or 30 days after selling an identical or similar security. The IRS instituted the wash sale rule to prevent taxpayers from using the practice to reduce their tax liability. Investors who sell a security at a loss cannot claim it if they have purchased the same or a similar security within 30 days (before or after) the sale.

Annual stock drawdowns are common; some years are worse than others

S&P 500 Drawdowns

- A 5% maximum drawdown, or a decline from peak to trough during the year, in the S&P 500 is very common in most years.
- Since 1928, 94% of years (91 out of 97) have a maximum drawdown of 5% or more.
- The maximum drawdowns over the last three years were: 25% in 2022; 10% in 2023; and 8% in 2024
- Prior to 2024, the last year the S&P 500 didn't experience a maximum drawdown of at least 5% was 2017.
- A double-digit maximum drawdown (10% or more) has occurred in roughly two-thirds of all years since 1928.
- The average intra-year maximum drawdown from 1928 to 2023 was 16%.



Source: Morningstar Direct and TIAA Wealth Chief Investment Office; data from 1/1/1928 — 12/31/2024. Returns are based on the S&P 500 Price Return (PR) USD, daily returns. Maximum drawdown is defined as the largest market decline from a peak to a trough during the year.

S&P 500 max drawdowns vs. recovery periods

S&P 500 Drawdowns

- The table shows the maximum drawdowns (greater than -10%) from 1950 to the present (~74 years), along with the duration of each drawdown and the subsequent recovery period. There have been 19 drawdowns of -10% or more, averaging about every four years, and about -26%.
- The average drawdown and recovery periods are about 214 and 337 days, respectively.
- More recently, there has been three drawdowns of greater than 20% in the last six years alone, in rapid succession. Since 2015, the duration of the drawdown cycles (from peak to trough and back) has been relatively short. However, investors should not see this as an opportunity to take on more risk.
- Severe stock market drawdowns are always unsettling. But they often set the stage for a healthier recovery. That's why market downturns are commonly known as "corrections."

Maximum Drawdown* Start Date	Maximum Drawdown End Date	Maximum Drawdown During Period	Maximum Drawdown Period (Trading Days From Peak to Trough)	Recovery Period (Trading Days to Get Back to Peak)
8/3/1956	10/22/1957	-21%	307	241
8/4/1959	10/25/1960	-14%	311	67
12/13/1961	6/26/1962	-28%	135	310
2/10/1966	10/7/1966	-22%	167	145
12/2/1968	5/26/1970	-36%	369	464
1/12/1973	10/3/1974	-48%	436	1507
12/1/1980	8/12/1982	-26%	430	49
10/11/1983	7/24/1984	-13%	199	124
8/26/1987	12/4/1987	-33%	71	423
7/17/1990	10/11/1990	-20%	62	87
10/8/1997	10/27/1997	-10%	14	25
7/20/1998	8/31/1998	-19%	31	60
7/19/1999	10/15/1999	-11%	64	22
3/27/2000	10/9/2002	-49%	637	1203
10/10/2007	3/9/2009	-57%	355	1048
5/22/2015	2/11/2016	-14%	183	106
9/21/2018	12/24/2018	-20%	65	86
2/20/2020	3/23/2020	-34%	23	102
1/4/2022	10/12/2022	-25%	202	332
	Average	**-26%**	**214**	**337**

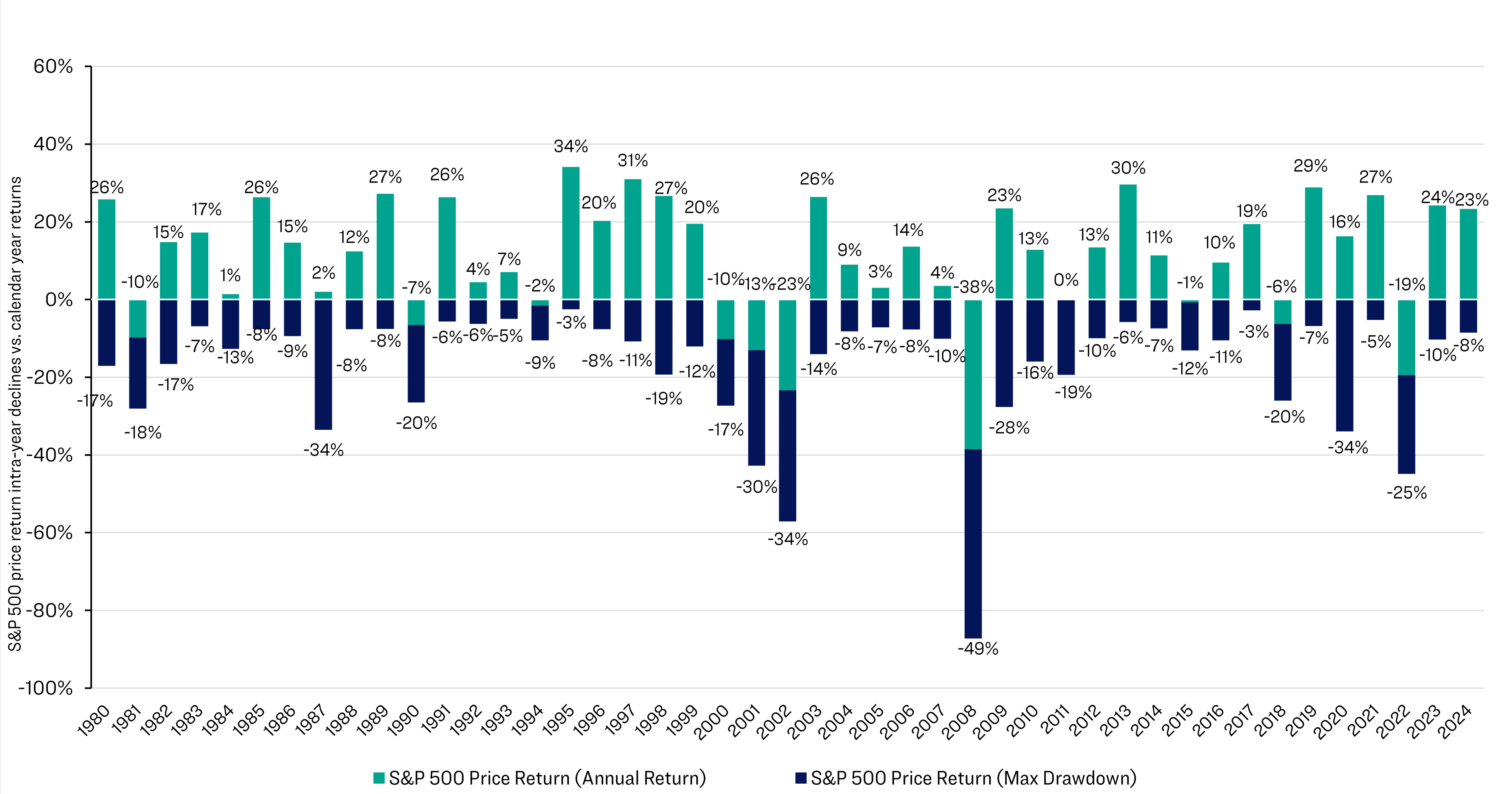
Source: Bloomberg and TIAA Wealth Chief Investment Office; data from 8/3/1956 — 10/12/2022
*Maximum drawdown is defined as the peak through decline during a specified period.

Stocks: Investor discipline drives success more often than not

Impact of Discipline Over Time

- History demonstrates that those who remain invested during market corrections are generally rewarded in the long run.
- For example, the S&P 500 reached an intra-year low of -25% in October 2022 (dark blue bar) but rebounded to finish the following year (2023) up +24% (green bar).
- In 2024, there was a short-lived 8% pullback between mid-July and early August, but the market was back to its all-time highs by mid-September.
- While the performance of a long-term 60/40 portfolio wouldn't experience the same intensity in losses and gains, it would follow similar patterns.
- Long-term investors who exited the market in 2022 and remained on the sidelines through 2023 and 2024 could have locked in significant losses and subsequently missed out on the rallies that occurred in both years.

Market corrections are not infrequent, but they rarely disrupt the long-term tendency of stocks to rise



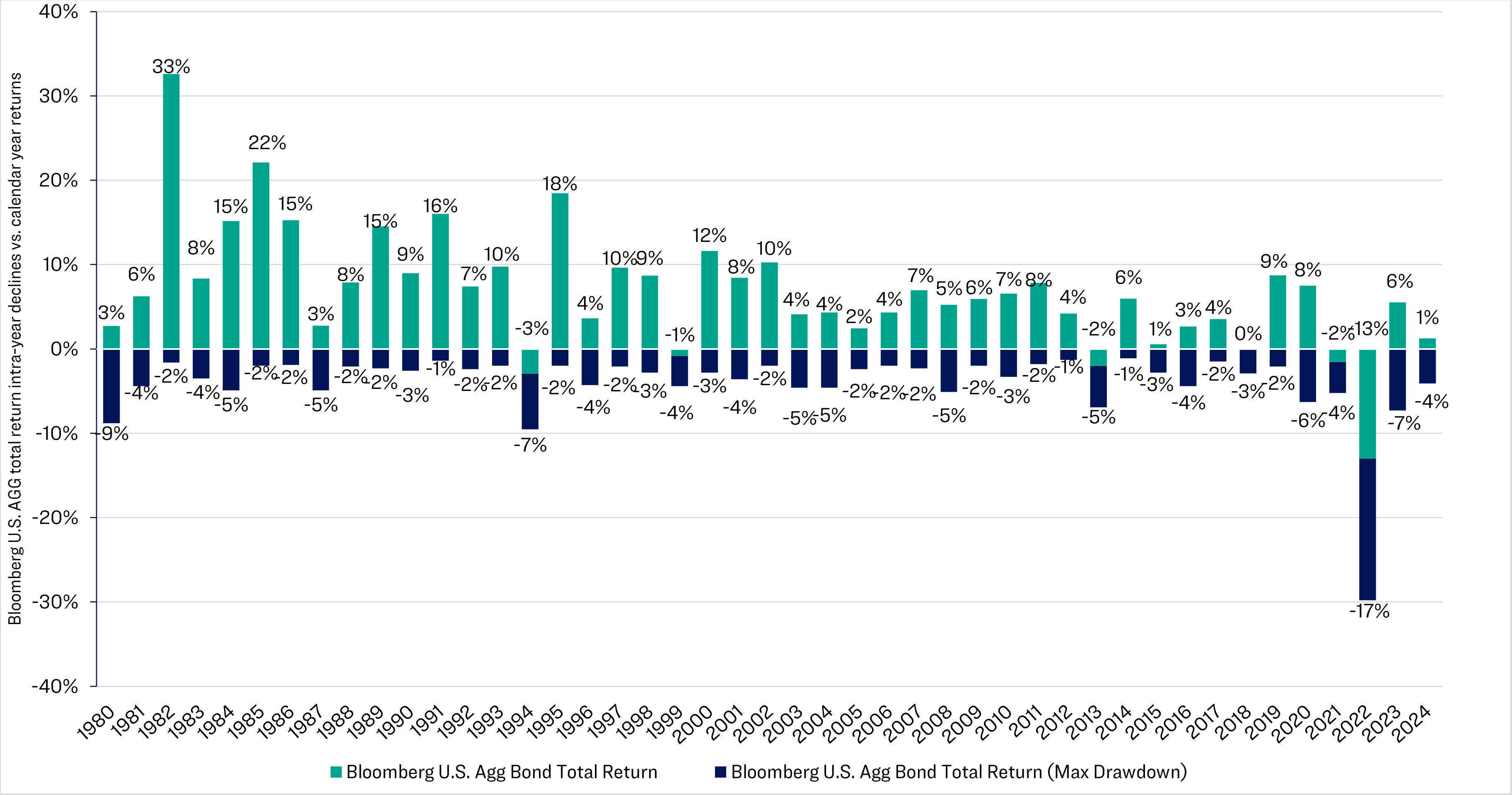
Source: Morningstar Direct, TIAA Wealth Chief Investment Office. Returns are based on the S&P 500 Price Return USD, daily returns, 1/1/1980 – 12/31/2024. Max drawdown is defined as the largest market decline from a peak to a trough during the year.

Bonds: Investor discipline drives success more often than not

Impact of Discipline Over Time

- History demonstrates that those who remain invested during market corrections are generally rewarded in the long run.
- For example, the Bloomberg U.S. Aggregate Index reached an intra-year low of -17% in October 2022 (dark blue bar) but rebounded to finish the following year (2023) up +6% (green bar).
- While the performance of a long-term 60/40 portfolio would experience more volatility due to its higher percentage of stocks, it would follow similar patterns.
- Long-term investors who exited the market in 2022 and remained on the sidelines through 2023 and 2024 could have locked in significant losses and subsequently missed out on the gains that occurred in both years.

The reset of bond yields to more normal levels creates a better opportunity for long-term fixed income investors



Source: Morningstar Direct, TIAA Wealth Chief Investment Office. Returns are based on the Bloomberg U.S. AGG Total Return USD, daily returns, 1/1/1980 – 12/31/2024. Max drawdown is defined as the largest market decline from a peak to a trough during the year.

Asset class performance after normalization and recessionary rate cuts

Fed Rate Hikes & Market Performance

- Why the Fed cuts interest rates determines how financial markets respond to easier monetary policy conditions in the near-term.
- This table shows the median total return for key asset classes 12 months before, and 12 and 24 months after the first rate cut of the cycle when the Fed makes cuts to normalize rates, as well as cuts ahead of recession (see prior slide).
- It is important to note, however, that not every cycle is the same, and the backdrop for inflation, the economy, valuations, sentiment all matter when it comes to investment returns.

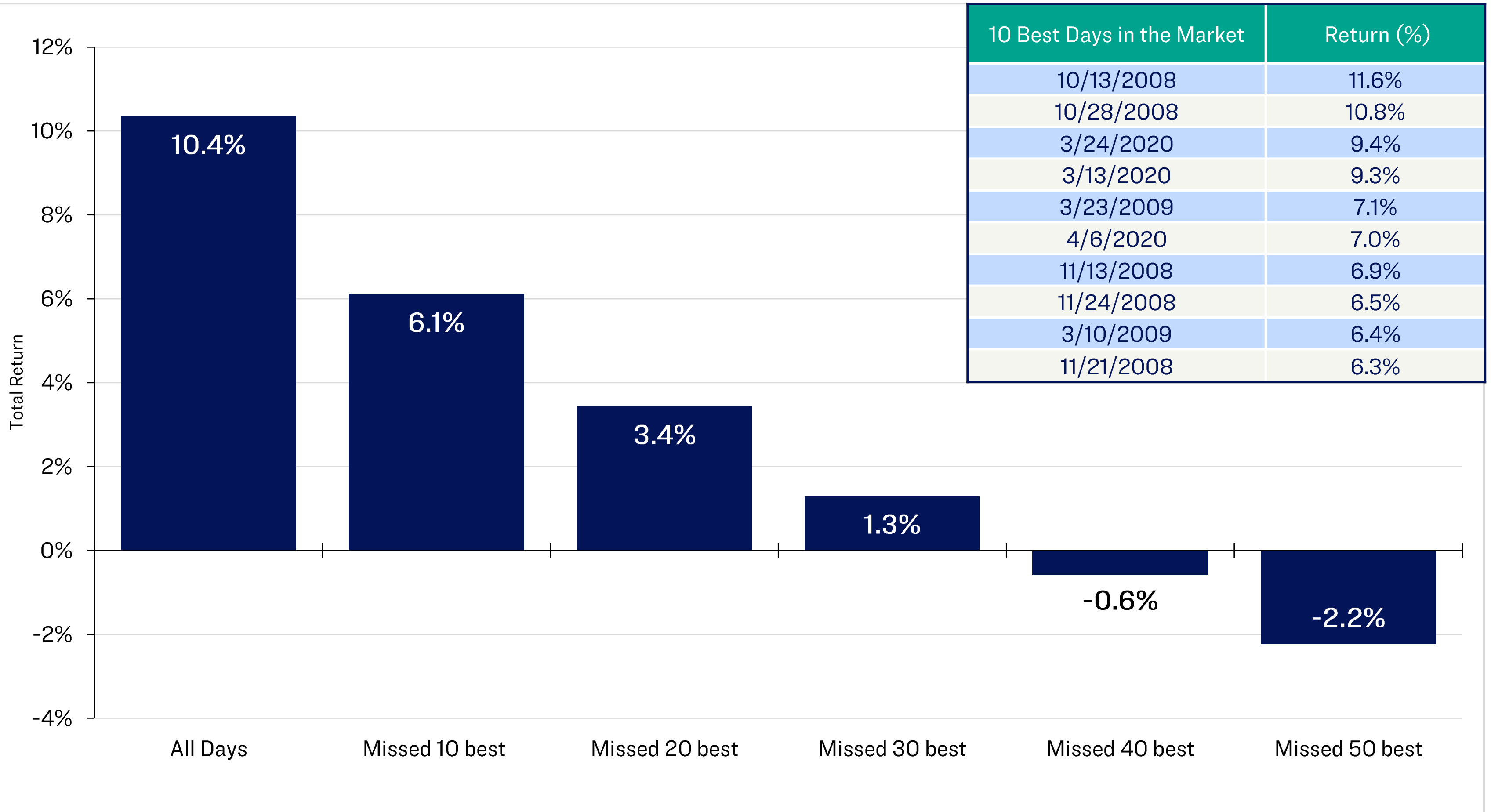
	Normalization Rate Cuts			Recession Rate Cuts		
Benchmark/Index	12-Month Before (Median)	12-Month After (Median)	24-Month After (Median)	12-Month Before (Median)	12-Month After (Median)	24-Month After (Median)
U.S. Stocks						
S&P 500	25.3%	18.2%	28.2%	14.5%	-0.1%	-1.4%
Russell 3000	25.4%	18.7%	27.2%	12.1%	0.5%	-0.7%
Russell 1000	25.7%	19.2%	28.1%	13.1%	0.1%	-0.8%
Russell 1000 Growth	28.1%	20.3%	26.9%	19.7%	-0.2%	1.5%
Russell 1000 Value	22.4%	21.8%	30.5%	7.0%	2.2%	1.3%
Russell 2000	21.0%	15.0%	18.4%	-0.6%	5.8%	0.5%
S&P 500 Sectors						
Communications Services	9.3%	22.2%	20.3%	15.9%	-5.8%	-4.4%
Consumer Discretionary	13.9%	13.8%	18.4%	10.5%	2.0%	0.1%
Consumer Staples	36.9%	30.9%	36.9%	11.1%	3.6%	7.8%
Energy	18.3%	26.2%	33.3%	13.4%	-4.2%	-3.5%
Financials	21.4%	30.1%	46.3%	6.3%	-3.0%	3.9%
Healthcare	43.7%	37.6%	46.6%	10.2%	-3.8%	4.2%
Industrials	25.6%	27.1%	33.8%	5.5%	-0.3%	-4.8%
Information Technology	79.7%	10.8%	34.7%	21.6%	-7.1%	-4.1%
Materials	25.1%	7.0%	15.9%	5.8%	3.9%	5.5%
Real Estate Investment Trusts	N/A	N/A	N/A	12.5%	-3.6%	-3.7%
Utilities	23.1%	14.5%	12.7%	24.3%	-8.8%	-0.8%
Non-U.S. Stocks						
MSCI ACWI Ex U.S.A.	5.8%	8.0%	6.6%	3.3%	-13.9%	-7.4%
MSCI ACWI	12.4%	12.8%	12.3%	8.4%	-8.6%	-5.3%
MSCI EAFE	8.7%	13.6%	13.4%	3.0%	-15.6%	-8.7%
MSCI EM GR	24.7%	17.2%	16.0%	24.4%	4.7%	2.6%
Fixed Income						
Bloomberg U.S. Agg Bond	12.9%	9.1%	10.1%	9.6%	6.4%	7.6%
Bloomberg U.S. Treasury (1972)	11.0%	8.7%	10.3%	10.0%	7.6%	7.5%
Bloomberg Short Treasury	5.9%	7.2%	7.2%	6.0%	4.3%	2.8%
Bloomberg U.S. Treasury Long	13.6%	8.9%	9.9%	13.7%	5.3%	8.2%
Bloomberg U.S. Corp Bond	9.4%	9.6%	11.7%	8.3%	5.0%	7.8%
Bloomberg Municipal	8.8%	7.3%	8.7%	8.1%	3.3%	6.3%
Bloomberg U.S. Corporate High Yield	16.6%	8.2%	10.2%	2.7%	6.7%	4.4%
JPM EMBI Plus	13.7%	31.6%	33.9%	12.2%	-0.3%	6.7%

Source: Morningstar Direct, TIAA Wealth Chief Investment Office. Data is Total Return in U.S. Dollars. Normalization rate cut regimes include those beginning on 9/3/1984, 6/5/1989, and 7/6/1995. Recession rate cut regimes include those beginning on 7/13/1990, 1/3/2001, 9/18/2007, and 3/4/2020.

Investors who attempt to avoid volatility by timing the market risk missing the best days

Missed Opportunities

- Investors who attempt to time the market run the risk of missing periods of exceptional returns, leading to significant adverse effects on the ending value of a portfolio.
- Missing the 50 best days would have produced a loss of 2.2%. Although the market has exhibited tremendous volatility, over the long term, stock investors who stayed the course were rewarded accordingly.
- The appeal of market-timing is obvious—improving portfolio returns by avoiding periods of poor performance. However, timing the market consistently is extremely difficult. And unsuccessful market-timing (the more likely result) can lead to a significant opportunity loss.
- Looking at the table of the 10 best days in the S&P 500 over the past 25 years, all occurred during periods punctuated by severe market turmoil (i.e., Great Financial Crisis & the pandemic).



10 Best Days in the Market	Return (%)
10/13/2008	11.6%
10/28/2008	10.8%
3/24/2020	9.4%
3/13/2020	9.3%
3/23/2009	7.1%
4/6/2020	7.0%
11/13/2008	6.9%
11/24/2008	6.5%
3/10/2009	6.4%
11/21/2008	6.3%

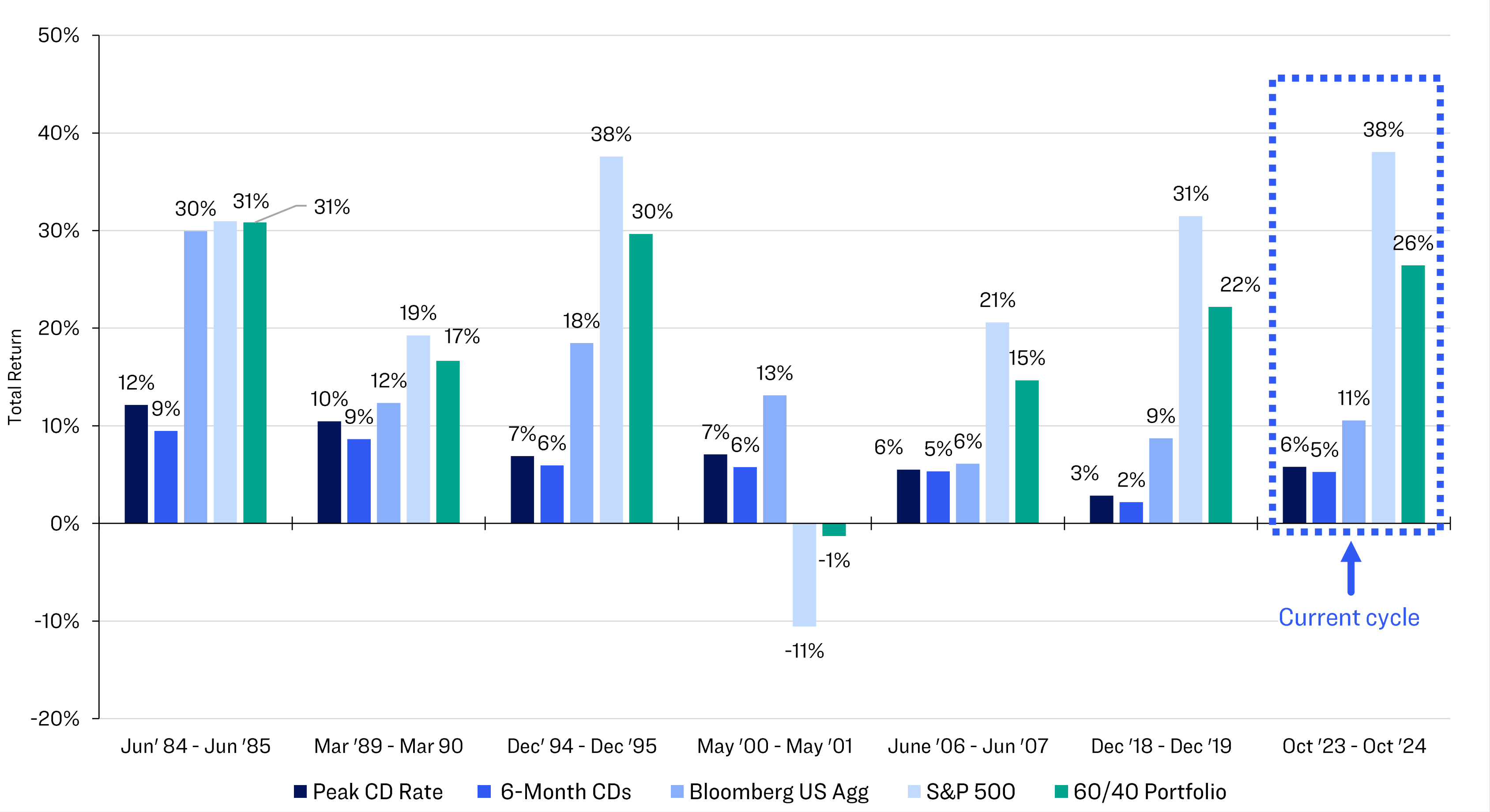
Source: Morningstar Direct; 1/1/2005 — 12/31/2024; daily returns. The returns are average annual over the past 20 years. The bars represent what would have happened if you'd "missed" the best 10/20/30/40/50 days for the equity markets during that 20-year period. Past performance is no guarantee of future results. This is for illustrative purposes only. This is not indicative of any investment. An investment cannot be made directly in an index. The S&P 500 index is based on the market capitalizations of 500 large companies having common stock listed on the NYSE or NASDAQ.

CD rates and other investment opportunities

CDs vs. Investments

- This chart illustrates the peak 6-month certificate of deposit (CD) rate during previous rate hiking cycles and the subsequent 12-month total returns of CDs, the Bloomberg U.S. Aggregate Bond Index, the S&P 500 and a 60/40 portfolio of 60% stocks and 40% bonds.
- As a result of the Fed's aggressive tightening campaign in 2022 and 2023, CD yields rose considerably, peaking at 6% in late 2023.
- However, note that the S&P 500 returned 45% and a 60/40 portfolio returned 32% in the 12 months after CD rates peaked in late 2023.
- With the Fed now cutting rates, it is likely cash yields have peaked for the cycle.

For long-term investors, there may be better options for deploying excess capital outside of CDs



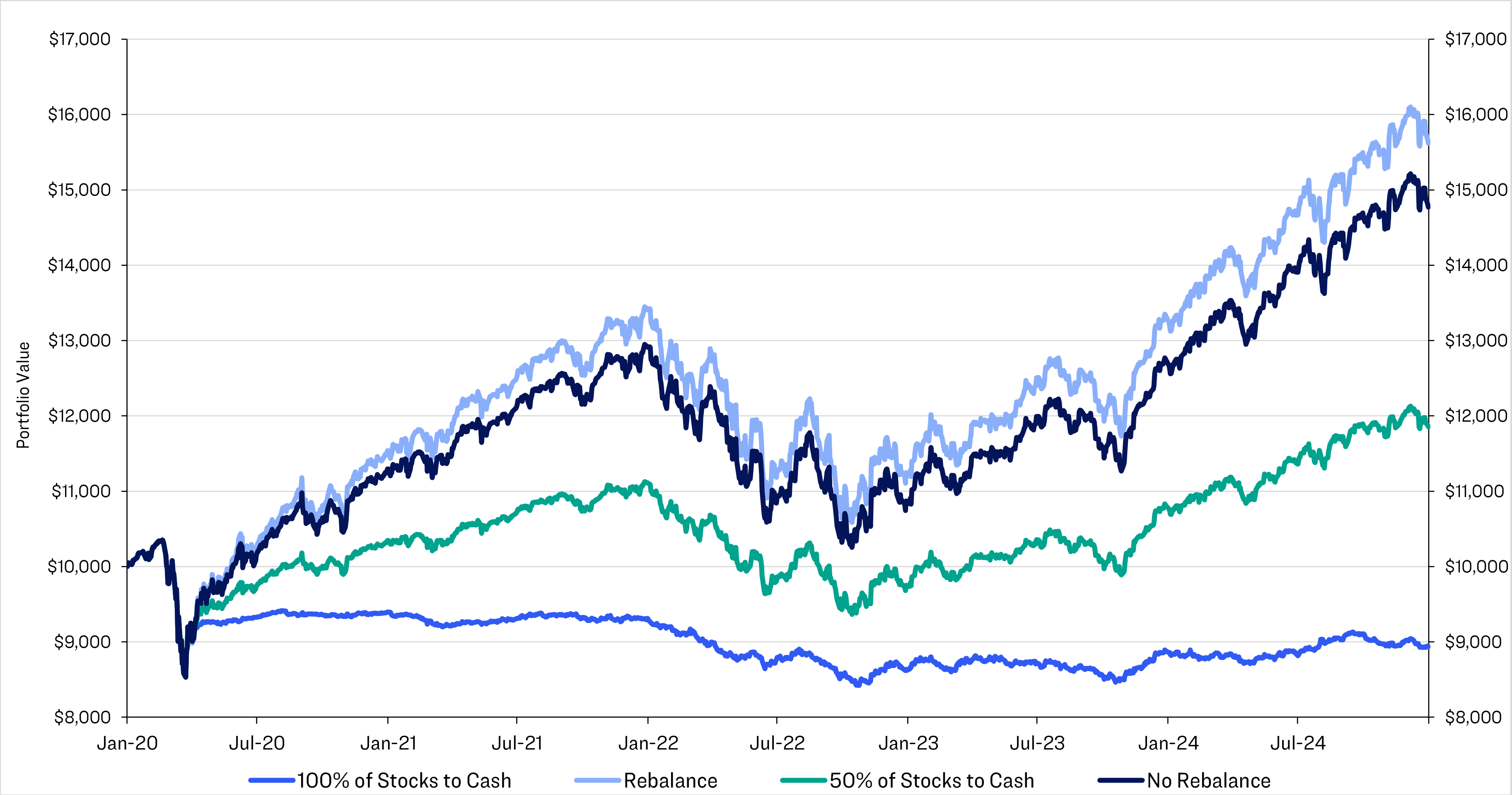
Source: 6-Month CDs: Combined series: 1/1/1980 - 6/30/2013 St. Louis Fed (FRED) 7/1/2013 - 12/31/2024 Bloomberg (Ticker USCDF Curncy); all other data from Morningstar Direct, TIAA Wealth Chief Investment Office. 60/40 Portfolio: 60% S&P 500 TR USD and 40% Bloomberg U.S. Agg Bond TR USD; monthly rebalance.
*Current cycle: month-end CD rate peaked on 10/31/2023. Returns for this period are calculated for the 12-month period from 10/1/2023 through 10/31/2024.

Selling investments and moving to cash can lead to longer-term investment losses

The Cost of Going to Cash

- The strong rebound in stock prices that often follows a market downturn highlights the potential missed opportunities for long-term investors who sell during a drawdown.
- This example illustrates four different outcomes based on hypothetical portfolios during the 2020 drawdown that occurred during the worst of the COVID pandemic.
- The portfolio that was liquidated and converted to cash experienced the worst outcome, while the portfolio that remained invested and was actively rebalanced experienced the best outcome.

A long-term allocation to cash is likely to significantly underperform market returns



Source: Bloomberg, TIAA Wealth Chief Investment Office. Data from 1/1/2020 – 12/31/2024.

09

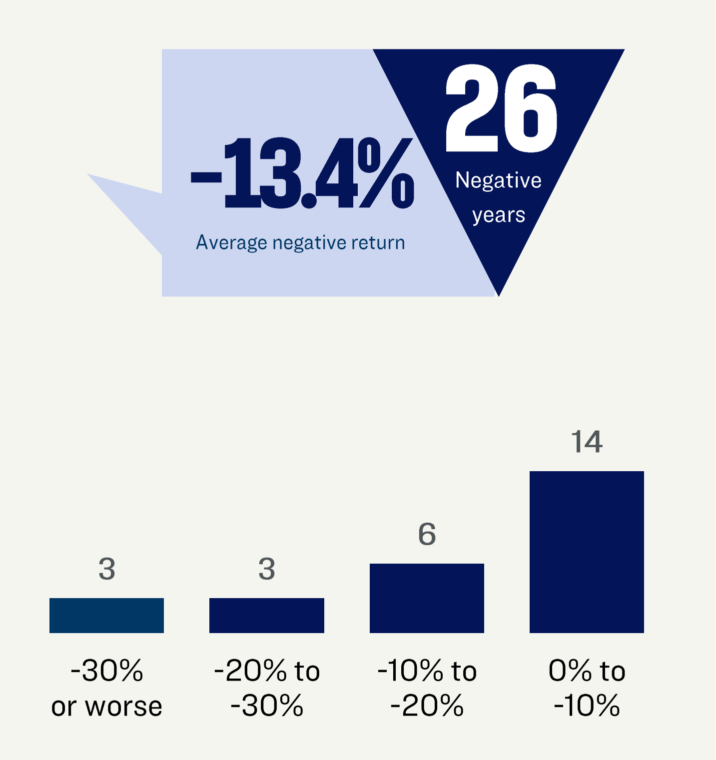
LONG-TERM PERSPECTIVE

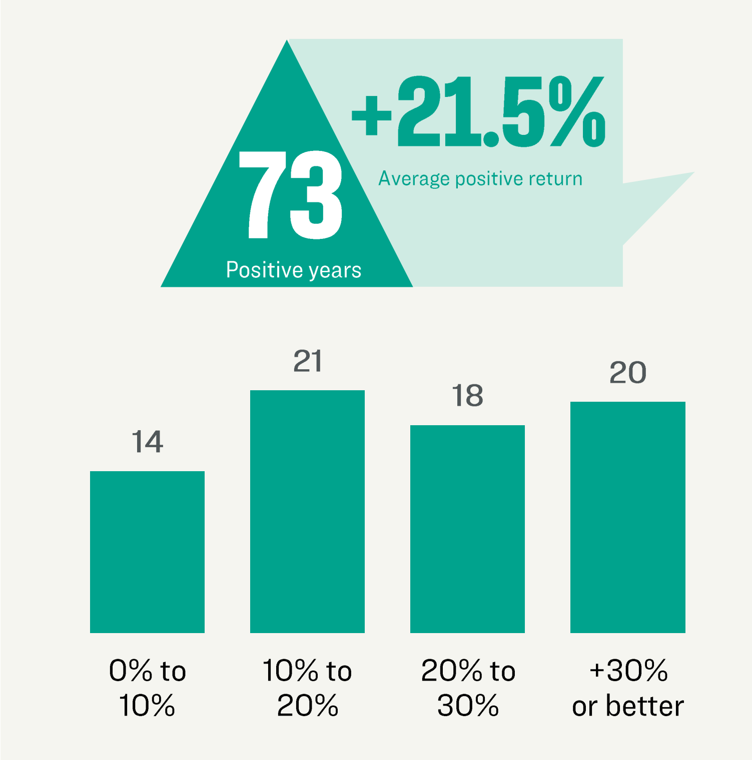
Sticking with your strategy over time is key

U.S. Equities total return (number of calendar years 1926 to 2023)

A Well-Diversified Portfolio

- Investors with a well-diversified portfolio can feel more confident about staying the course over the long-term.
- The data on the right illustrates the performance of the S&P 500 over the long run, from the beginning of 1926 to year-end 2024. In those years, the S&P has finished with positive annual returns 73 times.
- However, it is important to understand that wealth can be achieved despite considerable volatility over the long term.
- By maintaining a well-diversified portfolio, investors are managing risk, not trying to escape it.





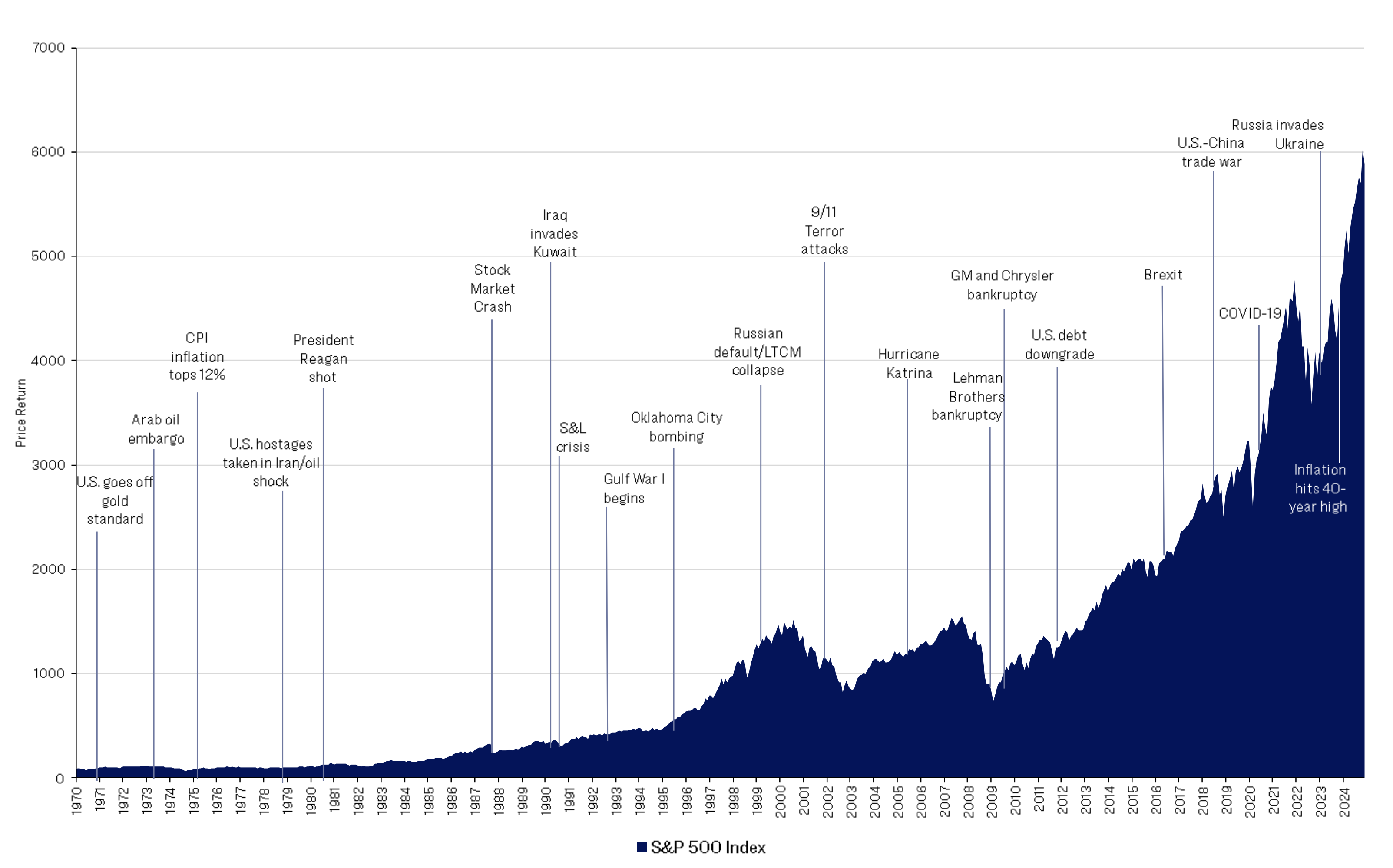
Source: Morningstar Direct, TIAA Wealth Chief Investment Office. Equity returns based on historical S&P 500 performance, 1926–2024. You cannot invest directly in any index. Past performance is not a guarantee of future results.

For long-term investors, historical perspective is important

Historical Resilience

- Market volatility has always been a fundamental feature of financial markets.
- About every two years, historically, the market experiences a correction (a decline of 10% or more from recent highs), and some years are more significant than others.
- But over the past 55 years, the S&P 500 has continued to grow despite periods of high uncertainty, driven by unique economic and geopolitical events.

Financial markets generally climb a 'wall of worry' punctuated by peaks and valleys in performance



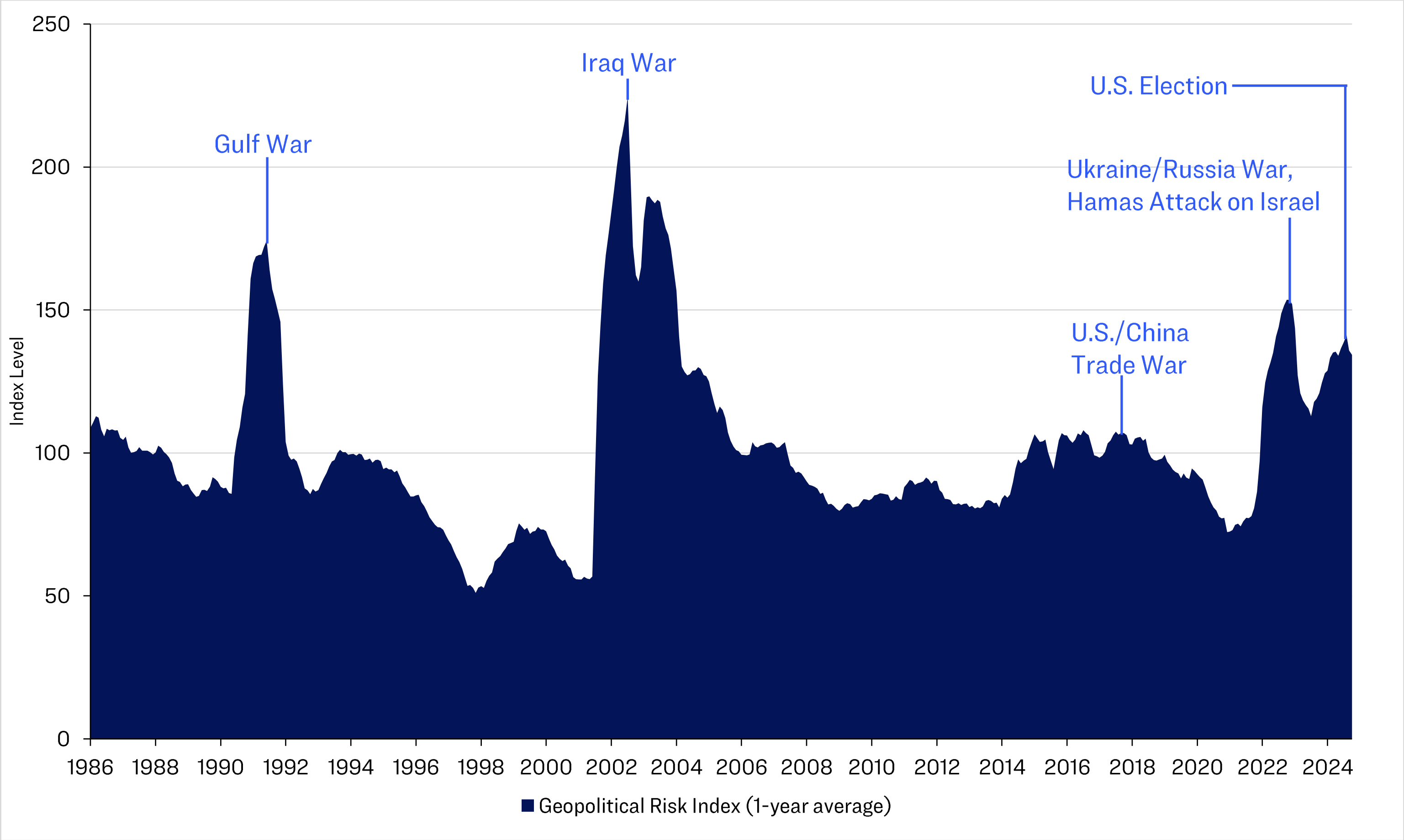
Source: Morningstar Direct, TIAA Wealth Chief Investment Office. Data through 12/31/2024.

Geopolitical risks ebb and flow over time

Historical Perspective

- The ongoing conflicts in Ukraine and the Middle East have exacerbated diplomatic tensions and driven an increase in geopolitical uncertainty.
- The rise of geopolitical instability, paired with the uncertain future of global institutions such as NATO, is now leading to an increase in defense spending.
- This dynamic is likely to slow or reverse the globalization trend that was at the core of lower labor costs, extensive global supply chains, thriving trade flows, and low inflation.
- For investors, this could mean higher inflation, greater volatility, and lower correlation among and within asset classes due to deglobalization. In general, rising geopolitical risk drives higher correlation among asset classes globally.

The Geopolitical Risk Index measures the frequency of news articles on adverse geopolitical events

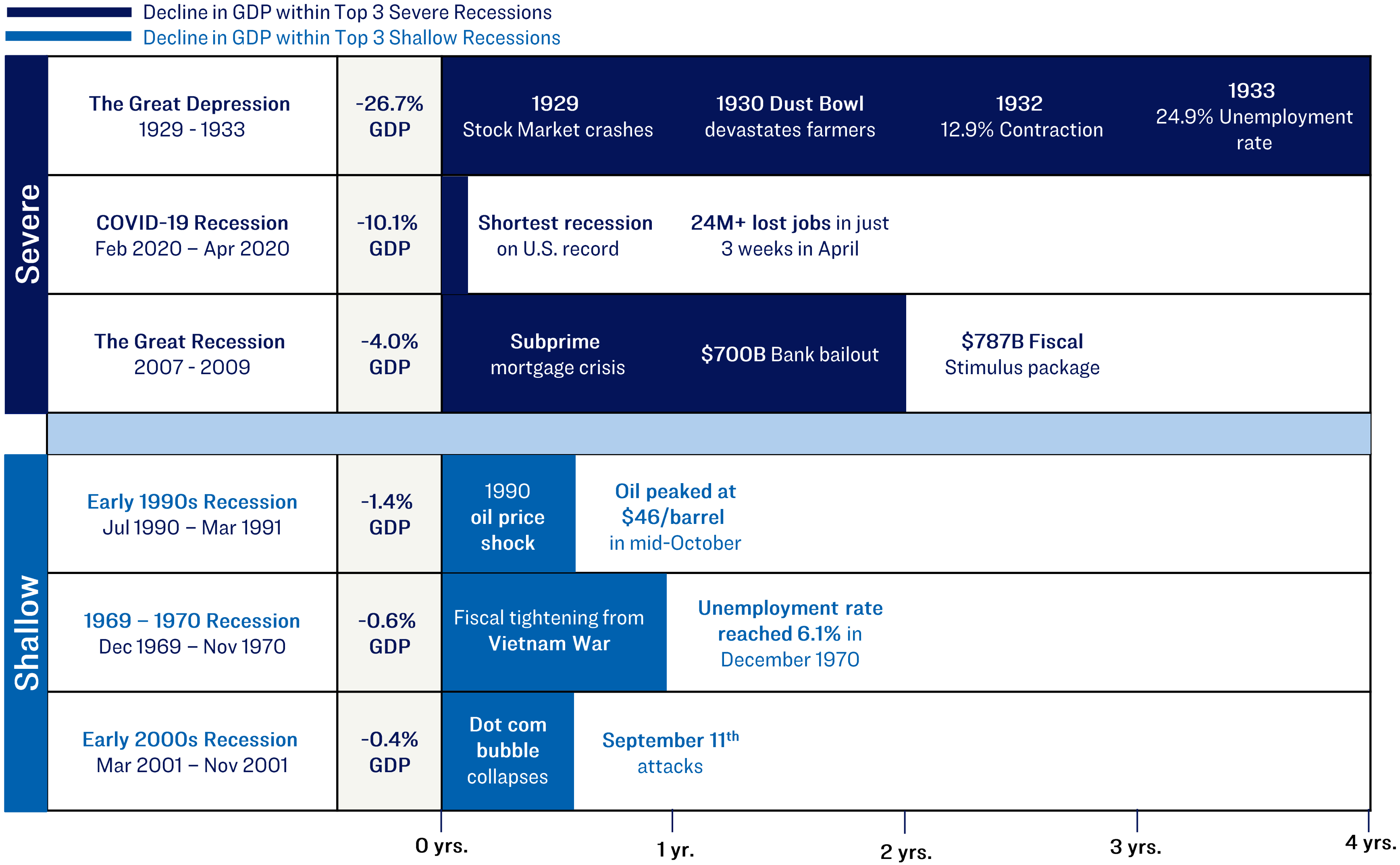


Source: Federal Reserve Board, TIAA Wealth Chief Investment Office. Data through 12/1/2024.

Top 3 severe and shallow recessions in U.S. history

Understanding Recessions

- Recession is defined by the National Bureau of Economic Research (NBER) as “A significant decline in economic activity spread across the economy, lasting more than a few months.”
- Recessions are identified by the presence of the following criteria, which may present in varying degrees:
  - Depth (severity)
  - Diffusion (how much of the economy is impacted)
  - Duration (how long it lasts)
- Indicators of a recession may include:
  - Decline in real GDP
  - Decline in real income
  - Rise in unemployment
  - Slowed industrial production and retail sales
  - Lack of consumer spending
- Over the last 100 years there have been a total of 15 recessions, some long and sharp, and some short and shallow.

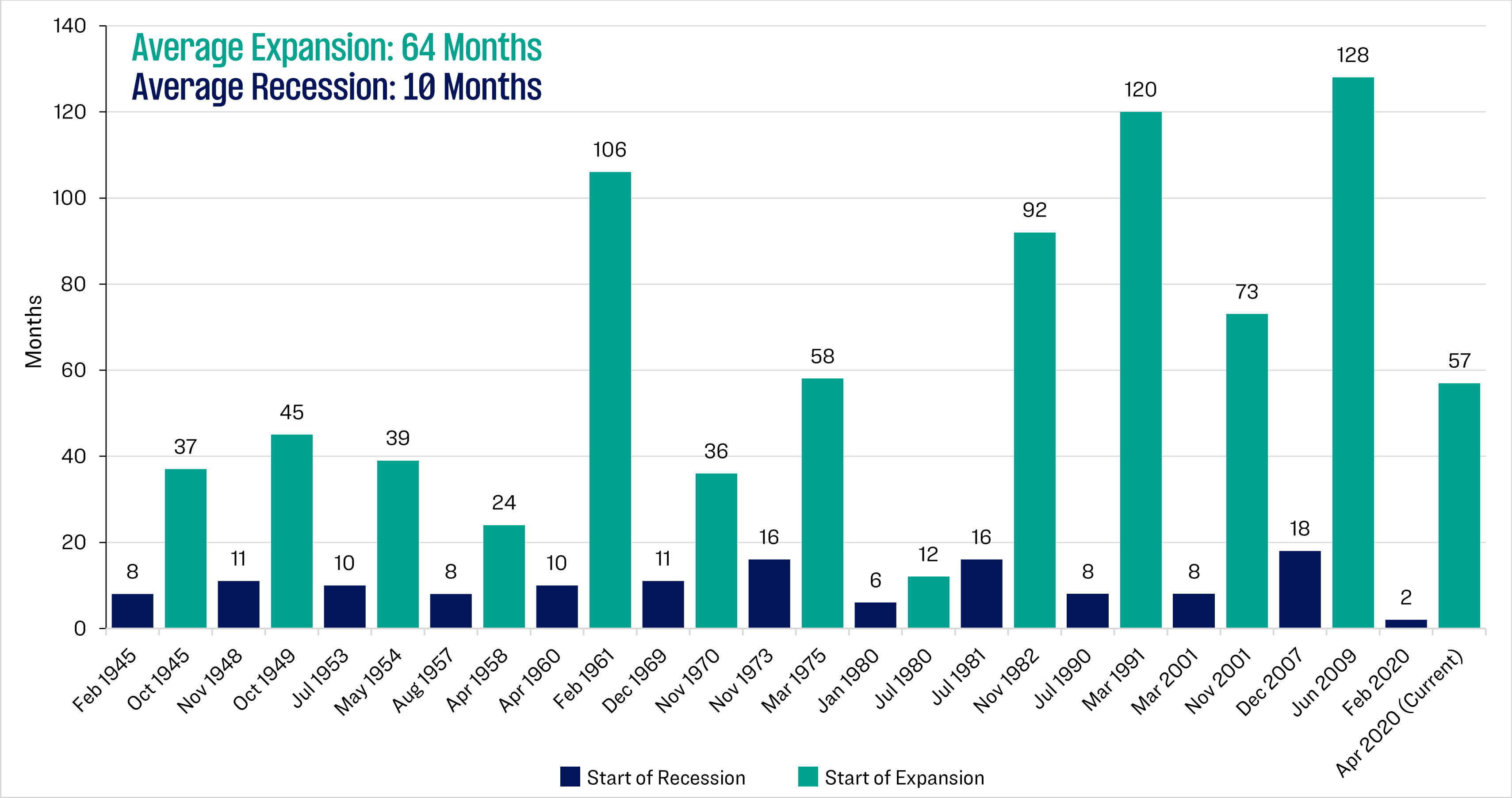


Source: NBER, FactSet, Bloomberg, TIAA Wealth Chief Investment Office. Data through 8/31/2022.

Since 1945, periods of economic expansion last 6x longer than recessions[1]

Recessionary vs. Expansionary Periods

- Since 1945, there have been 13 recessions. On average, periods of expansion have been 6x longer than recessions.
- Despite temporary periods of economic contraction, disciplined investors are usually rewarded over the long term (see slide 73 for more information).



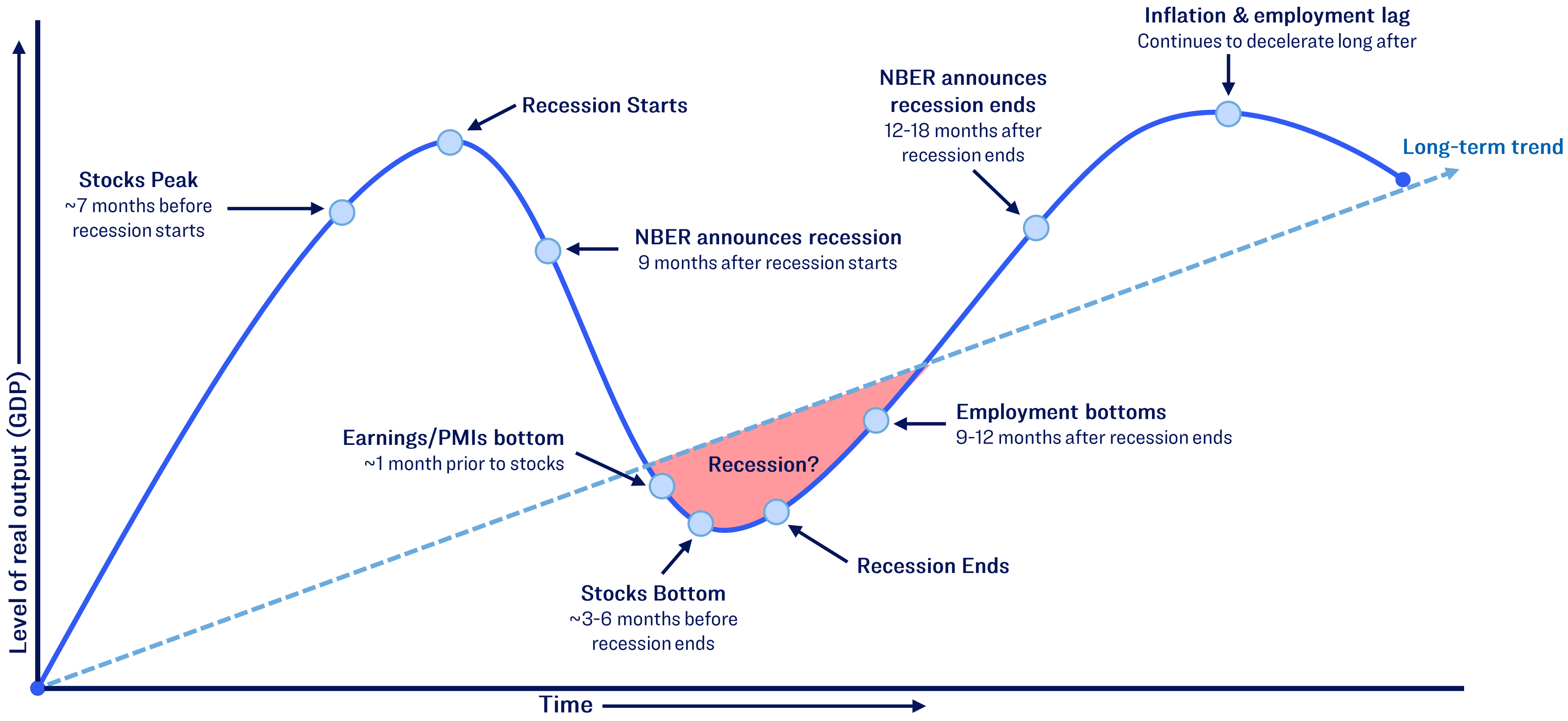
[1] Dates refer to start date of recession (dark blue) and expansion (green). Numbers refer to the number of months in each recession/expansion.

Source: Federal Reserve Board of Governors, Federal Reserve St. Louis, National Bureau of Economic Research, TIAA Wealth Chief Investment Office. Data through 12/31/2024.

The dynamics of a recession are complex

Recessions are Challenging and Marked by Lagging Indicators

- A business cycle consists of economic upswings (expansions) and downswings (recessions).
- Since WWII, upswings last on average 64 months, and downswings last on average 10 months.
- By the time the National Bureau of Economic Research (NBER) "officially calls" a recession, it may be too late to anticipate it and act.
- Stocks generally won't bottom out until 3-6 months before the recession ends.



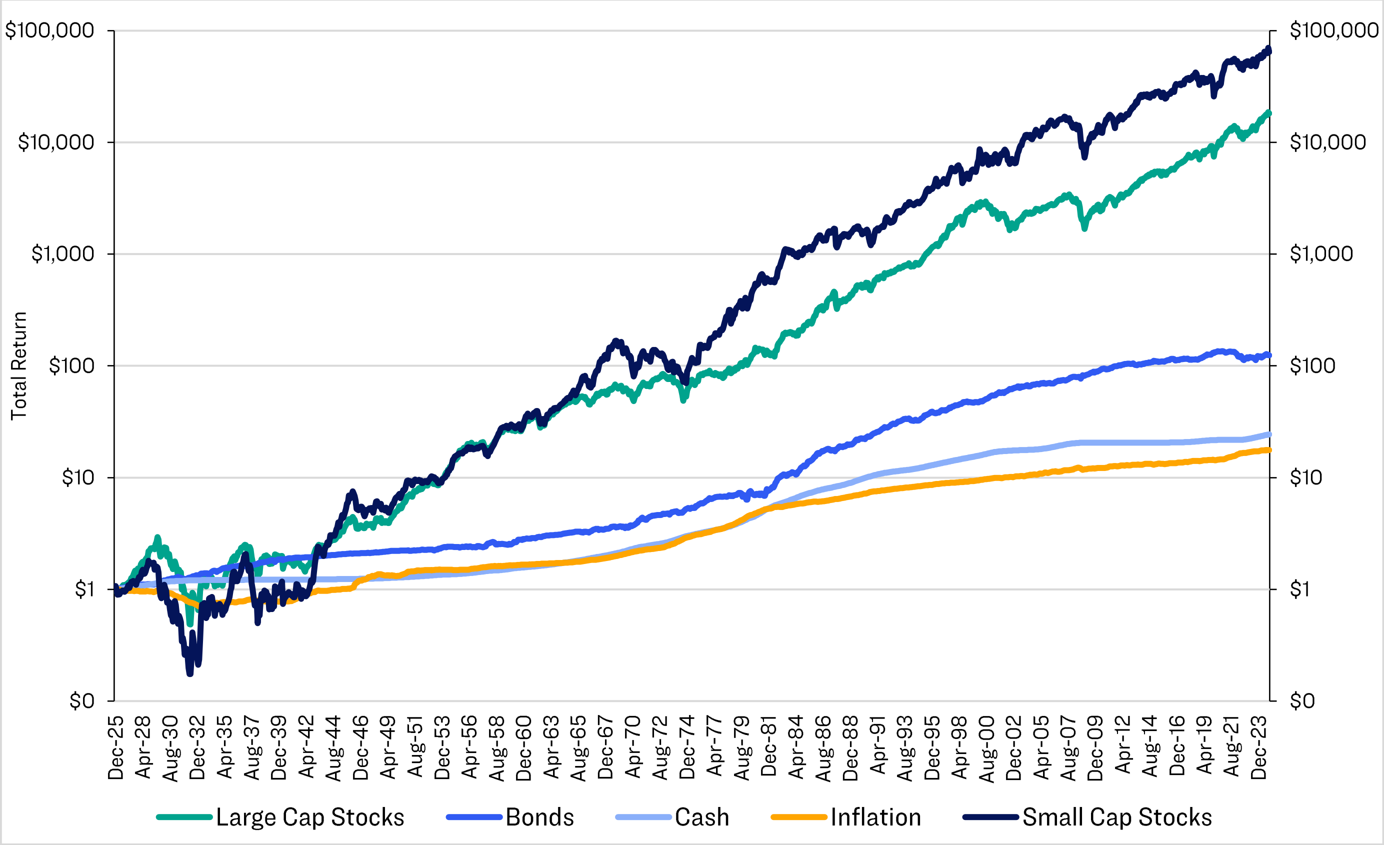
* This graphic is a hypothetical representation of the various stages of a recession. Not all recessions will follow the same trajectory, timeline, or order of events. Additionally, this graphic is a stylized depiction of a business cycle based on historical data of recession dates from the National Bureau of Economic Research and IMG's analysis of historical economic data around the NBER recession dates from the U. S. Commerce Department and the U.S. Department of Labor.

Value of $1 invested over time

Stocks Have Outperformed Over Time

- Historically, stocks have outperformed bonds, cash, and inflation over the long term.
- Despite the many national and international crises throughout the past 100 years, investing in stocks has kept investors on track to pursue their long-term financial goals.

Historically, stocks have outperformed bonds, cash, and inflation over the long term



Average Annualized Return

- Small Cap Stocks: 11.8%
- Large Cap Stocks: 10.4%
- Bonds: 5.0%
- Cash: 3.3%
- Inflation: 2.9%

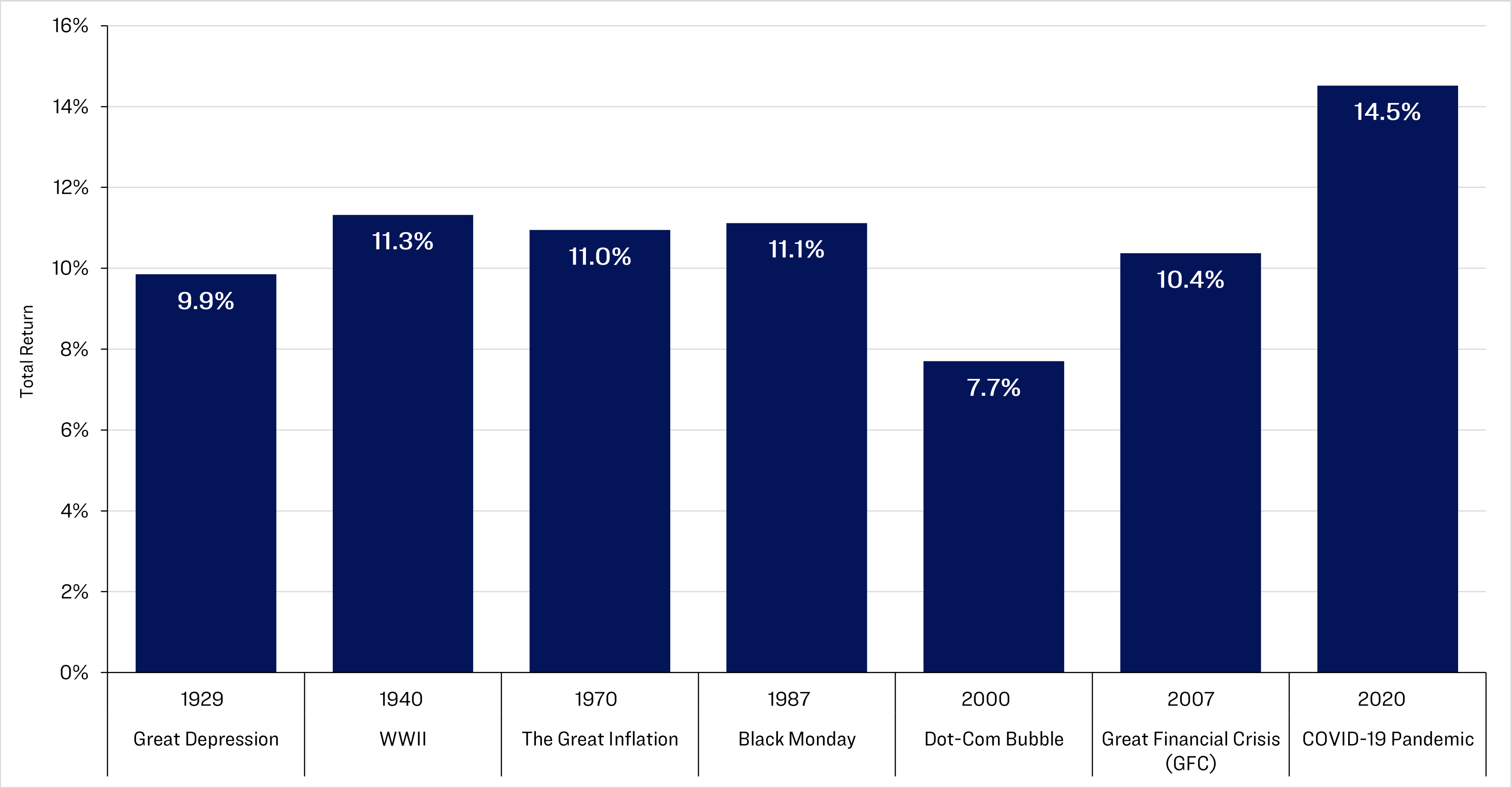
Source: Morningstar Direct, TIAA Wealth Chief Investment Office. Small Cap Stocks: Ibbotson Associates (IA) SBBI U.S. Small Cap Stocks TR USD. Large Cap Stocks: IA SBBI U.S. Large Stock TR USD Ext from 1926-1970; S&P 500 TR USD thereafter. Bonds: IA SBBI IT Govt Bonds TR USD from 1926-1975; Bloomberg U.S. Agg Bond from 1976 thereafter. Cash: IA SBBI U.S. 30 Day Tbill TR USD. Inflation: IA SBBI U.S. Data through 12/31/2024.

Investing at the worst times

Focus on the Long Term

- The chart shows historical returns from some of the worst starting points in stock market history.
- Daily returns from the start of each "bad" year that included some of the most unfavorable market, economic, and geopolitical events of the past 100 years (through 12/31/24).
- Average return runs from the beginning of the year through 12/31/2024; e.g., COVID-19 period average return runs from 1/1/2020 – 12/31/2024.
- There is an ever-present (perpetual) worry/belief that equity investors have missed the party. Yet, data shows that they never have.
- Despite these dreary periods in history, corporate earnings continue to grow, leading to significant stock market recoveries.
- The moral of the story: while we don't know if the next 100 years will be as great as the last 100 years, investing in the stock market has proven to be effective over the long term.

Average annualized return of S&P 500 if you invested at the beginning of each worst period



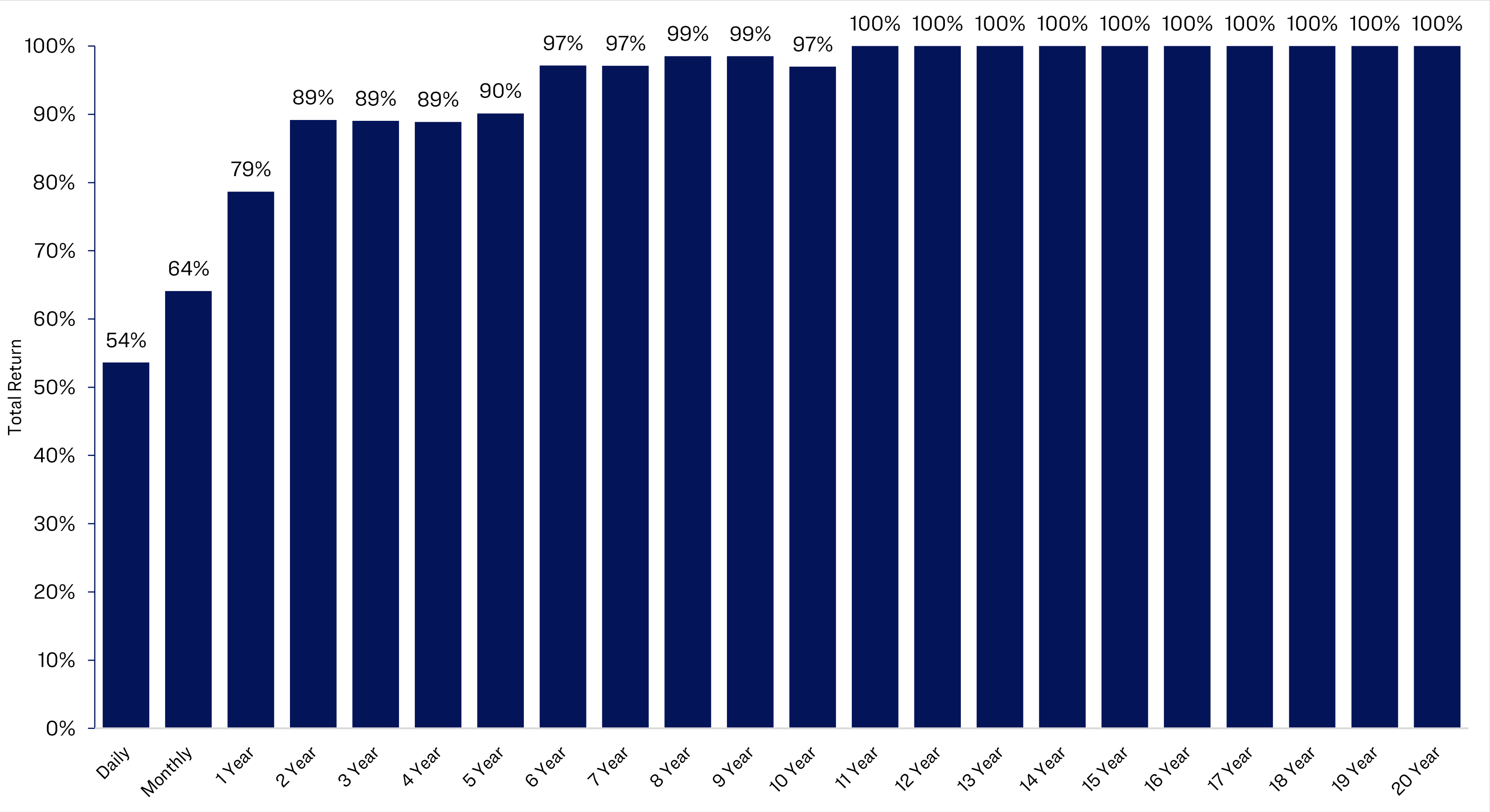
Source: Morningstar Direct, TIAA Wealth Chief Investment Office. S&P 500 TR USD index, daily return, from 1929-2024; S&P 500 TR: IA SBBI U.S. Large Stock TR USD Ext from 1926-1970; S&P 500 TR USD thereafter.

Win rate by holding period

Focus on the Long Term

- For long-term investors, time ***in*** the market is far more important than attempting to time the market. As illustrated in this chart, opportunities for investment gains increase the longer you remain invested.
- On a daily basis, the stock market is akin to a coin toss in terms of gains versus losses. However, the further you extend your investment time horizon, the higher the chance of experiencing gains.
- The S&P 500 is positive 79% of the time with a one-year holding period, which increases to 97% of the time with a six-year holding period and 100% with an 11+ year holding period.

Percent of time the S&P 500 is positive



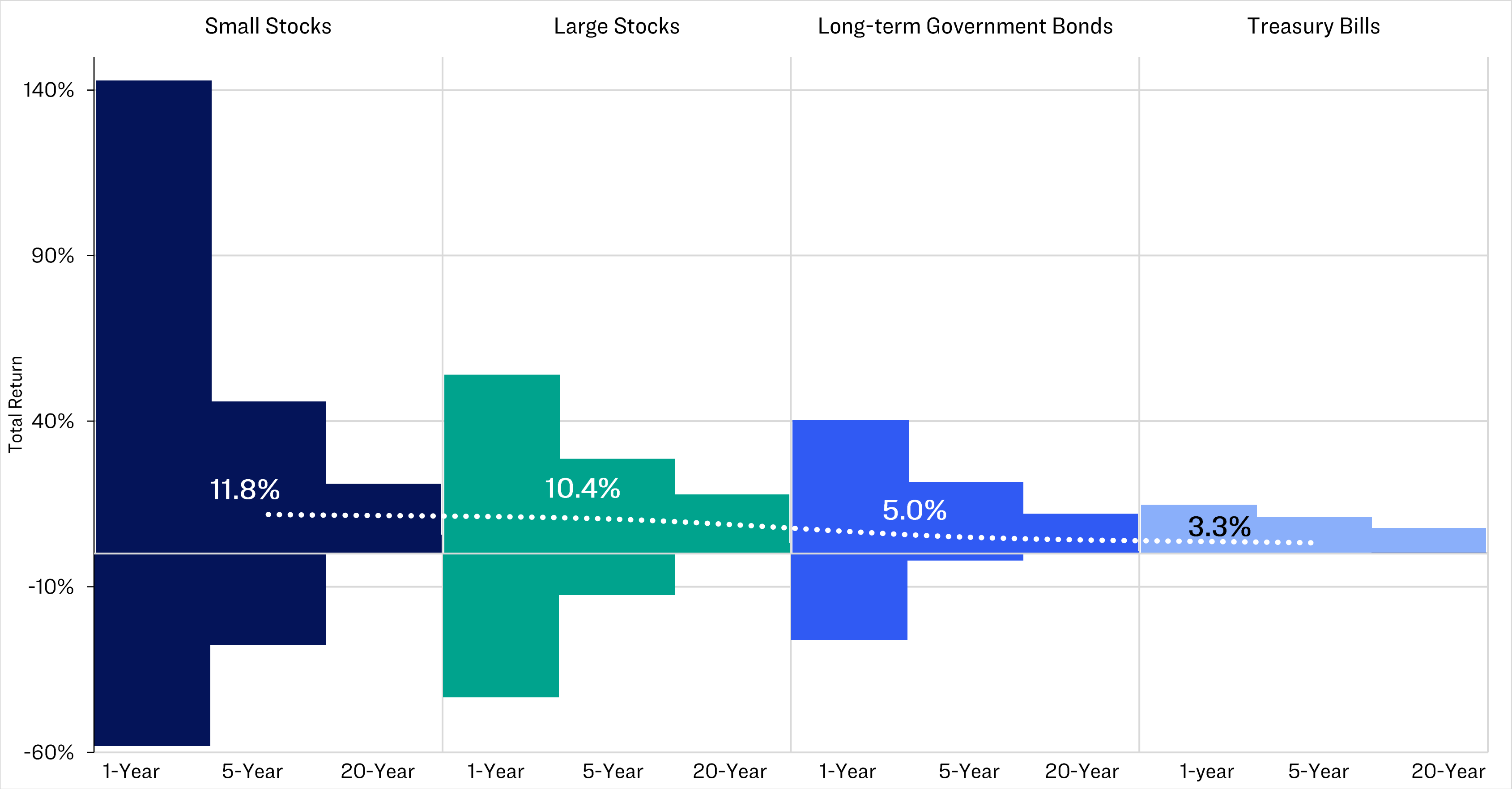
Source: Morningstar Direct, Bloomberg, TIAA Wealth Chief Investment Office. S&P 500 TR USD: IA SBBI U.S. Large Stock TR USD Ext from 1926-1970; S&P 500 TR USD thereafter. S&P 500 Price Return (PR). Daily data, from 1/1/1950 – 12/31/2024; daily, monthly and various annual holding periods.

Reduction of risk over time

Risk Reduction

- Time can lower the risk and increase the returns on investments. Stocks have historically performed well over a longer period of time (20+ year time horizon) while smoothing out periods of temporary volatility.
- The risk of holding stocks diminishes with time and over a 20-year holding period, stocks have never delivered a negative return.

Compound annual return; investment risk of these four asset classes diminishes with time



Source: Morningstar Direct, TIAA Wealth Chief Investment Office. Small Cap Stocks: Ibbotson Associates (IA) SBBI U.S. Small Cap Stocks TR USD. Large Cap Stocks: IA SBBI U.S. Large Stock TR USD Ext from 1926-1970; S&P 500 TR USD thereafter. LT Government Bonds: IA SBBI LT Govt TR USD. Treasury Bills: IA SBBI US 30 Day Tbill TR USD. 1/1/1926 - 12/31/2024.

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