

FOURTH QUARTER 2024

# Market Charts

Turning data into knowledge

All data shown in the charts as of third quarter (Q3) 2024 and reflect the most recent information available. Please see disclosures for the risks associated with the asset classes and for the definitions of market-based and economic indexes.

**Investment and Insurance Products: ► NOT FDIC Insured ► NO Bank Guarantee ► MAY Lose Value**

## Macro

- We anticipate less synchronous global growth during the balance of this year and into 2025 as a U.S. slowdown and China's subpar economic growth is likely countered by a modest recovery in Europe and Japan. Global activity will likely be cushioned by unusually supportive financial conditions.<sup>1</sup>
- We expect slowing inflation to cushion the global economic cycle in the next 12 months directly and indirectly, by supporting real-income growth and modest interest rate cuts by the Federal Reserve (Fed) and other central banks.
- We believe the property slump and sizable debt burdens will limit the ability of second-ranked China's economy to serve as a global growth locomotive.

## Domestic

- We expect a gradual U.S. economic slowdown to be driven by fading post-pandemic supports and a wind-down of job and income growth propelling consumer spending.
- We believe inflation, as measured by the Consumer Price Index (CPI), will slow with the economy as supply shocks continue to unwind and demand softens. However, inertia of the CPI's "sticky" components (rents and other less economically sensitive services) likely will contribute to a bumpy disinflationary path and, ultimately, firming inflation in 2025.

## International

- Emerging markets (EMs) will remain on the leading edge of global growth, in our view, supported by strong population growth in some regions, a commodity super-cycle<sup>2</sup> and, more generally, less mature economies with greater growth potential. Nonetheless, we believe EM growth will be subpar by its own standards due to weak export markets and financial headwinds created by U.S. dollar strength.
- Free trade will likely be tested further by China's strategy of export-led growth into a lackluster recovery of global trade, risking added trade restrictions by countries threatened with a loss of export market share on competing products.

1. Economic forecasts are provided by Wells Fargo Investment Institute as of September 30, 2024. Forecasts are not guaranteed and based on certain assumptions and on views of market and financial conditions which are subject to change. 2. If you look at commodity prices over the very long term (hundreds of years), it becomes evident that they tend to move in overall bull and bear cycles, some lasting decades. These are super-cycles.

# Global economy scorecard

Economic indicator	World	U.S.	Eurozone	Japan	China
GDP growth (% YOY) as of 6/30/2024 <sup>1</sup>	3.4	3.0	0.6	-1.0	4.7
Inflation (% YOY) as of 8/31/2024 <sup>1</sup>	5.8	2.5	1.8	3.0	0.6
Manufacturing Index level as of 9/30/2024	48.8	47.2	45.0	49.7	49.3
Central bank rate (%) as of 9/30/2024	–	4.75 – 5.00	3.65	0.00 – 0.25	3.35
Consumer Confidence Index level as of 9/30/2024 <sup>2</sup>	–	98.7 	-12.9 	36.9 	85.8 
Unemployment rate (%) as of 8/31/2024	–	4.2	6.4	2.5	5.3

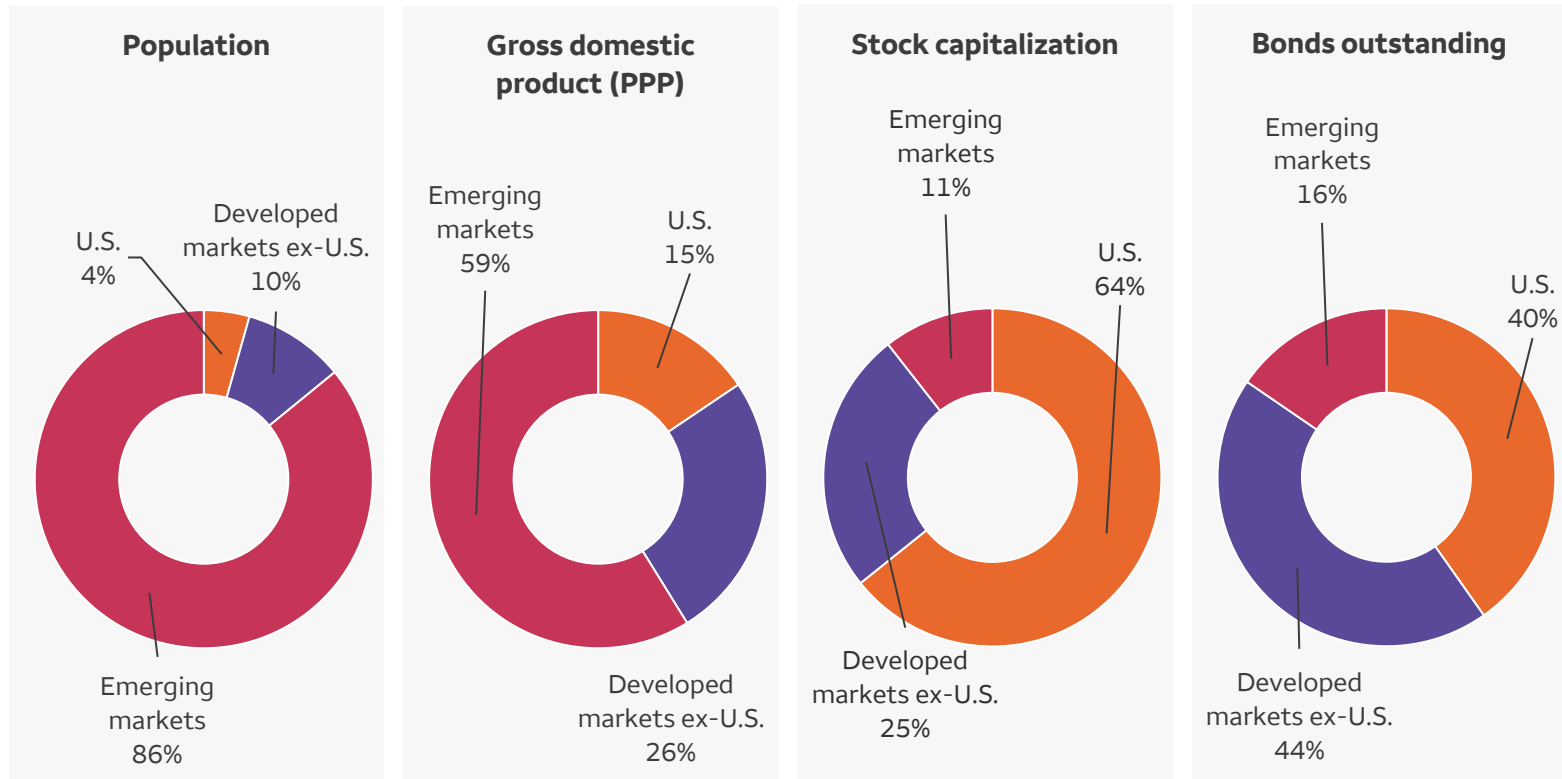
Sources: Bloomberg, International Monetary Fund, and Wells Fargo Investment Institute. Consumer Confidence Index (CCI) is designed to measure consumer confidence, which is defined as the degree of optimism on the state of the economy that consumers are expressing through their activities of savings and spending. Global consumer confidence is not measured. Consumer confidence scale differs by region or country. Up or down arrow indicates an increasing or decreasing level from the previous quarter. GDP = gross domestic product. YOY = year over year. U.S. Manufacturing Index level is the Institute for Supply Management Manufacturing Index<sup>®</sup>, which is a composite index based on the diffusion indexes of five of the indexes with equal weights: new orders, production, employment, supplier deliveries, and inventories. Global, eurozone, Japan, and China Manufacturing Index levels use the Markit Manufacturing PMI Index, which is an index developed from monthly business surveys used to monitor the condition of industries and businesses. An index value over 50 indicates expansion; below 50 indicates contraction. The values for the index can be between 0 and 100.

## Key takeaways

- We expect a mild global growth slowdown later this year, paced by the U.S. slowdown and by China's struggling economy that is only partly offset by a gradual economic recovery in Europe and Japan.
- We expect a window of disinflation to resume later this year, before firming with economic conditions in 2025.

1. World GDP growth and inflation is the GDP-weighted average of developed (42%) and emerging (58%) market percent change in the latest four quarters from the same year ago period as of June 30, 2024. Eurozone inflation as of September 30, 2024. 2. China consumer confidence as of August 31, 2024.

# The world at a glance



Sources: International Monetary Fund World Economic Outlook database, April 2024; Morgan Stanley Capital International (MSCI), as of September 30, 2024; and Bloomberg, as of September 30, 2024. Emerging markets includes frontier markets. Purchasing power parity (PPP) is a theory which states that exchange rates between currencies are in equilibrium when their purchasing power is the same in each of the two countries. Stock capitalization is based on country weightings in the MSCI All Country World Index. MSCI All Country World Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets. Bonds outstanding is based on market value of bonds issued tracked by the Bloomberg Global Aggregate Index. The Bloomberg Global Aggregate Index measures global investment grade debt including treasury, government-related, corporate and securitized fixed-rate bonds from both developed and emerging markets issuers. An index is unmanaged and not available for direct investment. Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions. Foreign investing has additional risks including currency, transaction, volatility and political and regulatory uncertainty. These risks are heightened in emerging and frontier markets. Bonds are subject to market, interest rate, price, credit/default, liquidity, inflation and other risks. Prices tend to be inversely affected by changes in interest rates.

## Key takeaways

- Emerging markets' (EM) growth potential is underscored by their demographic advantage and earlier development stage. That, plus their relatively small global stock capitalization create the potential for attractive investment returns.
- EM fixed income's relatively weak performance in 2023 highlights its vulnerability to rising interest rates, less ample credit, and to a strong U.S. dollar. We expect EM bond issuance to continue to increase gradually as the dollar peaks.

## Global economic forces

### Tailwinds

- 
- Federal Reserve (Fed) pivot to more accommodative monetary policy later in 2024
  - Still-ample U.S. and global liquidity conditions
  - Bank credit standards tight, but easing
  - Productivity-enhancing investment, including artificial intelligence (AI), supports growth potential
  - Still sizable cash balances among upper-income groups<sup>1</sup>
  - Global manufacturing green shoots, commodity super-cycle underpins commodity prices, producers' exports, and emerging market finances<sup>2</sup>
  - Global trade beginning to stir with a gradual recovery in manufacturing
  - Secular strength in electric grid, data center, AI-related investment

### Headwinds

- 
- Slowing real (inflation-adjusted) income growth due to firmer inflation, moderating job gains
  - Lagged impact of past central-bank rate hikes and rising real rates until policy pivots occur
  - An approaching end to post-pandemic supports to disinflation, employment, and pent-up demand
  - “Sticky” wage and service price inflation
  - Higher rental inflation, sticky food and energy inflation from tight supply, geopolitical strain
  - Worsening financial strain among lower- and middle-income households
  - Tight supply, elevated home prices and mortgage rates hamper housing recovery
  - Deteriorating supply chains tied to geopolitical disruptions, weather, market imbalances
  - Deflationary effect of dollar strength on the global economy

Source: Wells Fargo Investment Institute, as of September 30, 2024. Subject to change.

1. Federal Reserve Board, Financial Accounts of the U.S., as of September 12, 2024. 2. If you look at commodity prices over the very long term (hundreds of years), it becomes evident that they tend to move in overall bull and bear cycles, some lasting decades. These are super-cycles.

### Key takeaways

- The U.S. economy has lost some momentum through this year's first half amid moderating jobs and real income growth supporting consumer spending. Still, we believe unusually accommodative financial conditions this late in the economic cycle will cushion the gradual economic slowdown we anticipate in the coming months.
- The most visible risk in our outlook is a sudden reversal of easier financial conditions, leaving leveraged sectors of the global economy and elevated asset values exposed to an abrupt pullback.

# Artificial Intelligence (AI): Forces awaken

## AI development could impact multiple industries

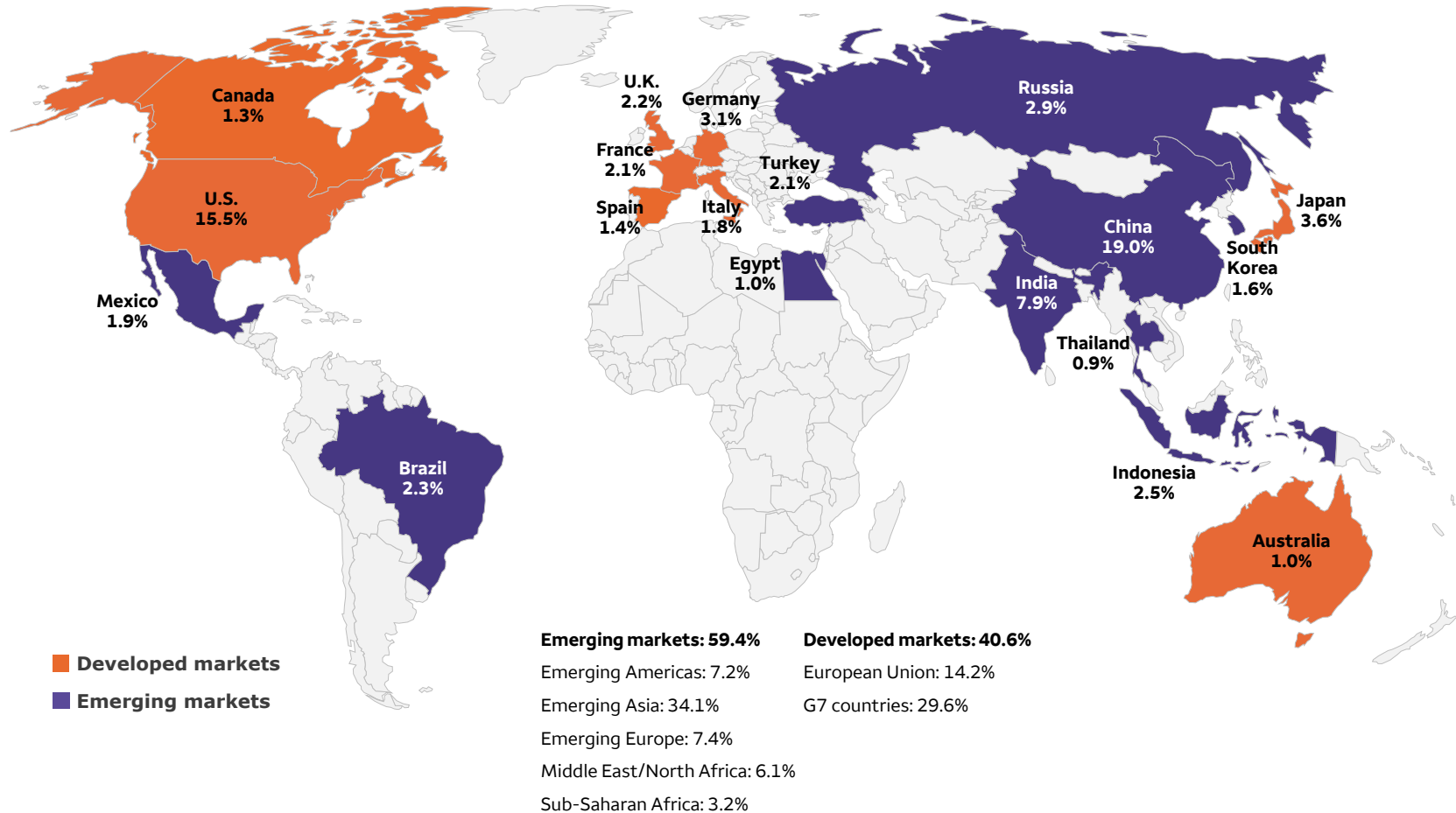
Health Care	Financials	Advertising & Digital Content	Retail & Freight	Energy & Industrials	Customer Service	Business Intelligence
<ul style="list-style-type: none"> <li>• Smart implants</li> <li>• Medical imaging</li> <li>• Pathology detection</li> <li>• Personalized medicine</li> <li>• Identify biomarkers</li> <li>• New drug development</li> <li>• Genomic data analysis</li> <li>• Physician point of service tools</li> </ul>	<ul style="list-style-type: none"> <li>• AI thematic fund offerings</li> <li>• New trade pricing tools</li> <li>• Generate client portfolio reviews</li> <li>• Automated trade prices, execution</li> <li>• AI portfolio management</li> <li>• Increase trading velocity</li> <li>• Product ideation &amp; evolution</li> </ul>	<ul style="list-style-type: none"> <li>• Market efficiency</li> <li>• Enhanced ad targeting</li> <li>• Recommendation engine</li> <li>• Higher ad conversion</li> <li>• Ad auction dynamics</li> <li>• Content creation</li> <li>• Customized travel itineraries</li> <li>• Video game development</li> </ul>	<ul style="list-style-type: none"> <li>• 3D shopping &amp; product try on</li> <li>• Sidewalk robots for deliveries</li> <li>• Supply chain efficiency</li> <li>• Inventory management</li> <li>• Demand prediction</li> <li>• Truck routing capabilities</li> <li>• Higher fleet utilization</li> <li>• Autonomous fleet networks</li> </ul>	<ul style="list-style-type: none"> <li>• AI tools for pipelines</li> <li>• Geological models</li> <li>• AI-enabled microgrid tools</li> <li>• Energy usage analytics</li> <li>• Energy trading enhancements</li> <li>• Labor scheduling</li> <li>• Reservoir optimization</li> <li>• Leak detection &amp; track emissions</li> </ul>	<ul style="list-style-type: none"> <li>• Customer analytics</li> <li>• Insurance claims and records</li> <li>• Transcribe and summarize</li> <li>• Client onboarding</li> </ul>	<ul style="list-style-type: none"> <li>• Developer tools &amp; assisted code</li> <li>• AI-related consulting</li> <li>• Integrated smart home interface</li> <li>• Automate back-office tasks</li> <li>• Fraud prevention and protection</li> <li>• Cybersecurity capabilities</li> <li>• Risk assessment &amp; management</li> <li>• Accelerated data analysis</li> <li>• Predictive modeling</li> </ul>

Source: McKinsey and Wells Fargo Investment Institute, as of September 30, 2024. Subject to change.

### Key takeaways

- AI requires enormous amounts of data storage, computing power, and energy. The rapid growth in generative AI could transform the economy beyond the Information Technology sector through improved productivity across industries.

# Contribution to global GDP growth



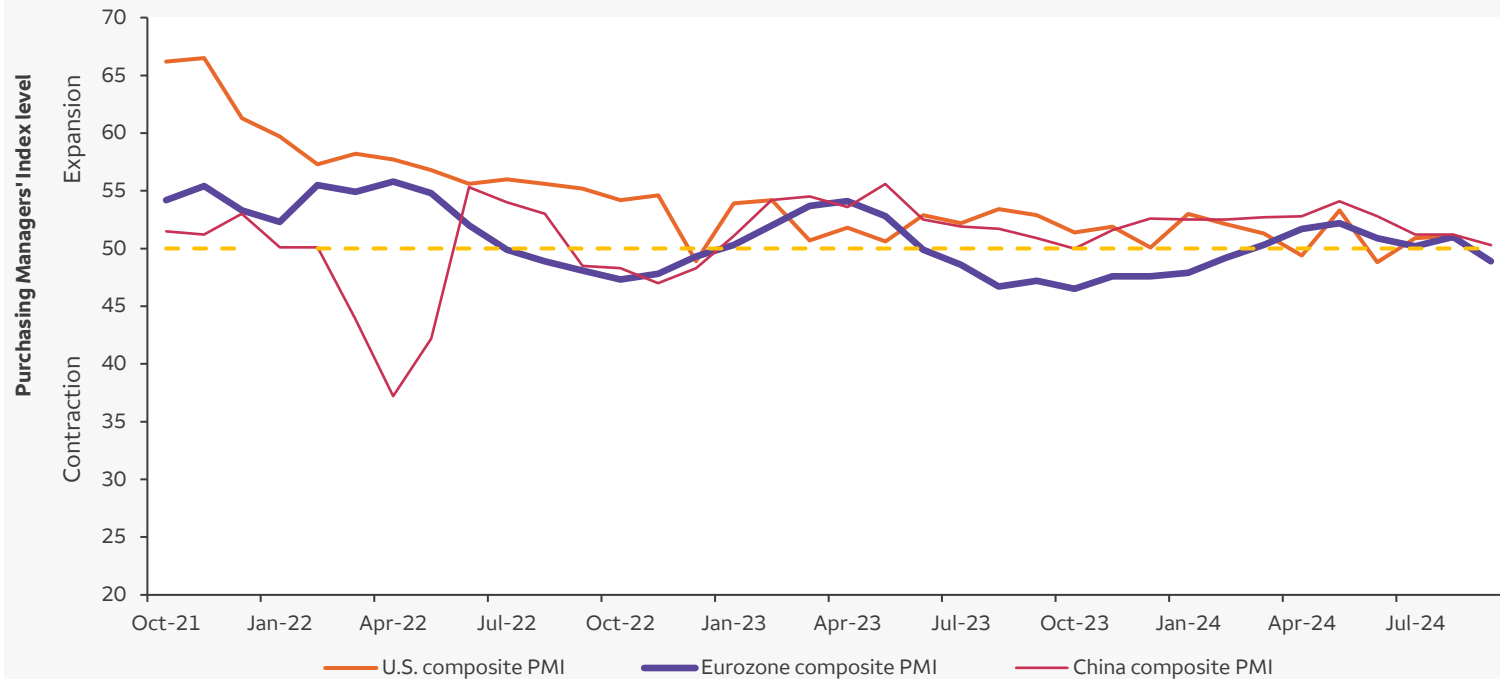
Sources: International Monetary Fund and Wells Fargo Investment Institute. 2024 contribution to global GDP estimate as of September 30, 2024. G7 countries include Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States. GDP = gross domestic product.

## Key takeaways

- We believe tepid foreign trade, U.S. dollar strength, and the wars in Ukraine and the Middle East will keep global economic growth below its long-term (3.5%) average through 2025. Europe's economy is most exposed to the Russia-Ukraine war, but all areas are vulnerable to some combination of global headwinds in coming months.
- We still anticipate a global growth recovery in 2025, responding to further disinflation and a Federal Reserve policy pivot to rate cuts.

# European economic activity picking up

## Percentage of respondents reporting increasing manufacturing and non-manufacturing activity



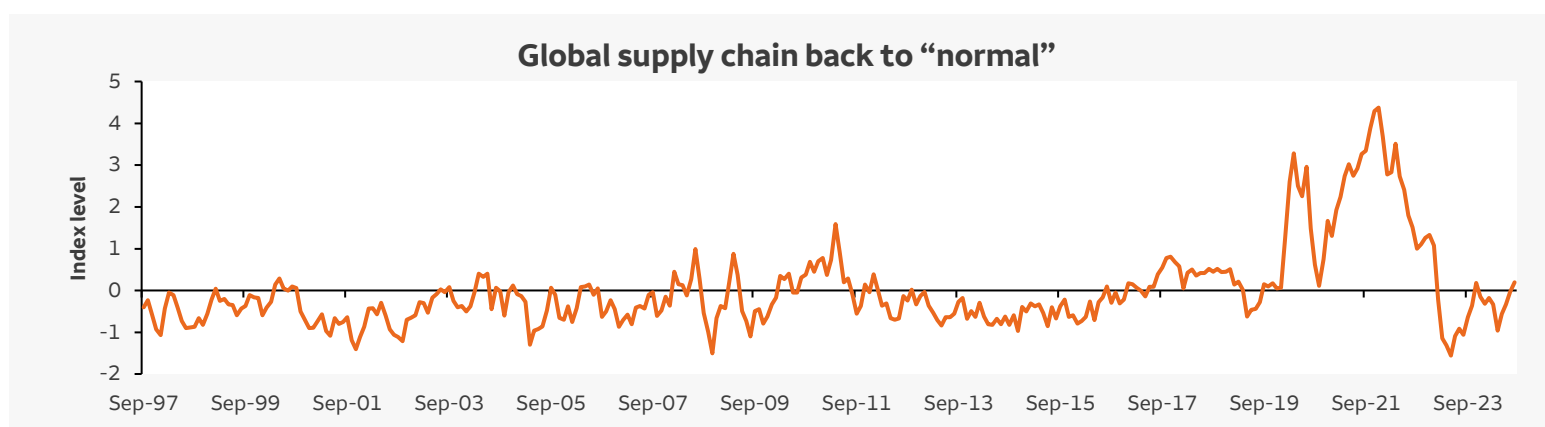
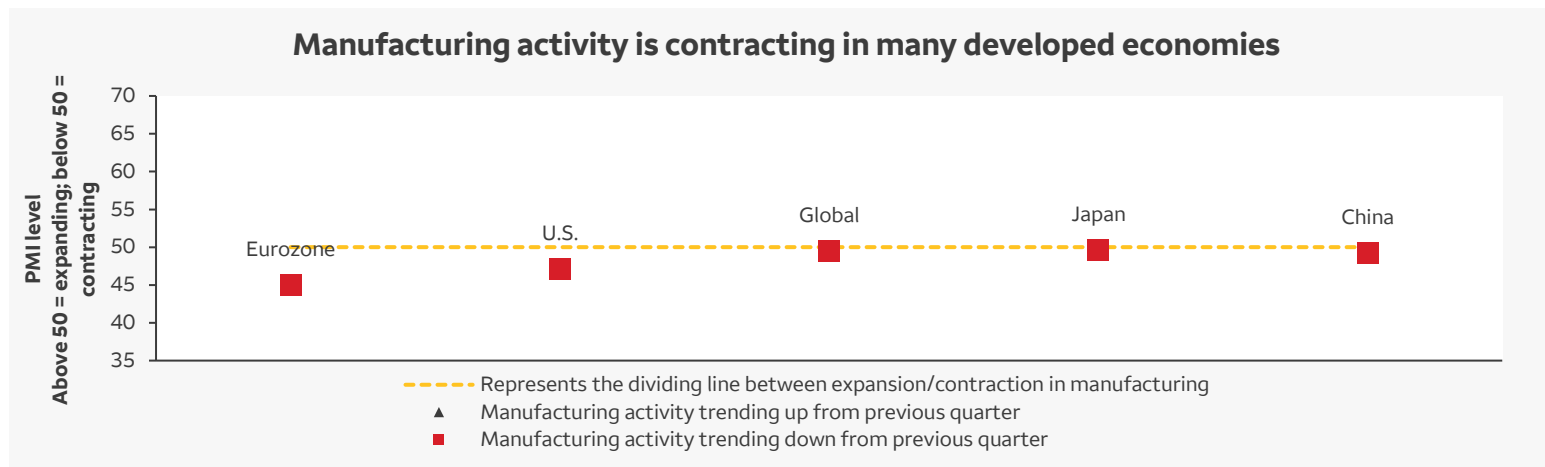
Sources: Bloomberg and Wells Fargo Investment Institute. Monthly data from October 1, 2021, to September 30, 2024. U.S. Composite PMI: monthly data from October 1, 2021, to August 31, 2024. PMI = Purchasing Managers' Index. U.S. Composite Purchasing Managers' Index level is the Institute for Supply Management Composite Index<sup>®</sup>, which is a composite index based on the diffusion indexes of five of the indexes with equal weights: new orders, production, employment, supplier deliveries, and inventories. Eurozone and China PMI levels use the Markit Manufacturing PMI Index, which is an index developed from monthly business surveys used to monitor the condition of industries and businesses. An index value over 50 indicates expansion; below 50 indicates contraction. The values for the index can be between 0 and 100.

### Key takeaways

- We believe Europe is poised for a modest, but early economic recovery from a mild slowdown late last year, responding to lower inflation and interest rates outweighing headwinds from tepid growth in world trade and fiscal restraints.
- Global manufacturing remains a drag on economic growth in most developed economies because of its greater exposure to energy costs, the rotation to services spending, a struggling Chinese economy, and to a weak recovery of world trade facing a growing array of import restrictions.



# Manufacturing sentiment is weak globally

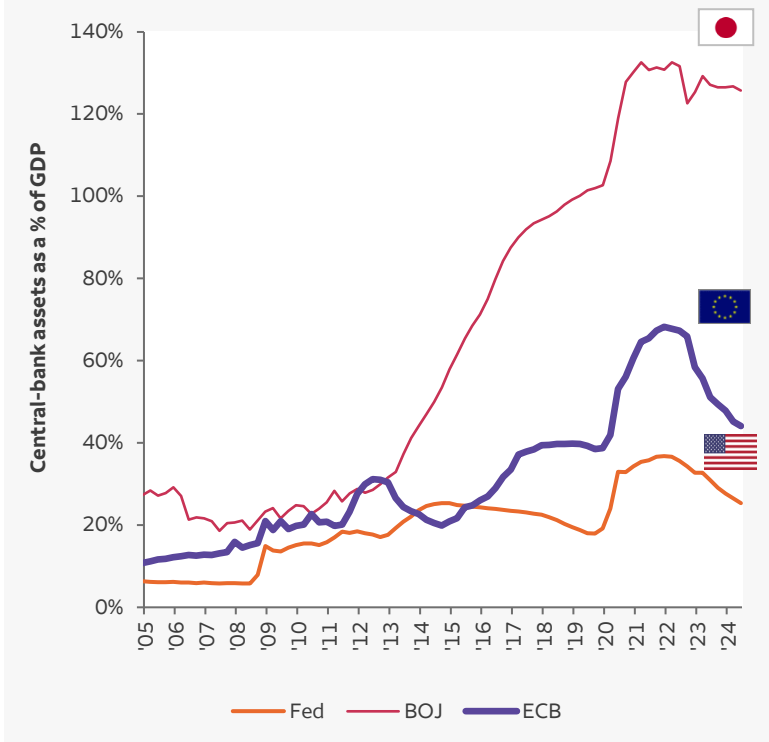


Sources: Top chart: Bloomberg, IHS Markit, and Wells Fargo Investment Institute, as of September 30, 2024. Bottom chart: Bloomberg and Wells Fargo Investment Institute. Monthly data from September 1, 1997, to August 31, 2024. PMI = Purchasing Managers' Index. The PMI is an index developed from monthly business surveys used to monitor the condition of industries and businesses. The Global Supply Chain Pressures Index is normalized so a zero indicates the index is at its average value with positive values representing supply chain tightening.

## Key takeaways

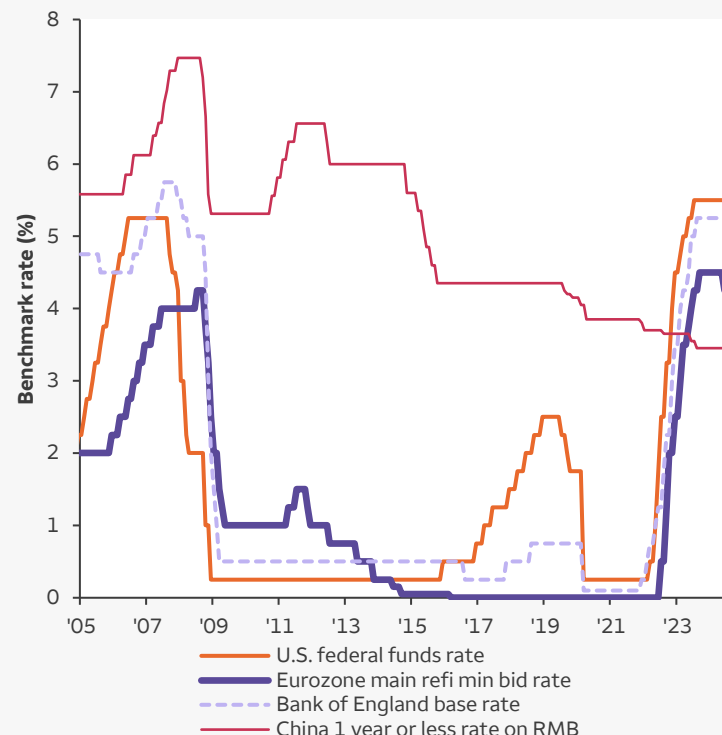
- Manufacturing activity in most major developed economies has improved but remains in or near a recession, as spending rotates from goods to services and pressures household finances.
- Supply chains have largely recovered, signaling a rebalancing from post-pandemic supply constraints. More measured increases in supply and pressure on rent, health care, and other services leave the economy more exposed to firmer inflation as it emerges from a growth slowdown expected later this year.

## Central banks are reducing monetary support



Sources: Bloomberg and Wells Fargo Investment Institute. Quarterly data from January 1, 2005, to June 30, 2024. Fed = Federal Reserve. BOJ = Bank of Japan. ECB = European Central Bank. GDP = gross domestic product.

## Most benchmark rates remain elevated



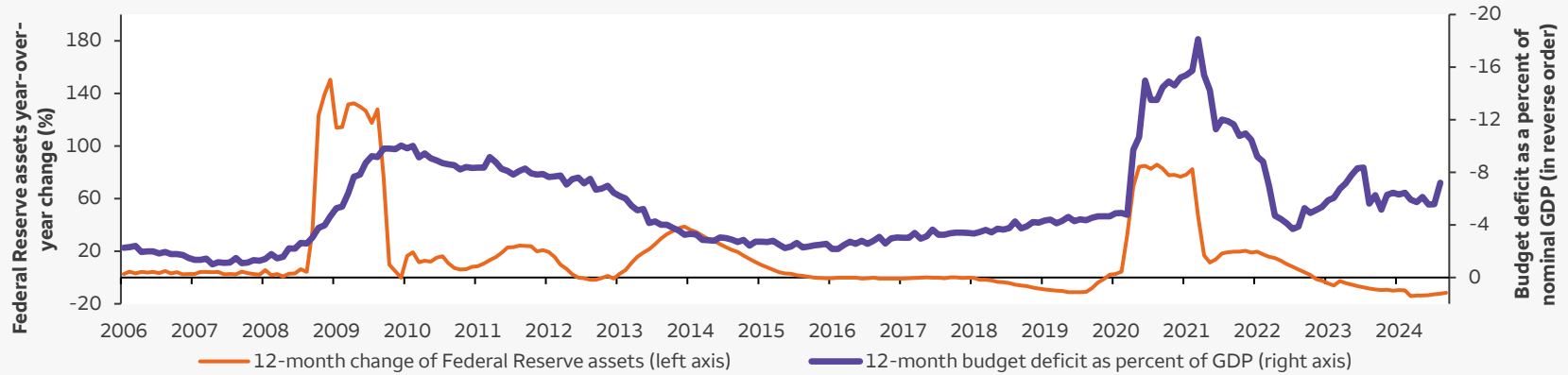
Sources: Bloomberg and Wells Fargo Investment Institute. Monthly data from January 1, 2005, to September 30, 2024. Headline central bank policy rates of selected countries. Refi = refinance. Min = minimum. RMB = Chinese Yuan Renminbi.

### Key takeaways

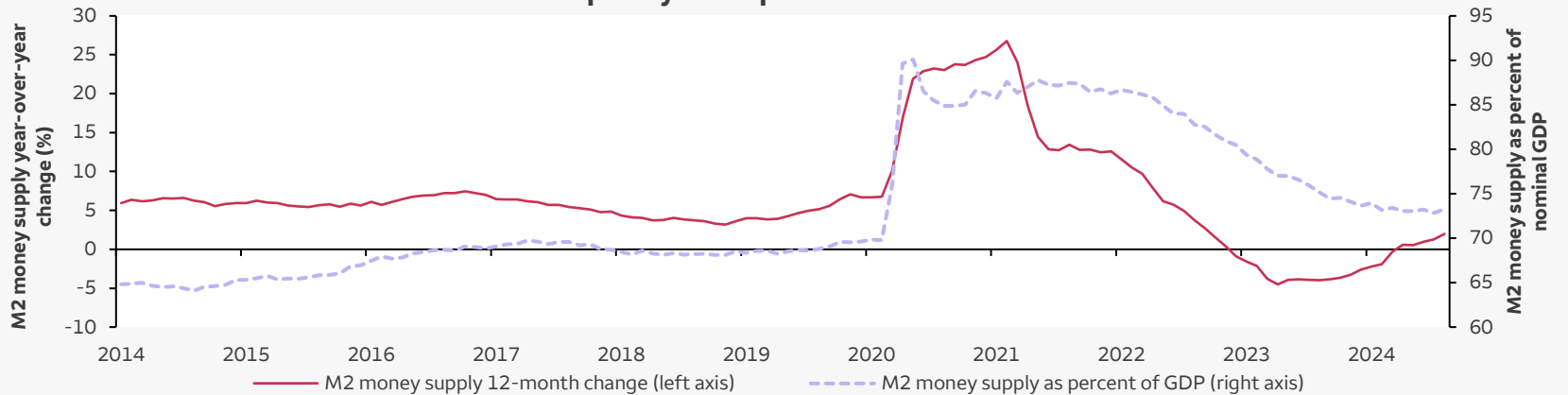
- Global liquidity, though still supportive of global growth, risks becoming less so in a delayed response to central banks' earlier tightening to counter inflation. Any increase in financial stress poses one of the most visible threats to an increasingly levered global economy if the change comes too abruptly.
- Central-bank stimulus during the pandemic outpaced that of the Global Financial Crisis in 2007 – 2009, necessitating an extended period of adjustment to bring central-bank balance sheets back in line with their historical norms.

# Liquidity remains key as Fed tightening takes effect

## A shrinking balance sheet is accompanied by a growing budget deficit



## Liquidity drain poses market risks



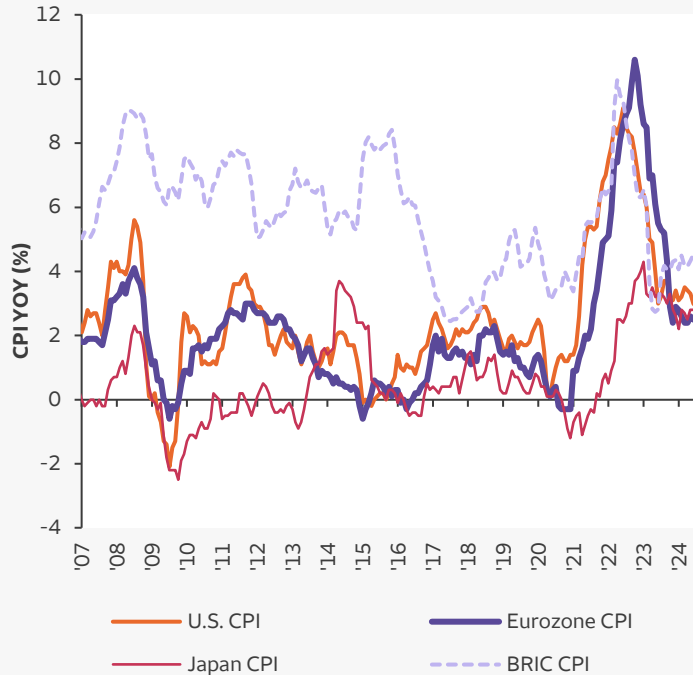
Sources: Top chart: Bloomberg, U.S. Treasury Department, Federal Reserve Board, and Wells Fargo Investment Institute. Monthly data from January 1, 2006, to September 30, 2024. Budget deficit: monthly data from January 1, 2006, to August 31, 2024. Bottom chart: Sources: Bloomberg, Federal Reserve Board, and Wells Fargo Investment Institute. Monthly data from January 1, 2014, to August 31, 2024. M2 money supply = currency, demand, and small-time deposits. Fed = Federal Reserve. GDP = gross domestic product.

### Key takeaways

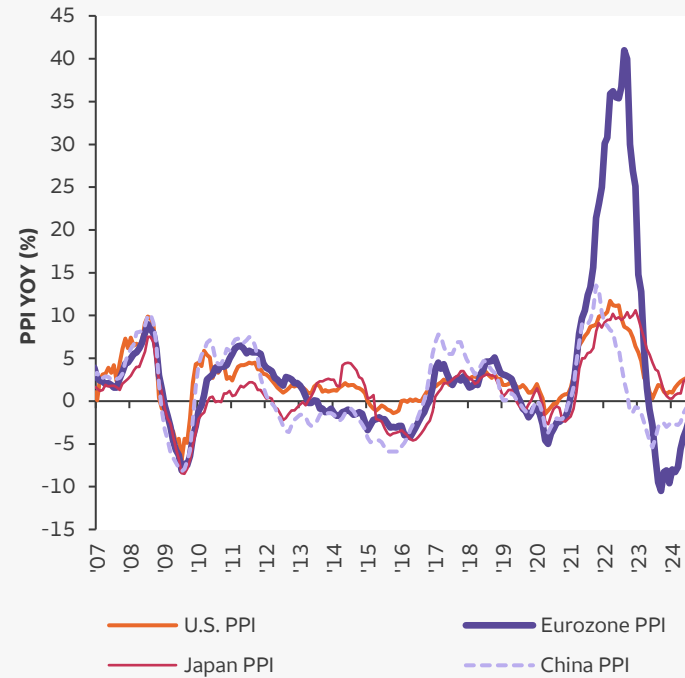
- Added pressure on market funds from a wind down of the Fed's liquidity facility and from its policy of quantitative tightening (QT) is easing, as the Fed "tapers" its securities sales to the market. QT had reduced the size of the Fed's balance sheet and helped restrain money growth in the past year.
- A shrinking money supply is countering a recent increase in money velocity — the speed with which money circulates in financing transactions — to leave the economy exposed to a pullback in liquidity even as the Fed eases the reins on QT.

# Moving toward central-bank inflation targets

## Inflation across regions is declining



## Producers' costs continuing to slow

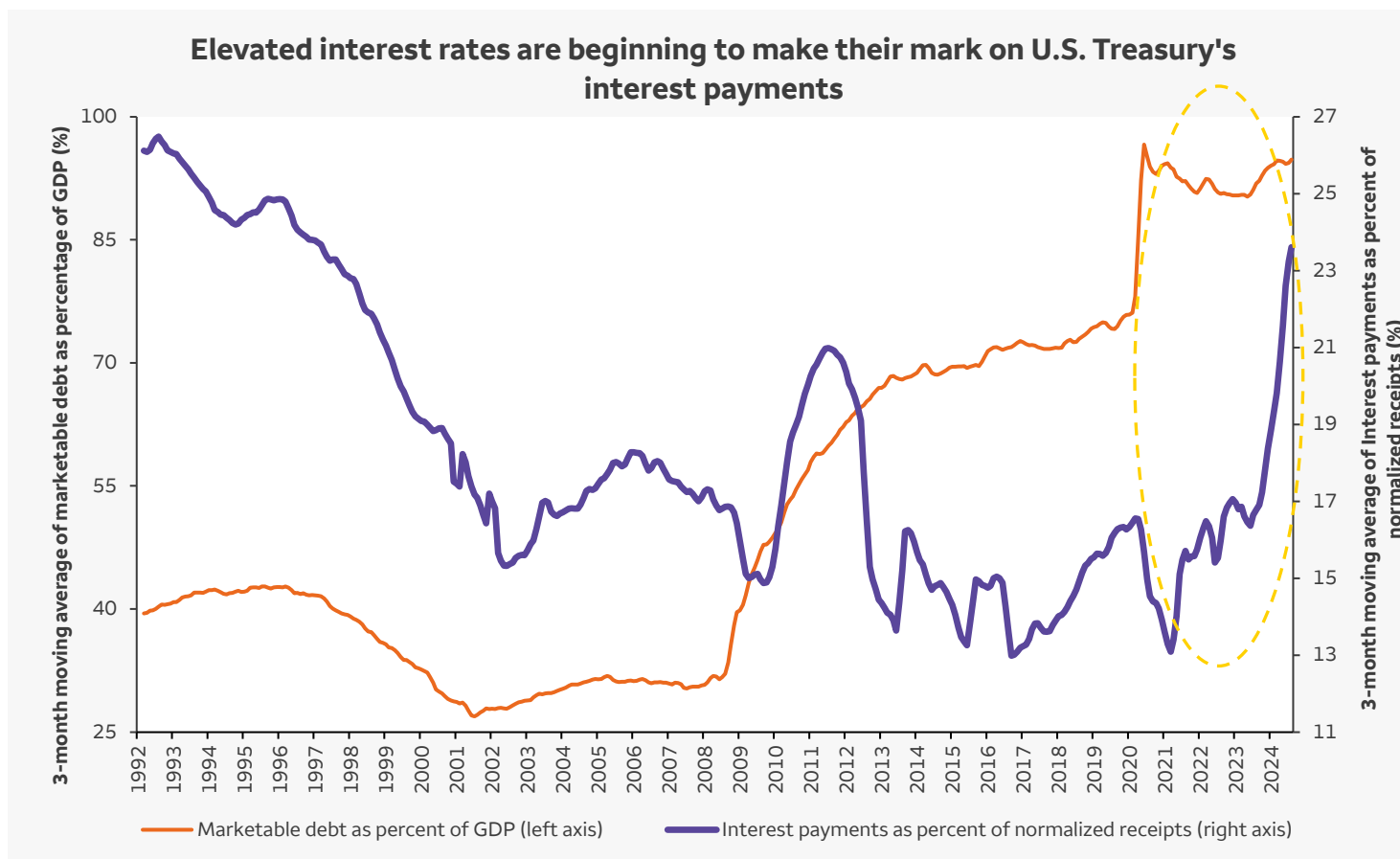


Sources: Bloomberg and Wells Fargo Investment Institute. Monthly data from January 1, 2007, to August 31, 2024. Eurozone PPI: monthly data from January 1, 2007, to July 31, 2024. BRIC is an acronym for the economies of Brazil, Russia, India, and China. CPI is the Consumer Price Index, which measures the price of a fixed basket of goods and services purchased by an average consumer. PPI is the Producer Price Index, which measures the average change over time in the selling prices received by domestic producers for their output. The prices included in the PPI are from the first commercial transaction for many products and some services. YOY = year-over-year.

## Key takeaways

- Disinflation has recently taken a bumpier path as demand for services dissipated slowly and certain “sticky” components of the CPI (for example, medical care and insurance) steadied or reaccelerated.
- Housing, levered sectors of the economy, and risk assets are exposed to the reversal of ultra-low interest rates in place over the past 15 years that were suppressed by aggressive monetary stimulus in the U.S. and abroad.

# Federal interest payments are on the rise



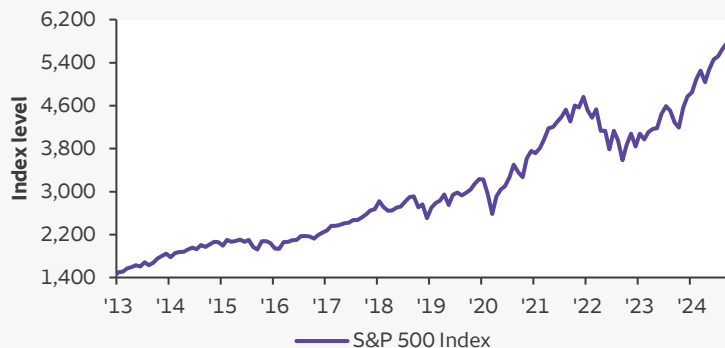
Sources: Bloomberg, U.S. Treasury Department, and Wells Fargo Investment Institute. Monthly data from January 1, 1992, to August 31, 2024. Normalized receipts are based on rolling 10-year moving average. GDP = gross domestic product.

## Key takeaways

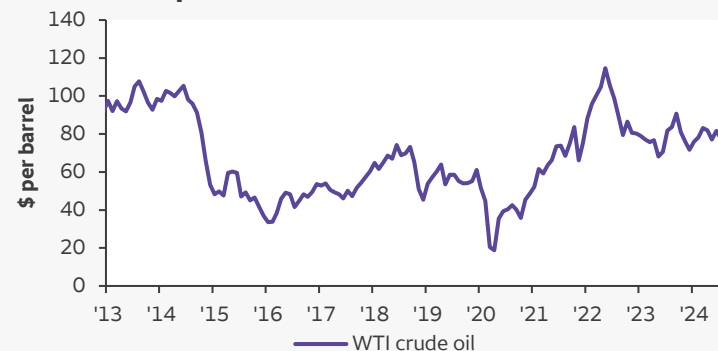
- Rapid debt expansion and higher interest rates have sent interest payments by the federal government as a share of revenues climbing to a level associated in the past with pushback by investors and fiscal austerity measures from the government.
- Federal interest expenses are especially vulnerable to further increases because the budget's structural weaknesses are keeping deficits — and associated borrowing needs — historically high.

# Where are we today?

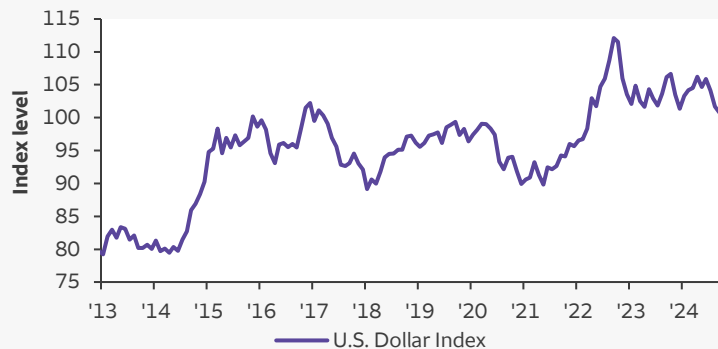
### The U.S. stock market continues to rally



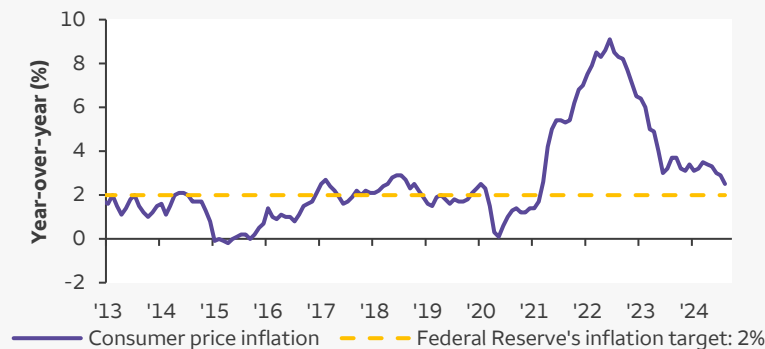
### Oil prices have softened since 2022



### U.S. dollar remains elevated



### Inflation moving toward Fed's target



Sources: Bloomberg and Wells Fargo Investment Institute. Monthly data from January 1, 2013, to September 30, 2024. Consumer price inflation: monthly data from January 1, 2013, to August 31, 2024. The S&P 500 Index is a market capitalization-weighted index composed of 500 widely held common stocks that is generally considered representative of the U.S. stock market. The Consumer Price Index measures the average price of a basket of goods and services. West Texas Intermediate (WTI) is a grade of crude oil used as a benchmark in oil pricing. U.S. Dollar Index (USDX) measures the value of the U.S. dollar relative to the majority of its most significant trading partners. This index is similar to other trade-weighted indexes, which also use the exchange rates from the same major currencies. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Stocks may fluctuate in response to general economic and market conditions, the prospects of individual companies, and industry sectors. Fed = Federal Reserve.

Super-cycle = If you look at commodity prices over the very long term (hundreds of years), it becomes evident that they tend to move in overall bull and bear cycles, some lasting decades. These are super-cycles.

## Key takeaways

- We believe the U.S. stock market is vulnerable to a pullback despite the recovery from its third-quarter slump, as it digests bumpy disinflation and the dampening effect on corporate earnings growth from a cooling economy.
- Raw materials prices are shrugging off the negative impact of a strengthening dollar because of tight supply conditions tied to a commodity super-cycle reacting to years of underinvestment.

# Where are we headed?



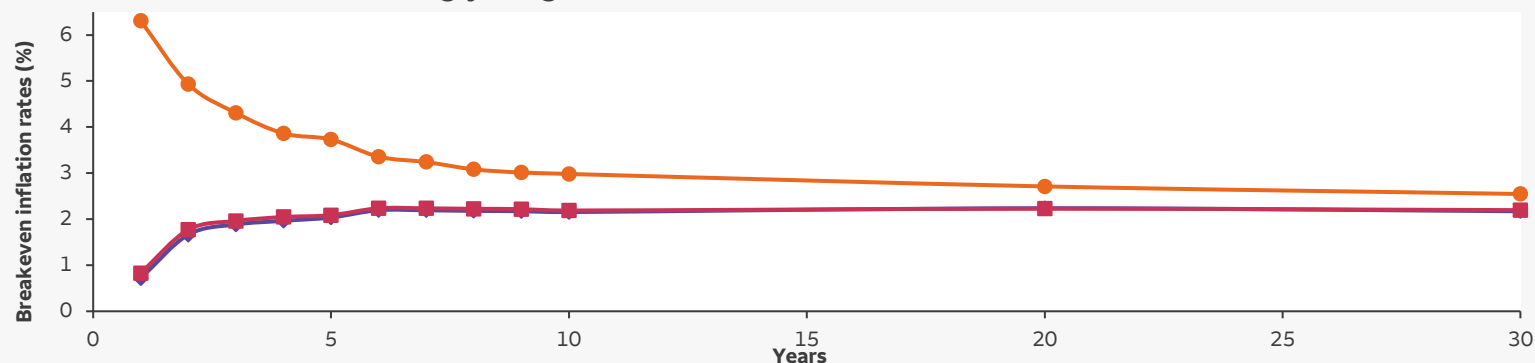
Source: Wells Fargo Investment Institute, as of September 30, 2024. Subject to change. GDP = gross domestic product.

## Key takeaways

- The U.S. economy is entering a slowdown because of household financial pressure, inflation worries, elevated interest rates, and softening conditions in the labor market.
- Economic growth is facing a headwind from reduced fiscal stimulus and from reduced catch-up hiring propelling job, income, and consumer-spending growth in recent years.

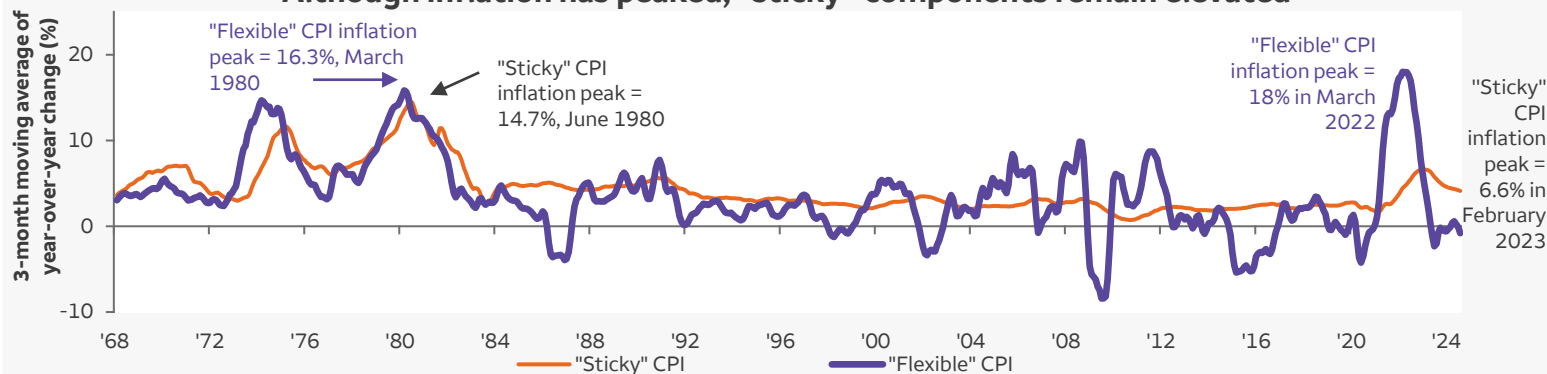
# Sticky inflation may test Fed's patience

## An increasingly sanguine inflation outlook has flattened the breakeven curve



— Breakeven inflation rates as of March 25, 2022 — Breakeven inflation rates as of August 31, 2024 — Breakeven inflation rates as of September 30, 2024

## Although inflation has peaked, “sticky” components remain elevated



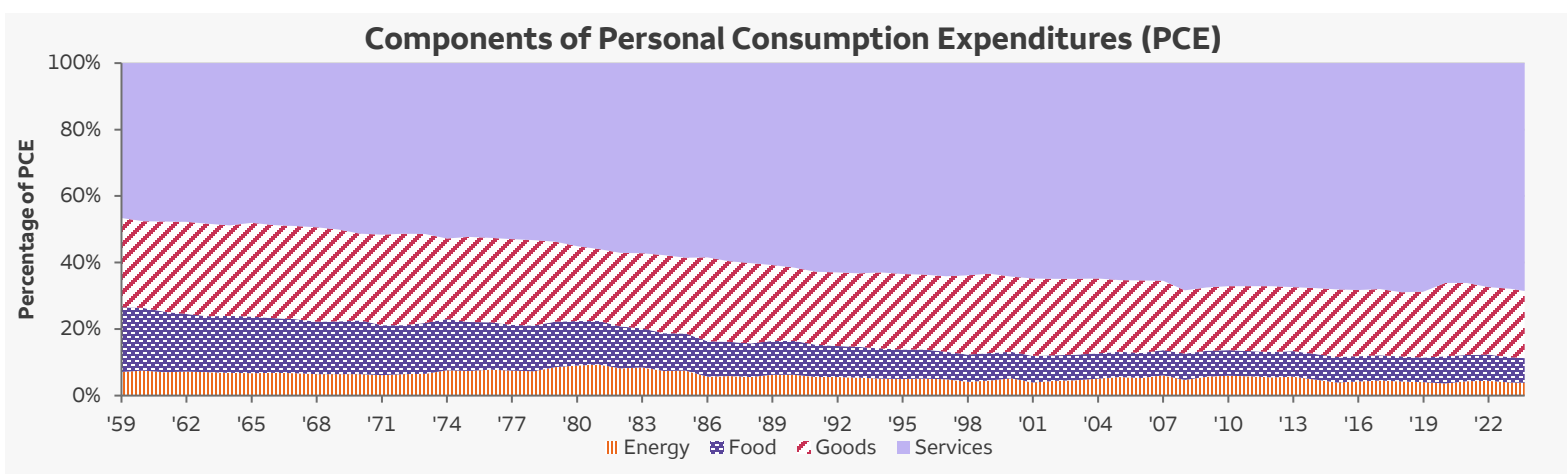
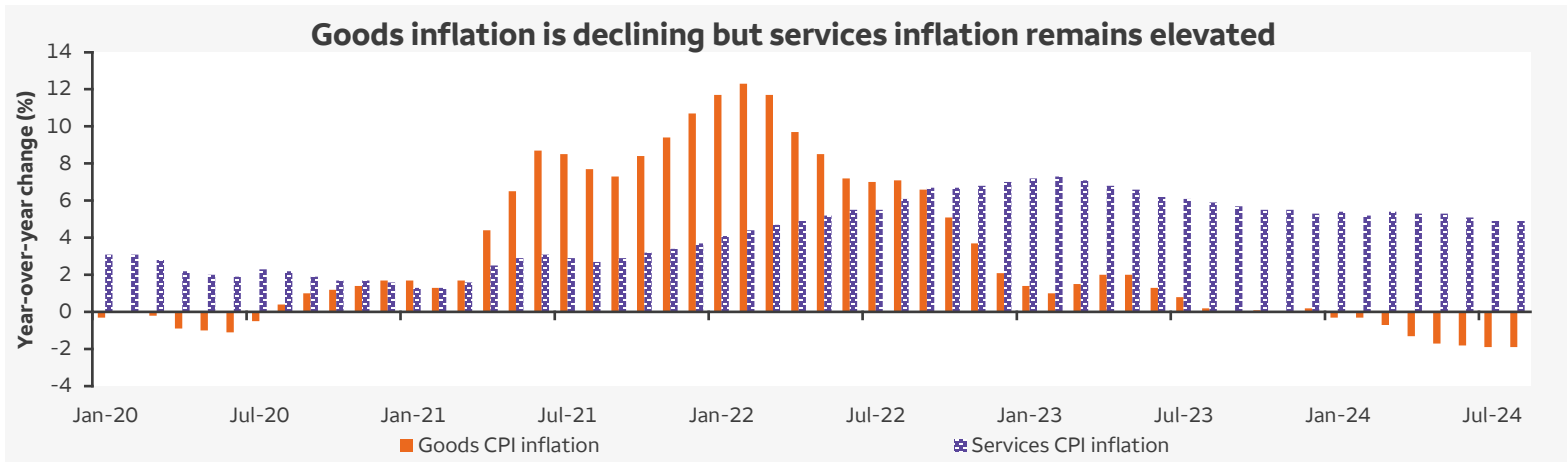
Sources: Top chart: Bloomberg, U.S. Treasury Department, and Wells Fargo Investment Institute, as of September 30, 2024. Bottom chart: Bloomberg, Federal Reserve Bank of Atlanta, U.S. Department of Labor, and Wells Fargo Investment Institute. Sticky-price and flexible-price consumer price index: monthly data from January 1, 1968, to August 31, 2024. Breakeven inflation rates equate nominal, or observed, Treasury interest rates with their inflation-protected counterparts. Fed = Federal Reserve. CPI = consumer price inflation. Sticky inflation is measured by components that change pricing less frequently, such as rents, education and public transportations. Flexible inflation is measured by components that change pricing more frequently, such as car rental, gas, and electricity.

### Key takeaways

- Shorter-term inflation expectations have been in a holding pattern, recently, steadied by more modest disinflation in the Consumer Price Index (CPI) following noticeable declines from early 2022. “Stickier” services inflation within the CPI has been slower to decline than goods inflation, buoyed by pressure on rents and other less economically sensitive prices.
- Longer-term inflation expectations remain subdued by comparison, signaling that investors and households view recent price increases largely as the product of shocks likely to dissipate in coming months.



# Share of services inflation has grown

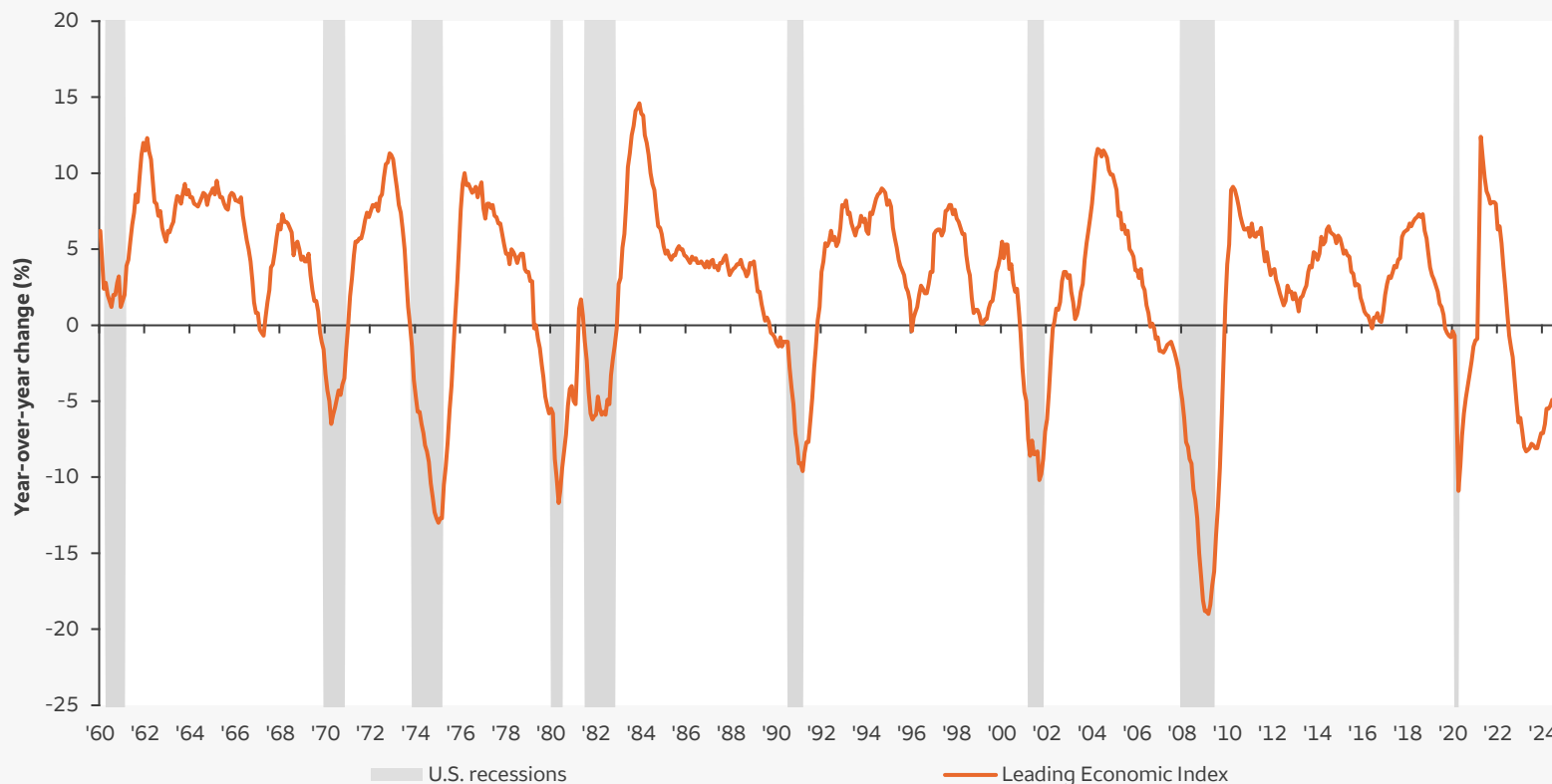


Sources: Bloomberg, Bureau of Economic Analysis, U.S. Census Bureau, and Wells Fargo Investment Institute. Goods and Services Consumer Price Index (CPI) inflation: monthly data from January 1, 2020, to August 31, 2024. PCE components: monthly data from January 1, 1959, to August 31, 2024. PCE (personal consumption expenditure) tracks overall price changes for goods and services purchased by consumers. Services and all goods spending data is adjusted for inflation.

## Key takeaways

- Over the past four decades, the services component has become an increasingly large portion of the U.S. Consumer Price Index. Services demand remains elevated contributing to persistent services inflation as spending has rotated from goods to services.
- Ongoing labor shortages have combined with “sticky” services inflation (for rents and other less economically sensitive medical care, insurance, and other items) to slow inflation’s descent, even as improving supply chains and soft demand have suppressed goods-price increases.

## Leading economic indicators are improving but remain below zero

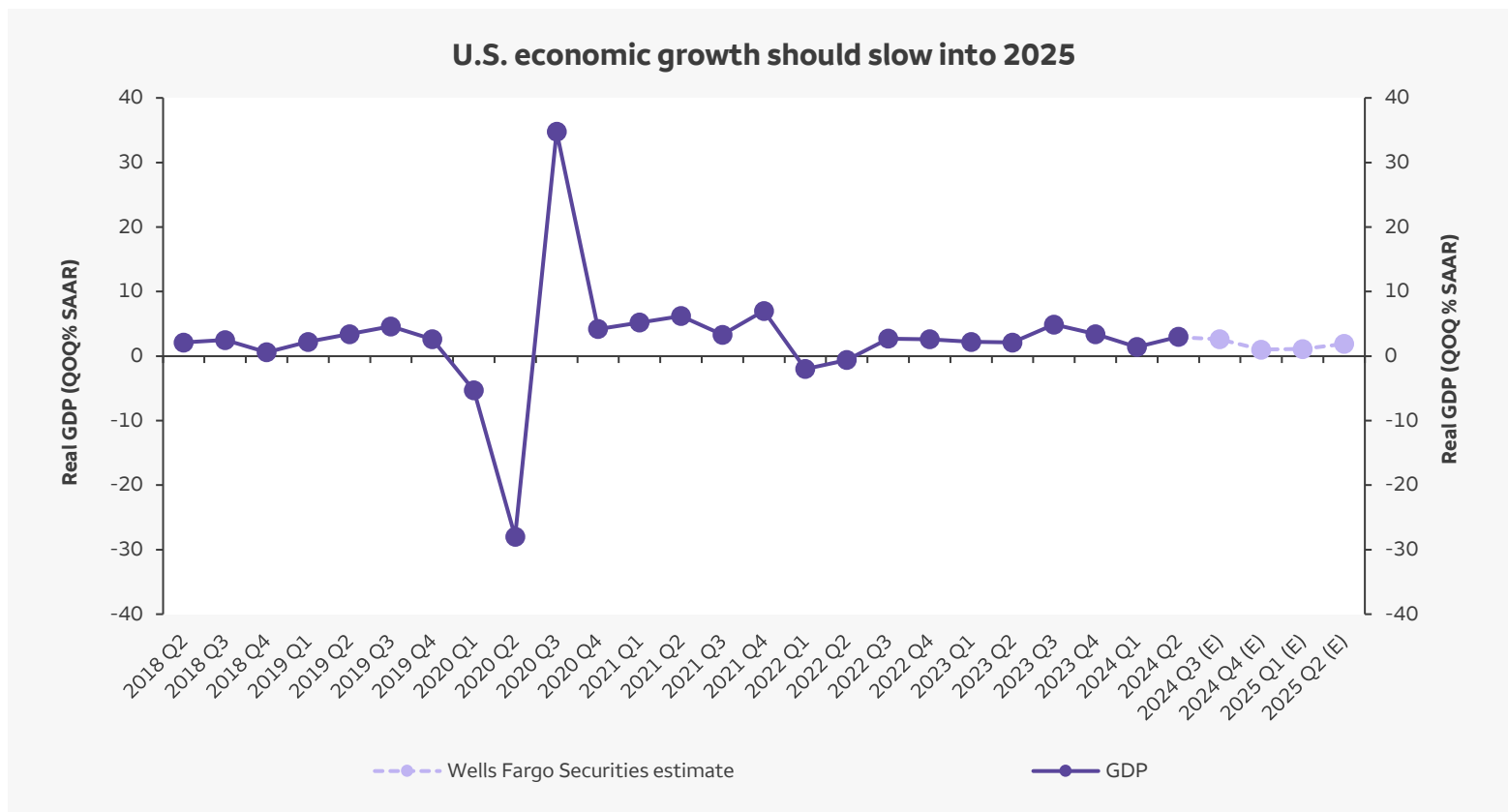


Sources: Bloomberg and Wells Fargo Investment Institute. Monthly data from January 1, 1960, to August 31, 2024. The Conference Board Leading Economic Index® (LEI) is a composite average of 10 leading indicators in the U.S. It is one of the key elements in the Conference Board's analytic system, which is designed to signal peaks and troughs in the business cycle. The ten components of The Conference Board Leading Economic Index® for the U.S. include: Average weekly hours in manufacturing; Average weekly initial claims for unemployment insurance; Manufacturers' new orders for consumer goods and materials; ISM® Index of New Orders; Manufacturers' new orders for nondefense capital goods excluding aircraft orders; Building permits for new private housing units; S&P 500 Index of Stock Prices; Leading Credit Index™; Interest rate spread (10-year Treasury bonds less federal funds rate); Average consumer expectations for business conditions.

### Key takeaways

- Historically, declines of the current magnitude in the Index of Leading Economic Indicators (LEI) have been a surefire signal of an approaching recession.
- Among the explanations for the LEI's miscue in this cycle: its bias toward manufacturing, which has had its weakness masked by resilient services industries, and reliance on consumer sentiment data not always accurately signaling the strength of consumer spending intentions.

# U.S. economic slowdown likely underway

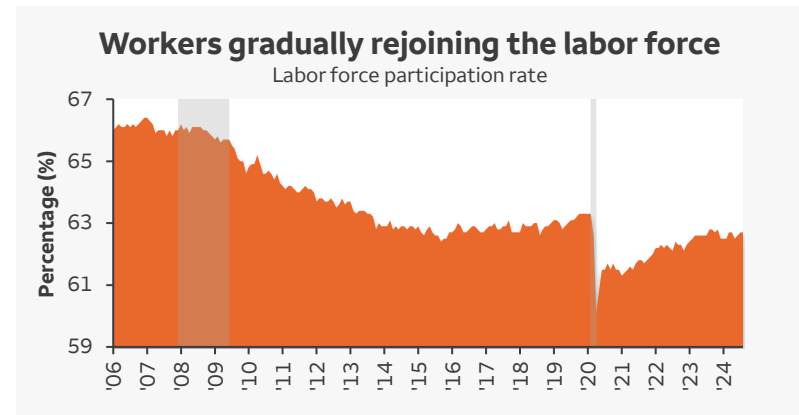
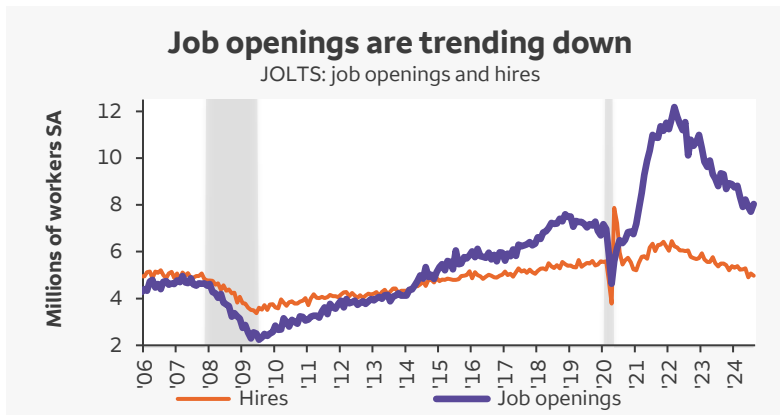
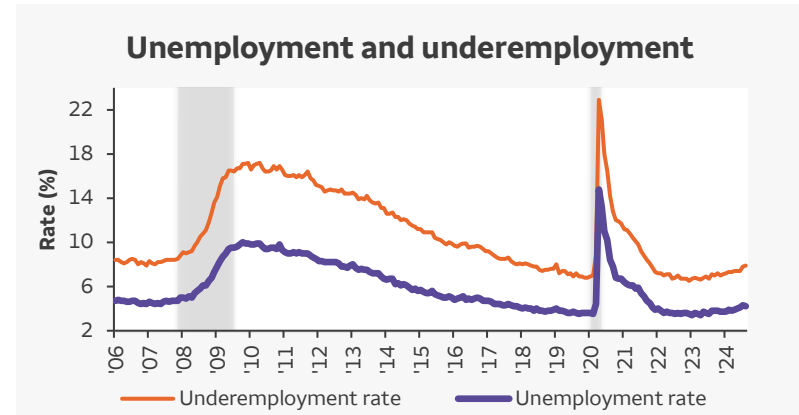
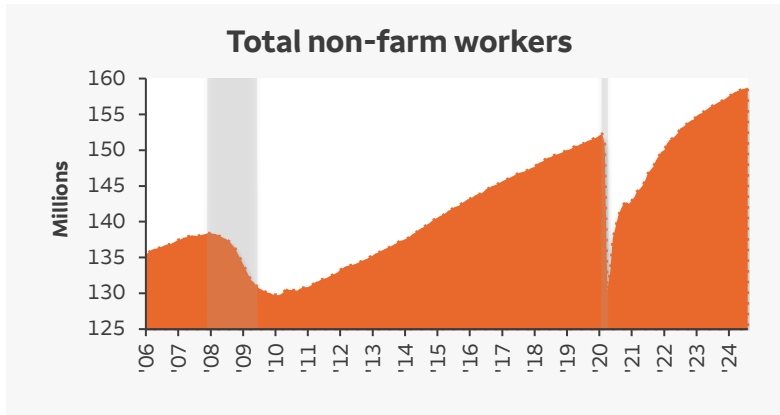


Sources: Bloomberg, Wells Fargo Securities, and Wells Fargo Investment Institute. Quarterly data from April 1, 2018, to June 30, 2024. Q3 2024 – Q2 2025 are Wells Fargo Securities forecasts, as of September 19, 2024. **Forecasts are not guaranteed and are subject to change.** GDP = gross domestic product. QOQ = quarter over quarter. SAAR = seasonally adjusted annual rate. Forecasts are based on certain assumptions and on views of market and economic conditions which are subject to change.

## Key takeaways

- We believe tighter liquidity conditions and the loss of post-pandemic supports to hiring, pent-up services demand, and disinflation are the principal threats to satisfactory economic growth during the balance of 2024.
- We expect slowing economic and profits growth, combined with higher interest expenses tied to increased financing costs, to create headwinds for further stock gains in 2024.

# The U.S. job market remains tight

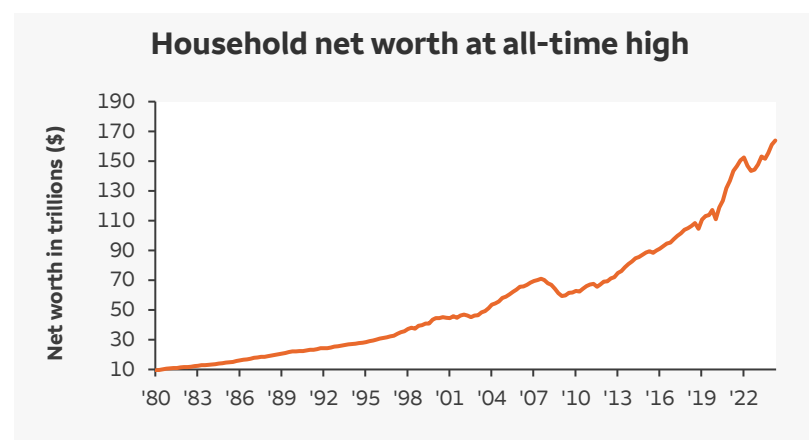
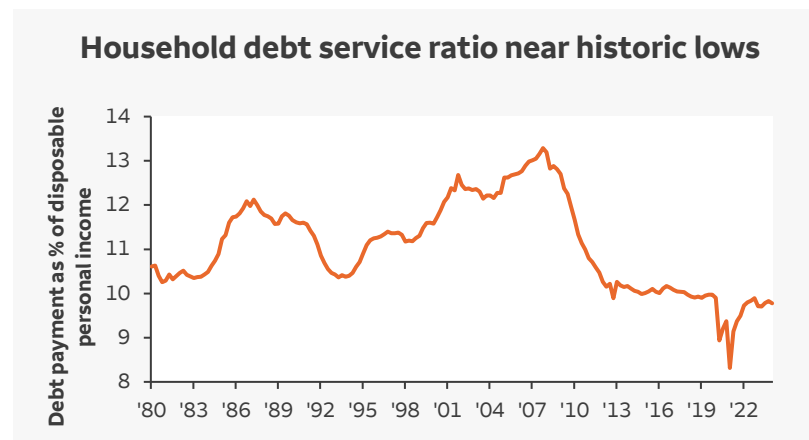
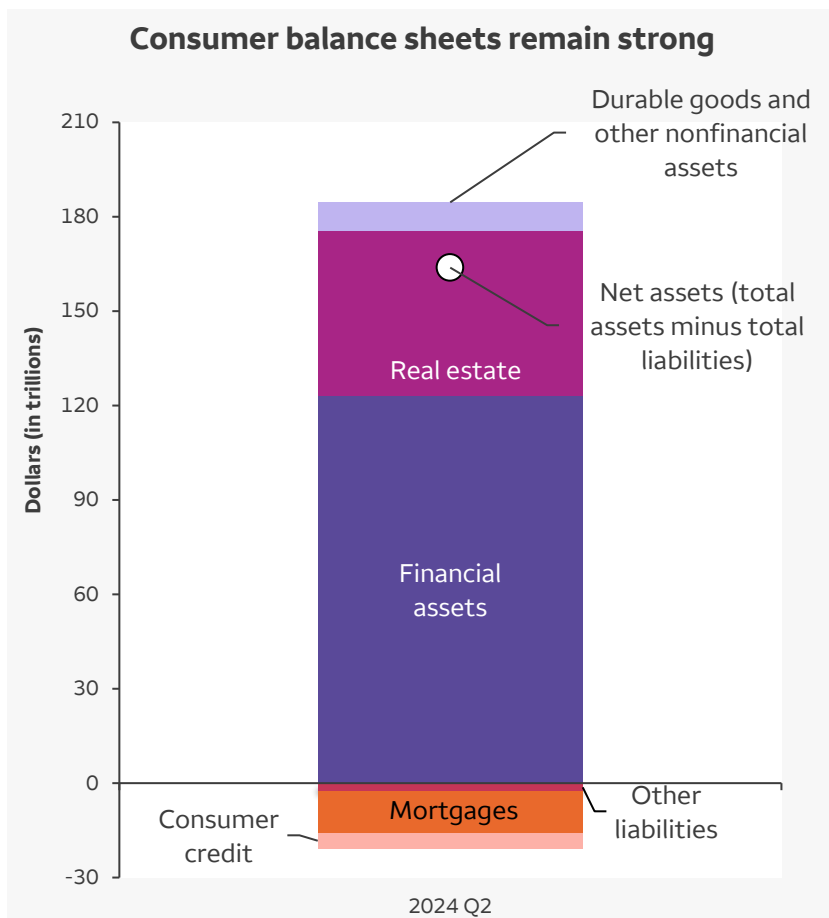


Sources: Bloomberg and Wells Fargo Investment Institute. Monthly data from January 1, 2006, to August 31, 2024. JOLTS = Job Openings and Labor Turnover Survey. Shaded area represents a U.S. economic recession. SA = seasonally adjusted.

## Key takeaways

- The gap between job openings and unemployment has narrowed but remains wide, signaling the labor market remains tight.
- Our view is that the labor market will gradually soften further into 2025 as worker shortages subside and businesses reduce the pace of hiring in the face of slowing economic growth.

# On average, the U.S. consumer balance sheet is in good shape

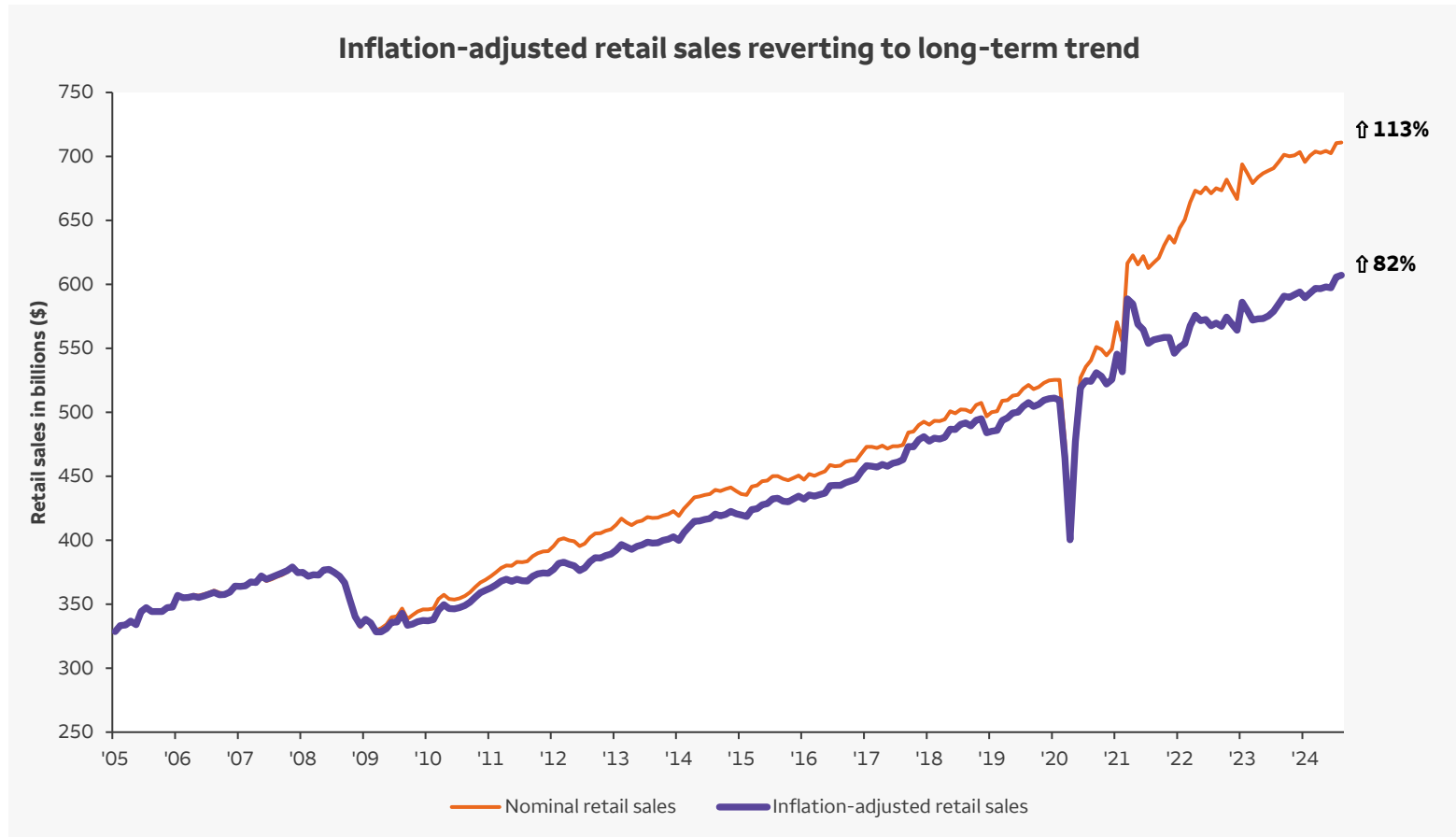


Sources: Bloomberg, Federal Reserve Board, and Wells Fargo Investment Institute. Consumer balance sheet data as of June 30, 2024. Household net worth: quarterly data from January 1, 1980, to June 30, 2024. Household debt service ratio: quarterly data from January 1, 1980, to March 31, 2024.

## Key takeaways

- Overall, consumer balance sheets are healthier than they were during the Global Financial Crisis but are coming under pressure due to dwindling excess cash balances, aggressive credit card and auto-related borrowing, and higher interest rates.
- Overall strength among upper-income households has masked financial distress among families in lower-income groups pressured by the squeeze on households' inflation-adjusted incomes and by a drawdown in excess cash balances.

# Consumer spending has softened recently

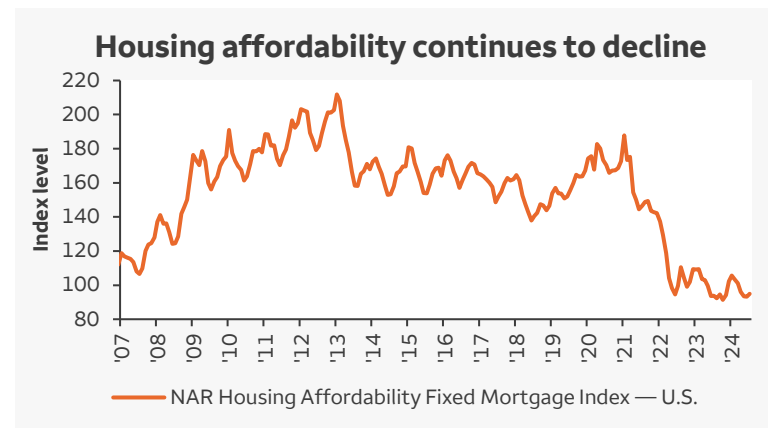
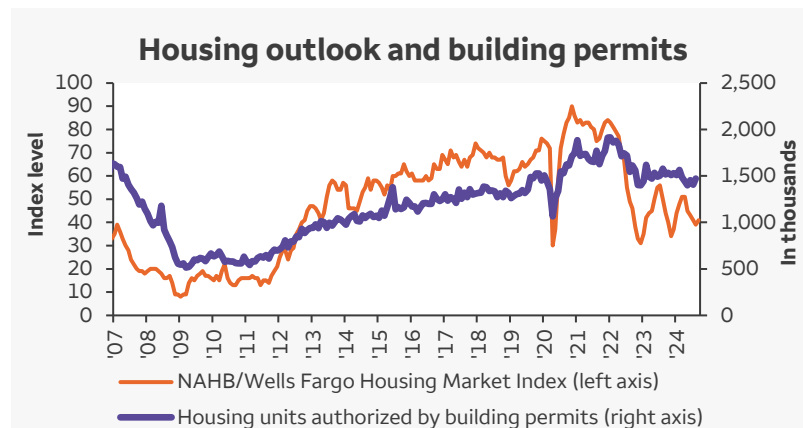
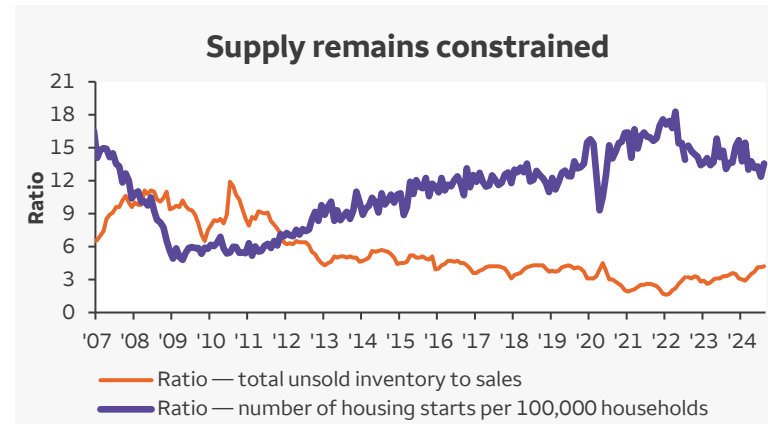
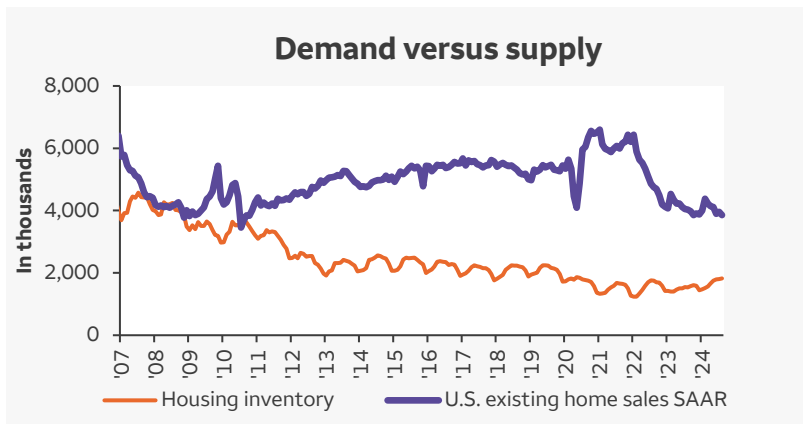


Sources: Bloomberg and Wells Fargo Investment Institute. Monthly data from January 1, 2005, to August 31, 2024. Inflation-adjusted retail sales are adjusted for inflation using Consumer Price Index goods inflation excluding food and energy.

## Key takeaways

- Resilient consumer spending in this cycle is being overtaken by a declining savings rate and households' increased reliance on credit in undercutting this critical source of support for economic growth.
- Inflation has been responsible for much of the brisk growth of underlying retail sales (excluding receipts of gas stations and building-supply outlets) and has been understated by declines in goods prices, keeping the growth of inflation-adjusted sales volumes near its healthy long-term average.

# U.S. housing market has weakened

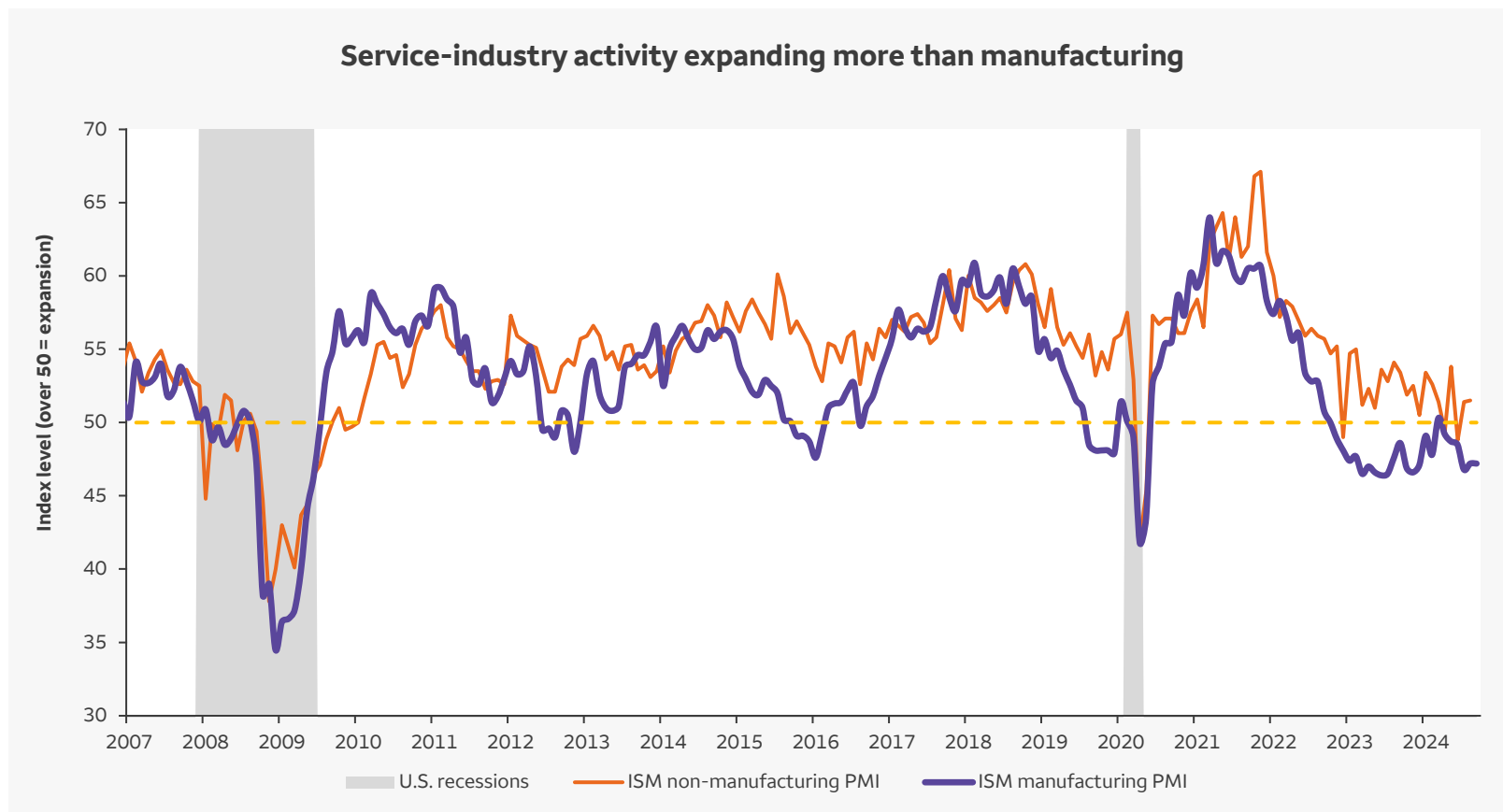


Sources: Bloomberg, U.S. Census Bureau, and Wells Fargo Investment Institute. Monthly data from January 1, 2007, to August 31, 2024. NAHB/Wells Fargo Housing Market Index: monthly data from January 1, 2007, to September 30, 2024. NAR Housing Affordability Index: monthly data from January 1, 2007, to July 31, 2024. SAAR = seasonally adjusted annual rate. NAHB (National Association of Home Builders)/Wells Fargo Housing Market Index is a widely watched gauge of the outlook for the U.S. housing sector. The NAR (National Association of Realtors®) Housing Affordability Index measures whether or not a typical family could qualify for a mortgage loan on a typical home.

## Key takeaways

- Our view is that expensive housing will contribute to the economy's slowdown by squeezing home sales and construction, despite tight inventory created by the same "spike" in mortgage rates discouraging homeowner trade-up activity.
- A loss of housing momentum is undercutting broader support to business activity through its large ripple effect on other parts of the economy. Housing construction's sub-5% share of gross domestic product (GDP) translates to 10% – 15% of GDP when considering its effect on employment, manufacturing, and big-ticket consumer spending on appliances and home furnishings.

# Services industries sensitive to economic fluctuations



Sources: Bloomberg, Institute for Supply Management, and Wells Fargo Investment Institute. ISM manufacturing PMI: monthly data from January 1, 2007, to September 30, 2024. ISM non-manufacturing PMI: monthly data from January 1, 2007, to August 31, 2024. The Institute for Supply Management (ISM) Manufacturing Index<sup>®</sup> is a composite index based on five indicators with equal weights. The ISM Non-Manufacturing Index<sup>®</sup> is a composite index based on four indicators with equal weights.

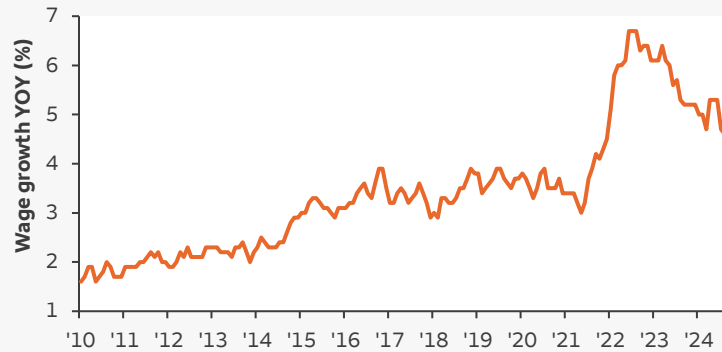
## Key takeaways

- A revival of service-industry activity in recent years continues to be supported by the release of pent-up demand built up during the worst of the pandemic.
- Service-sector resilience and ongoing moderation in manufacturing have created unbalanced economic growth likely to converge toward weakness, as household spending on travel, entertainment, and other economically sensitive services lose support from a wind-down in consumer spending.

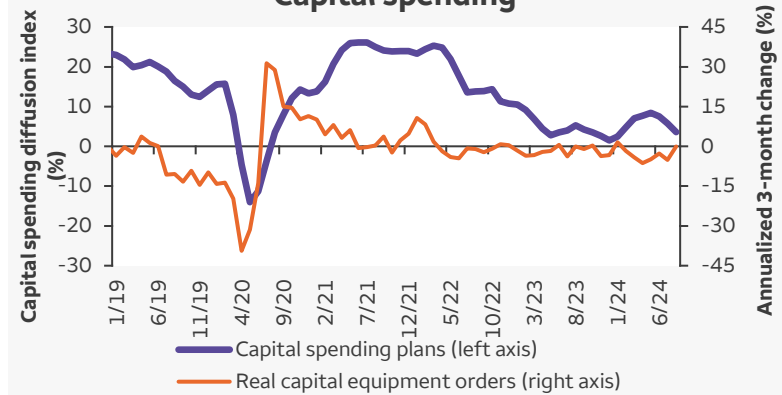


# Wage growth is moderating, but remains elevated

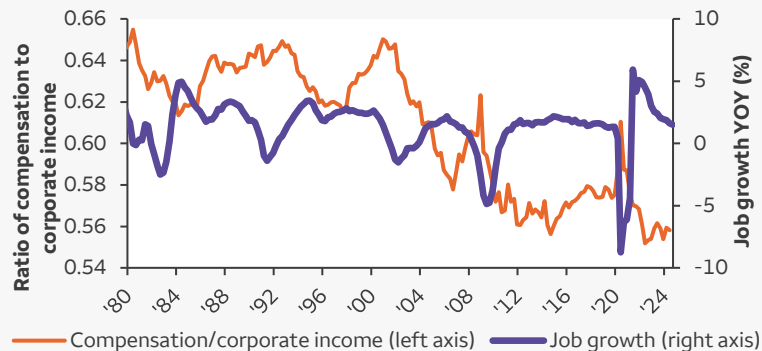
### Wage growth



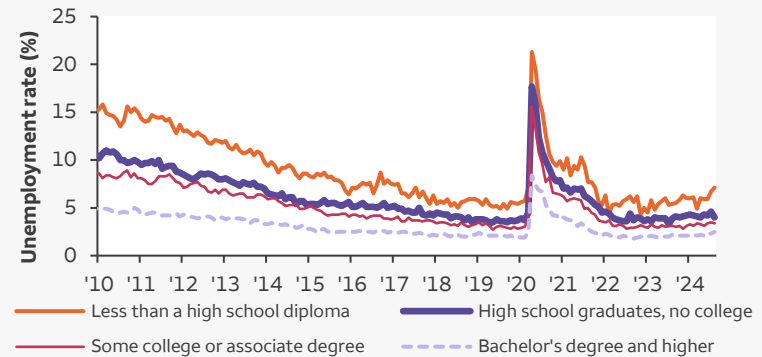
### Capital spending



### Labor's share of income versus job growth



### Job opportunities depend on education

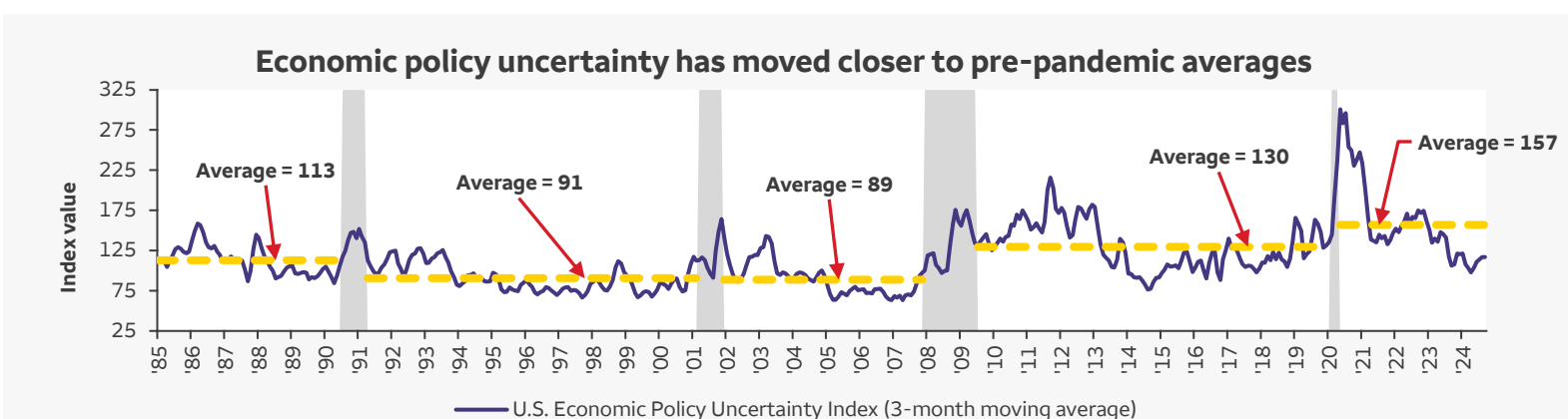
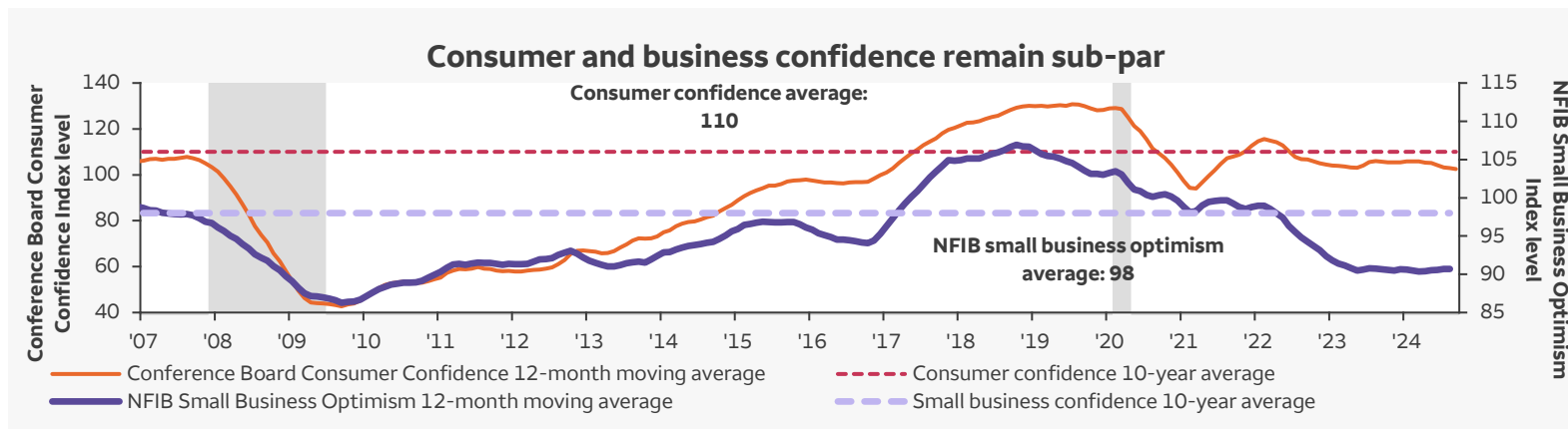


Sources: Bloomberg, Bureau of Economic Analysis, Bureau of Labor Statistics, U.S. Commerce Department, and Wells Fargo Investment Institute. Wage growth: monthly data from January 1, 2010, to August 31, 2024. Capital spending plans and real capital equipment orders: monthly data from January 1, 2019, to August 31, 2024. Compensation/corporate income: quarterly data from January 1, 1980, to June 30, 2024. Job growth: quarterly data from January 1, 1980, to August 31, 2024. Unemployment rate: monthly data from January 1, 2010, to August 31, 2024. YOY = year-over-year. Capital spending plans represented by three month moving average of a diffusion index of Dallas, Kansas City, N.Y., Philadelphia, and Richmond Fed district respondents reporting planned increase. Real capital equipment orders represented by three month moving average of non-defense equipment shipments (for example, aircraft).

## Key takeaways

- We believe overall business investment will suffer more in the coming months from diminishing capital spending tied to slowing economic growth than it will benefit from targeted support from recent government stimulus.
- Wage increases have slowed with inflation, but low unemployment tied to labor-market dislocations has restrained the deceleration. Leading-edge wage gains have rotated from low-wage leisure and hospitality to construction and manufacturing.

# Confidence has steadied at lower levels



Sources: The Conference Board, National Federation of Independent Business (NFIB), Economic Policy Uncertainty Index — Baker, Bloom, and Davis; Bloomberg, and Wells Fargo Investment Institute. Consumer confidence: monthly data from January 1, 2007, to September 30, 2024. Small business optimism: monthly data from January 1, 2007, to August 31, 2024. Economic policy uncertainty: monthly data from January 1, 1985, to September 30, 2024. Shaded area represents a U.S. economic recession. The Consumer Confidence Index (CCI) tracks sentiment among households or consumers. The NFIB Small Business Index tracks the general state of the economy as it relates to businesses. The U.S. Economic Policy Uncertainty Index developed by Baker, Bloom, and Davis is based on newspaper coverage frequency as index proxies for movements in policy-related economic uncertainty.

## Key takeaways

- Consumer and small-business confidence have been suppressed by tight credit, pressure on finances and, for small businesses, margin pressure from weak pricing power and rising wages in a tight labor market.
- Policy uncertainties surprisingly have continued to wind down during the 2024 election year, suppressed by restraints on monetary and fiscal stimulus and by overlap between the two presidential candidates on trade and other policy issues.

## **General**

- Historically, market shocks have provided reasonable entry points for long-term equity investors.
- As the cycle matures, we believe investors should consider moving up in quality (we favor U.S. Large Cap Equities).
- Once it is evident that the economy is deteriorating, we would look for opportunities to tilt to more economically sensitive segments of the market in anticipation of an eventual recovery.

## **Domestic**

- The earnings recovery is allowing stock returns to be primarily driven by earnings growth rather than by price-to-earnings (P/E) multiple expansion.
- We prefer U.S. Large Cap Equities over U.S. Mid Cap Equities and U.S. Small Cap Equities. We also emphasize quality in our sector positioning, and selectivity at the sub-industry level.

## **International**

- The export sensitive Developed Market ex-U.S. region is constrained by tepid global trade, fiscal restraint, and elevated fuel costs, but we suspect sentiment has passed its nadir and the upturn should support higher valuations.
- We remain unfavorable on Emerging Market Equities as geopolitical and regulatory risks in addition to China's lower growth potential keep us on the sidelines.

# Equity scorecard

Asset class	3Q24 total return (%)	YTD total return (%)	YOY total return (%)	Current trailing 12M P/E	20-year average trailing 12M P/E <sup>1</sup>	20-year median trailing 12M P/E	Dividend yield (%)
U.S. Large Cap Equities	5.89	22.08	36.35	26.28	18.55	17.90	1.28
U.S. Mid Cap Equities	9.21	14.63	29.33	23.83	21.49	21.09	1.57
U.S. Small Cap Equities	9.27	11.17	26.76	42.59	34.66	32.58	1.42
Developed Market ex-U.S. Equities	7.33	13.50	25.38	16.95	16.27	15.95	2.99
Emerging Market Equities	8.88	17.24	26.54	16.24	14.21	13.67	2.52
Frontier Market Equities	4.63	11.15	15.63	12.09	–	–	4.21

Sources: Bloomberg and Wells Fargo Investment Institute, as of September, 2024. 3Q = third quarter. YTD = year to date. YOY = year over year. P/E = price/earnings. 12M = 12 months. *For illustrative purposes only.* Large cap = S&P 500 Index. Mid cap = Russell Midcap Index. Small cap = Russell 2000 Index. Developed market Ex-U.S. = MSCI EAFE Index. Emerging market = MSCI Emerging Markets Index. Frontier market = MSCI Frontier Markets Index. The S&P 500 Index is a market capitalization-weighted index generally considered representative of the U.S. stock market. The Russell Midcap Index measures the performance of the 800 smallest companies in the Russell 1000 Index. The Russell 2000 Index measures the performance of the 2,000 smallest companies in the Russell 3000 Index. MSCI EAFE (DM) and MSCI Emerging Markets (EM) indexes are equity indexes which capture large and mid cap representation across DM countries (excluding Canada and the U.S.) and EM countries around the world. The MSCI Frontier Markets Index is a free float-adjusted market capitalization index that is designed to measure equity market performance of frontier markets. Yields and returns represent past performance and fluctuate with market conditions. Current yields may be higher or lower than those quoted. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.**

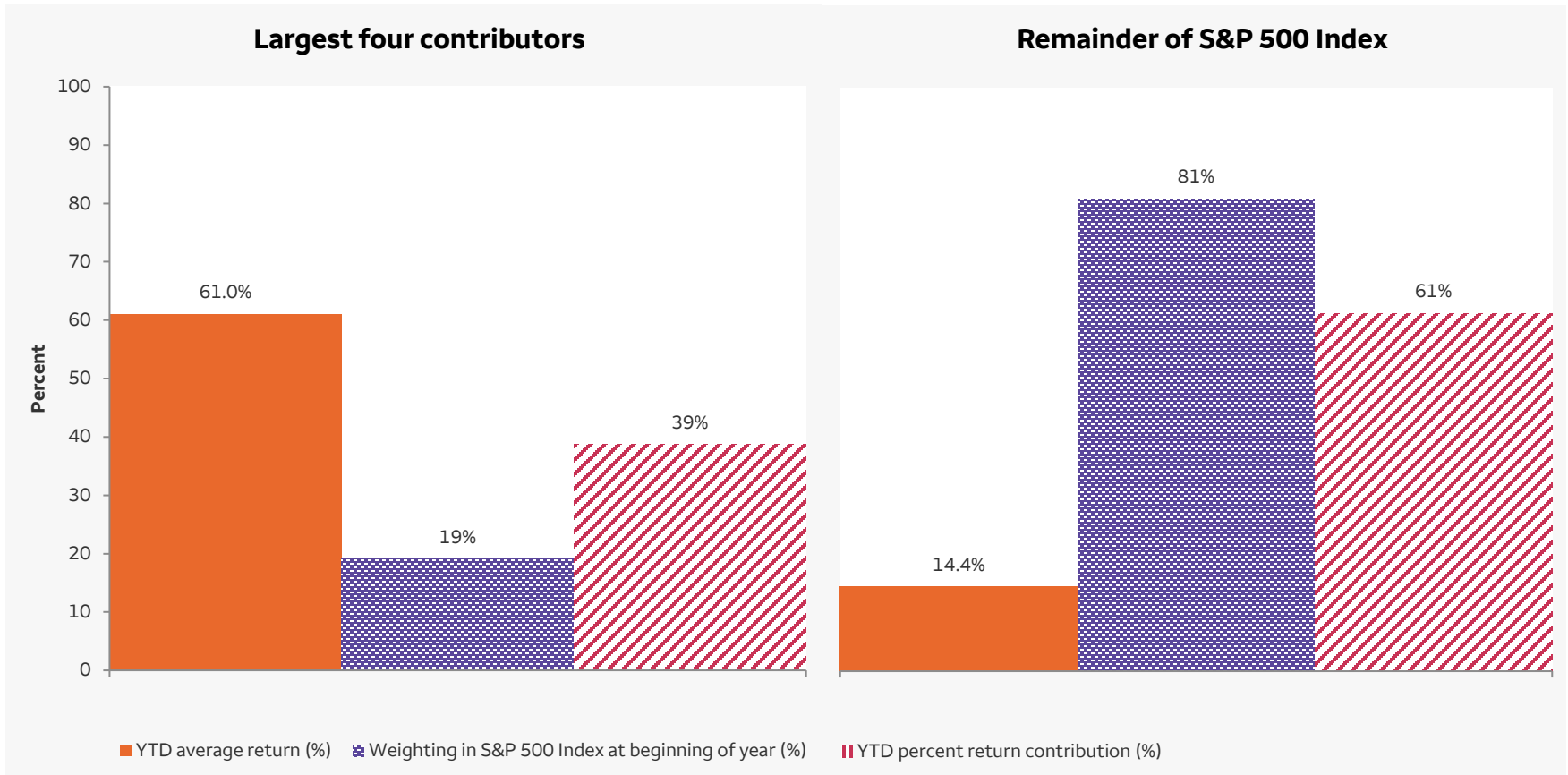
## Key takeaways

- Despite increased volatility throughout the third quarter, major equity indexes displayed strong performance as worries over sticky inflation subsided, artificial intelligence optimism resurfaced, and market expectations of further rate cuts continued.

1. March 2009 to June 2009 and September 2020 to April 2021 P/E's for U.S. Small Cap Equities have been removed due to their outlier condition.

Stock markets, especially foreign markets, are volatile. Stock values may fluctuate in response to general economic and market conditions, the prospects of individual companies, and industry sectors. Foreign investing has additional risks including those associated with currency fluctuation, political and economic instability, and different accounting standards. These risks are heightened in emerging and frontier markets. Mid- and small-cap stocks are generally more volatile, subject to greater risks and are less liquid than large company stocks.

# Four stocks have driven recent S&P 500 Index performance



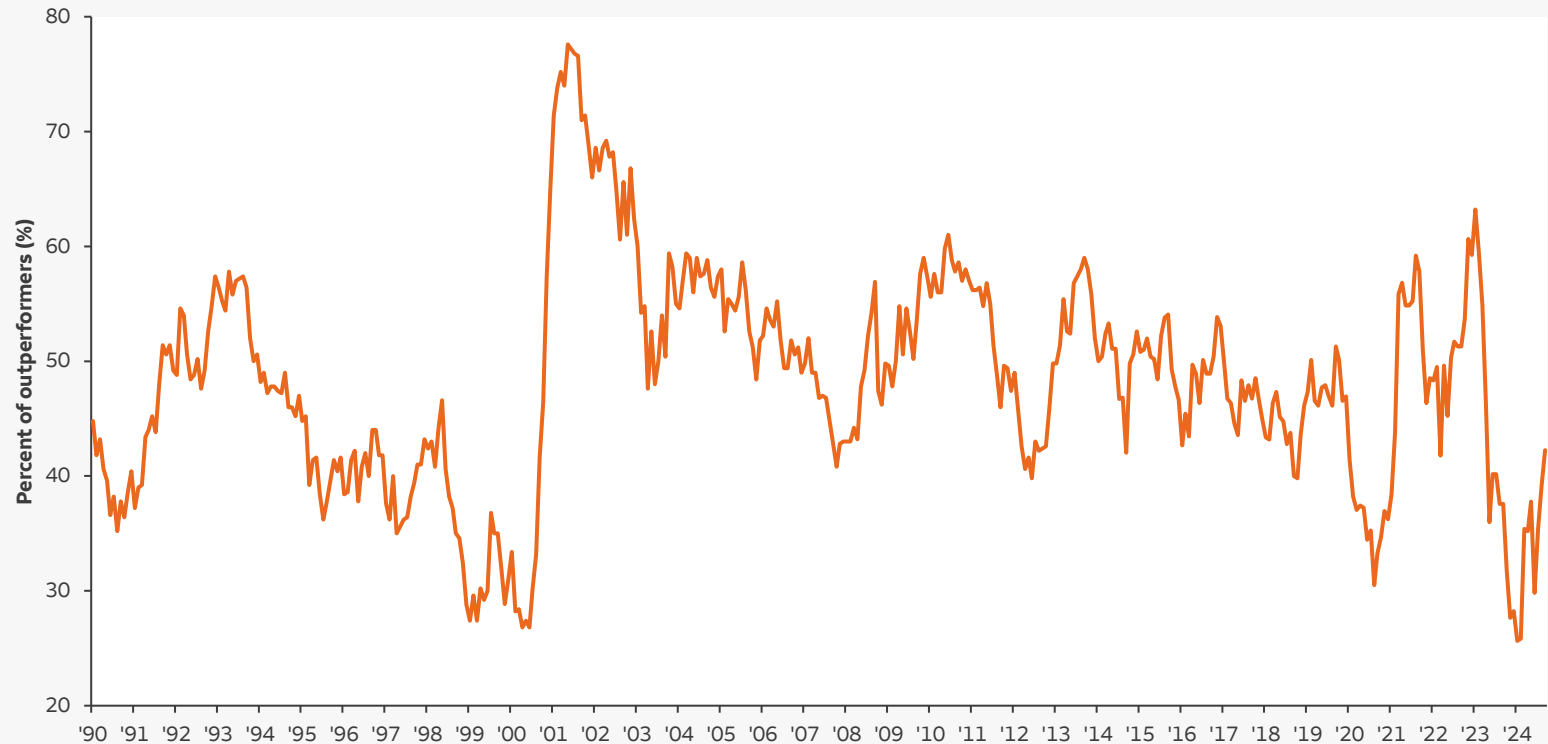
Sources: FactSet and Wells Fargo Investment Institute, as of September 30, 2024. YTD = year to date. The S&P 500 Index is a market-capitalization-weighted index considered representative of the U.S. stock market. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions. The largest four contributors to S&P 500 Index performance are NVIDIA Corporation, Apple Inc., Meta Platforms, Inc., and Microsoft Corporation as of September 30, 2024.

## Key takeaways

- A handful of stocks have been the major contributors to the index's positive performance since 2023.
- So far in 2024, performance has broadened out to the remainder of the index, which is a positive sign for continued stock market gains next year.

# Breadth recovering some ground after reaching extremes

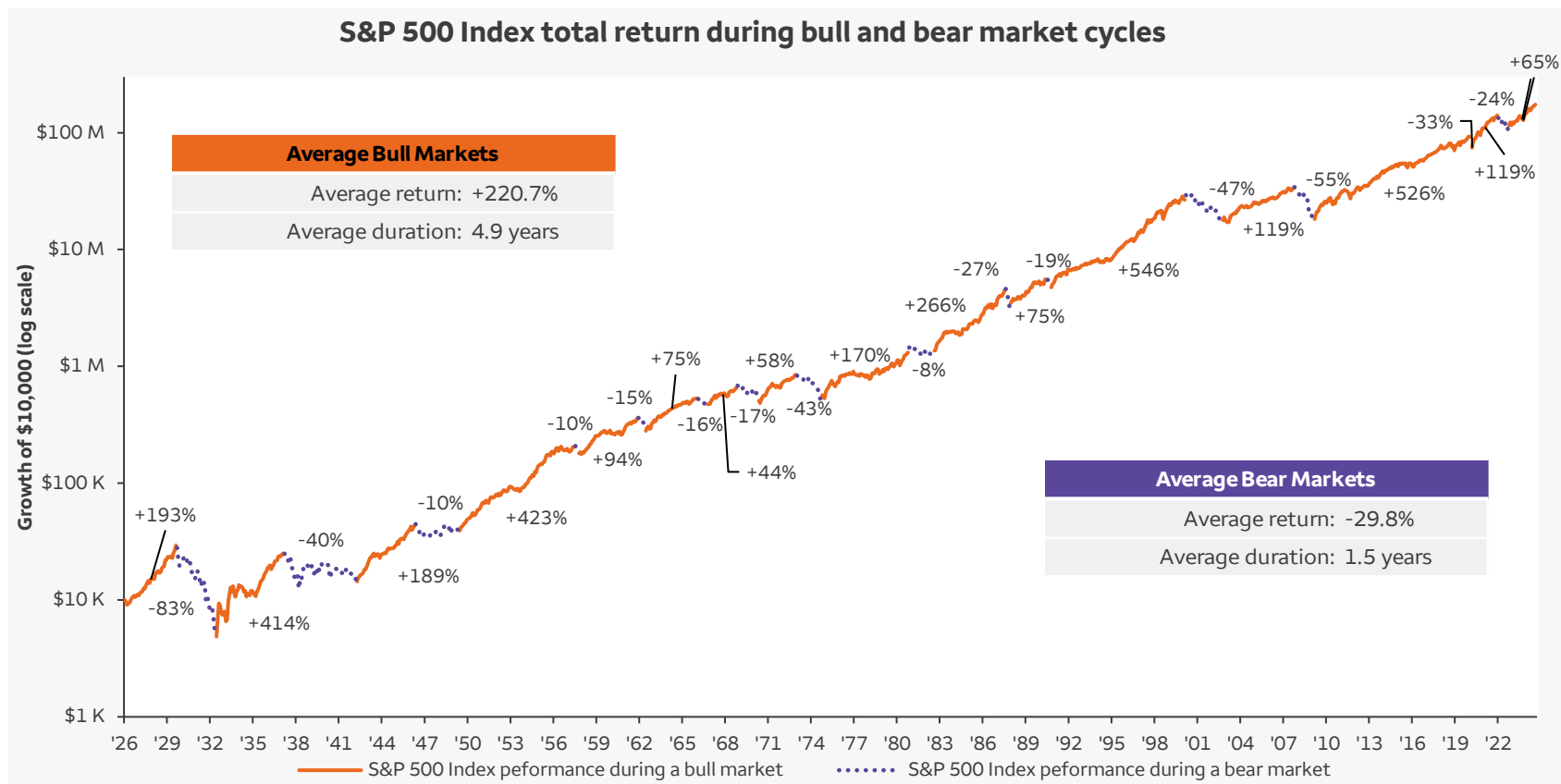
Percentage of S&P 500 Index members outperforming the index over the previous 12 months



Sources: Bloomberg and Wells Fargo Investment Institute. Monthly data from January 1, 1990, to September 30, 2024. For illustrative purposes only. The S&P 500 Index is a market capitalization-weighted index composed of 500 stocks generally considered representative of the U.S. stock market. The S&P 500 Equal Weight Index (EWI) is the equal-weight version of the widely-used S&P 500. The index includes the same constituents as the capitalization weighted S&P 500, but each company in the S&P 500 EWI is allocated a fixed weight - or 0.2% of the index total at each quarterly rebalance. Index returns do not represent investment performance or the results of actual trading. Index returns represent general market results and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** There is no certainty that U.S. markets will continue to show resilience despite crisis events. Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions. There is no guarantee equity markets will perform similarly during other periods of uncertainty. All investing involves risk including the possible loss of principal.

## Key takeaways

- The percentage of member stocks outperforming the S&P 500 Index over the past year reached historic extremes similar to levels in 1999 and 2000.
- A rally on firm footing should have a larger portion of stocks participating. Encouragingly, there has been evidence of that rotation in 2024 as the equal weight S&P 500 Index has hit all-time highs.



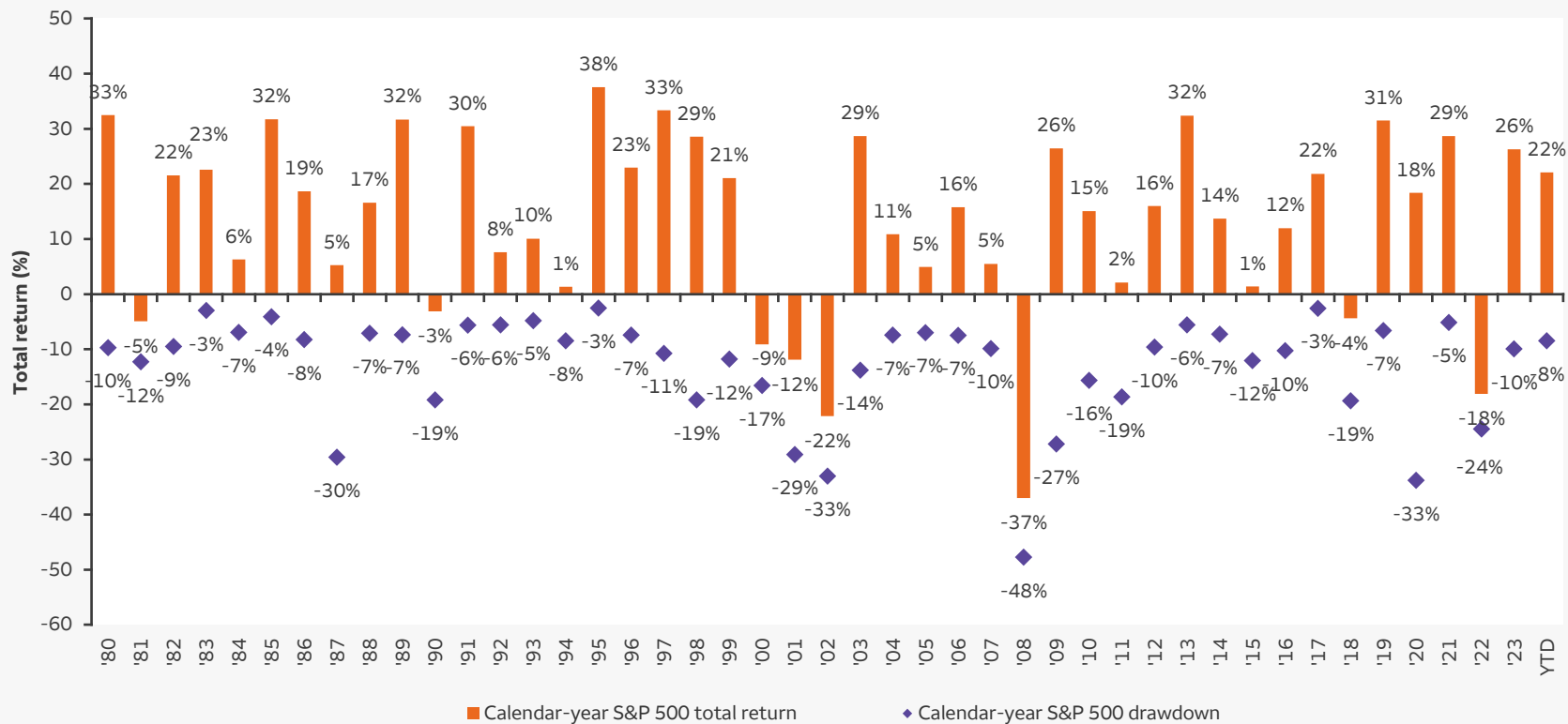
Sources: Bloomberg, © Morningstar Direct, All Rights Reserved<sup>1</sup>, and Wells Fargo Investment Institute. Monthly data from January 1, 1926, to September 30, 2024. Averages do not include the current market cycle. For illustrative purposes only. The S&P 500 Index is a market capitalization-weighted index composed of 500 stocks generally considered representative of the U.S. stock market. Index returns do not represent investment performance or the results of actual trading. Index returns represent general market results, assume the reinvestment of dividends and other distributions, and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** There is no certainty that U.S. markets will continue to show resilience despite crisis events. Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions. There is no guarantee equity markets will perform similarly during other periods of uncertainty. All investing involves risk including the possible loss of principal.

## Key takeaways

- Bear markets, while disconcerting in real time, have been merely short-term speed bumps to sizable long-term equity returns.
- Those long-term investors that take advantage of bear markets to acquire quality assets at reduced prices have generally been better positioned to benefit from the bull market that has historically followed.

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## A downturn is no reason to exit the market



Sources: © Morningstar Direct, All Rights Reserved<sup>1</sup>, and Wells Fargo Investment Institute. Data from January 1, 1980, to September 30, 2024. For illustrative purposes only. YTD = year to date. Severe intra-year corrections do not necessarily indicate subpar performance for the calendar year. Analysis was compiled using the daily total returns of the S&P 500 Index. The S&P 500 Index is a market capitalization-weighted index composed of 500 stocks generally considered representative of the U.S. stock market. Calendar year drawdowns represent the largest market drops from peak to trough for each year. Investing in stocks involve risk and their returns and risk levels can vary depending on prevailing market and economic conditions. Index returns do not represent investment performance or the results of actual trading. Index returns represent general market results, assume the reinvestment of dividends and other distributions, and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** All investing involves risk including the possible loss of principal.

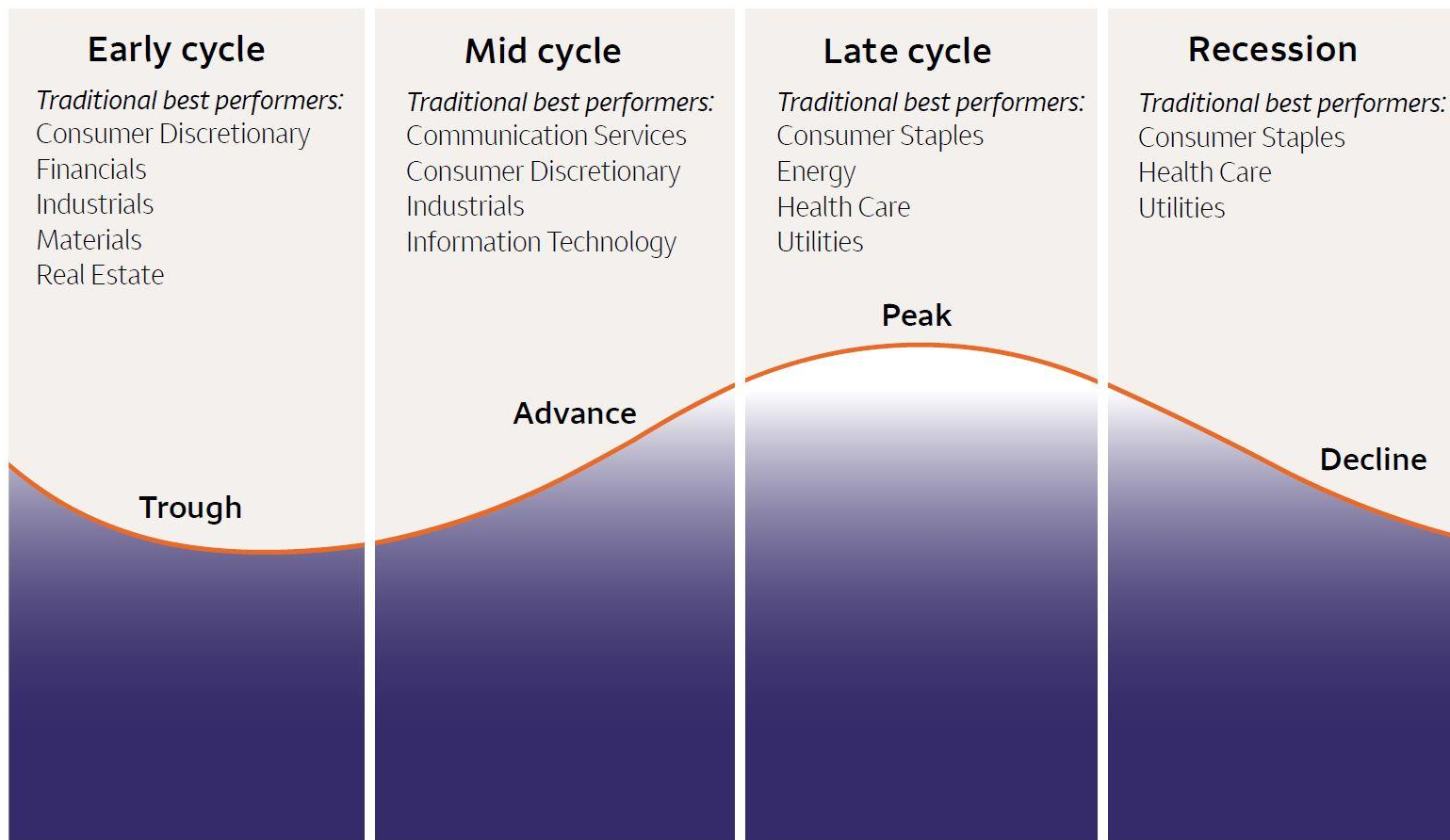
### Key takeaways

- A market downturn does not necessarily mean that markets will perform poorly for the year. Four of the past seven bear markets have resulted in negative annual returns.
- Market corrections and downturns can be difficult to endure. However, sell-offs can potentially offer opportunities for investors to purchase high-quality stocks at reasonable prices.

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# Cycle can influence sector preference

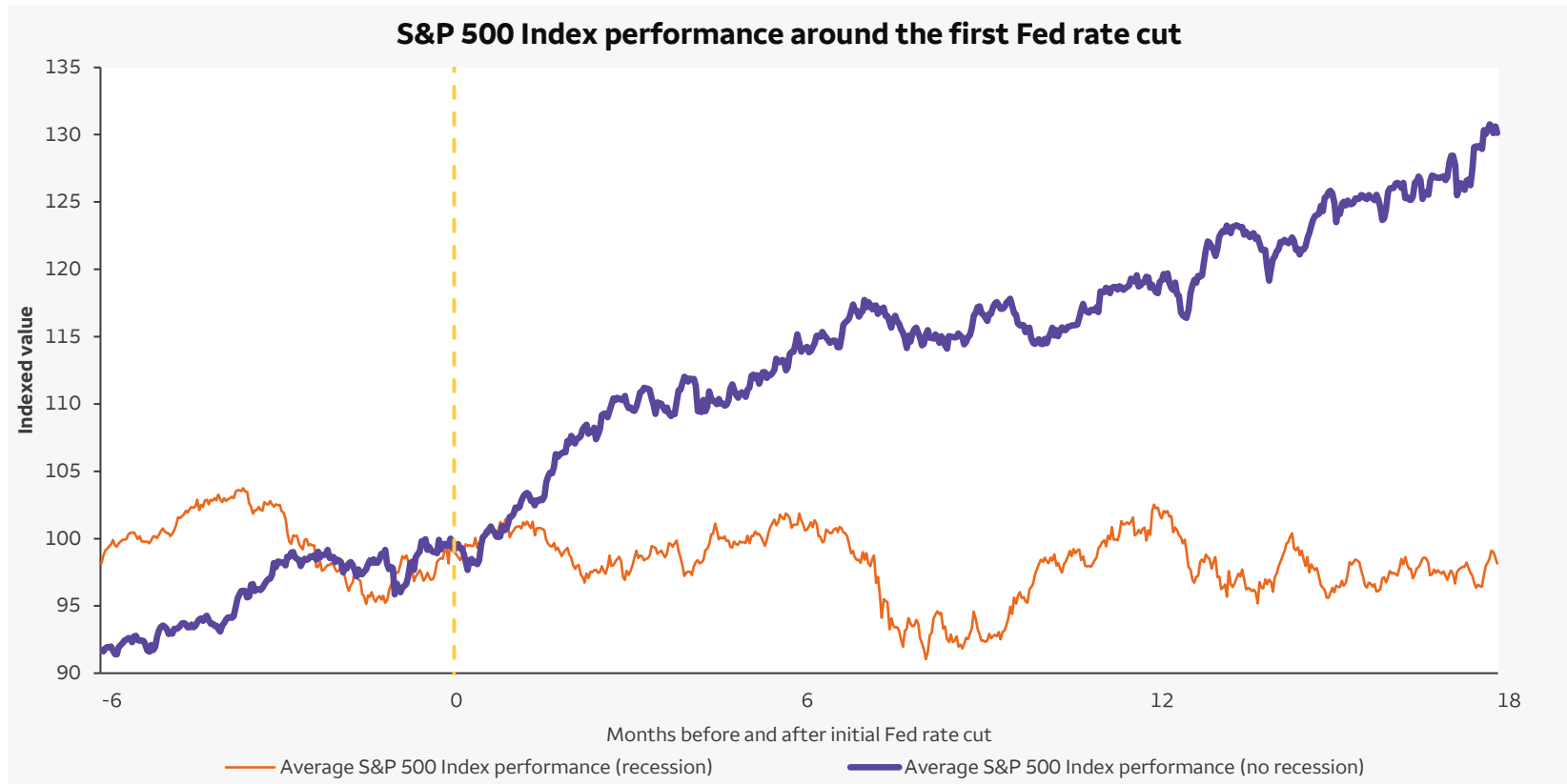


Source: Wells Fargo Investment Institute, as of September 30, 2024. **Past performance is no guarantee of future results.** Traditional best performers are based on the performance of S&P 500 Index sectors during a particular point in the economic cycle (early, mid, late, recession) since September 1989, the inception date for the S&P 500 sector indexes.

## Key takeaways

- The business cycle can help inform the investing decision process.
- We have positioned portfolios more defensively in anticipation of a slowing economy. However, we will look for opportunities to tilt more cyclically in preparation for an economic recovery we expect.

# Fed cutting cycles – path dependent on cause

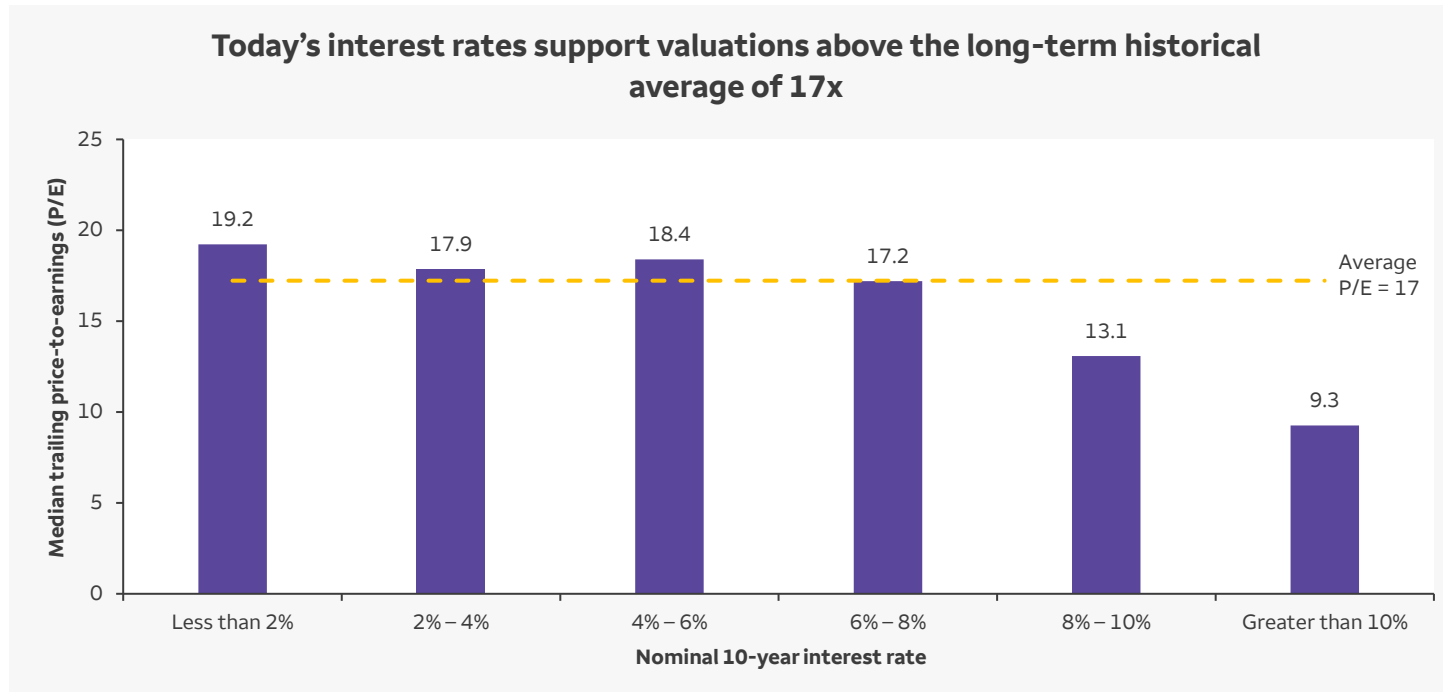


Sources: Ned Davis Research, Bloomberg, and Wells Fargo Investment Institute. Recession cases include the cutting cycles that began 5/30/1980, 11/2/1981, 1/3/2001, 9/18/2007, and 7/31/2019. No recession cases include the cutting cycles that began 11/21/1984, 6/6/1989, 7/6/1995, and 9/29/1998. Analysis uses data 18 months prior to through 18 months after the date that the cutting cycle begins. Indexed to 100 at time "0", the initial rate cut, to measure performance. The S&P 500 Index is a market-capitalization-weighted index considered representative of the U.S. stock market. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions. Fed = Federal Reserve.

## Key takeaways

- Stock market returns after the first Fed rate cut depend heavily on the reason for the cut.
- History shows that if the Fed rate cuts are only an adjustment and not in response to significant macro environment deterioration, stock markets likely will perform well.

# Low interest rates supportive of higher S&P 500 Index P/Es



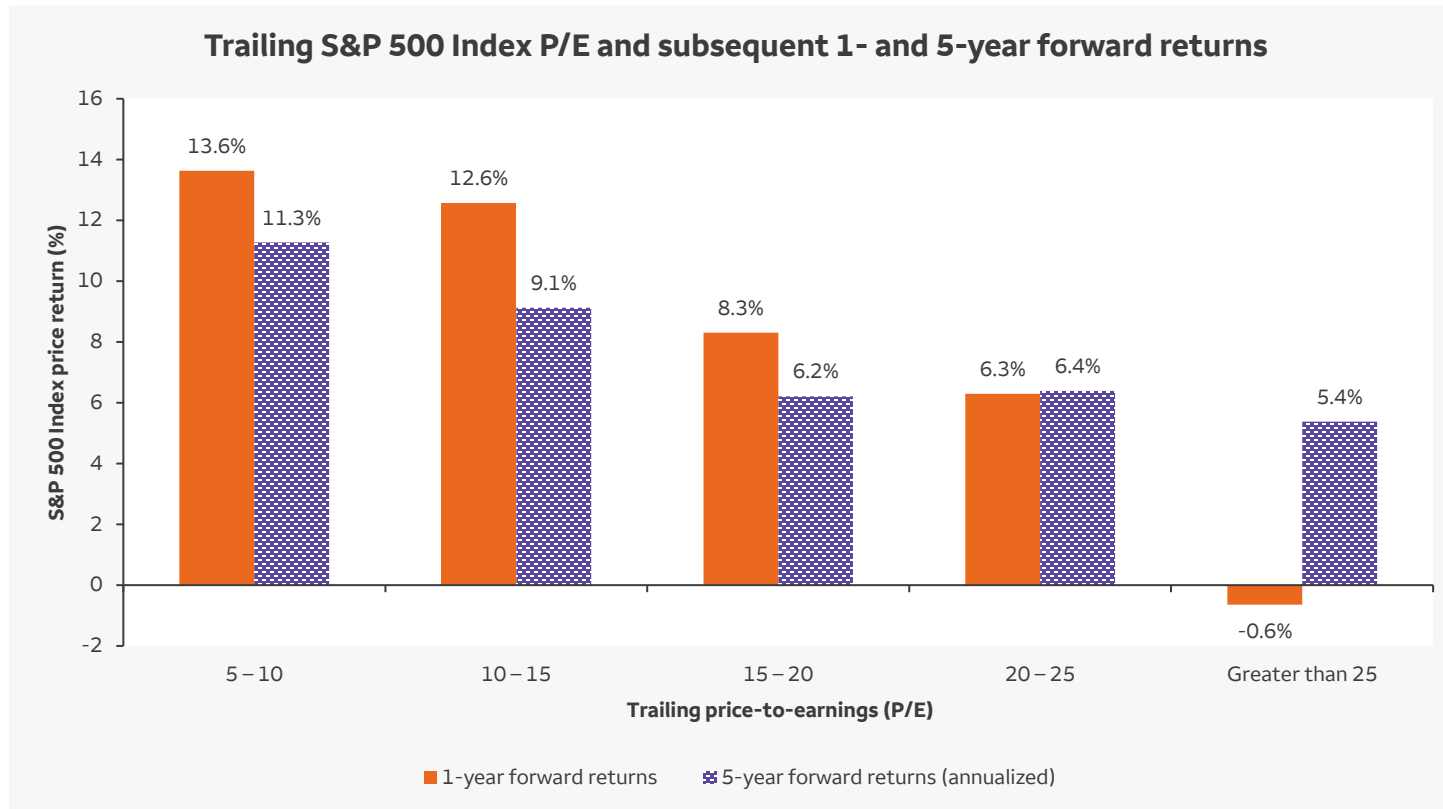
Nominal 10-year interest rate	Less than 2%	2% – 4%	4% – 6%	6% – 8%	8% – 10%	Greater than 10%
Average inflation	2.34%	2.39%	2.61%	4.62%	6.10%	7.24%

Sources: Bloomberg and Wells Fargo Investment Institute. Monthly data from January 1, 1963, to September 30, 2024. Inflation data as of August 31, 2024. The average price to earnings was calculated using the S&P 500 index from 1963 – September 2024. Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions. The S&P 500 Index is a market-capitalization-weighted index considered representative of the U.S. stock market. Inflation represented by the Consumer Price Index. The Consumer Price Index measures the average price of a basket of goods and services. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.**

## Key takeaways

- High nominal interest rates have tended to contribute to lower price-to-earnings (P/E) multiples.
- We do not expect meaningful long-term declines in P/E multiples. Historically, these have not adjusted lower until interest rates have reached significantly higher levels than current rates.

# Current P/E levels support mid-single-digit forward returns

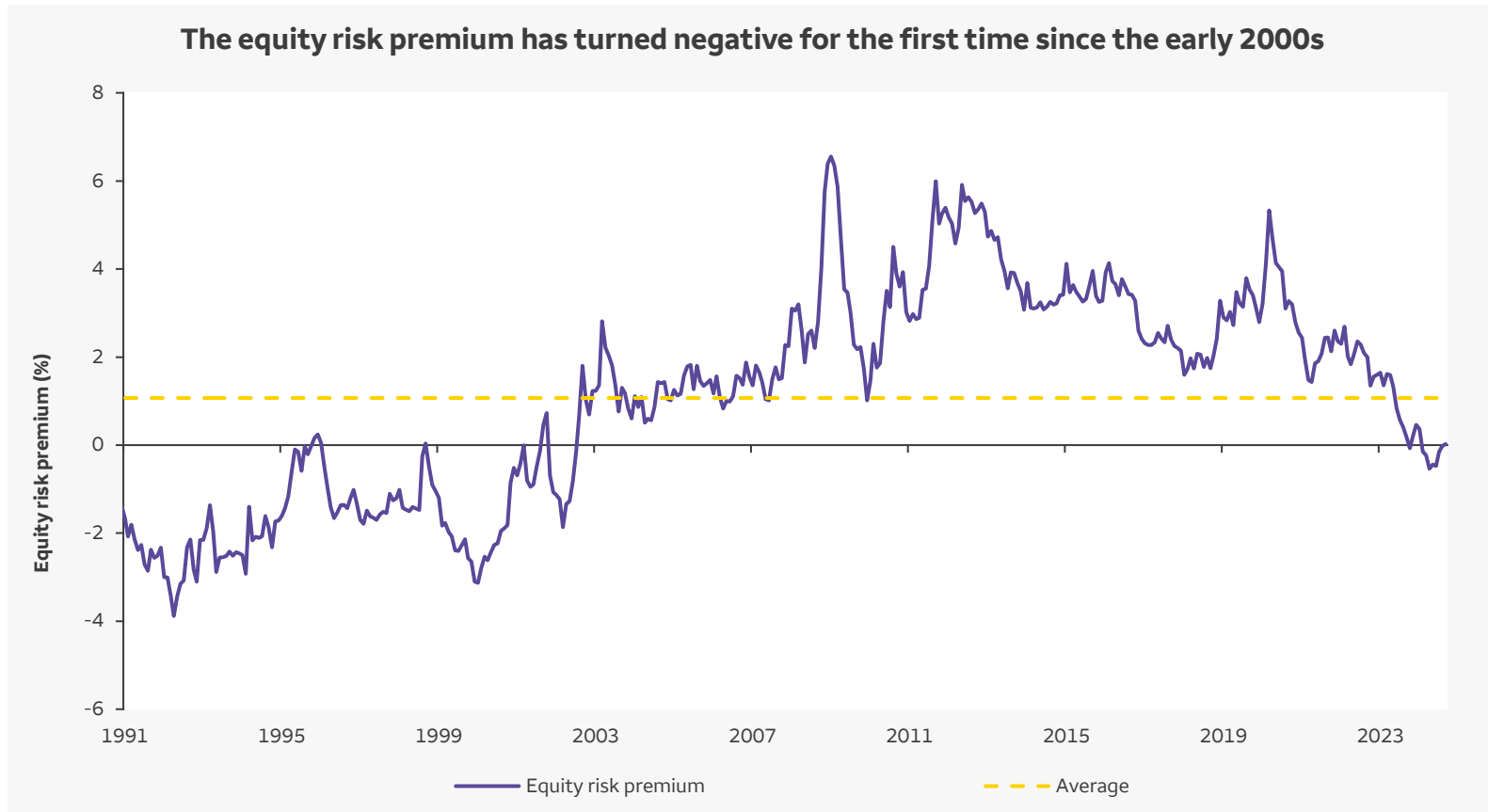


Sources: Bloomberg and Wells Fargo Investment Institute. Monthly data from January 1, 1954, to September 30, 2024. The S&P 500 Index is a market-capitalization-weighted index considered representative of the U.S. stock market. Index returns do not represent investment performance or the results of actual trading. Index returns represent general market results and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions. All investing involves risk including the possible loss of principal.

## Key takeaways

- The 2023 stock rally was nearly entirely driven by multiple expansion as earnings stagnated. We believe earnings growth should finally return this year and next as a major driver of returns.
- Although S&P 500 Index P/E multiples are nowhere near the extremes observed at the 2021 peak, at 20x – 25x, they are now on the full side of fair valuation.

# Equity risk premium dipped negative



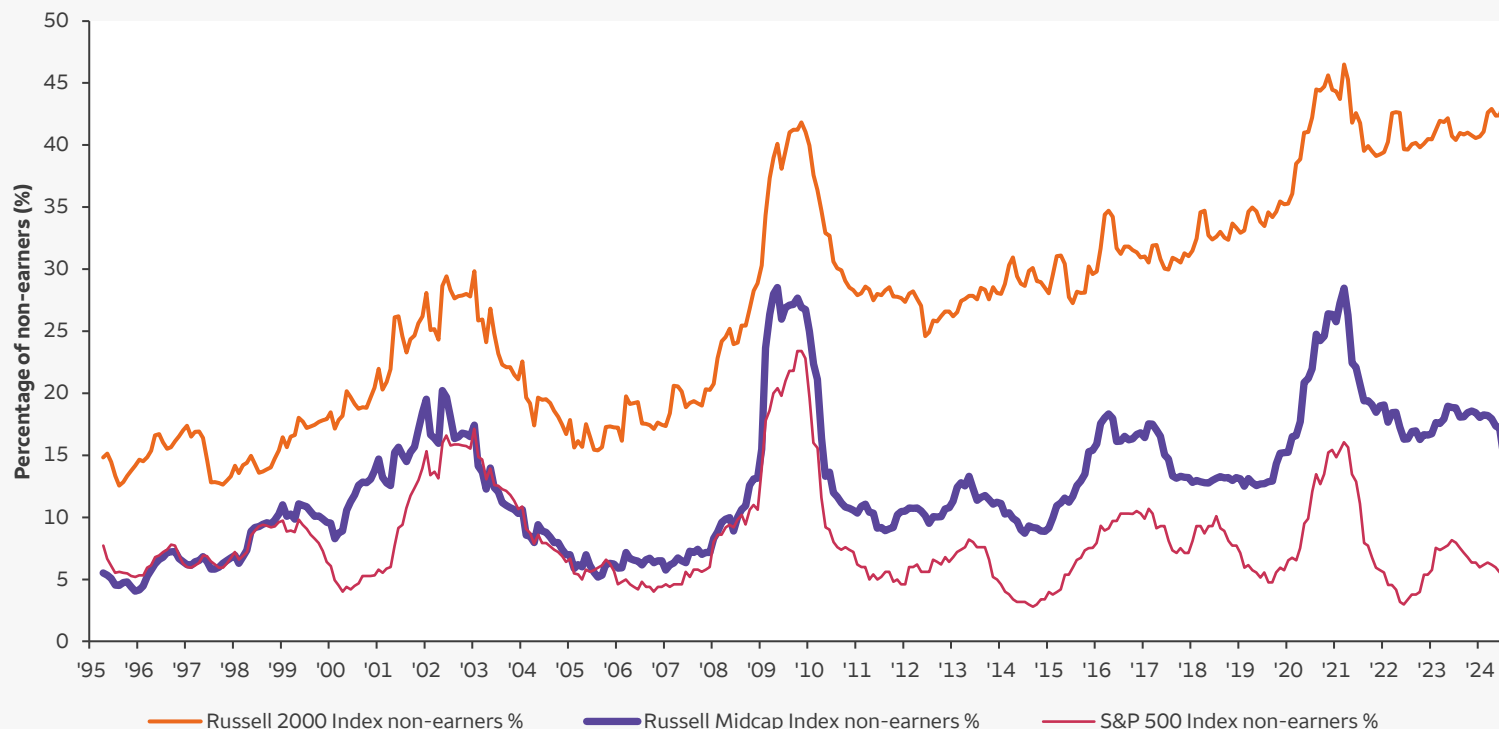
Sources: Bloomberg and Wells Fargo Investment Institute. Monthly data from January 1, 1991, to September 30, 2024. Equity risk premium calculated by subtracting the 10-year Treasury yield from the S&P 500 Index earnings yield (trailing 12-month earnings/price). The S&P 500 Index is a market-capitalization-weighted index considered representative of the U.S. stock market. An index is unmanaged and not available for direct investment. Yields represent past performance and fluctuate with market conditions. Current yields may be higher or lower than those quoted above. **Past performance is no guarantee of future results.** Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions. Although Treasuries are considered free from credit risk, they are subject to other types of risks. These risks include interest rate risk, which may cause the underlying value of the bond to fluctuate. Forecasts are based on certain assumptions and on views of market and economic conditions which are subject to change.

## Key takeaways

- The equity risk premium has declined and recently reached multi-decade lows as interest rates have increased while the S&P 500 Index earnings yield (earnings divided by price) has declined.
- At these levels, stocks are not as attractive versus bonds, especially relative to the post-GFC (Great Financial Crisis) environment to which many investors became accustomed.

# Small-cap zombies near extremes

## Percent of index with negative trailing 12-month earnings

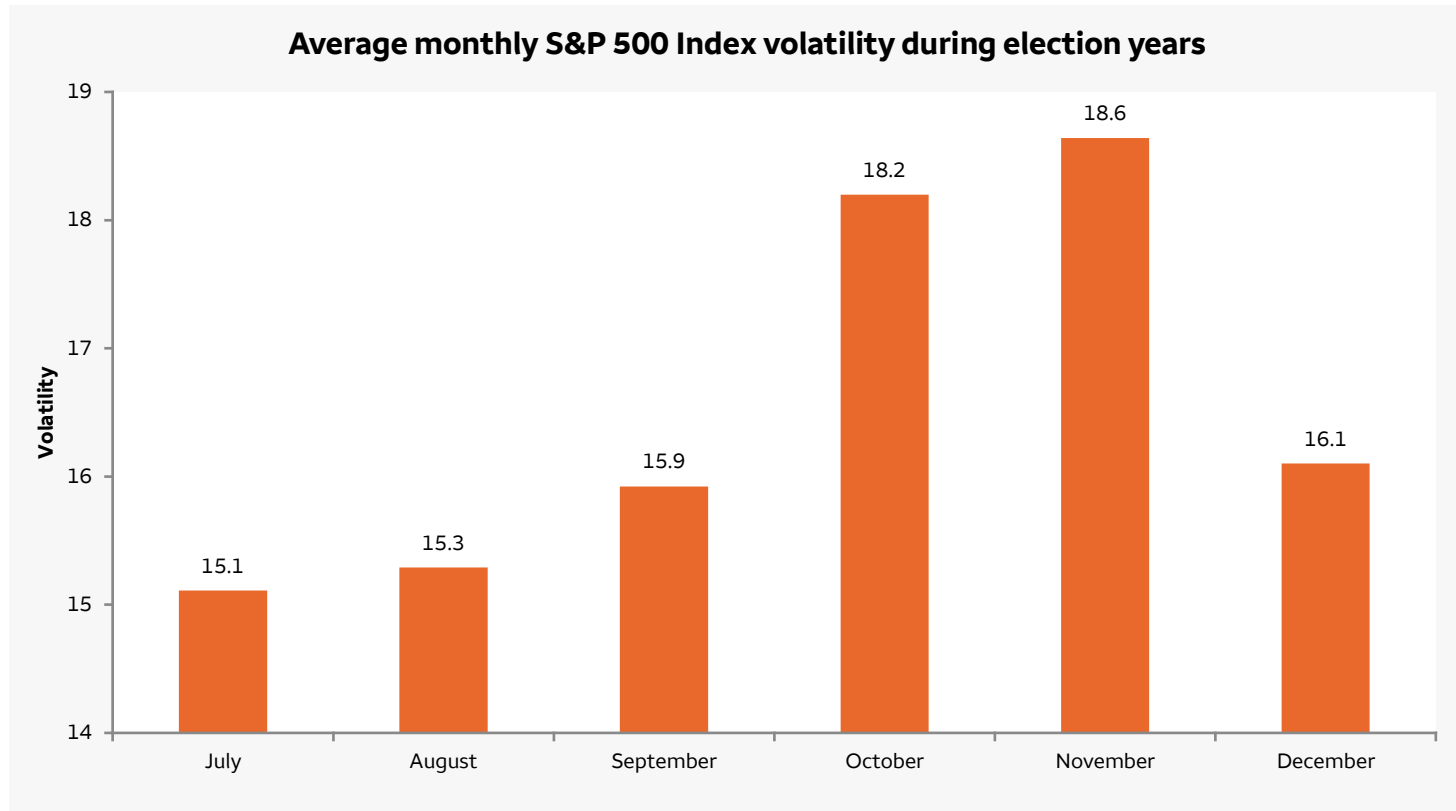


Sources: Bloomberg and Wells Fargo Investment Institute. Monthly data from January 1, 1995, to September 30, 2024. The S&P 500 Index is a market capitalization-weighted index generally considered representative of the U.S. stock market. The Russell Midcap Index measures the performance of the 800 smallest companies in the Russell 1000 Index. The Russell 2000 Index measures the performance of the 2,000 smallest companies in the Russell 3000 Index. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions. The prices of small and mid-company stocks are generally more volatile than large company stocks. They often involve higher risks because smaller companies may lack the management expertise, financial resources, product diversification and competitive strengths to endure adverse economic conditions.

### Key takeaways

- The era of easy money may have passed. This likely does not bode well for the elevated number of non-earning small-cap companies.
- Quality mid-cap and large-cap companies are much less impacted by this potential risk as they likely will remain well insulated from any potential credit crunch.

# Volatility likely to continue through the election



Sources: Bloomberg and Wells Fargo Investment Institute. Daily data from July 2, 1928, to December 31, 2020. Volatility is calculated using a monthly average of the S&P 500 Index's daily price volatility during election years from 1928 to 1989, and a monthly average of the daily Chicago Board Options Exchange Volatility Index (VIX) from 1992 to 2020. Monthly volatility is calculated as a monthly average of the S&P 500 Index's daily return volatility. Daily volatility is calculated as the annualized standard deviation of daily returns over the past 21 trading days, multiplied by 100. The S&P 500 Index is a market capitalization-weighted index generally considered representative of the U.S. stock market. The VIX Index is a financial benchmark designed to be an up-to-the-minute market estimate of the expected volatility of the S&P 500 Index and is calculated by using the midpoint of real-time S&P 500 Index option bid/ask quotes. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions.

## Key takeaways

- Volatility has typically increased through November during election years. A tightly contested election, simmering economic concerns, and growing geopolitical risks suggest this pattern may hold in 2024.
- Remember that volatility can create opportunity for the prepared investor. Keep our current guidance and 2025 outlook of continued equity earnings growth and price gains in mind as markets fluctuate.

# Sector compositions differ by index and region

Sector weights	S&P 500 Index	MSCI EAFE Index	MSCI EM Index	MSCI Europe Index	MSCI Asia Pacific Index	MSCI EM Latin America Index
Information Technology	31.70%	8.74%	22.23%	7.48%	19.04%	0.47%
Financials	12.91%	20.59%	22.84%	19.20%	20.15%	32.49%
Health Care	11.60%	13.29%	3.60%	16.07%	5.73%	1.61%
Consumer Discretionary	10.11%	10.98%	13.98%	9.75%	14.61%	1.64%
Communication Services	8.86%	4.28%	9.43%	3.30%	8.20%	3.76%
Industrials	8.51%	17.34%	6.77%	17.02%	12.05%	9.83%
Consumer Staples	5.89%	8.74%	5.24%	10.81%	4.62%	14.14%
Energy	3.31%	3.60%	4.75%	4.73%	2.75%	11.03%
Utilities	2.53%	3.40%	2.93%	4.23%	2.14%	6.66%
Real Estate	2.34%	2.19%	1.59%	0.92%	4.65%	1.07%
Materials	2.23%	6.85%	6.64%	6.49%	6.07%	17.30%

Sources: © Morningstar Direct, All Rights Reserved<sup>1</sup>, Morgan Stanley Capital International (MSCI), and Wells Fargo Investment Institute, as of September 30, 2024. EM = emerging markets. An index is unmanaged and not available for direct investment. See following page for index definitions and equity sector risks.

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## Key takeaways

- Sector compositions can help explain relative performance differences.
- A lower weighting to the Information Technology sector in the MSCI EAFE Index may have contributed to its relative underperformance over the past 17 years.



# Sector compositions differ by index and region Cont'd

## Index definitions

**S&P 500 Index** is a market capitalization-weighted index composed of 500 stocks generally considered representative of the U.S. stock market.

**MSCI EAFE Index** is a free-float-adjusted market-capitalization-weighted index designed to measure the equity market performance of developed markets, excluding the U.S. and Canada.

**MSCI Emerging Markets (EM) Index** is a free-float-adjusted market-capitalization-weighted index designed to measure equity market performance of emerging markets.

**MSCI EM Latin America Index** captures large and mid cap representation across 6 Emerging Markets countries in Latin America. With 108 constituents, the index covers approximately 85% of the free float-adjusted market capitalization. in each country.

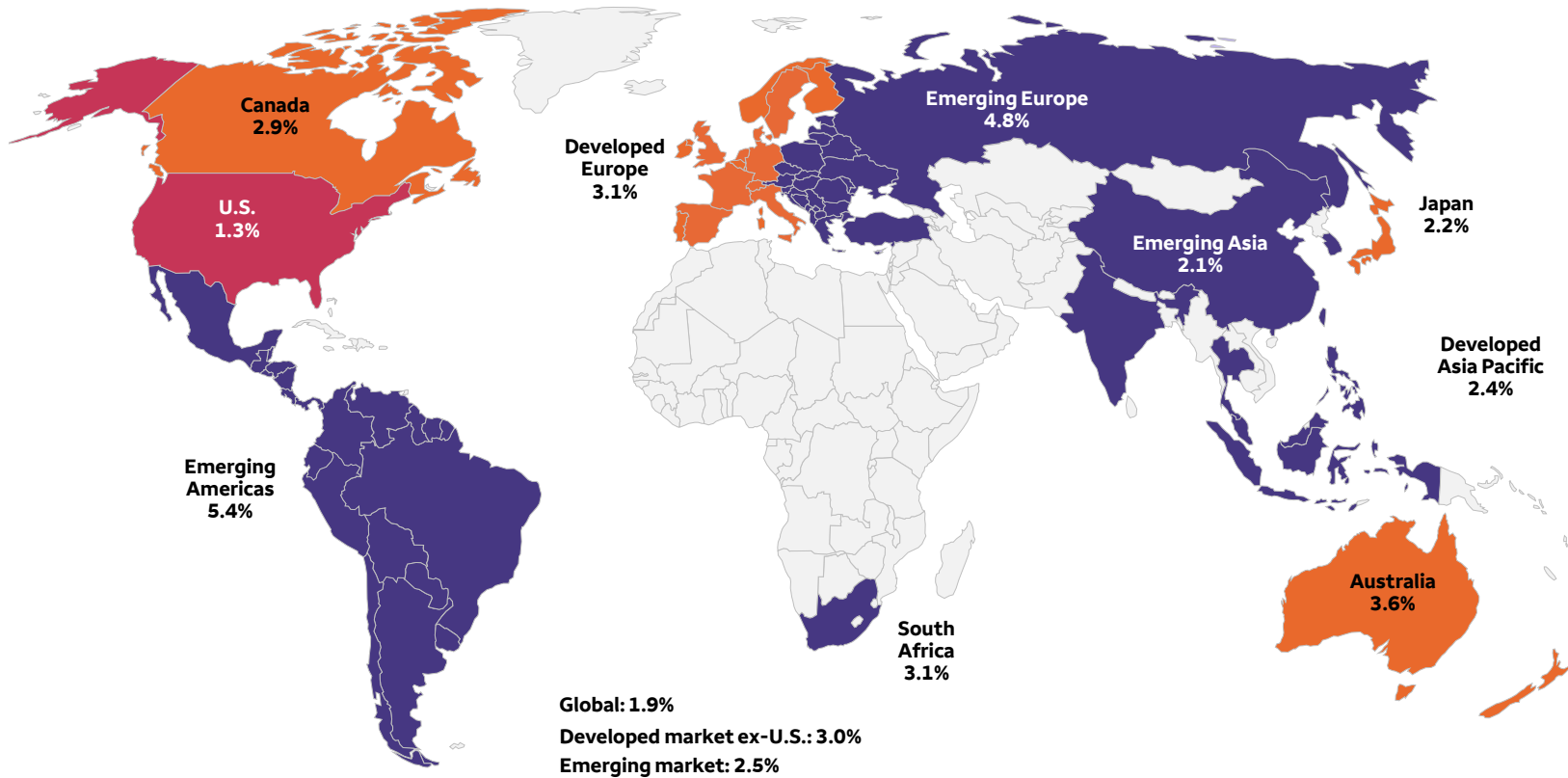
**MSCI Europe Index** captures large and mid cap representation across 15 Developed Markets (DM) countries in Europe. With 438 constituents, the index covers approximately 85% of the free float-adjusted market capitalization across the European Developed Markets equity universe.

**MSCI Asia Pacific Index** captures large and mid cap representation across 5 Developed Markets countries and 9 Emerging Markets. countries in the Asia Pacific region. With 1,335 constituents, the index covers approximately 85% of the free float-adjusted market. capitalization in each country.

## Equity sector risks

Sector investing can be more volatile than investments that are broadly diversified over numerous sectors of the economy and will increase a portfolio's vulnerability to any single economic, political, or regulatory development affecting the sector. This can result in greater price volatility. *Communication Services* companies are vulnerable to their products and services becoming outdated because of technological advancement and the innovation of competitors. Companies in the communication services sector may also be affected by rapid technology changes, pricing competition, large equipment upgrades, substantial capital requirements and government regulation and approval of products and services. In addition, companies within the industry may invest heavily in research and development which is not guaranteed to lead to successful implementation of the proposed product. Risks associated with the *Consumer Discretionary* sector include, among others, apparel price deflation due to low-cost entries, high inventory levels and pressure from e-commerce players, reduction in traditional advertising dollars, increasing household debt levels that could limit consumer appetite for discretionary purchases. *Consumer Staples* industries can be significantly affected by competitive pricing particularly with respect to the growth of low-cost emerging market production, government regulation, the performance of overall economy, interest rates, and consumer confidence. The *Energy* sector may be adversely affected by changes in worldwide energy prices, exploration, production spending, government regulation, and changes in exchange rates, depletion of natural resources and risks that arise from extreme weather conditions. Investing in *Financial Services* companies will subject a portfolio to adverse economic or regulatory occurrences affecting the sector. Key risks to the *Financials* sector include maturation of the credit cycle resulting in higher credit losses and tighter lending standards, lower interest rates leading to a reduction in profitability, and capital market weakness reducing assets under management as well as constraints around accessing the markets for growth capital. Some of the risks associated with investment in the *Health Care* sector include competition on branded products, sales erosion due to cheaper alternatives, research & development risk, government regulations and government approval of products anticipated to enter the market. Risks associated with investing in the *Industrial* sector include the possibility of a worsening in the global economy, acquisition integration risk, operational issues, failure to introduce to market new and innovative products, further weakening in the oil market, potential price wars due to any excesses industry capacity, and a sustained rise in the dollar relative to other currencies. *Materials* industries can be significantly affected by the volatility of commodity prices, the exchange rate between foreign currency and the dollar, export/import concerns, worldwide competition, procurement and manufacturing and cost containment issues. *Technology* and Internet-related stocks, especially of smaller, less-seasoned companies, tend to be more volatile than the overall market. *Real estate* has special risks including the possible illiquidity of underlying properties, credit risk, interest rate fluctuations and the impact of varied economic condition. *Utilities* are sensitive to changes in interest rates and the securities within the sector can be volatile and may underperform in a slow economy.

# Dividend yields outside of the U.S. are attractive



Sources: Morgan Stanley Capital International (MSCI) and Wells Fargo Investment Institute, as of September 30, 2024. Yields represent past performance and fluctuate with market conditions. Current yields may be higher or lower than those quoted. **Past performance is no guarantee of future results.** Canada: MSCI Canada Index, U.S.: MSCI U.S. Index, Emerging Americas: MSCI Emerging Markets (EM) Latin America Index, Developed Europe: MSCI Europe Index, Emerging Europe: MSCI EM Europe Index, Emerging Asia: MSCI EM Asia Index; Japan: MSCI Japan Index, Developed Asia Pacific: MSCI Asia Pacific, Australia: MSCI Australia Index, South Africa: MSCI South Africa Index, Global: MSCI ACWI Index, Developed Markets: MSCI World ex USA Index, and Emerging Markets: MSCI Emerging Markets. An index is unmanaged and not available for direct investment. See risks and index definitions on following page.

## Key takeaways

- We view dividend yields in many regions outside of the U.S. as attractive.
- Dividends remain an important source of income for investors.

# Dividend yields outside of the U.S. are attractive Cont'd

## **Risk considerations**

Equity securities are subject to market risk which means their value may fluctuate in response to general economic and market conditions and the perception of individual issuers. Investments in equity securities are generally more volatile than other types of securities. Investing in foreign securities presents certain risks not associated with domestic investments, such as currency fluctuation, political and economic instability, and different accounting standards. This may result in greater share price volatility. These risks are heightened in emerging markets. Dividends are not guaranteed and are subject to change or elimination.

## **Index definitions**

**MSCI Canada Index** is a free-float-adjusted market-capitalization-weighted index that is designed to measure the equity market performance of Canada.

**MSCI USA Index** is designed to measure the performance of the large and mid cap segments of the U.S. market. With 628 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in the U.S.

**MSCI EM Latin America Index** captures large and mid cap representation across 6 Emerging Markets countries in Latin America. With 108 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

**MSCI Europe Index** captures large and mid cap representation across 15 Developed Markets (DM) countries in Europe. With 438 constituents, the index covers approximately 85% of the free float-adjusted market capitalization across the European Developed Markets equity universe.

**MSCI EM Europe Index** captures large and mid cap representation across 6 Emerging Markets countries in Europe. With 72 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

**MSCI EM Asia Index** captures large and mid cap representation across 9 Emerging Markets countries in Asia. With 912 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

**MSCI Japan Index** is designed to measure the performance of the large and mid cap segments of the Japanese market. With 323 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in Japan.

**MSCI Asia Pacific Index** captures large and mid cap representation across 5 Developed Markets countries and 9 Emerging Markets countries in the Asia Pacific region. With 1,335 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

**MSCI Australia Index** is designed to measure the performance of the large and mid cap segments of the Australia market. With 68 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in Australia.

**MSCI South Africa Index** is designed to measure the performance of the large and mid cap segments of the South African market. With 46 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in South Africa.

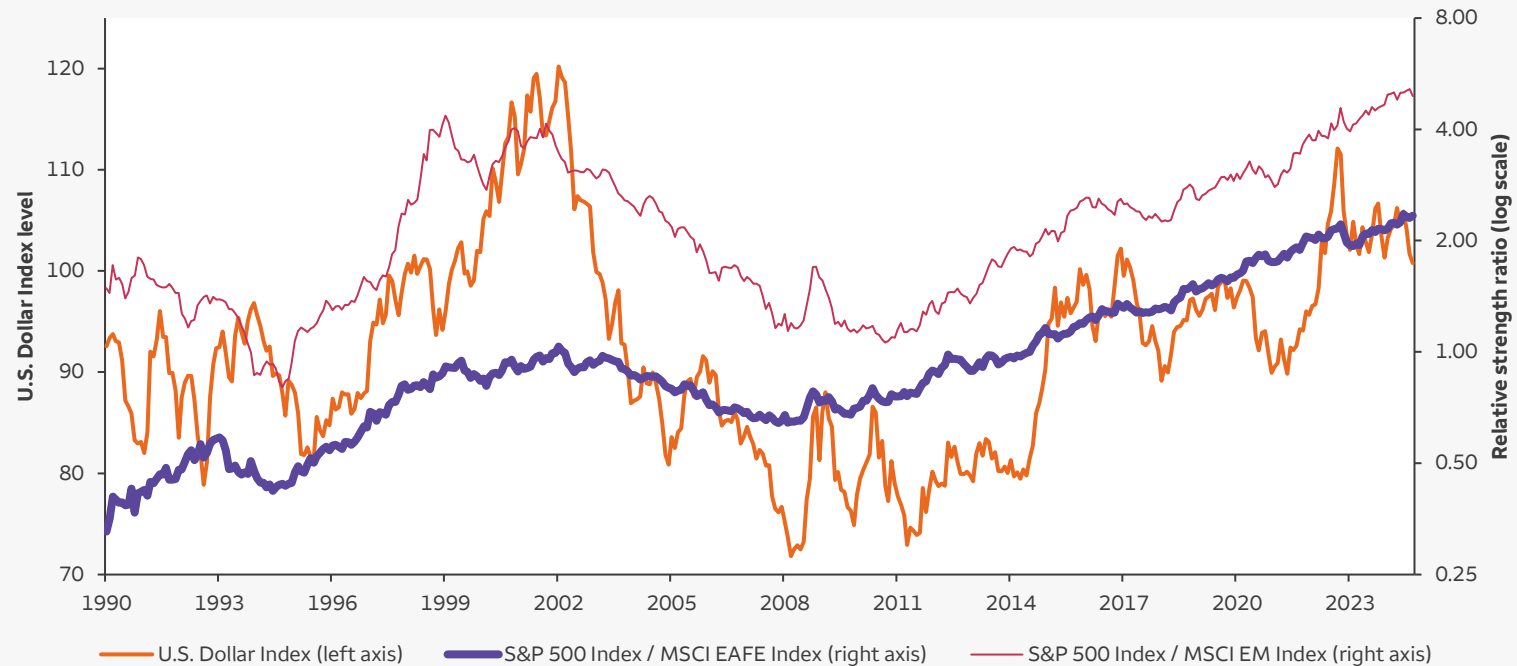
**MSCI All Country World Index (ACWI)** is a free-float-adjusted market-capitalization-weighted index that is designed to measure the equity market performance of developed and emerging markets.

**MSCI World ex USA Index** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of 22 developed markets excluding the United States.

**MSCI Emerging Markets (EM) Index** is a free-float-adjusted market-capitalization-weighted index designed to measure equity market performance of emerging markets.

# Dollar strength is a headwind for international equity prices

## International equities relative performance vs. the U.S. dollar

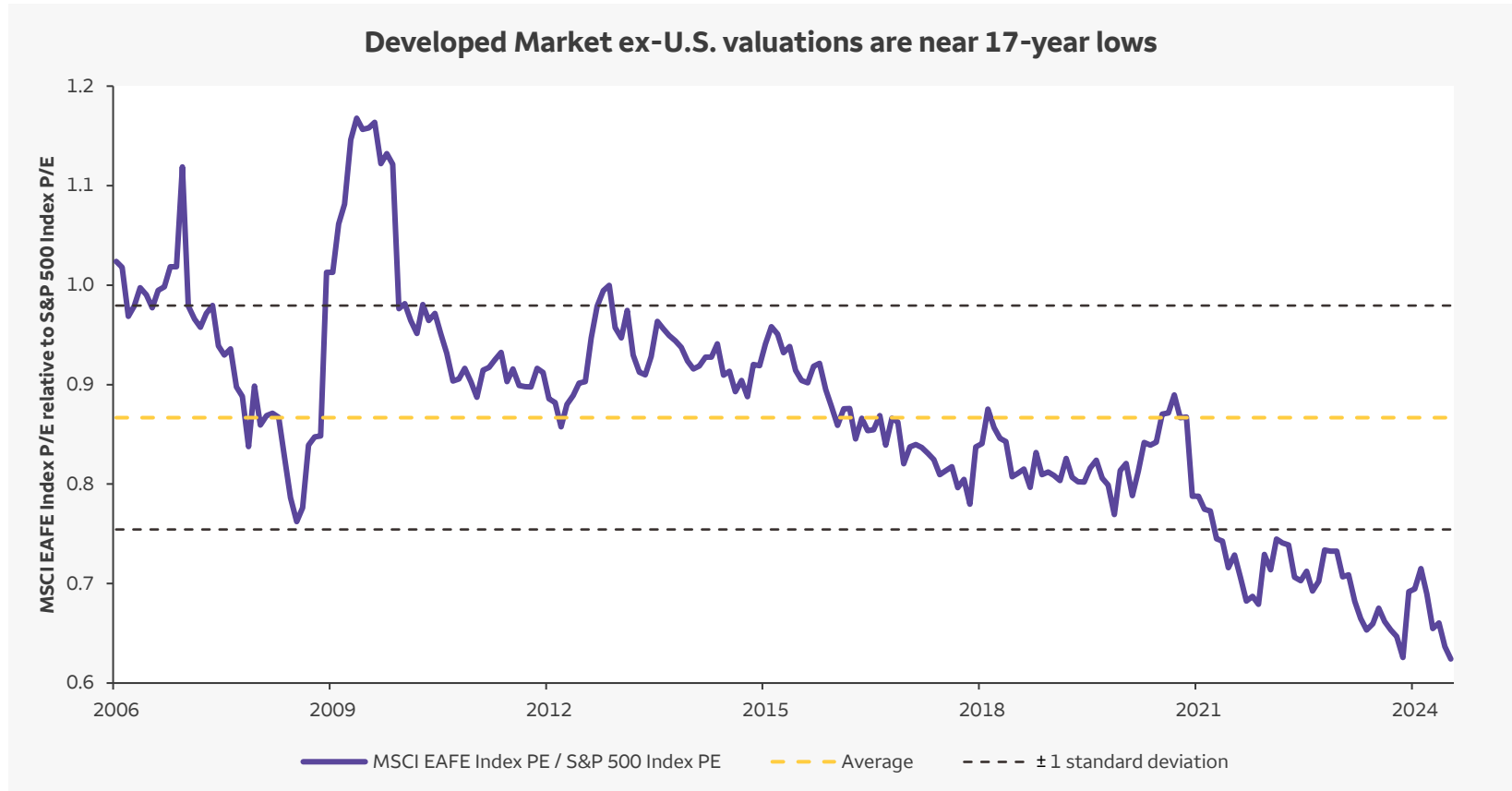


Sources: Bloomberg and Wells Fargo Investment Institute. Monthly data from January 1, 1990, to September 30, 2024. MSCI EAFE (DM) and MSCI Emerging Markets (EM) indexes are equity indexes which capture large and mid cap representation across DM countries (excluding Canada and the U.S.) and EM countries around the world. The S&P 500 Index is a market-capitalization-weighted index considered representative of the U.S. stock market. The U.S. Dollar Index measures the value of the U.S. dollar relative to majority of its most significant trading partners. This index is similar to other trade-weighted indexes, which also use the exchange rates from the same major currencies. Index returns do not represent investment performance or the results of actual trading. Index returns represent general market results, assume the reinvestment of dividends and other distributions, and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Equity securities are subject to market risk which means their value may fluctuate in response to general economic and market conditions and the perception of individual issuers. Investments in equity securities are generally more volatile than other types of securities. Investing in foreign securities presents certain risks not associated with domestic investments, such as currency fluctuation, political and economic instability, and different accounting standards. This may result in greater share price volatility. These risks are heightened in emerging markets.

### Key takeaways

- A strengthening U.S. dollar has been a headwind for international equity prices since 2008. The last time the U.S. dollar weakened materially, 2001 to 2008, was the most recent period of sustained international equities outperformance.
- Our forecast suggests international equities will not enjoy the tailwind of a significantly weakening dollar any time soon.

# Developed Market valuations are quite compelling



Sources: Bloomberg and Wells Fargo Investment Institute. Monthly data from March 1, 2006, to September 30, 2024. P/E = price to earnings. The MSCI EAFE Index capture large- and mid-cap representation across developed market countries (excluding the U.S. and Canada) around the world. The S&P 500 Index is a market-capitalization-weighted index considered representative of the U.S. stock market. Index returns do not represent investment performance or the results of actual trading. Index returns represent general market results, assume the reinvestment of dividends and other distributions, and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Equity securities are subject to market risk which means their value may fluctuate in response to general economic and market conditions and the perception of individual issuers. Investments in equity securities are generally more volatile than other types of securities. Investing in foreign securities presents certain risks not associated with domestic investments, such as currency fluctuation, political and economic instability, and different accounting standards. This may result in greater share price volatility. These risks are heightened in emerging markets.

## Key takeaways

- Developed Market relative valuations have reached historically cheap levels.
- While valuations are typically poor timing vehicles, we believe that the fundamental backdrop has improved for the region and that we have passed peak market pessimism.

## China has weighed on the broad EM index



Sources: Bloomberg and Wells Fargo Investment Institute. Daily data from February 17, 2021, to September 30, 2024. EM = emerging markets. MSCI Emerging Markets Index is a free-float-adjusted market-capitalization-weighted index designed to measure equity market performance of emerging markets. MSCI Emerging Markets ex China Index is a free-float-adjusted market-capitalization-weighted index designed to measure equity market performance of emerging markets excluding China. Index returns do not represent investment performance or the results of actual trading. Index returns represent general market results, assume the reinvestment of dividends and other distributions, and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Equity securities are subject to market risk which means their value may fluctuate in response to general economic and market conditions and the perception of individual issuers. Investments in equity securities are generally more volatile than other types of securities. Investing in foreign securities presents certain risks not associated with domestic investments, such as currency fluctuation, political and economic instability, and different accounting standards. This may result in greater share price volatility. These risks are heightened in emerging markets.

### Key takeaways

- Emerging Markets (EMs) have lagged over the past few years. In particular, Chinese stocks have struggled, masking pockets of strength in other areas of EMs.
- With China being the largest weight in our EM equities benchmark, the MSCI Emerging Markets Index, the country's political and regulatory risks as well as its structural economic issues have been key considerations in our EM guidance.

## General

- During the third quarter, interest rates fell — largely influenced by changes to expectations of Federal Reserve (Fed) interest rate cuts. We favor Intermediate Term Fixed Income to help limit any potential volatility from two-way risks facing short- and long-term bonds.
- So far in 2024, most bond portfolios have been able to provide investors with attractive yields, although the attractiveness softened late in the quarter. Still, we expect high-quality bonds to continue to provide support to investment portfolios during periods of equity market volatility.

## Domestic

- Historically, long-term yields have tended to peak before the end of a Fed tightening cycle, and it appears that this time was no exception. The yield curve managed to steepen (uninvert) toward the end of the quarter providing a tailwind to fixed-income returns.
- The Fed began a new interest-rate cutting cycle in September with more rate cuts expected at upcoming meetings.
- Credit spreads in investment-grade and high-yield corporates were volatile during the third quarter and ended the quarter slightly higher. Still, overall credit conditions remained favorable, supporting our neutral rating on high-yield corporate debt.

## International

- European bond yields declined over the quarter as the European Central Bank also appears poised to continue its rate cutting cycle.
- Emerging market (JPMorgan EMBI Global) credit spreads were stable in the third quarter. Index yields fell somewhat but remain high relative to developed markets. We continue to believe that higher relative EM debt yields should attract inflows now that U.S. rates are poised to decline further.

# Fixed-income scorecard

Asset class	3Q24 total return (%)	YTD total return (%)	YOY total return (%)	Duration (years)	Yield to worst (%)
U.S. Short Term Taxable Fixed Income	2.96	4.41	7.23	1.92	3.95
U.S. Intermediate Term Taxable Fixed Income	5.10	4.82	11.30	5.31	4.16
U.S. Long Term Taxable Fixed Income	7.94	3.54	15.87	14.23	4.68
High Yield Taxable Fixed Income	5.28	8.00	15.74	3.44	6.99
Developed Market ex-U.S. Fixed Income	9.98	1.00	11.06	7.95	2.49
Emerging Market Fixed Income	6.07	8.02	18.02	7.02	7.12

Sources: Bloomberg and Wells Fargo Investment Institute, as of September 30, 2024. 3Q = third quarter. YTD = year to date. YOY = year over year. For illustrative purposes only. Duration is a measure of a bond's sensitivity to interest rates. Short term taxable = Bloomberg U.S. Aggregate 1-3 Year Bond Index. Intermediate term taxable = Bloomberg U.S. Aggregate 5-7 Year Bond Index. Long term taxable = Bloomberg U.S. Aggregate 10+ Year Bond Index. High Yield taxable = Bloomberg U.S. Corporate High Yield Bond Index. Developed market ex-U.S. = J.P. Morgan GBI Global Ex U.S. (Unhedged). Emerging market = J.P. Morgan EMBI Global (USD). Yields and returns represent past performance and fluctuate with market conditions. Current performance may be higher or lower than that quoted above. Index returns do not represent investment performance or the results of actual trading. Index returns reflect general market results, assume the reinvestment of dividends and other distributions, and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** See following page for index definitions.

Bonds are subject to market, interest rate, price, credit/default, liquidity, inflation and other risks. Prices tend to be inversely affected by changes in interest rates. High-yield fixed-income securities are considered speculative, involve greater risk of default, and tend to be more volatile than investment-grade fixed-income securities. Foreign investing has additional risks including currency, transaction, volatility and political and regulatory uncertainty. These risks are heightened in emerging markets.

## Key takeaways

- Most strategic fixed-income asset classes displayed positive returns in the third quarter as yields fell across the curves.
- Major central banks pivoted toward easing monetary policy which helped performance, and the expectation is for interest rate cuts to continue in the near-term.
- We favor credit selectivity and a diversified income approach across fixed-income asset classes.



# Fixed-income scorecard Cont'd

## Index definitions

**Bloomberg U.S. Aggregate 1-3 Year Bond Index** is the one to three year component of the Bloomberg U.S. Aggregate Index, which represents fixed-income securities that are SEC-registered, taxable, dollar-denominated, and investment-grade.

**Bloomberg U.S. Aggregate 5-7 Year Bond Index** is composed of the Bloomberg U.S. Government/Credit Index and the Bloomberg U.S. Mortgage-Backed Securities Index, and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities with maturities of 5-7 years.

**Bloomberg U.S. Aggregate 10+ Year Bond Index** is unmanaged and is composed of the Bloomberg U.S. Government/Credit Index and the Bloomberg U.S. Mortgage-Backed Securities Index, and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities with maturities of 10 years or longer.

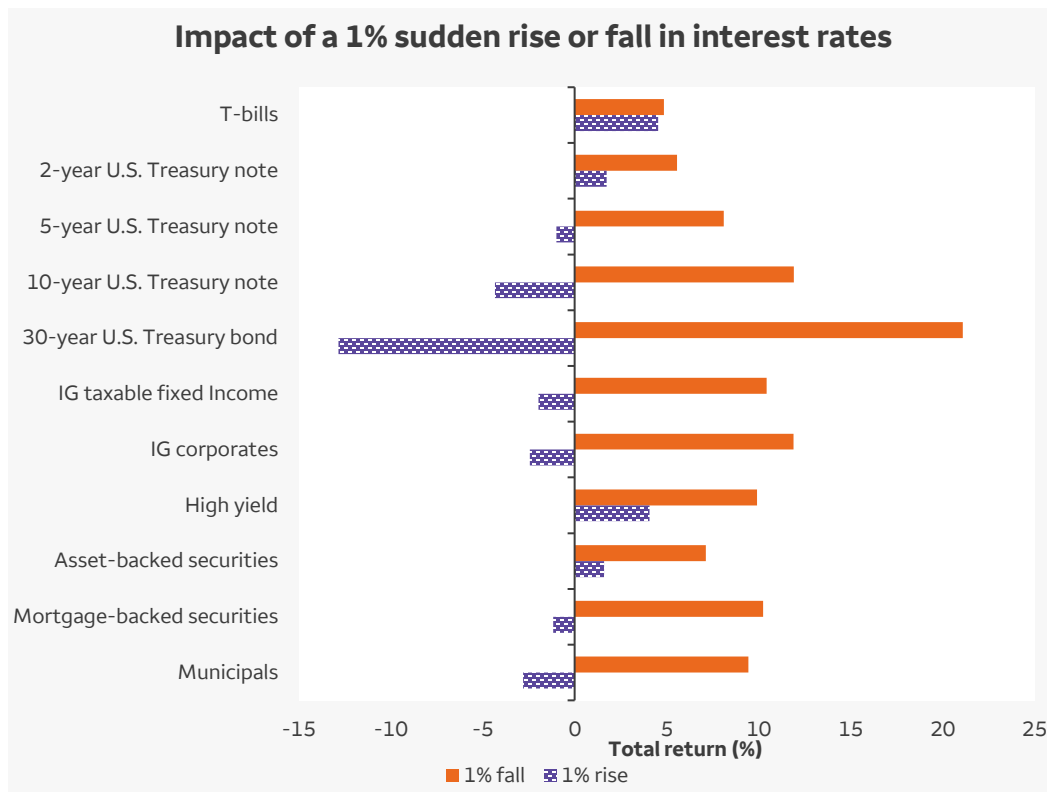
**Bloomberg U.S. Corporate High Yield Bond Index** covers the U.S. dollar-denominated, non-investment grade, fixed-rate, taxable corporate bond market.

**J.P. Morgan Government Bond Index (GBI) Global ex-U.S. (Unhedged) in USD** is an unmanaged index market representative of the total return performance in U.S. dollars on an unhedged basis of major non-U.S. bond markets.

**J.P. Morgan Emerging Market Bond Index (EMBI) Global (USD)** is a U.S. dollar-denominated, investible, market cap-weighted index representing a broad universe of emerging market sovereign and quasi-sovereign debt.

# Unequal return potential as rates move higher or lower

Fixed income asset	Yield as of Sep. 30, 2024
T-bills	4.69%
2-year U.S. Treasury note	3.64%
5-year U.S. Treasury note	3.56%
10-year U.S. Treasury note	3.78%
30-year U.S. Treasury bond	4.12%
IG taxable fixed Income	4.23%
IG corporates	4.72%
High yield	6.99%
Asset-backed securities	4.36%
Mortgage-backed securities	4.53%
Municipals	3.32%



Sources: Bloomberg and Wells Fargo Investment Institute, as of September 30, 2024. For illustrative purposes only. T-bills (Treasury bills): Bloomberg U.S. Treasury Bills (1-3M) Index, Investment-grade (IG) taxable fixed income: Bloomberg U.S. Aggregate Bond Index. IG corporates: Bloomberg U.S. Corporate Bond Index, High yield: Bloomberg U.S. Corporate High Yield Bond Index, Asset-backed securities: Bloomberg U.S. Asset Backed Securities Index, Mortgage-backed securities: Bloomberg U.S. Mortgage-Backed Securities Index, Municipals: Bloomberg Municipal Index. Yields represent past performance and fluctuate with market conditions. Current yields may be higher or lower than those quoted above. An index is unmanaged and not available for direct investment **Past performance is no guarantee of future results.** See index definitions on following page. Bonds are subject to market, interest rate, price, credit/default, liquidity, inflation and other risks. Prices tend to be inversely affected by changes in interest rates. High-yield fixed-income securities are considered speculative, involve greater risk of default, and tend to be more volatile than investment-grade fixed-income securities. Although Treasuries are considered free from credit risk, they are subject to other types of risks. These risks include interest rate risk, which may cause the underlying value of the bond to fluctuate. In addition to the risks associated with investment in debt securities, investments in mortgage-backed and asset-backed securities will be subject to prepayment, extension and call risks. Municipal bonds are subject to credit risk and potentially the Alternative Minimum Tax (AMT). Quality varies widely depending on the specific issuer. Municipal bonds offer interest payments exempt from federal taxes, and potentially state and local income taxes. Municipal securities are also subject to legislative and regulatory risk which is the risk that a change in the tax code could affect the value of taxable or tax-exempt interest income.

## Key takeaways

- Many fixed-income asset classes, along with cash, are yielding more than our longer-term inflation expectation of 2.5%.
- Diversifying income streams can potentially dampen portfolio volatility and reduce the probability of wide swings in income levels.
- It is important for investors to evaluate the potential upside and downside return of their bond holdings if interest rates move higher or lower from current levels.

# Unequal return potential as rates move higher or lower

## Cont'd

### Index definitions

**Bloomberg U.S. Aggregate Bond Index** is composed of the Bloomberg U.S. Government/Credit Index and the Bloomberg U.S. Mortgage-Backed Securities Index and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities.

**Bloomberg U.S. Asset Backed Securities Index** measures the investment-grade market of US Credit Card, Auto and Student Loan asset backed securities deals.

**Bloomberg U.S. Corporate Bond Index** measures the performance of the investment-grade corporate bond market.

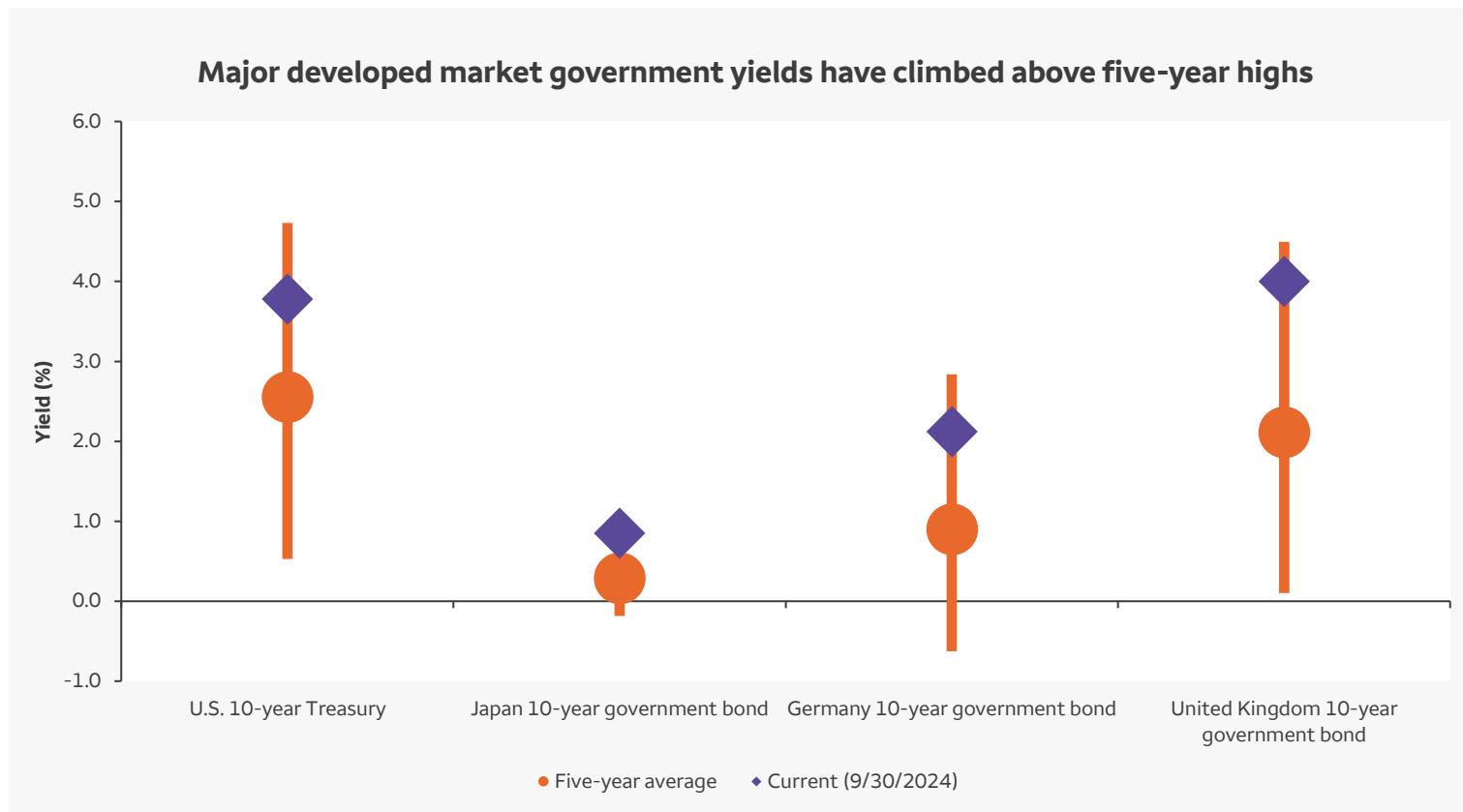
**Bloomberg U.S. Corporate High Yield Bond Index** covers the U.S. dollar-denominated, non-investment grade, fixed-rate, taxable corporate bond market.

**Bloomberg U.S. Mortgage-Backed Securities Index** includes agency mortgage-backed pass-through securities (both fixed-rate and hybrid ARM) guaranteed by Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC).

**Bloomberg Municipal Bond Index** is an index of a broad range of investment-grade municipal bonds that measures the performance of the general municipal bond market.

**Bloomberg U.S. Treasury Bills (1-3 Month) Index** is representative of money markets.

# Most developed market bonds recovered in Q3

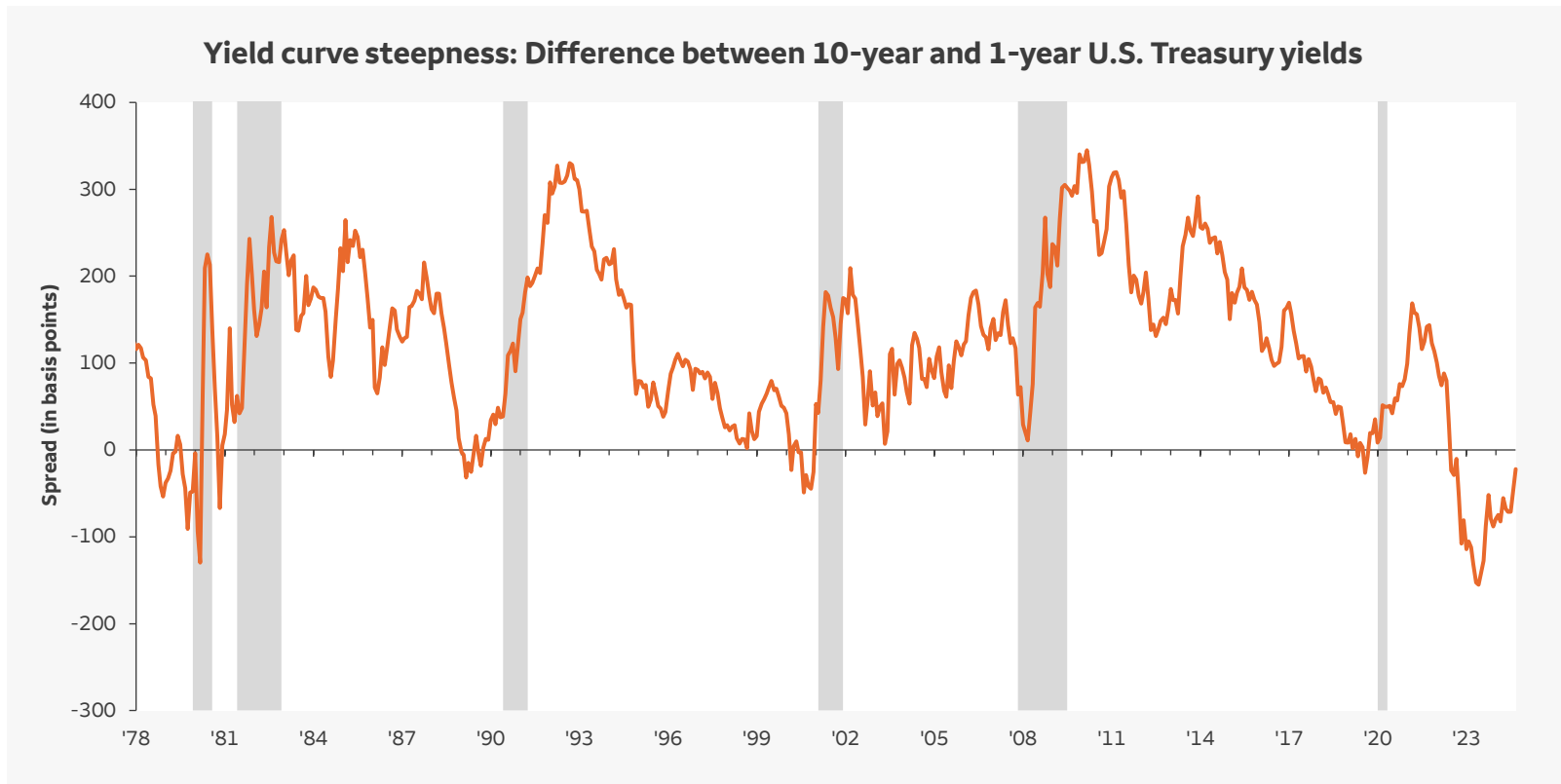


Sources: Bloomberg and Wells Fargo Investment Institute, as of September 30, 2024. Q3 = third quarter. For illustrative purposes only. Yields represent past performance and fluctuate with market conditions. Current yields may be higher or lower than those quoted above. **Past performance is no guarantee of future results.** Bonds are subject to interest rate, credit/default, liquidity, inflation and other risks. Prices tend to be inversely affected by changes in interest rates. Although Treasuries are considered free from credit risk, they are subject to other types of risks. These risks include interest rate risk, which may cause the underlying value of the bond to fluctuate. Investing in foreign securities presents certain risks not associated with domestic investments, such as currency fluctuation, political and economic instability, and different accounting standards. This may result in greater share price volatility.

## Key takeaways

- 10-year German bunds displayed positive performance in the third quarter. Japanese government bonds and 10-year U.K. gilts also gained due to the weaker U.S. dollar and lower U.S. interest rates.
- We believe developed market bond yields could decline (prices rise) further especially if the European Central Bank (ECB) continues to deploy policy rate cuts.

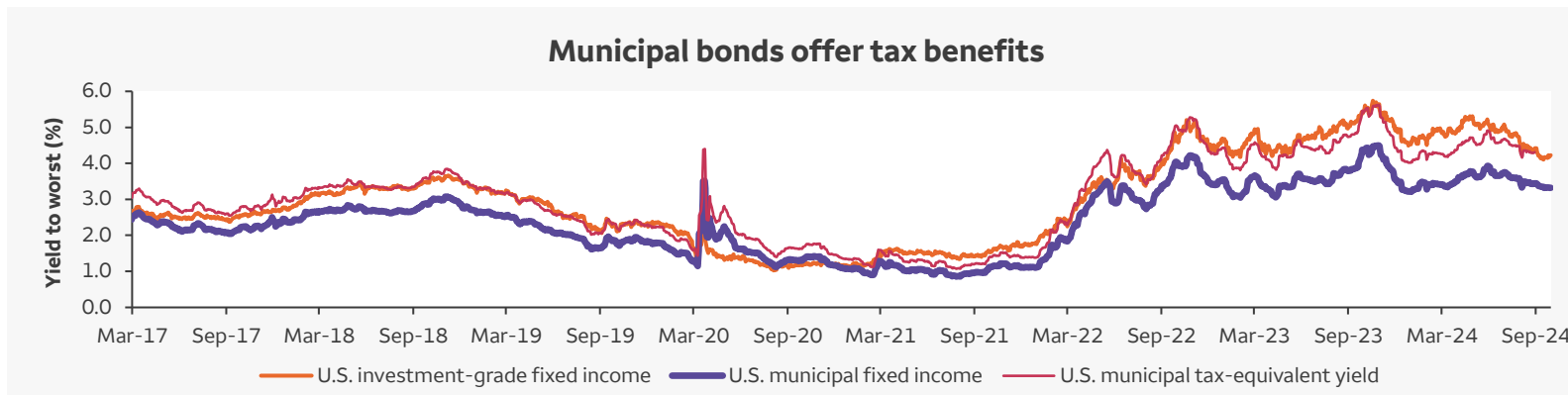
# Yield curve continues to signal a slowdown ahead



Sources: Bloomberg, and Wells Fargo Investment Institute. Monthly data from January 1, 1978, to September 30, 2024. For illustrative purposes only. Ten-Year Treasury Constant Maturity and the One-Year Constant Maturity Indexes are published by the Federal Reserve Board and are based on the average yield of a range of Treasury securities, all adjusted to the equivalent of a 10-year maturity and the equivalent of a one-year maturity. Shaded area represents time frame of a U.S. economic recession. Yields represent past performance and fluctuate with market conditions. Current yields may be higher or lower than those quoted above. **Past performance is no guarantee of future results.** 100 basis points equal 1%. Although Treasuries are considered free from credit risk, they are subject to other types of risks. These risks include interest rate risk, which may cause the underlying value of the bond to fluctuate.

## Key takeaways

- The U.S. Treasury yield curve has been inverted since July 2022 as short-term rates have remained higher than intermediate- and long-term rates.
- An inverted yield curve has historically pointed to a slowdown in economic growth, especially once the curve starts to turn positive after having been inverted.



### Municipal bonds have lower historical default rates versus corporates

Credit rating	Municipal bonds (%)	Corporate bonds (%)
<b>Aaa</b>	0.00	0.34
<b>Aa</b>	0.02	0.73
<b>A</b>	0.10	1.91
<b>Baa</b>	1.05	3.54
<b>Ba</b>	3.31	15.52
<b>B</b>	16.65	34.06
<b>Caa-C</b>	23.58	47.77
<b>Investment-grade</b>	0.09	2.20
<b>Speculative-grade</b>	6.84	29.71

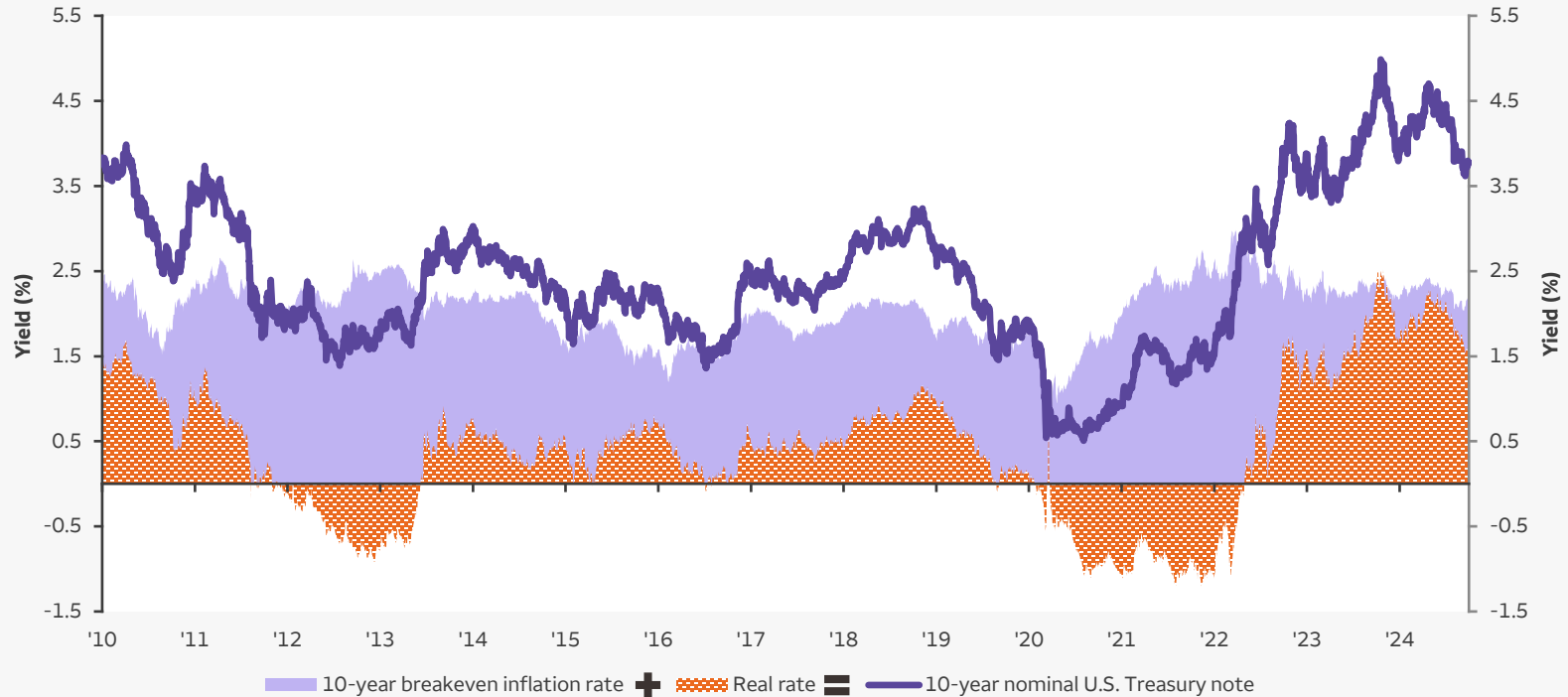
Sources: Top chart: Bloomberg and Wells Fargo Investment Institute. Yield to worst: monthly data from March 1, 2017, to September 30, 2024. Bottom table: Moody's Investor Service, "U.S. municipal bond defaults and recoveries, 1970-2022" and "Annual default study: Corporate default rate to moderate in 2024 but remain near its long-term average." Municipal bond default rates: 10-year average cumulative default rates, yearly data from 1970 to 2022. Corporate bond default rates: 10-year average cumulative default rates, yearly data from 1970 to 2023. Investment grade represented by Bloomberg U.S. Aggregate Bond Index. Municipal represented by Bloomberg Municipal Bond Index. For illustrative purposes only. Bloomberg U.S. Aggregate Bond Index is a broad-based measure of the investment grade, U.S. dollar-denominated, fixed-rate taxable bond market. Bloomberg Municipal Bond Index is an index of a broad range of investment-grade municipal bonds that measures the performance of the general municipal bond market. Index returns do not represent investment performance or the results of actual trading. Index returns represent general market results, assume the reinvestment of dividends and other distributions, and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. Yields represent past performance and fluctuate with market conditions. An index is unmanaged and not available for direct investment. Current yields may be higher or lower than those quoted above. **Past performance is no guarantee of future results.**

#### Key takeaways

- We expect municipal bond demand to remain strong given the ongoing supply-demand imbalance.
- The pace of municipal defaults has accelerated over the past decade, especially for lower-rated sectors. Still, default rates between municipals and corporates remain divergent in the speculative-grade (high-yield) space.

Tax equivalent yield assumes a 20% effective tax rate. Yield to worst is the lowest potential yield that can be received on a bond without the issuer actually defaulting. The tax equivalent yield is the yield a taxable bond would have to earn to match the yield available on a tax-exempt municipal bond excluding AMT. Bonds are subject to market, interest rate, price, credit/default, liquidity, inflation and other risks. Prices tend to be inversely affected by changes in interest rates. Municipal bonds offer interest payments exempt from federal taxes, and potentially state and local income taxes and may be subject to the alternative minimum tax, and legislative and regulatory risk.

## Deconstructing the 10-year nominal U.S. Treasury note

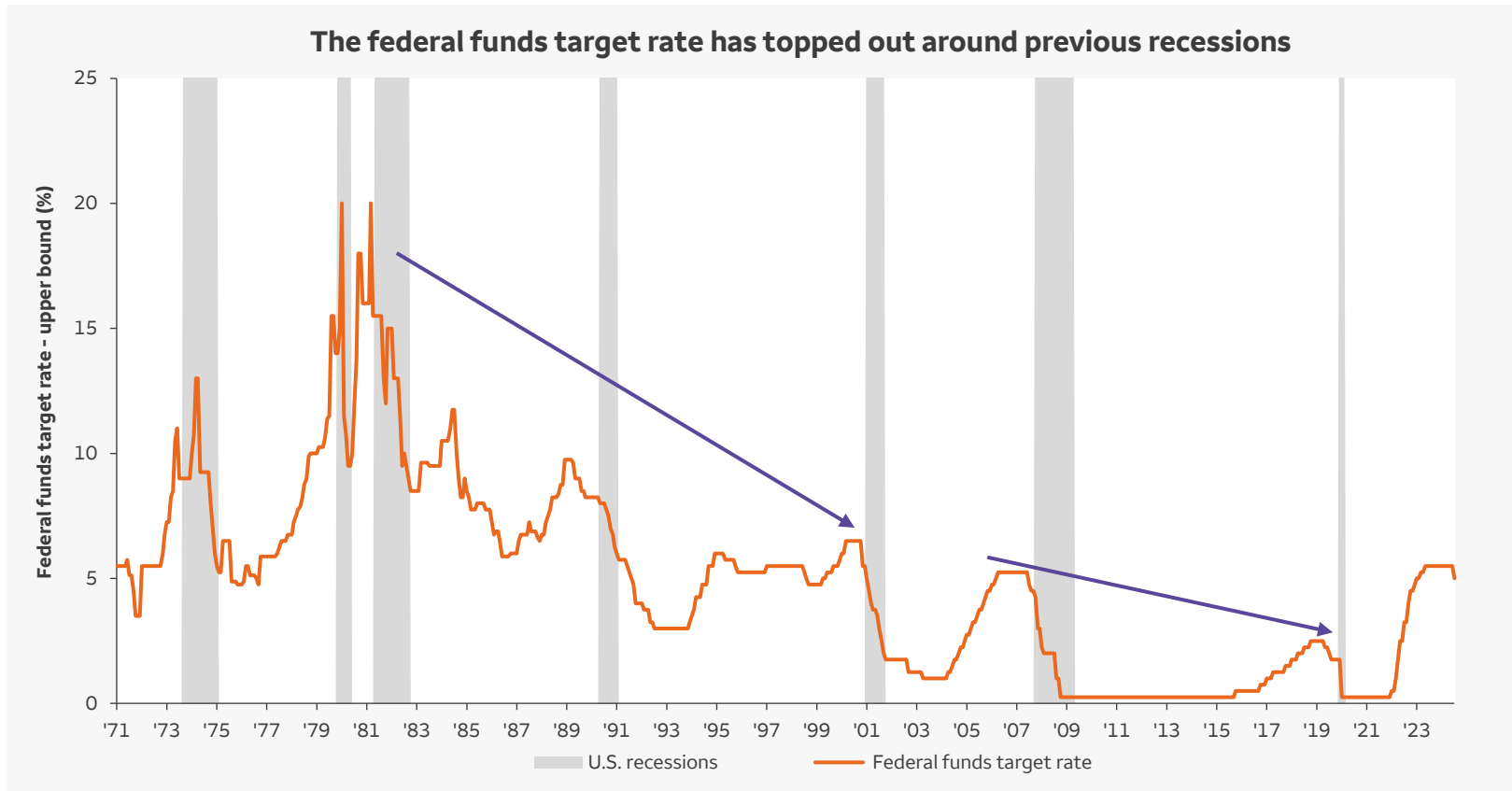


Sources: Bloomberg and Wells Fargo Investment Institute. Daily data from January 1, 2010, to September 30, 2024. For illustrative purposes only. Yields represent past performance and fluctuate with market conditions. Current yields may be higher or lower than those quoted above. **Past performance is no guarantee of future results.** Although Treasuries are considered free from credit risk, they are subject to other types of risks. These risks include interest rate risk, which may cause the underlying value of the bond to fluctuate.

### Key takeaways

- Real rates on the 10-year U.S. Treasury have been in positive territory since May 2022 as 10-year breakeven inflation rate readings fell below nominal rates. We expect real rates to remain positive, especially if nominal rates remain elevated.
- Now may be a good time to consider locking in higher interest rates on bonds with longer maturities, especially in the intermediate portion of the curve (3–7-year maturities).

# The Fed has started a new rate-cutting cycle



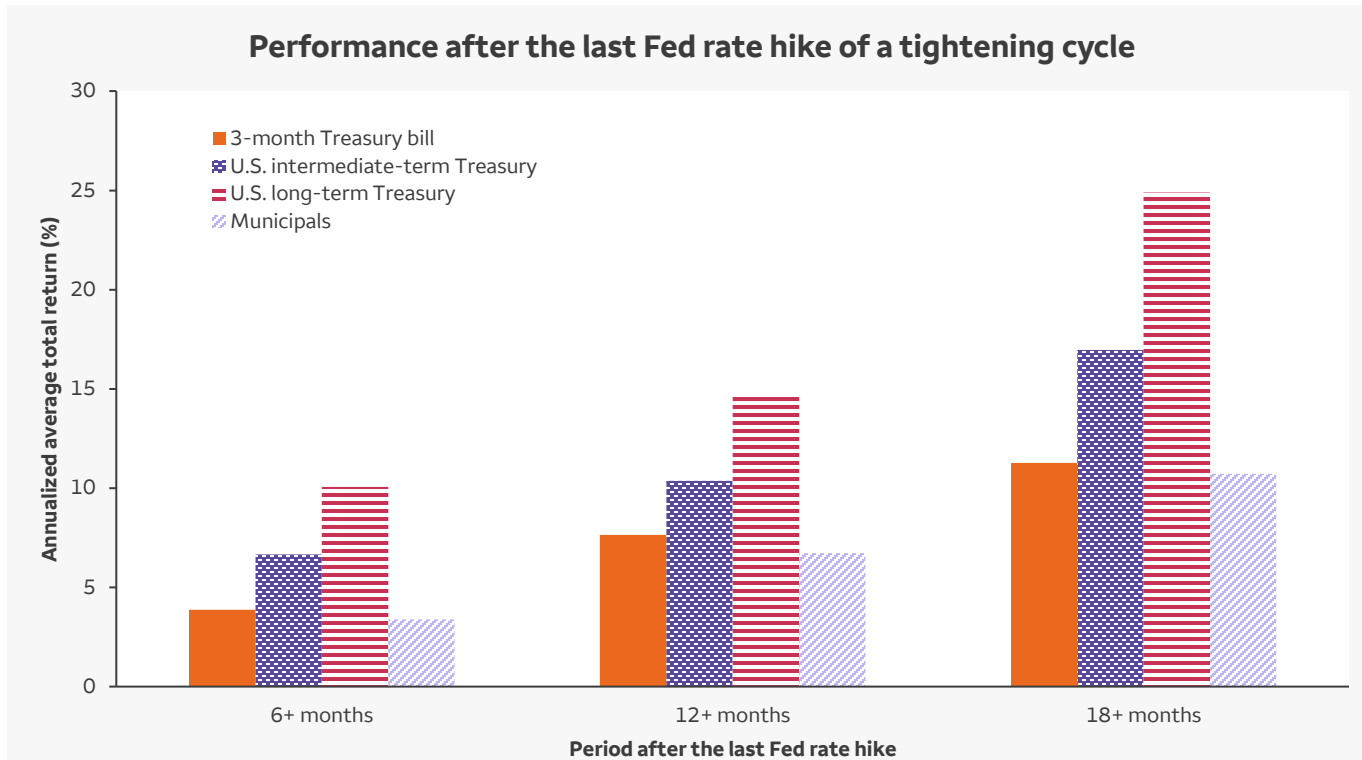
Sources: Bloomberg and Wells Fargo Investment Institute. Monthly data from March 1, 1971, to September 30, 2024. For illustrative purposes only. Fed = Federal Reserve.

## Key takeaways

- The Fed has begun a new rate-cutting cycle. The latest Fed dot plot implies more potential rate cuts through 2025.
- Over the past four decades, policy interest rates had topped out at progressively lower levels during periods of monetary policy tightening, eventually pushing the economy into a recession. The current rate-hike cycle has broken the previous downward trend and has yet to result in a serious economic slowdown.



# When the Fed pivots...

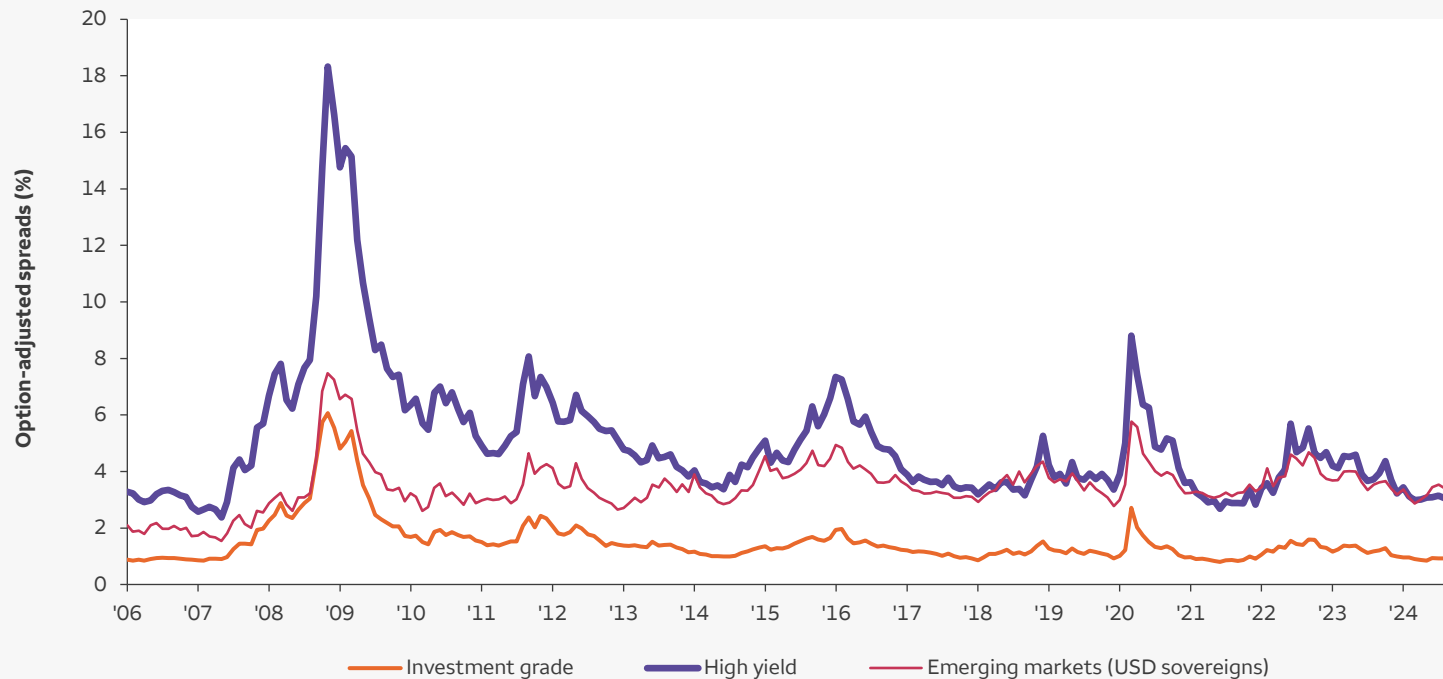


Sources: Bloomberg and Wells Fargo Investment Institute, as of September 30, 2024. Fed = Federal Reserve. 3-month Treasury bill: ICE BofA 3-Month Treasury Bill Index measures the performance of a single issue of outstanding treasury bill which matures closest to, but not beyond, three months from the rebalancing date. U.S. Intermediate-term Treasury: Bloomberg U.S. Intermediate-Term Treasury Index measures U.S. dollar-denominated, fixed-rate, nominal debt issued by the U.S. Treasury with maturities of at least 1 year and less than 10 years to maturity. U.S. long-term Treasury: Bloomberg U.S. Long-Term Treasury Index measures U.S. dollar-denominated, fixed-rate, nominal debt issued by the U.S. Treasury with 10 years or more to maturity. Municipals: Bloomberg U.S. Municipal Bond Index is an index of a broad range of investment-grade municipal bonds that measures the performance of the general municipal bond market. Chart shows performance over the 6-month, 12-month, and 18-month periods following the last hike in the federal funds rate in the previous seven tightening cycles by the U.S. Federal Reserve. (Last hike dates were: February 15, 1980; May 5, 1981; February 24, 1989; February 1, 1995; May 16, 2000; June 29, 2006; and December 19, 2018.) **Past performance is not a guarantee of future results.** Indexes are unmanaged, do not reflect the deduction of fees or expenses, and are not available for direct investment. Bonds are subject to market, interest rate, price, credit/default, liquidity, inflation and other risks. Prices tend to be inversely affected by changes in interest rates. Although Treasuries are considered free from credit risk, they are subject to other types of risks. These risks include interest rate risk, which may cause the underlying value of the bond to fluctuate. Municipal bonds offer interest payments exempt from federal taxes, and potentially state and local income taxes. Municipal bonds are subject to credit risk and potentially the Alternative Minimum Tax (AMT). Quality varies widely depending on the specific issuer. Municipal securities are also subject to legislative and regulatory risk which is the risk that a change in the tax code could affect the value of taxable or tax-exempt interest income.

## Key takeaways

- Longer-term bond yields have tended to peak near the end of a Fed's tightening cycle, and we believe are likely to outperform once the Fed pivots to rate cuts.
- We believe that increasing exposure in longer-term fixed income can potentially provide a return advantage relative to cash or Treasury bills.

## Economic slowdowns have tended to cause wider credit spreads



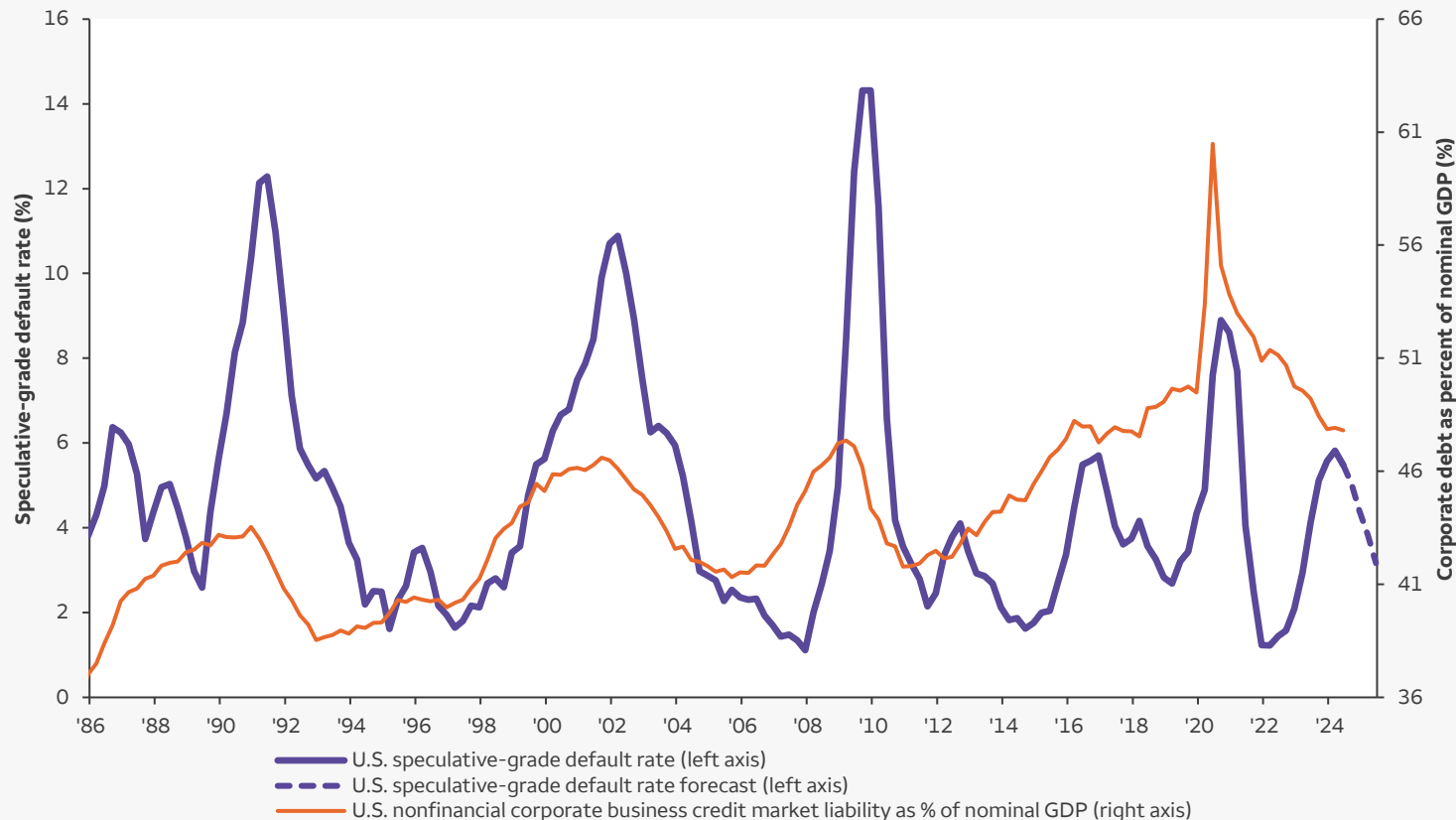
Sources: Bloomberg and Wells Fargo Investment Institute. Monthly data from January 1, 2006, to September 30, 2024. For illustrative purposes only. Option-adjusted spread is the difference in yield over equivalent-duration Treasuries. Duration is a measure of interest rate sensitivity. USD = U.S. dollar. Investment grade represented by Bloomberg U.S. Aggregate Bond Index. High yield represented by Bloomberg U.S. Corporate High Yield Bond Index. Emerging markets represented by J.P. Morgan Emerging Markets Bond Index Global (USD). Bloomberg U.S. Aggregate Bond Index is a broad-based index that measures the investment grade, U.S. dollar-denominated, fixed-rate taxable bond market. Bloomberg U.S. Corporate High Yield Bond Index measures the USD-denominated, high yield, fixed-rate corporate bond market. J.P. Morgan EMBI Global (USD) is a U.S.-dollar-denominated, investible, market-cap-weighted index representing a broad universe of emerging market sovereign and quasi-sovereign debt. Index returns do not represent investment performance or the results of actual trading. Index returns represent general market results, assume the reinvestment of dividends and other distributions, and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.**

Bonds are subject to market, interest rate, price, credit/default, liquidity, inflation and other risks. Prices tend to be inversely affected by changes in interest rates. High-yield fixed-income securities are considered speculative, involve greater risk of default, and tend to be more volatile than investment-grade fixed-income securities. Foreign investing has additional risks including currency, transaction, volatility and political and regulatory uncertainty. These risks are heightened in emerging markets.

### Key takeaways

- Credit spreads in investment-grade and high-yield corporates were volatile during the third quarter and ended the quarter slightly higher. Still, overall credit conditions remained favorable. We upgraded high-yield corporate debt to neutral.
- We expect spreads of high-quality and low-quality bonds to widen slightly as a potential economic slowdown takes hold. At this time, we believe credit selectivity is key.

## U.S. corporate debt levels and high-yield default rates



Sources: Bloomberg, Moody's, and Wells Fargo Investment Institute. Quarterly data from January 1, 1986, to June 30, 2024. Q3 2024 – Q2 2025 speculative grade default rate forecasts from Moody's forecasts, as of September 30, 2024. The nonfinancial corporate debt data includes both High Yield (HY) and investment-grade (IG) corporate debt. GDP = gross domestic product.

### Key takeaways

- Ample liquidity in the recovery period post-pandemic allowed many high-yield issuers to refinance, extend maturities, and lower interest expense.
- Looking ahead, it appears that high-yield default rates already may have peaked for this cycle. However, if a slowdown manages to materialize and liquidity dries up, we could see another pick-up in default rates.

## General

- Individual commodity prices have historically tended to move together over very long bull and bear cycles. These super-cycles have often lasted a decade or longer. We believe a new bull super-cycle<sup>1</sup> began in 2020.
- Because of its typically low correlation with both stocks and bonds, we believe including an allocation to Commodities in a diversified portfolio can potentially help reduce volatility and mitigate downside risk without sacrificing return.

## Oil

- Oil prices have been on a roller coaster recently as investors weigh supply concerns against the potential for weaker demand, particularly from China.
- Despite the volatility, oil's long-term potential remains bright in our view. We believe structural supply challenges and supply restraint by OPEC (Organization of the Petroleum Exporting Countries) will continue to drive performance through the remainder of 2024 and into 2025.
- Moving forward, even the slightest amount of demand recovery should be supportive of oil prices.

## Gold

- Central banks across the globe have been purchasing record amounts of gold since 2022. We believe that gold's unique quality as a reserve asset that carries no counterparty risk – risk of being devalued by another nation's debt – is a key reason for higher purchasing activity.

## REITs (Real estate investment trusts)

- REITs come in all shapes and sizes — a REIT that specializes in data centers differs wildly from a REIT that specializes in malls or office buildings — and returns can vary widely as a result.
- In our view, monitoring the fundamentals, valuations, trends, and performance of these different REIT subsectors can provide opportunities for investors in REITs.

1. Bull super cycles are an extended period of time, historically 15-20 years, where commodity prices move upward together.

# Real assets scorecard

Asset class	3Q24 total return (%)	YTD total return (%)	YOY total return (%)	Yield (%)
Commodities	0.68	5.86	0.96	–
Energy commodities	-11.19	-4.10	-21.50	–
Agricultural commodities	3.74	-2.78	-3.08	–
Precious metals commodities	11.28	28.00	41.35	–
Base metals commodities	2.97	12.22	12.39	–
Global REITs	16.33	12.64	30.20	3.73
U.S. REITs	16.79	14.23	34.77	3.57
International REITs	16.98	8.63	24.98	3.96

Sources: Bloomberg and Wells Fargo Investment Institute, as of September 30, 2024. 3Q = third quarter. YTD = year to date. YOY = year over year. REIT = real estate investment trust. For illustrative purposes only. Indexes in order represented by Bloomberg Commodity Index, Bloomberg Energy Subindex, Bloomberg Agriculture Subindex, Bloomberg Precious Metals Subindex, Bloomberg Industrial Metals Subindex, FTSE All Equity REITs Index, FTSE EPRA/NAREIT Developed Index, FTSE EPRA NAREIT Developed ex-U.S. REITs Index. Yields represent past performance and fluctuate with market conditions. Current yields may be higher or lower than those quoted above. **Past performance is no guarantee of future results.** An index is unmanaged and not available for direct investment. Investing in commodities and REITs are not appropriate for all investors. The commodities markets are considered speculative, carry substantial risks, and have experienced periods of extreme volatility. Investments in the energy sector are subject to the adverse economic events that occur within that industry. Investing in precious and base metals carries additional risks and may subject an investment to greater share price volatility. Base metals cannot be held physically and are not easily converted to cash. Real estate has special risks, including the possible illiquidity of the underlying properties, credit risk, interest rate fluctuations, and the impact of varied economic conditions. Foreign investing involves risks typically not associated with investing domestically, including currency, transaction, volatility and political and regulatory uncertainty. These risks are heightened in emerging markets. See following page for index definitions.

## Key takeaways

- Commodity prices have struggled over the past year, with gains from precious and base metals offsetting losses in energy and agriculture.
- Precious metal prices performed well over the past year as concerns surrounding economic growth and the volatile market environment provided support for gold prices. Base metals had strong performance amid limited supply and significant investment in green energy, but suffered recently on demand concerns, particularly from China.

# Real assets scorecard Cont'd

## Index definitions

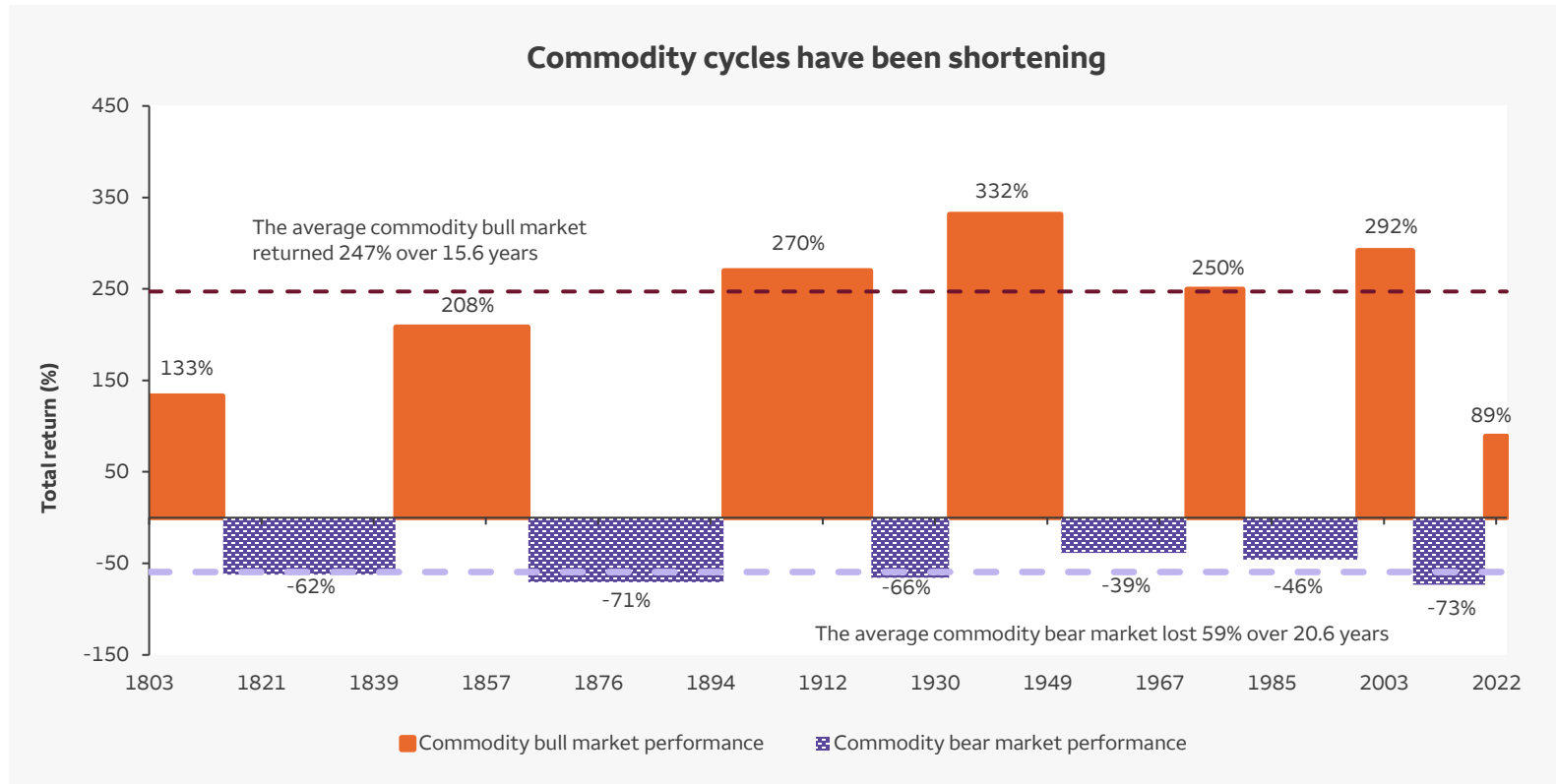
**Bloomberg Commodity (BCOM) indexes** are a family of financial benchmarks designed to provide liquid and diversified exposure to physical commodities via futures contracts. The index currently represents 20 commodities which are weighted to account for economic significance and market liquidity and 22 exchange-traded futures contracts. The index takes exposure to an equally weighted basket of Underlying indexes (subindexes). The Underlying indexes includes the following: BCOM Energy, BCOM Agriculture, BCOM Precious Metals, and BCOM Industrial Metals.

**FTSE NAREIT All Equity REITs Index**, a subset of the All REITs Index, is designed to track the performance of REITs representing equity interests in (as opposed to mortgages on) properties. It represents all tax-qualified REITs with more than 50 percent of total assets in qualifying real estate assets, other than mortgages secured by real property that also meet minimum size and liquidity criteria.

**FTSE EPRA/NAREIT Developed Index** is designed to track the performance of listed real-estate companies and REITs in developed countries worldwide.

**FTSE EPRA/NAREIT Developed Index ex-U.S. REITs Index** is designed to track the performance of listed real estate companies in developed countries worldwide other than the United States.

# Commodity super-cycles



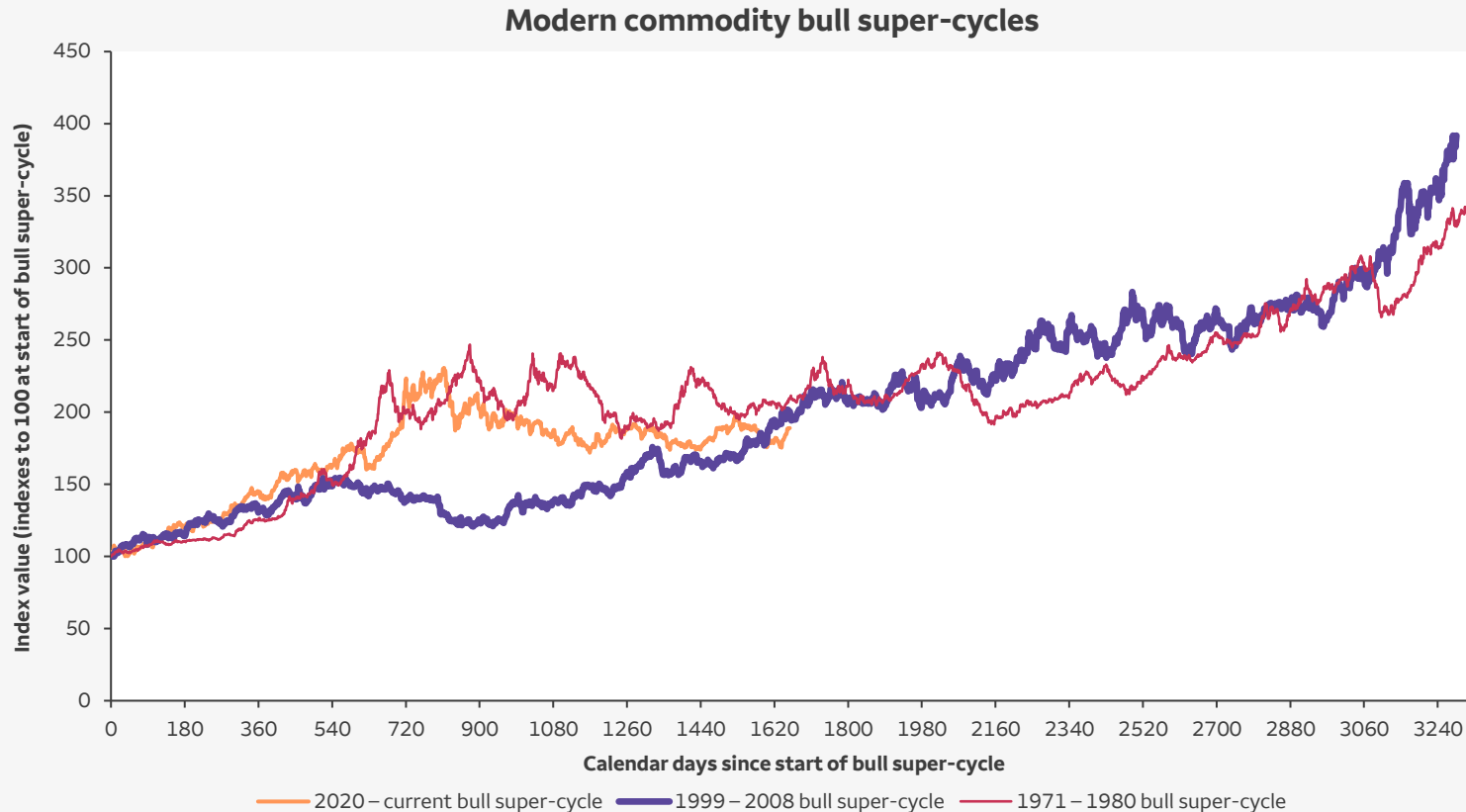
Sources: Bloomberg, Prices by G.F. Warren and F.A. Pearson, Bureau of Labor Statistics, Bureau of Economic Research, and Wells Fargo Investment Institute. Monthly data from January 1, 1803, to September 30, 2024. Commodity return represented by a commodity composite that measures a basket of commodity prices as well as inflation. It blends the historical commodity index introduced by George F. Warren & Frank A. Pearson, former academics at Cornell, collected and published commodity price data in their book, *Prices*, and the producer price index for commodities (PPI-Commodities), and the National Bureau of Economic Research (NBER) Index of Wholesale Prices of 15 Commodities, the Reuters Continuous Commodity Index, and the Bloomberg Commodity Index. The Commodity Composite connects the aforementioned components at the following years: Warren and Pearson - *Prices*: 1803-1932, BLS PPI-Commodities: 1933-1946, NBER: 1946-1956, Reuters Continuous Commodity Index: 1956-1999, Bloomberg Commodity Index: 1999 - current. The Reuters Continuous Commodity Index is an equal-weighted geometric average of commodity price levels relative to the base year average price. The Bloomberg Commodity Index is calculated on an excess return basis and reflects commodity futures price movements. The index rebalances annually, weighted two-thirds by trading volume and one-third by world production, and weight-caps are applied at the commodity, sector, and group level for diversification. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Investing in commodities is not suitable for all investors. The commodities markets are considered speculative, carry substantial risks, and have experienced periods of extreme volatility.

## Key takeaways

- Commodities have tended to move together in super-cycles lasting a decade or more. These cycles have gradually shortened in length over time. The 2008 – 2020 bear is the shortest bear super-cycle on record going back to 1800.
- We believe a new bull super-cycle started in March 2020, marked by washed out prices (crude oil prices turned negative).

Super-cycle = If you look at commodity prices over the very long term (hundreds of years), it becomes evident that they tend to move in overall bull and bear cycles, some lasting decades. These are super-cycles.

# How does the current bull stack up?



Sources: Bloomberg and Wells Fargo Investment Institute. Daily data. 2020 – current bull super-cycle uses Bloomberg Commodity Index from March 18, 2020, to September 30, 2024. 1999 – 2008 bull super-cycle uses Bloomberg Commodity Index from July 13, 1999, to July 2, 2008. 1971 – 1980 bull super-cycle uses Reuters Continuous Commodity Index from October 4, 1971, to November 20, 1980. The Reuters Continuous Commodity Index is an equal-weighted geometric average of commodity price levels relative to the base year average price. The Bloomberg Commodity Index is calculated on an excess return basis and reflects commodity futures price movements. The index rebalances annually, weighted two-thirds by trading volume and one-third by world production, and weight-caps are applied at the commodity, sector, and group level for diversification. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Investing in commodities is not suitable for all investors. The commodities markets are considered speculative, carry substantial risks, and have experienced periods of extreme volatility.

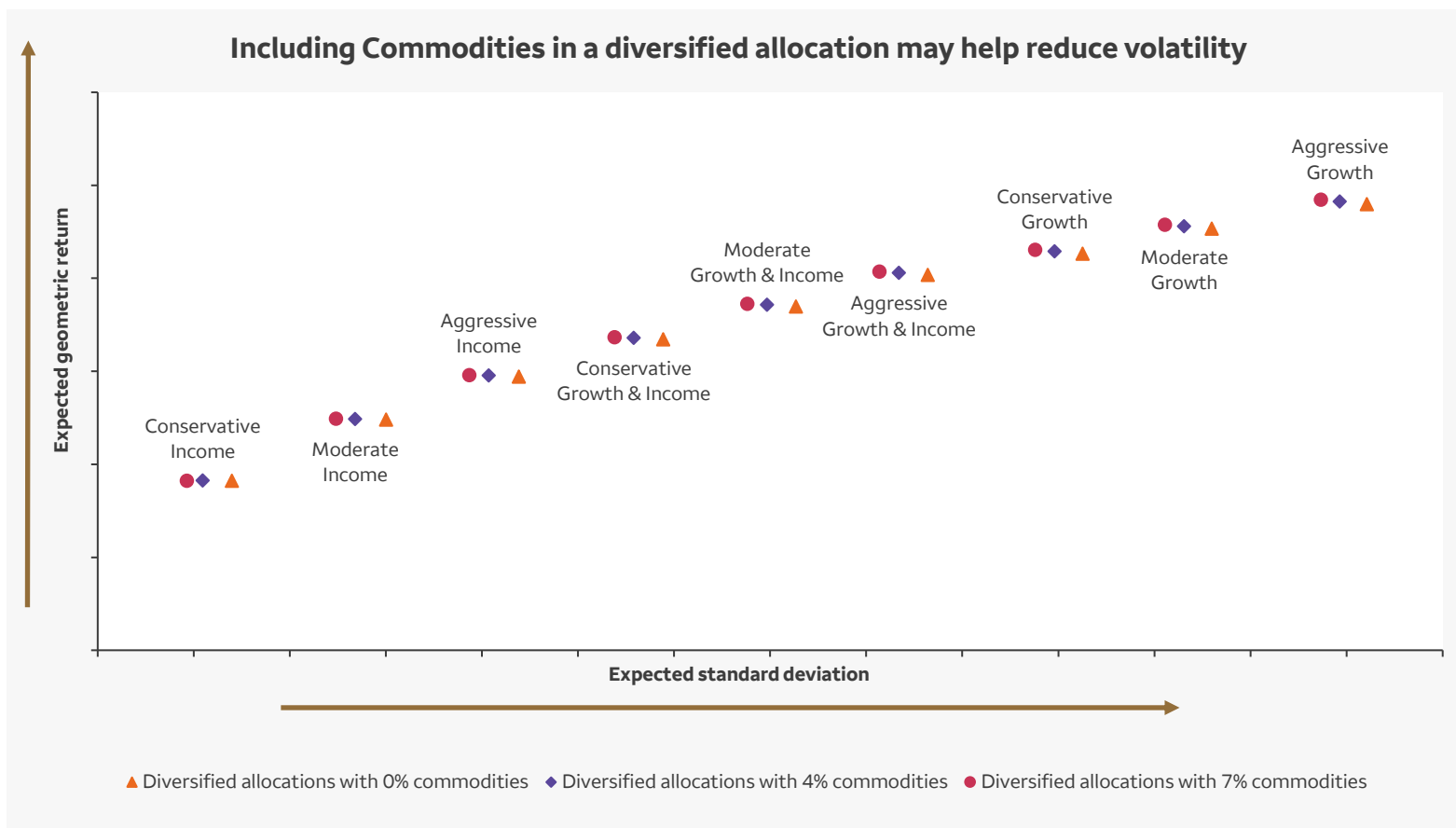
Super-cycle = If you look at commodity prices over the very long term (hundreds of years), it becomes evident that they tend to move in overall bull and bear cycles, some lasting decades. These are super-cycles.

## Key takeaways

- Despite the recent pullback, commodity prices are still well above 2020's lows. We believe a new bull super-cycle began in March 2020, and history suggests that there could potentially be more gains to come.
- Keep in mind that past bull super-cycles have not been straight up. We expect to see dips, lulls, and pauses in commodity prices during the bull.



# Diversification with commodities



Source: Wells Fargo Investment Institute, as of September 30, 2024. Strategic (long-term) return and standard deviation assumptions are as of July 16, 2024. Forecasts are not guaranteed and are subject to change. Asset allocation and diversification cannot eliminate the risk of fluctuating prices and uncertain returns. Strategic expected returns are forward-looking geometric return estimates from Wells Fargo Investment Institute of how asset classes and combinations of classes may respond during various market environments. Expected returns do not represent the returns that an investor should expect in any particular year. They are not designed to predict actual performance and may differ greatly from actual performance. There are no assurances that any estimates given will be achieved. The composition of the diversified allocations are provided on the following slide. The allocations to commodities are added to or removed from the U.S. Large Cap (S&P 500 Index) allocation to arrive at a 0%, 4%, or 7% commodities allocation. Standard Deviation is a statistical measure of the volatility of a portfolio's returns. The higher the standard deviation, the greater volatility has been.

## Key takeaways

- Because of its typically low correlation with both stocks and bonds, we believe including even a small allocation to Commodities in a diversified portfolio should potentially help reduce volatility and mitigate downside risk without sacrificing return.

# Diversification with commodities Cont'd

## Risk considerations

Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions. Small- and mid-cap stocks are generally more volatile, subject to greater risks and are less liquid than large company stocks. Foreign investing has additional risks including currency, transaction, volatility and political and regulatory uncertainty. These risks are heightened in emerging markets. Bonds are subject to market, interest rate, price, credit/default, liquidity, inflation and other risks. Prices tend to be inversely affected by changes in interest rates. High-yield fixed-income securities are considered speculative, involve greater risk of default, and tend to be more volatile than investment-grade fixed-income securities. Investing in commodities is not appropriate for all investors and may subject an investment to greater share price volatility than an investment in traditional equity or debt securities.

## Composition of diversified allocations

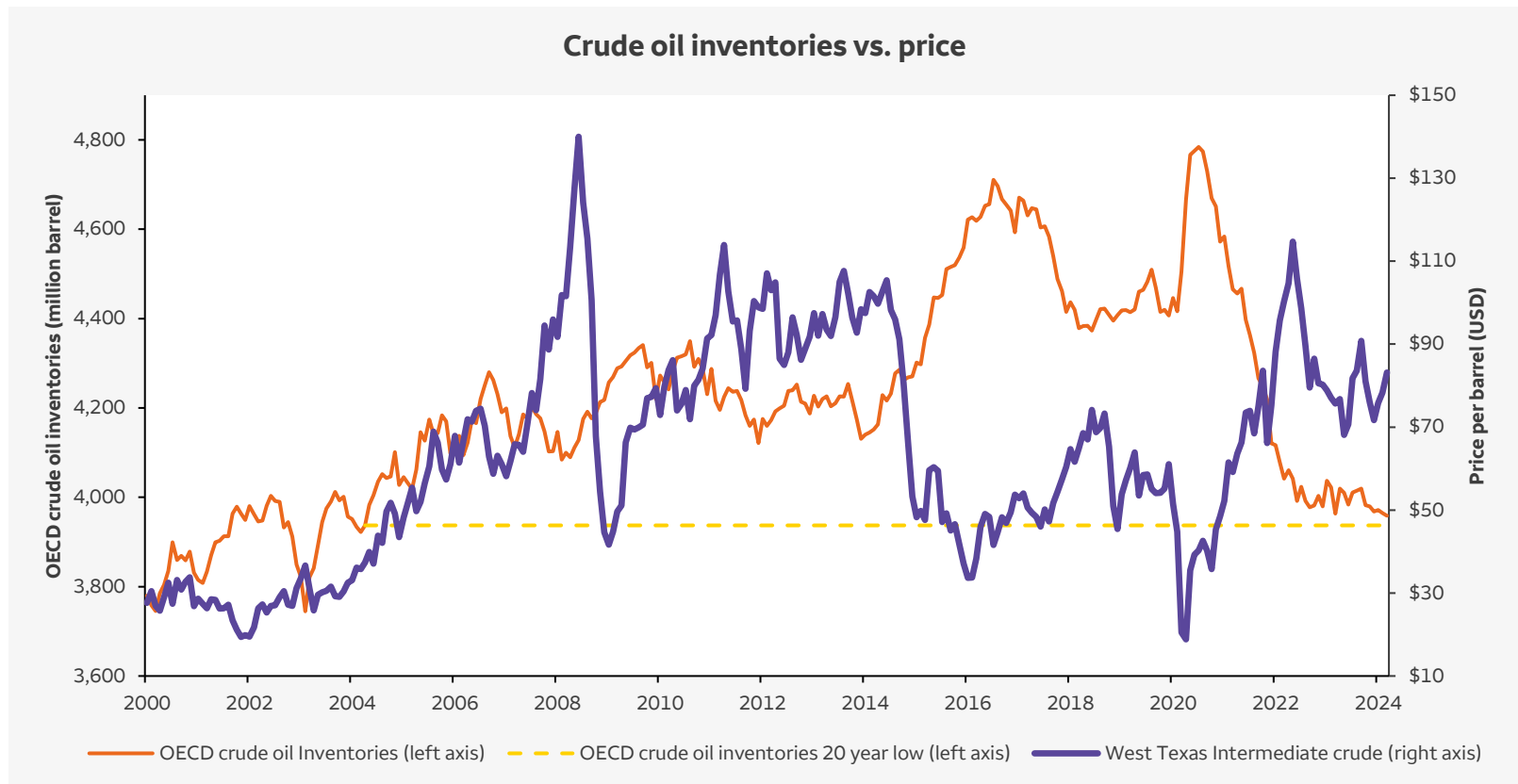
- **Conservative Income Liquid:** 2% Bloomberg U.S. Treasury Bills (1–3 Month) Index, 76% Bloomberg U.S. Aggregate Bond Index, 3% Bloomberg U.S. Corporate High Yield Bond Index, 3% J.P. Morgan EMBI Global, 12% S&P 500 Index, 2% Russell Midcap Index, 2% Bloomberg Commodity Index.
- **Moderate Income Liquid:** 2% Bloomberg U.S. Treasury Bills (1–3 Month) Index, 60% Bloomberg U.S. Aggregate Bond Index, 4% Bloomberg U.S. Corporate High Yield Bond Index, 5% J.P. Morgan EMBI Global, 18% S&P 500 Index, 5% Russell Midcap Index, 4% MSCI EAFE Index, 2% Bloomberg Commodity Index.
- **Aggressive Income Liquid:** 2% Bloomberg U.S. Treasury Bills (1–3 Month) Index, 47% Bloomberg U.S. Aggregate Bond Index, 6% Bloomberg U.S. Corporate High Yield Bond Index, 8% J.P. Morgan EMBI Global, 21% S&P 500 Index, 7% Russell Midcap Index, 7% MSCI EAFE Index, 2% Bloomberg Commodity Index.
- **Conservative Growth & Income Liquid:** 2% Bloomberg U.S. Treasury Bills (1–3 Month) Index, 39% Bloomberg U.S. Aggregate Bond Index, 6% Bloomberg U.S. Corporate High Yield Bond Index, 5% J.P. Morgan EMBI Global, 23% S&P 500 Index, 8% Russell Midcap Index, 2% Russell 2000 Index, 7% MSCI EAFE Index, 4% MSCI Emerging Markets Index, 4% Bloomberg Commodity Index.
- **Moderate Growth & Income Liquid:** 2% Bloomberg U.S. Treasury Bills (1–3 Month) Index, 30% Bloomberg U.S. Aggregate Bond Index, 6% Bloomberg U.S. Corporate High Yield Bond Index, 5% J.P. Morgan EMBI Global, 27% S&P 500 Index, 10% Russell Midcap Index, 3% Russell 2000 Index, 8% MSCI EAFE Index, 5% MSCI Emerging Markets Index, 4% Bloomberg Commodity Index.
- **Aggressive Growth & Income Liquid:** 2% Bloomberg U.S. Treasury Bills (1–3 Month) Index, 20% Bloomberg U.S. Aggregate Bond Index, 7% Bloomberg U.S. Corporate High Yield Bond Index, 6% J.P. Morgan EMBI Global, 31% S&P 500 Index, 12% Russell Midcap Index, 3% Russell 2000 Index, 9% MSCI EAFE Index, 6% MSCI Emerging Markets Index, 4% Bloomberg Commodity Index.
- **Conservative Growth Liquid:** 2% Bloomberg U.S. Treasury Bills (1–3 Month) Index, 16% Bloomberg U.S. Aggregate Bond Index, 3% Bloomberg U.S. Corporate High Yield Bond Index, 33% S&P 500 Index, 13% Russell Midcap Index, 5% Russell 2000 Index, 14% MSCI EAFE Index, 9% MSCI Emerging Markets Index, 5% Bloomberg Commodity Index.
- **Moderate Growth Liquid:** 2% Bloomberg U.S. Treasury Bills (1–3 Month) Index, 8% Bloomberg U.S. Aggregate Bond Index, 3% Bloomberg U.S. Corporate High Yield Bond Index, 35% S&P 500 Index, 14% Russell Midcap Index, 6% Russell 2000 Index, 15% MSCI EAFE Index, 12% MSCI Emerging Markets Index, 5% Bloomberg Commodity Index.
- **Aggressive Growth Liquid:** 2% Bloomberg U.S. Treasury Bills (1–3 Month) Index, 37% S&P 500 Index, 16% Russell Midcap Index, 7% Russell 2000 Index, 18% MSCI EAFE Index, 15% MSCI Emerging Markets Index, 5% Bloomberg Commodity Index.

**NOTE:** The allocations to commodities are added to or removed from the U.S. Large Cap (S&P 500 Index) allocation to arrive at a 0%, 4%, or 7% commodities allocation.

## Index definitions

**Bloomberg Commodity Index** is calculated on an excess return basis and reflects commodity futures price movements. **Bloomberg U.S. Treasury Bills (1-3M) Index** is representative of money markets. **Bloomberg U.S. Aggregate Bond Index** is composed of the Bloomberg U.S. Government/Credit Index and the Bloomberg U.S. Mortgage-Backed Securities Index and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities. **Bloomberg U.S. Corporate High Yield Bond Index** covers the U.S. dollar-denominated, non-investment grade, fixed-rate, taxable corporate bond market. **J.P. Morgan EMBI Global (USD)** is a U.S. dollar-denominated, investible, market cap-weighted index representing a broad universe of emerging market sovereign and quasi-sovereign debt. **MSCI EAFE (DM) and MSCI Emerging Markets (EM) indexes** are equity indexes which capture large and mid cap representation across DM countries (excluding Canada and the U.S.) and EM countries around the world. **Russell Midcap Index** measures the performance of the 800 smallest companies in the Russell 1000 Index, which represent approximately 25% of the total market capitalization of the Russell 1000 Index. **Russell 2000 Index** measures the performance of the 2,000 smallest companies in the Russell 3000 Index, which represents approximately 8% of the total market capitalization of the Russell 3000 Index. **S&P 500 Index** is a market capitalization-weighted index composed of 500 stocks generally considered representative of the U.S. stock market. An index is unmanaged and not available for direct investment.

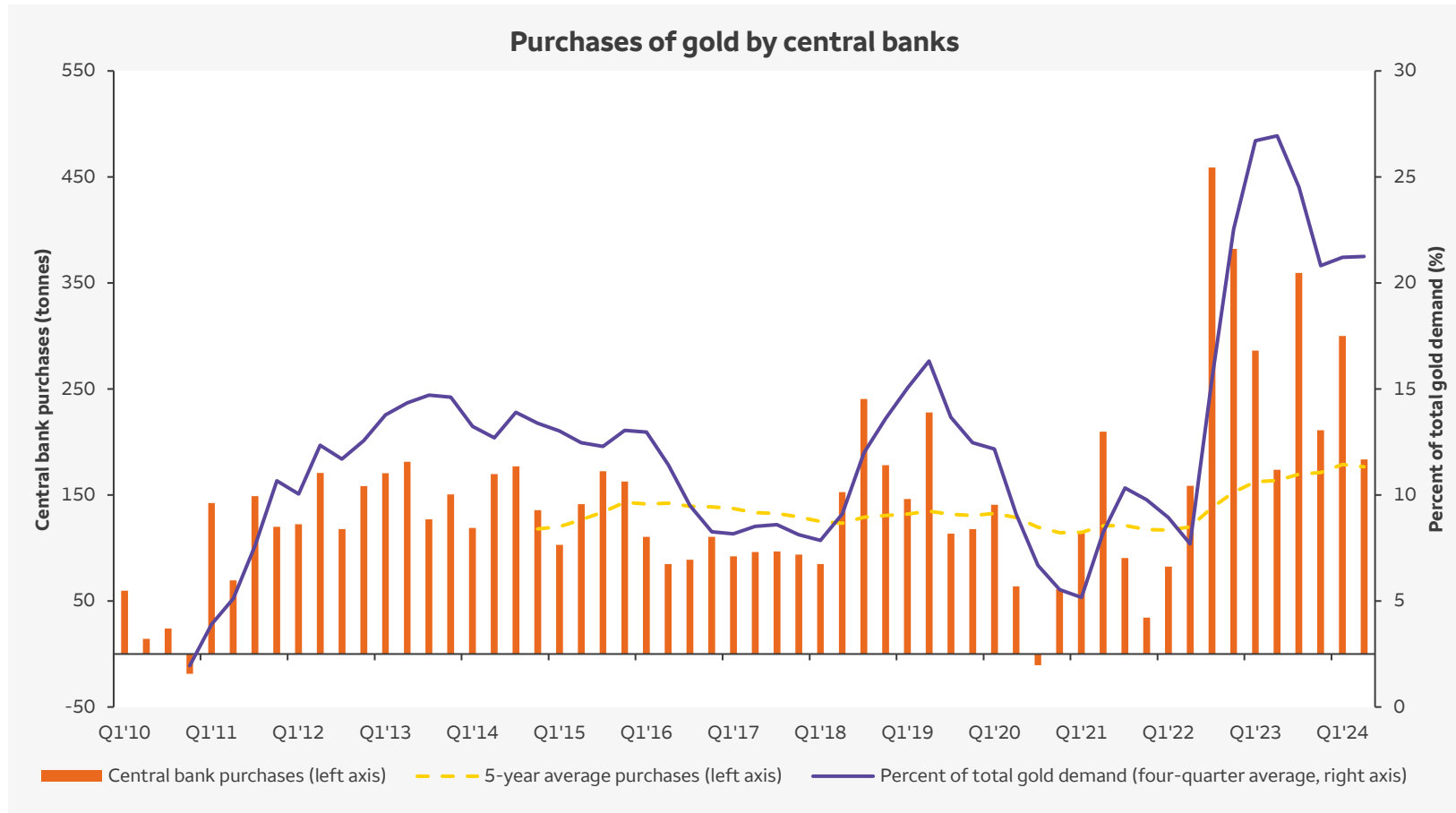
# OECD oil inventories remain near 20-year low



Sources: Bloomberg, Department of Energy, and Wells Fargo Investment Institute. Monthly data from January 1, 2000, to March 31, 2024. The commodities markets are considered speculative, carry substantial risks, and have experienced periods of extreme volatility. Investing in commodities is not appropriate for all investors. The commodities markets are considered speculative, carry substantial risks, and have experienced periods of extreme volatility.

## Key takeaways

- Tight global supply conditions have pushed crude oil inventories for Organization for Economic Co-operation and Development (OECD) countries to 20-year lows. Low or declining inventory levels typically indicate tight supply, as stronger demand draws down existing inventories, and are consistent with higher crude oil prices.
- Aging infrastructure, capital discipline among U.S. producers, and extended supply cuts from the Organization of Petroleum Exporting Countries Plus (OPEC+) will likely continue to limit global supply growth and prevent significant inventory build-ups.

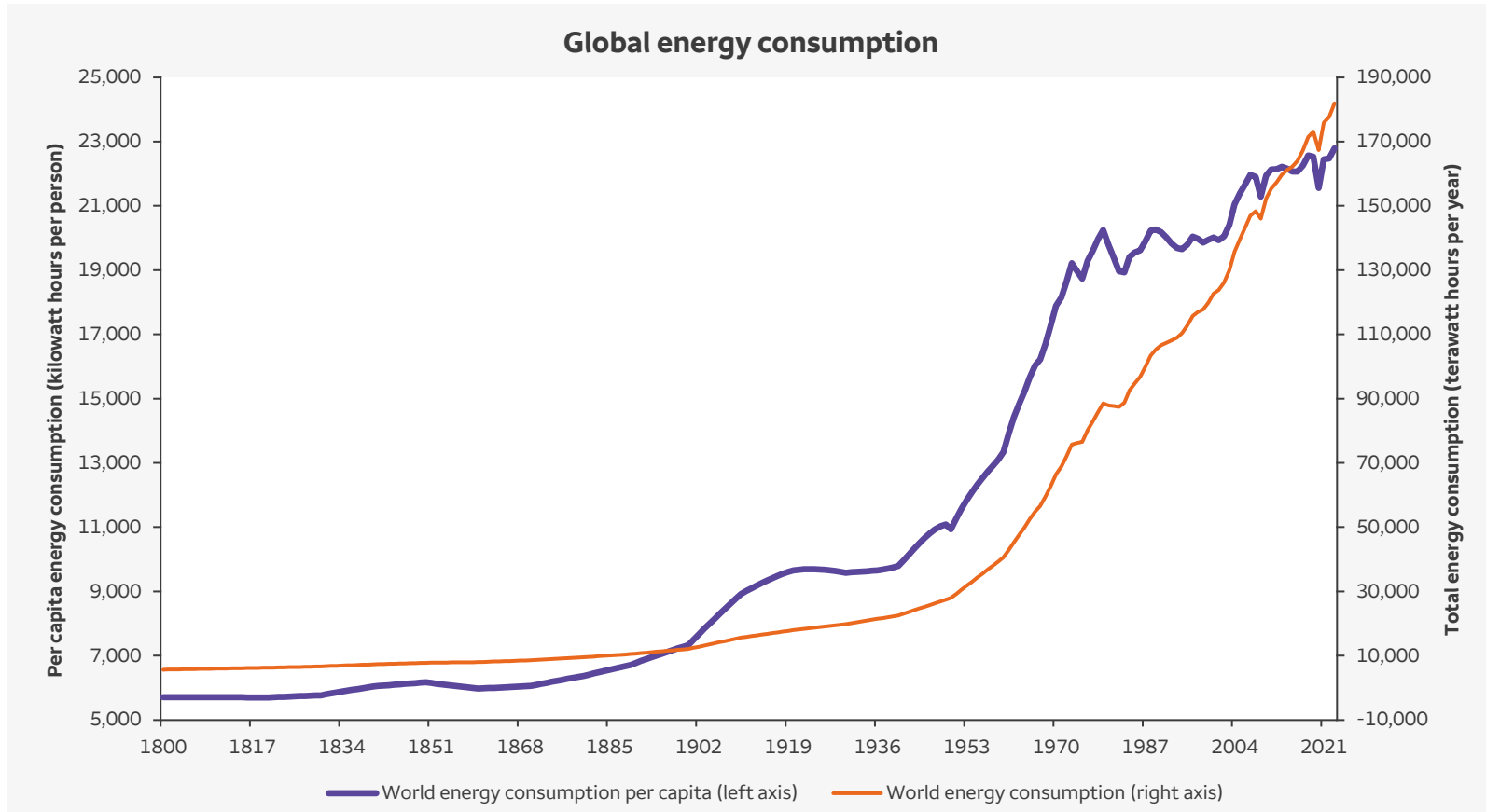


Sources: World Gold Council and Wells Fargo Investment Institute. Quarterly data from January 1, 2010, to June 30, 2024. The commodities markets are considered speculative, carry substantial risks, and have experienced periods of extreme volatility. Investing in physical commodities, such as gold, exposes a portfolio to other risk considerations such as potentially severe price fluctuations over short periods of time and storage costs that exceed the custodial and/or brokerage costs associated with a portfolio's other holdings.

## Key takeaways

- Central banks across the globe have been purchasing record amounts of gold since 2022, as central-bank purchases now account for 21% of global gold demand. We believe gold's unique quality as a reserve asset that carries no counterparty risk — risk of being devalued by another nation's debt — is a key reason for higher purchasing activity.
- We believe that central bank demand will continue to be a significant portion of global gold demand and drive higher gold prices over the tactical horizon.

# The world runs on energy

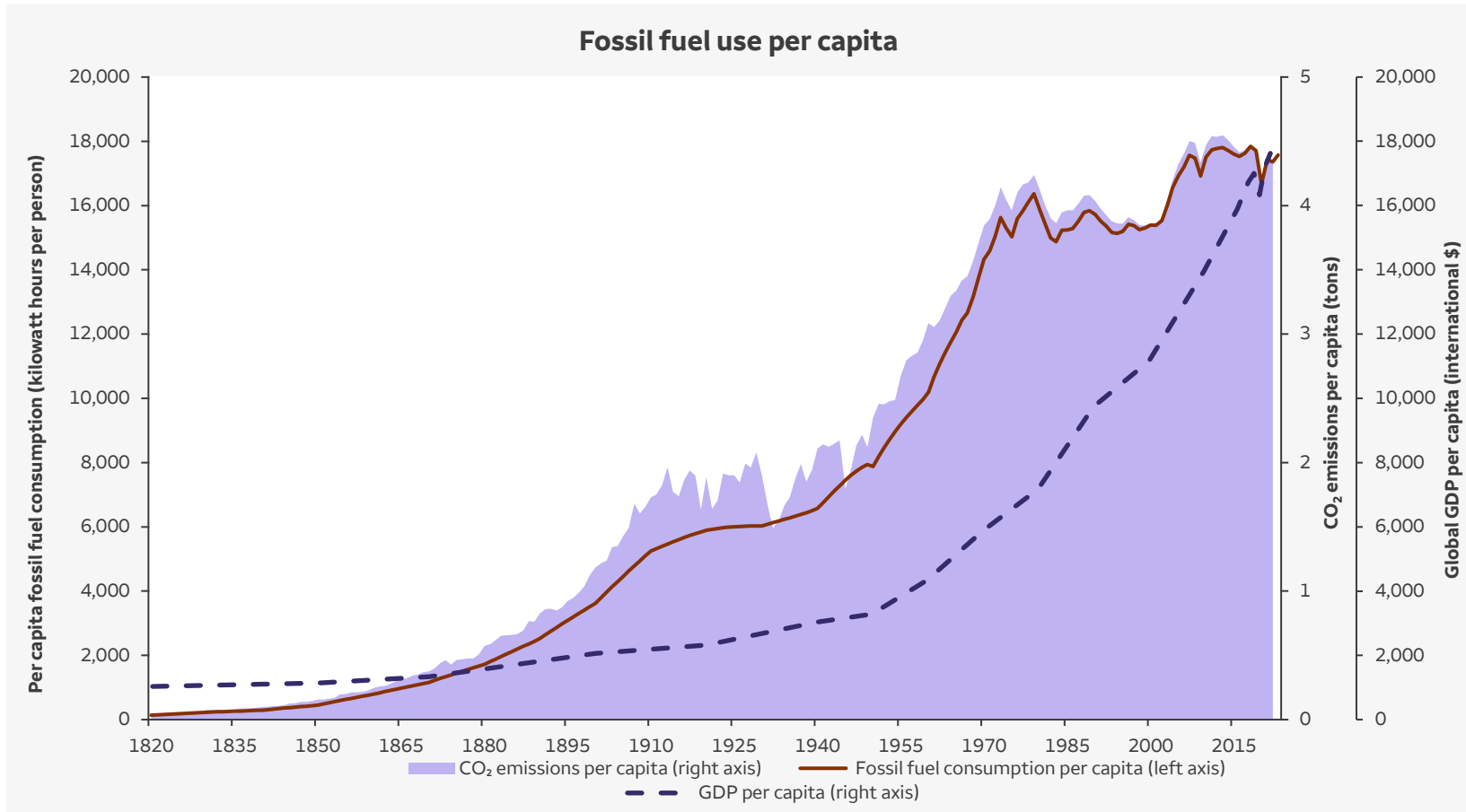


Sources: Our World in Data, BP Statistical Review of World Energy, and Wells Fargo Investment Institute. Annual data from January 1, 1800, to December 31, 2023. Per capita energy consumption is measured by taking the world energy consumption divided by the world population. The commodities markets are considered speculative, carry substantial risks, and have experienced periods of extreme volatility. Investing in commodities is not appropriate for all investors. The commodities markets are considered speculative, carry substantial risks, and have experienced periods of extreme volatility.

## Key takeaways

- We believe energy is arguably the most important commodity group to watch. The world, including other commodity groups, runs on energy.
- Not only has total global energy consumption risen over the past 200 years, but energy use per capita has grown as well.

# Fossil fuel use per capita has moderated in recent decades

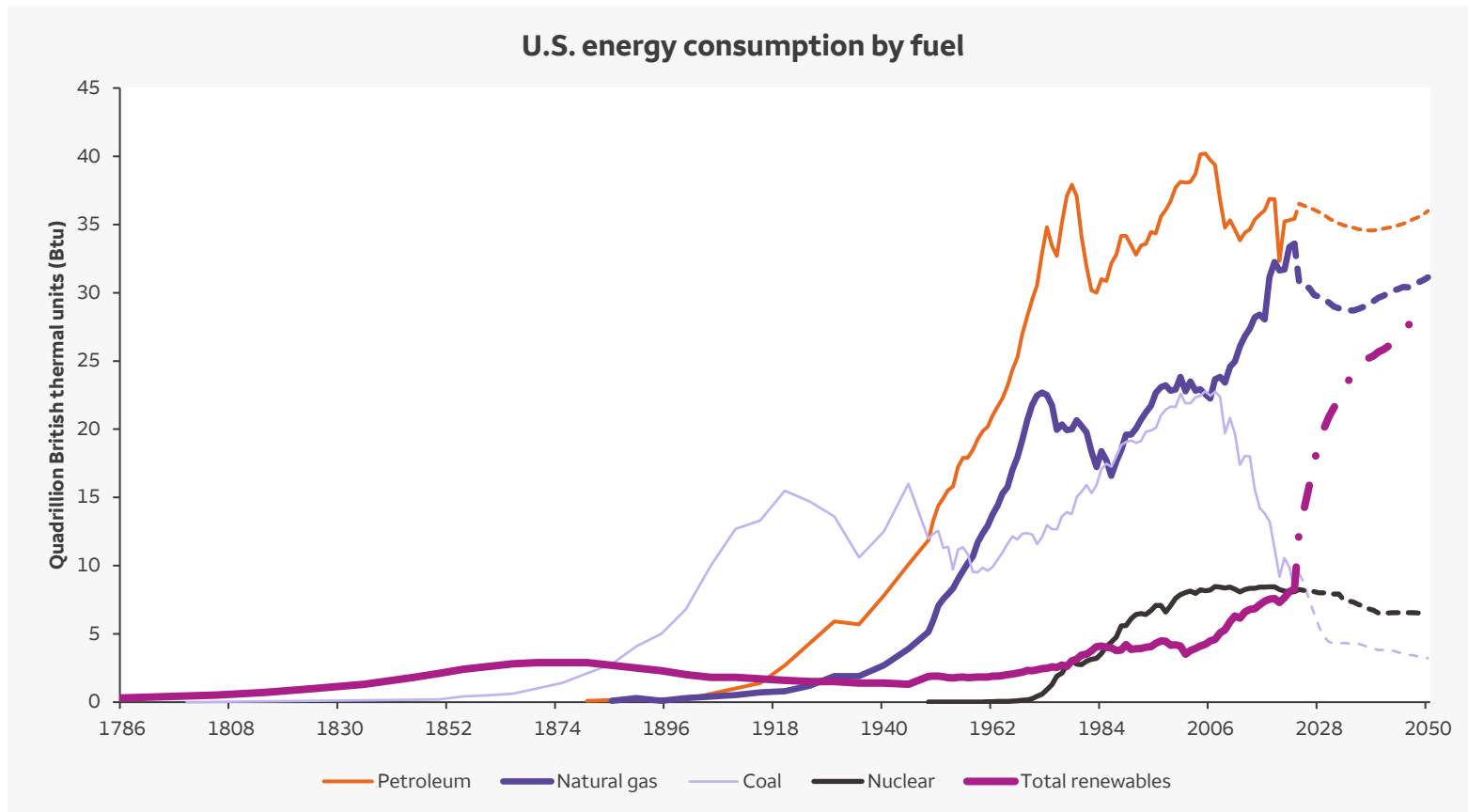


Sources: Our World in Data, BP Statistical Review of World Energy, The World Bank, and Wells Fargo Investment Institute. Fossil fuel consumption: annual data from January 1, 1820, to December 31, 2023. CO<sub>2</sub> emissions and GDP: annual data from January 1, 1820, to December 31, 2022. GDP = gross domestic product. Per capita data is calculated by taking emissions, consumption, and GDP data divided by the global population. GDP data is in constant international dollars and is sourced from Our World in Data. Due to a lack of total GDP data in 2019 and 2020, GDP data in international dollars was sourced from The World Bank. The commodities markets are considered speculative, carry substantial risks, and have experienced periods of extreme volatility. Investing in commodities is not appropriate for all investors. The commodities markets are considered speculative, carry substantial risks, and have experienced periods of extreme volatility.

## Key takeaways

- The main fuels used to power rising global energy use have been the fossil fuels: oil, coal, and natural gas.
- Historically, fossil fuels, along with technological advancements, have helped elevate global GDP per person. However, fossil fuels have helped push carbon dioxide (CO<sub>2</sub>) emissions to hit record levels.

# Are renewables set to overtake fossil fuels?

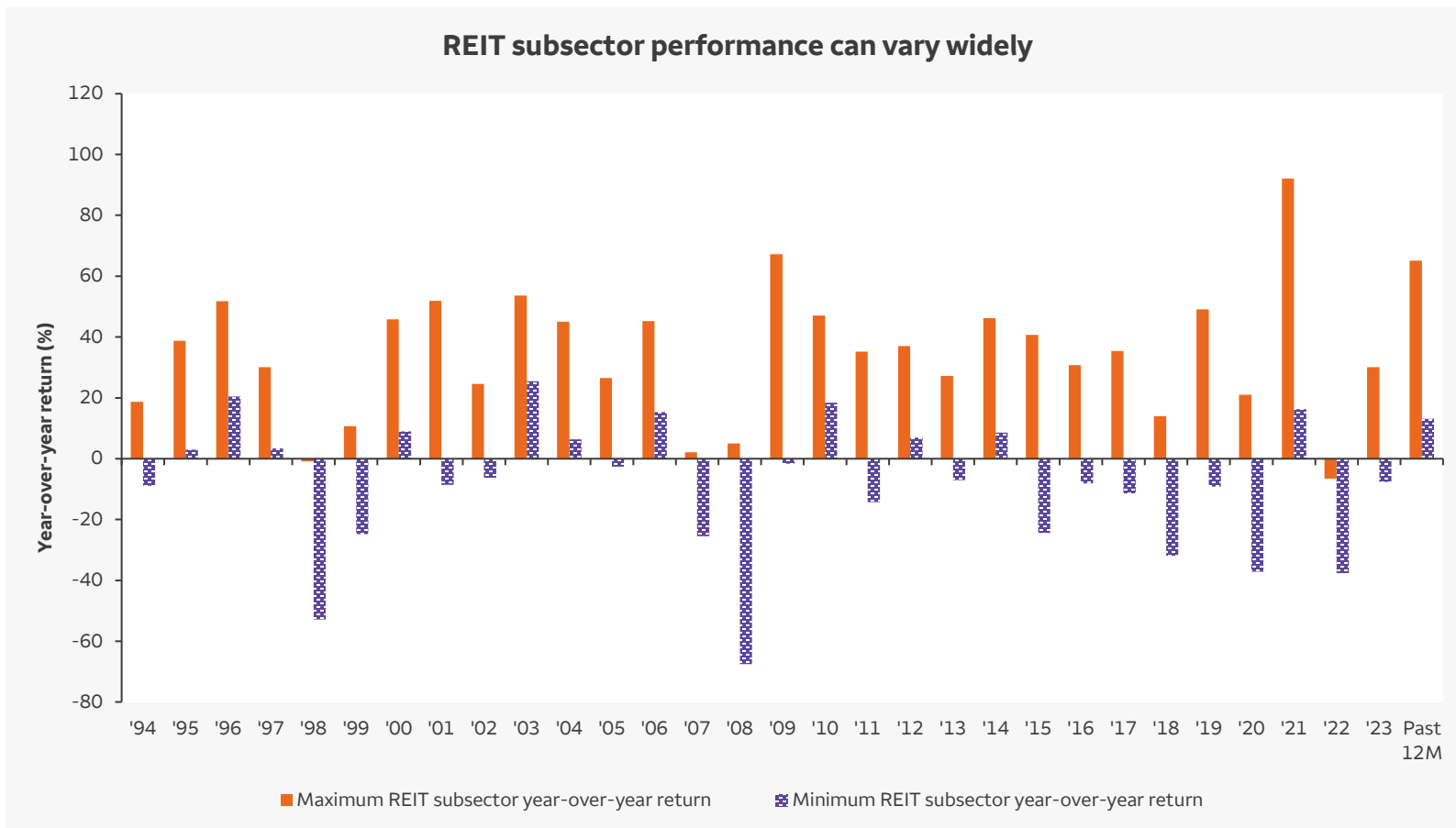


Sources: U.S. Energy Information Administration (EIA) and Wells Fargo Investment Institute. Annual data from January 1, 1786, to December 31, 2023. EIA forecast data from 2024 – 2050 as of September 30, 2024. Total renewables includes hydro, geothermal, wind, solar, and biomass primary energy consumption. Dotted lines represent EIA forecast data. Forecasts are not guaranteed and based on certain assumptions and on views of market and economic conditions which are subject to change. The commodities markets are considered speculative, carry substantial risks, and have experienced periods of extreme volatility.

## Key takeaways

- With carbon dioxide (CO<sub>2</sub>) and other greenhouse gas levels at such highs, government policies are increasingly incentivizing renewable energy adoption, helping to reduce the use of select fossil fuels, such as coal.
- Despite the accelerating green energy transition, we believe fossil fuels will likely remain among the primary global energy sources for the foreseeable future.

# A REIT is a REIT is a REIT, right? No.



Sources: Bloomberg, NAREIT, and Wells Fargo Investment Institute. Data from January 1, 1994, to September 30, 2024. REIT = real estate investment trust. 12M = 12 months. Relative performance is measured by the FTSE NAREIT subsector indexes versus FTSE NAREIT All Equity REITs Index. **Past performance is no guarantee of future results.** An index is unmanaged and not available for direct investment. FTSE NAREIT All Equity REITs Index, a subset of the All REITs Index, is designed to track the performance of REITs representing equity interests in (as opposed to mortgages on) properties. Real estate has special risks, including the possible illiquidity of the underlying properties, credit risk, interest rate fluctuations, and the impact of varied economic conditions. Investing in REITs is not appropriate for all investors.

## Key takeaways

- REITs come in all shapes and sizes — a REIT that specializes in data centers differs wildly from a REIT that specializes in malls or office buildings — and returns vary widely as a result.
- We believe monitoring the fundamentals, valuations, trends, and performance of these different REIT subsectors can provide opportunities for investors in REITs.



## Hedge funds

- Over a full market cycle, we believe hedge funds can help decrease risk and improve diversification.
- At this point in the cycle, we prefer strategies like Relative Value and Macro that can help reduce volatility by being less correlated to risky assets.
- Although we remain unfavorable on Merger Arbitrage strategies, we have been encouraged by a rebound in deal volumes and an improving regulatory environment. Our current guidance may transition to neutral as we see further evidence of an improving landscape.
- We continue to believe the opportunity set for Distressed Credit strategies will expand as over-leveraged companies adjust to rising debt-service levels.

## Private capital

- While Private Equity valuations have stabilized, we remain cautious as the exit environment remains challenged and the tighter lending environment continues to hamper larger buyout activity.
- Investment sales and exits remain well below-average in private equity as economic risks remain, yet we expect lower valuations to provide an attractive entry point as managers invest committed capital over a three-to-five-year time frame.
- Private Debt strategies focused on distressed and special situations are becoming more attractive as lending conditions remain tight and credit stress builds as rates remain elevated.
- While Private Real Estate has historically performed well over a full market cycle, we remain concerned with the impact of higher interest rates and changing supply-and-demand dynamics in select property types.

Alternative investments, such as hedge funds and private equity/private debt funds, are not appropriate for all investors and are only open to accredited or qualified investors within the meaning of the U.S. securities laws. They are speculative and involve a high degree of risk that is appropriate only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program. While investors may potentially benefit from the ability of alternative investments to potentially improve the risk/reward profiles of their portfolios, the investments themselves can carry significant risks. There may be no secondary market for alternative investment interests, and transferability may be limited or even prohibited. Hedge fund strategies, such as Equity Hedge, Event Driven, Macro, and Relative Value, may expose investors to risks such as short selling, leverage, counterparty, liquidity, volatility, the use of derivative instruments, and other significant risks.

# Alternative investments scorecard

Index	3Q24 return (%)	2Q24 return (%)	YTD return (%)	YOY return (%)	3-year return (%, annualized)
HFRI Fund Weighted Composite as of 8/31/2024	1.53	0.67	6.75	10.48	3.49
HFRI Relative Value as of 8/31/2024	1.56	1.41	5.61	8.75	4.15
HFRI Macro as of 8/31/2024	-2.12	-0.80	3.19	3.59	3.85
HFRI Event Driven as of 8/31/2024	3.05	0.50	5.98	11.21	4.05
HFRI Equity Hedge as of 8/31/2024	2.49	1.00	8.83	13.71	2.84
Burgiss Private Equity as of 6/30/2024	–	0.79	1.95	4.37	3.74
Burgiss Private Debt as of 6/30/2024	–	2.14	4.12	9.20	7.99
NCREIF Property as of 6/30/2024	–	-0.22	-1.14	-5.44	2.37

Sources: The Burgiss Group, LLC (Burgiss), © Morningstar Direct, All Rights Reserved<sup>1</sup>, and Wells Fargo Investment Institute. 2Q = second quarter. 3Q = third quarter. YOY = year over year. YTD = year to date. For illustrative purposes only. Index returns do not represent investment returns or the results of actual trading nor are they forecasts of expected gains or losses a fund might experience. Index returns do not represent investment performance. Index returns reflect general market results, assume the reinvestment of dividends and other distributions, and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. Unlike most asset class indexes, HFR Index returns reflect deduction for fees. Because the HFR indexes are calculated based on information that is voluntarily provided actual returns may be lower than those reported. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** See following pages for index definitions.

## Key takeaways

- Hedge fund performance in the past year has exceeded our expectations, especially Relative Value, Equity Hedge, and Event Driven strategies.

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# Alternative investments scorecard Cont'd

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REITS have special risks, including the possible illiquidity of the underlying properties, credit risk, interest rate fluctuations, and the impact of varied economic conditions.

## Index definitions

**HFRI Fund Weighted Composite Index** is a fund-weighted (equal-weighted) index designed to measure the total returns (net of fees) of the approximately 2,000 hedge funds that comprise the Index. Constituent funds must have either \$50 million under management or a track record of greater than 12 months. Sub-strategies include: HFRI Event-Driven, Distressed/Restructuring Index, and HFRI Event-Driven (Total) Index.

**HFRI Event Driven Index** maintains positions in companies currently or prospectively involved in corporate transactions of a wide variety including but not limited to mergers, restructurings, financial distress, tender offers, shareholder buybacks, debt exchanges, security issuance or other capital structure adjustments. Security types can range from most senior in the capital structure to most junior or subordinated, and frequently involve additional derivative securities. Event Driven exposure includes a combination of sensitivities to equity markets, credit markets and idiosyncratic, company specific developments. Investment theses are typically predicated on fundamental characteristics (as opposed to quantitative), with the realization of the thesis predicated on a specific development exogenous to the existing capital structure.

**HFRI Macro Index:** Investment Managers which trade a broad range of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed-income, hard currency and commodity markets. Managers employ a variety of techniques, both discretionary and systematic analysis, combinations of top down and bottom up theses, quantitative and fundamental approaches and long and short term holding periods. Although some strategies employ RV techniques, Macro strategies are distinct from RV strategies in that the primary investment thesis is predicated on predicted or future movements in the underlying instruments, rather than realization of a valuation discrepancy between securities. In a similar way, while both Macro and equity hedge managers may hold equity securities, the overriding investment thesis is predicated on the impact movements in underlying macroeconomic variables may have on security prices, as opposed to EH, in which the fundamental characteristics on the company are the most significant are integral to investment thesis.

**HFRI Equity Hedge Index** consists of Investment Managers who maintain positions both long and short in primarily equity and equity derivative securities. A wide variety of investment processes can be employed to arrive at an investment decision, including both quantitative and fundamental techniques; strategies can be broadly diversified or narrowly focused on specific sectors and can range broadly in terms of levels of net exposure, leverage employed, holding period, concentrations of market capitalizations and valuation ranges of typical portfolios. EH managers would typically maintain at least 50%, and may in some cases be substantially entirely invested in equities, both long and short.

**HFRI Relative Value Index** maintains positions in which the investment thesis is predicated on realization of a valuation discrepancy in the relationship between multiple securities. Managers employ a variety of fundamental and quantitative techniques to establish investment theses, and security types range broadly across equity, fixed-income, derivative, or other security types.

The HFRI indexes are based on information self-reported by hedge fund managers that decide, on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indexes may not be complete or accurate representations of the hedge fund universe, and may be biased in several ways.

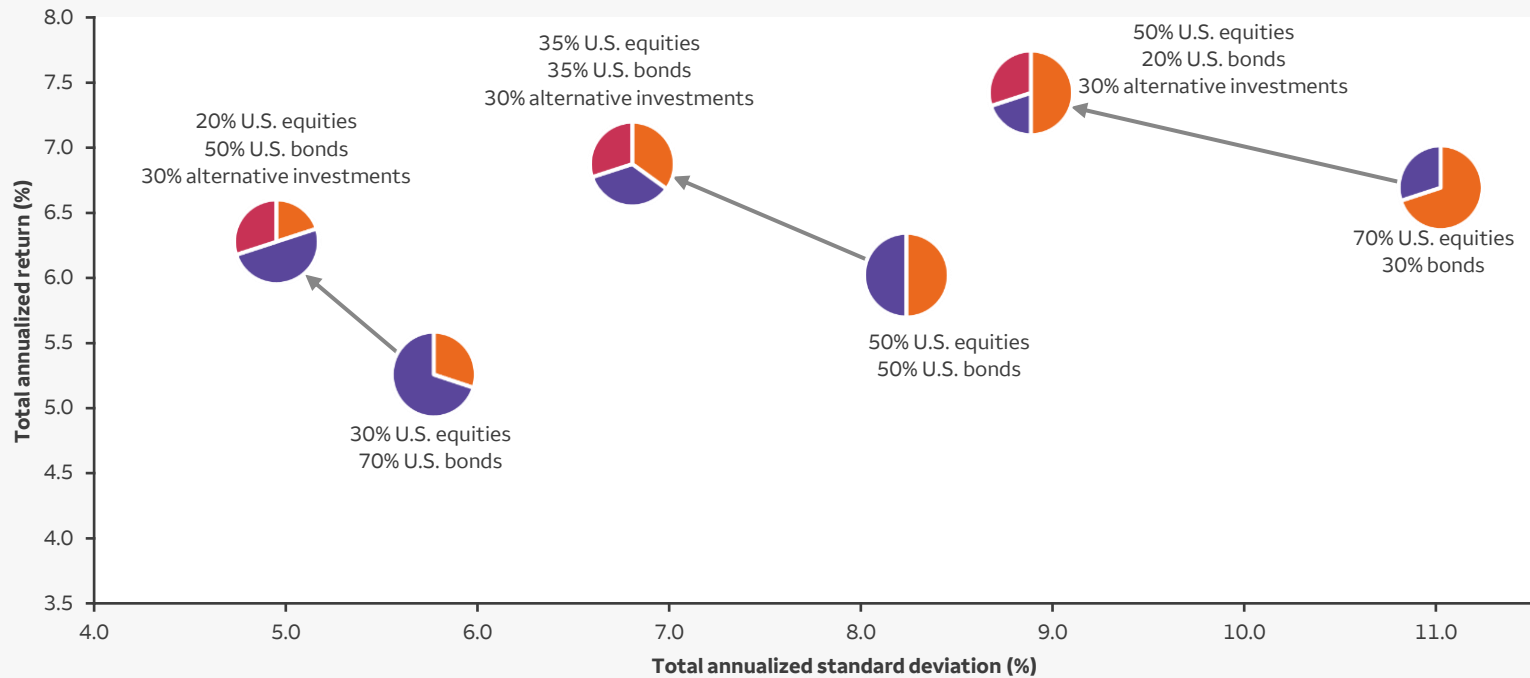
**The Burgiss Private Equity Index** is based on the pool of private equity funds sourced by Burgiss and is asset weighted. The index is calculated using cash flow and valuation histories of the underlying funds within Burgiss manager universe. The underlying funds are classified by Burgiss private capital classification system and the cash flow data is sourced from institutional investors around the world.

**The Burgiss Private Debt Index** is a pooled quarterly time weighted rate of return series based on data compiled by the Burgiss Group, LLC (Burgiss) from over 800 private debt funds (generalist, senior, mezzanine, and distressed debt), including fully liquidated partnerships, formed after 1986. The return series is net of fees, expenses, and carried interest. The benchmark is issued on a quarterly basis, approximately 80 calendar days after quarter end. Index returns do not represent fund performance.

**The NCREIF Property Index** is a quarterly time series composite total rate of return measure of investment performance of a very large pool of individual commercial real estate properties acquired in the private market for investment purposes only.

# Rethinking diversification with alternative investments

## Including alternatives in an allocation may help improve return and mitigate risk



Sources: © Morningstar Direct, All Rights Reserved<sup>1</sup>, and Wells Fargo Investment Institute. Data from January 1, 2000, to June 30, 2024. U.S. bonds = Bloomberg U.S. Aggregate Bond Index. U.S. equities = S&P 500 Index. 20% alternatives investments consists of 10% hedge funds (HFRI Fund Weighted Composite Index), 10% private equity (Burgiss Private Equity Index), 5% private debt (Burgiss Private Debt Index), and 5% private real estate (NCREIF Property Index). For illustrative purposes Index returns do not represent investment returns or the results of actual trading. Index returns reflect general market results, assume the reinvestment of dividends and other distributions, and do not reflect deduction for expenses or taxes applicable to an actual investment. Unlike most asset class indexes, HFR Index returns reflect deduction for fees and expenses. Because the HFR indexes are calculated based on information that is voluntarily provided actual returns may be higher or lower than those reported. The HFRI indexes are based on information self-reported by hedge fund managers that decide, on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indexes may not be complete or accurate representations of the hedge fund universe and may be biased in several ways. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Standard deviation is a measure of the volatility of returns. The higher the standard deviation, the greater volatility has been. Diversification strategies do not guarantee investment returns or eliminate the risk of loss. See asset class risks and index definitions on following page.

### Key takeaways

- Adding alternative investments to an allocation with a blend of traditional stocks and bonds has historically increased returns and decreased risk.
- Alternative investments can provide valuable diversification, especially during time periods when the correlations between U.S. stocks and bond prices have been positive.

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# Rethinking diversification with alternative investments

## Cont'd

Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions. Bonds are subject to market, interest rate, price, credit/default, liquidity, inflation and other risks. Prices tend to be inversely affected by changes in interest rates. Foreign investing has additional risks including currency, transaction, volatility and political and regulatory uncertainty. Alternative investments, such as hedge funds and private equity/private debt funds, are not appropriate for all investors and are only open to accredited or qualified investors within the meaning of the U.S. securities laws. They are speculative and involve a high degree of risk that is appropriate only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program. While investors may potentially benefit from the ability of alternative investments to potentially improve the risk/reward profiles of their portfolios, the investments themselves can carry significant risks. There may be no secondary market for alternative investment interests, and transferability may be limited or even prohibited. Hedge fund strategies, such as Equity Hedge, Event Driven, Macro, and Relative Value, may expose investors to risks such as short selling, leverage, counterparty, liquidity, volatility, the use of derivative instruments, and other significant risks. Private real assets are not appropriate for all investors. REITS have special risks, including the possible illiquidity of the underlying properties, credit risk, interest rate fluctuations, and the impact of varied economic conditions.

### Index definitions

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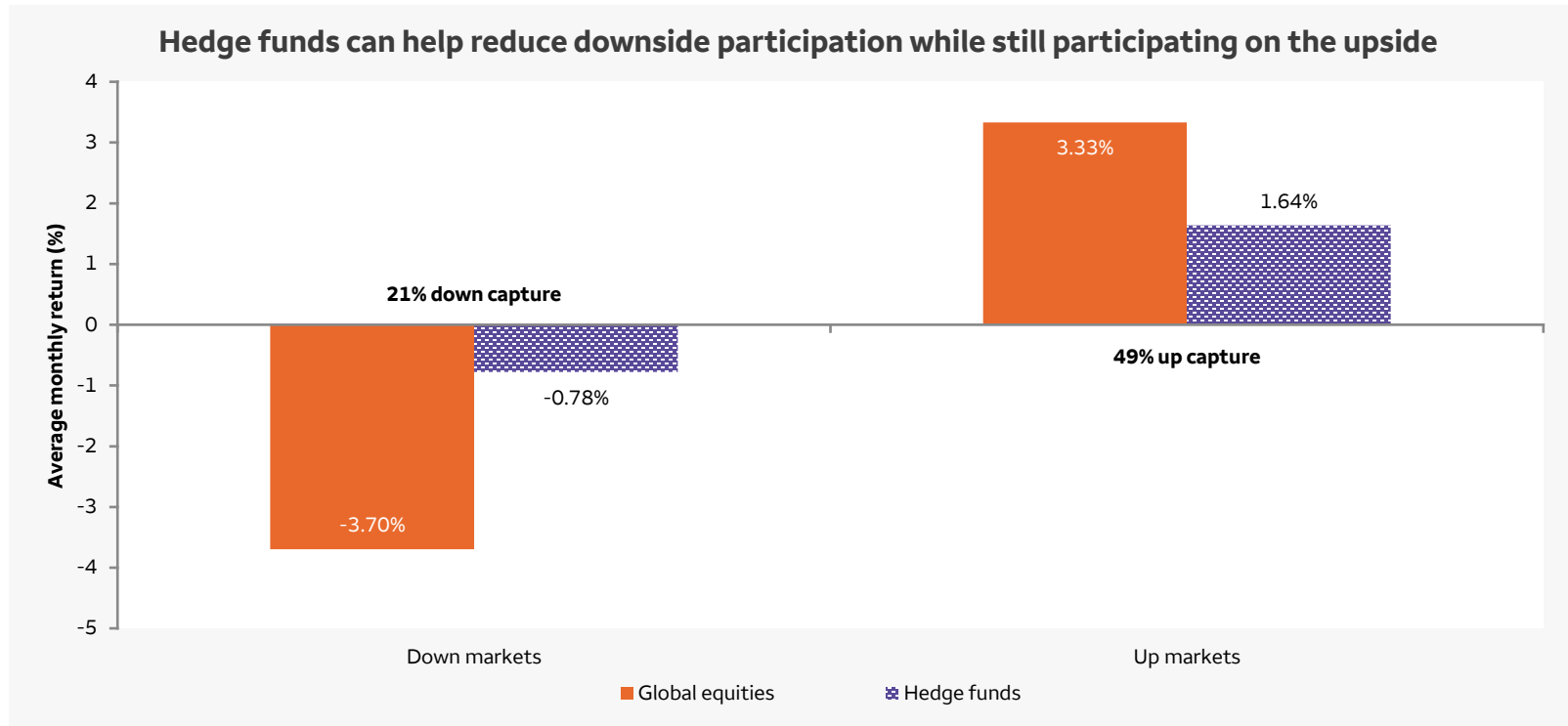
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The **NCREIF Property Index** is a quarterly time series composite total rate of return measure of investment performance of a very large pool of individual commercial real estate properties acquired in the private market for investment purposes only.

The **Bloomberg U.S. Aggregate Bond Index** is a broad-based measure of the investment grade, U.S.-dollar-denominated, fixed-rate taxable bond market.

The **S&P 500 Index** is a market capitalization-weighted index generally considered representative of the U.S. stock market.

# Downside risk mitigation with hedge funds



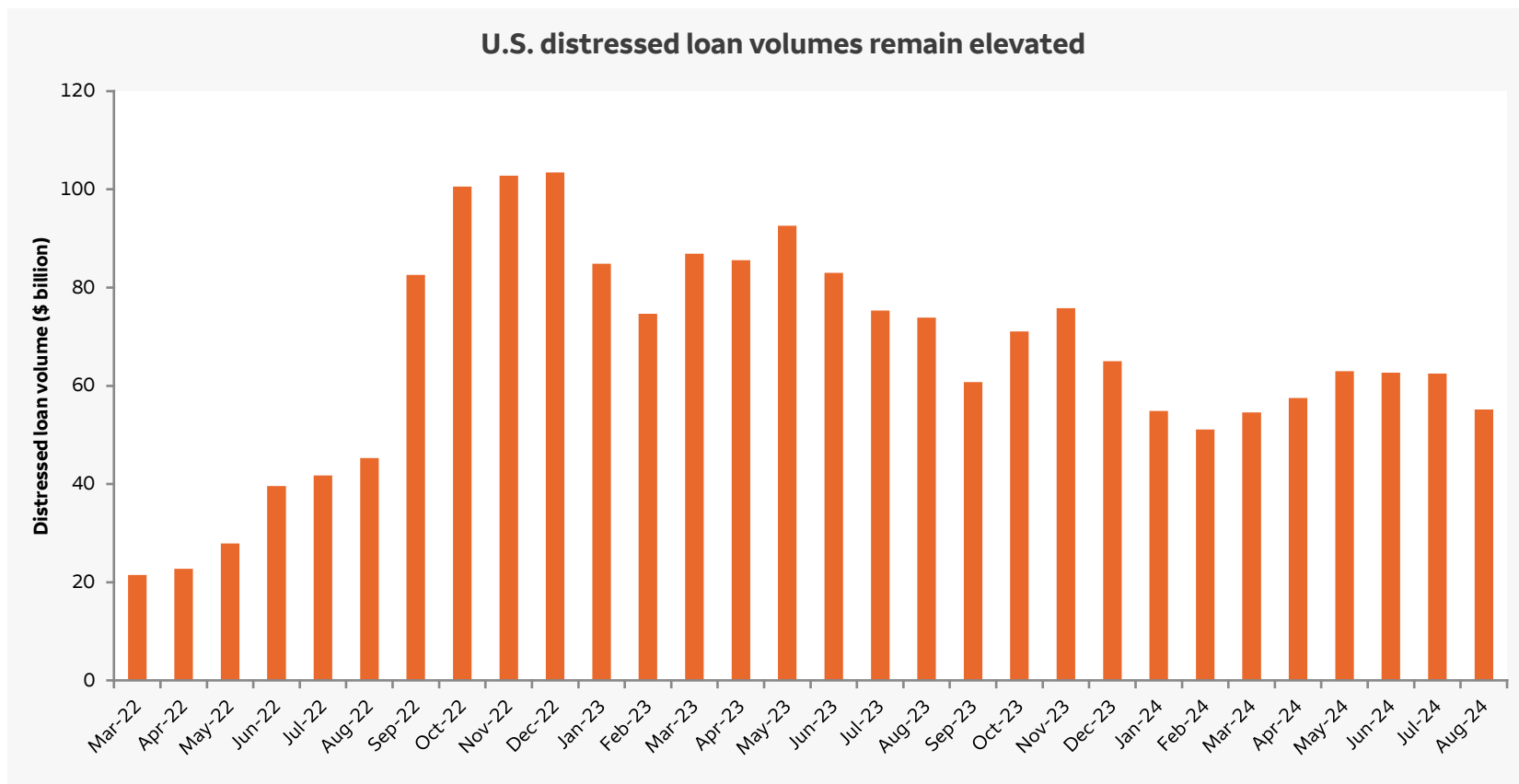
Sources: © Morningstar Direct, All Rights Reserved<sup>1</sup>, and Wells Fargo Investment Institute. Data from January 1, 1990, to August 31, 2024. Global equities = MSCI World Index. Hedge funds = HFRI Fund Weighted Composite Index. For illustrative purposes only. Index returns do not represent investment performance or the results of actual trading. Index returns do not represent investment returns or the results of actual trading nor are they forecasts of expected gains or losses a fund might experience. The MSCI World Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets including the United States. The HFRI Fund Weighted Composite Index is a global, equal-weighted index of over 2,000 single-manager funds that report to HFR Database. Index returns do not represent investment returns or the results of actual trading. Index returns reflect general market results, assume the reinvestment of dividends and other distributions, and do not reflect deduction for expenses or taxes applicable to an actual investment. Unlike most asset class indexes, HFR Index returns reflect deduction for fees and expenses. Because the HFR indexes are calculated based on information that is voluntarily provided actual returns may be higher or lower than those reported. The HFRI indexes are based on information self-reported by hedge fund managers that decide, on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indexes may not be complete or accurate representations of the hedge fund universe and may be biased in several ways. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Diversification strategies do not guarantee investment returns or eliminate the risk of loss.

## Key takeaways

- Alternative investments, like hedge funds, can help reduce downside participation and provide diversification, especially should stocks and bonds remain positively correlated in the near term.

Alternative investments, such as hedge funds, are not appropriate for all investors and are only open to accredited or qualified investors within the meaning of the U.S. securities laws. They are speculative and involve a high degree of risk that is appropriate only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program. Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions. Foreign investing has additional risks including currency, transaction, volatility and political and regulatory uncertainty.

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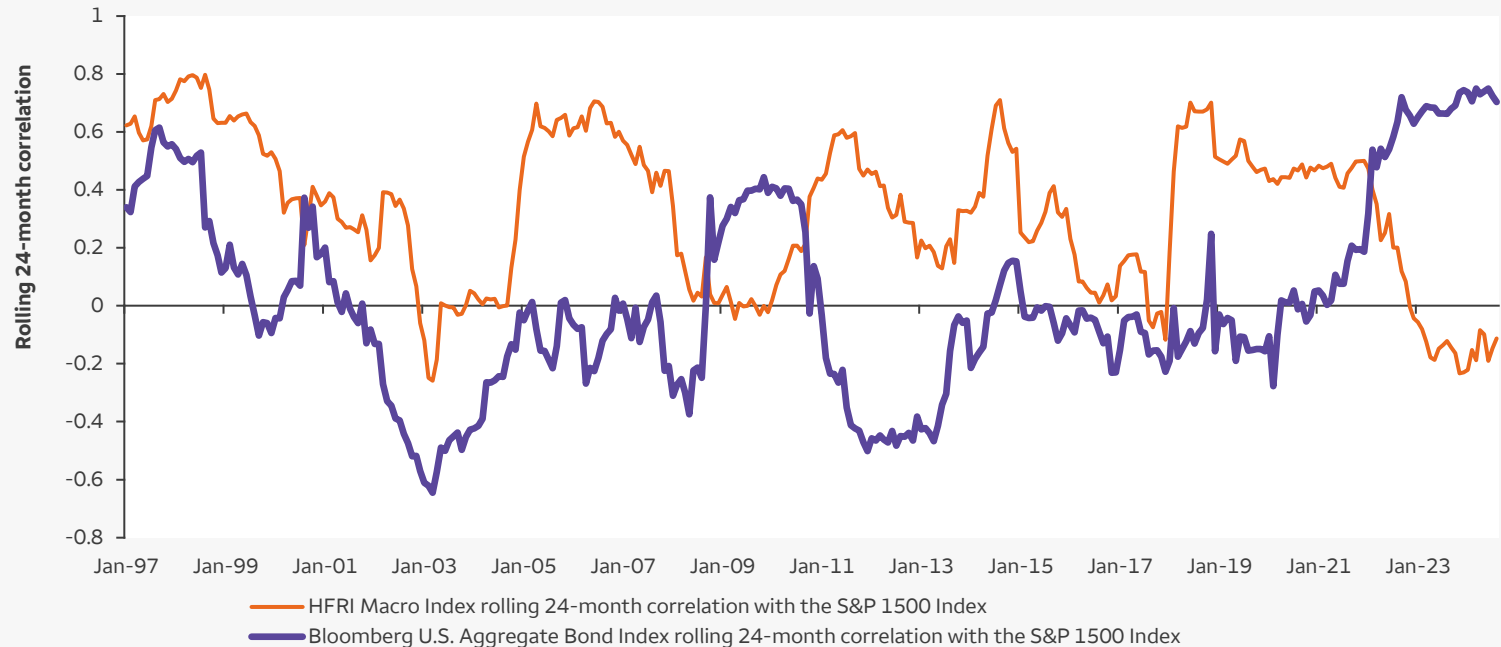
Sources: Pitchbook | LCD and Wells Fargo Investment Institute. Monthly data from March 1, 2022, to August 31, 2024. For illustrative purposes only. Distressed loan volume is based on the Morningstar LSTA US Leveraged Loan Index, which is designed to measure the performance of the U.S. leveraged loan market. An index is unmanaged and not available for direct investment. Alternative investments, such as hedge funds, are not appropriate for all investors and are only open to accredited or qualified investors within the meaning of the U.S. securities laws. They are speculative and involve a high degree of risk that is appropriate only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program. Bonds are subject to market, interest rate, price, credit/default, liquidity, inflation and other risks. Prices tend to be inversely affected by changes in interest rates. Leveraged loans tend to have higher interest rates than typical loans. These rates reflect the higher level of risk involved in issuing the loan.

## Key takeaways

- Despite recently moderating distressed volumes, we continue to expect stresses in the loan market to build as interest rates remain elevated.
- As we appear to be in the early innings of the next credit cycle, we favor Distressed Credit strategies across hedge fund and private capital strategies. We believe the opportunity set will continue to expand over the coming quarters.

# Has a new regime for Macro trading begun?

## Macro strategies currently provide better diversification to equities than bonds



— HFRI Macro Index rolling 24-month correlation with the S&P 1500 Index  
— Bloomberg U.S. Aggregate Bond Index rolling 24-month correlation with the S&P 1500 Index

Sources: © Morningstar Direct, All Rights Reserved,<sup>1</sup> and Wells Fargo Investment Institute. Monthly data from January 1, 1997, to August 31, 2024. Index returns do not represent investment performance or the results of actual trading. Index returns reflect general market results, assume the reinvestment of dividends and other distributions and do not reflect deduction for fees, expenses, or taxes applicable to an actual investment. Unlike most asset class indexes, HFR Index returns are net of all fees. Because the HFR Indexes are calculated based on information that is voluntarily provided actual returns may be lower than those reported. An index is unmanaged and not available for direct investment **Past performance is no guarantee of future results.** The HFRI Macro Index: Investment Managers which trade a broad range of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed-income, hard currency and commodity markets. Managers employ a variety of techniques, both discretionary and systematic analysis, combinations of top-down and bottom-up theses, quantitative and fundamental approaches and long- and short-term holding periods. Although some strategies employ RV techniques, Macro strategies are distinct from RV strategies in that the primary investment thesis is predicated on predicted or future movements in the underlying instruments, rather than realization of a valuation discrepancy between securities. In a similar way, while both Macro and equity hedge managers may hold equity securities, the overriding investment thesis is predicated on the impact movements in underlying macroeconomic variables may have on security prices, as opposed to EH, in which the fundamental characteristics on the company are the most significant are integral to investment thesis. The S&P 1500 Index is a broad-based capitalization-weighted index of 1500 U.S. companies and is comprised of the S&P 400, S&P 500, and the S&P 600. The Bloomberg U.S. Aggregate Bond Index is composed of the Bloomberg U.S. Government/Credit Index and the Bloomberg U.S. Mortgage-Backed Securities Index and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities.

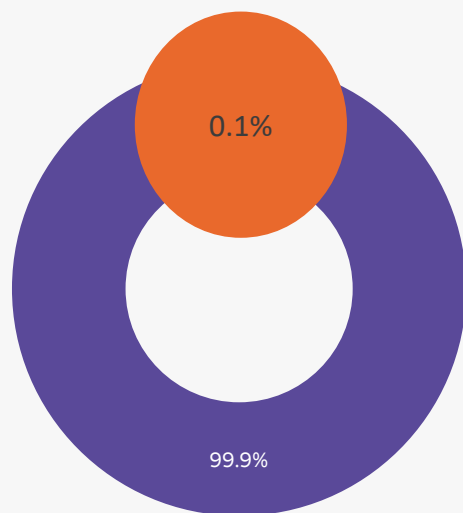
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### Key takeaways

- Trends across equities, commodities, currencies, and interest rates have tended to drive returns for Macro strategies. The strategies have exhibited lower correlations to traditional equity and fixed income investments and provided valuable diversification benefits over time.

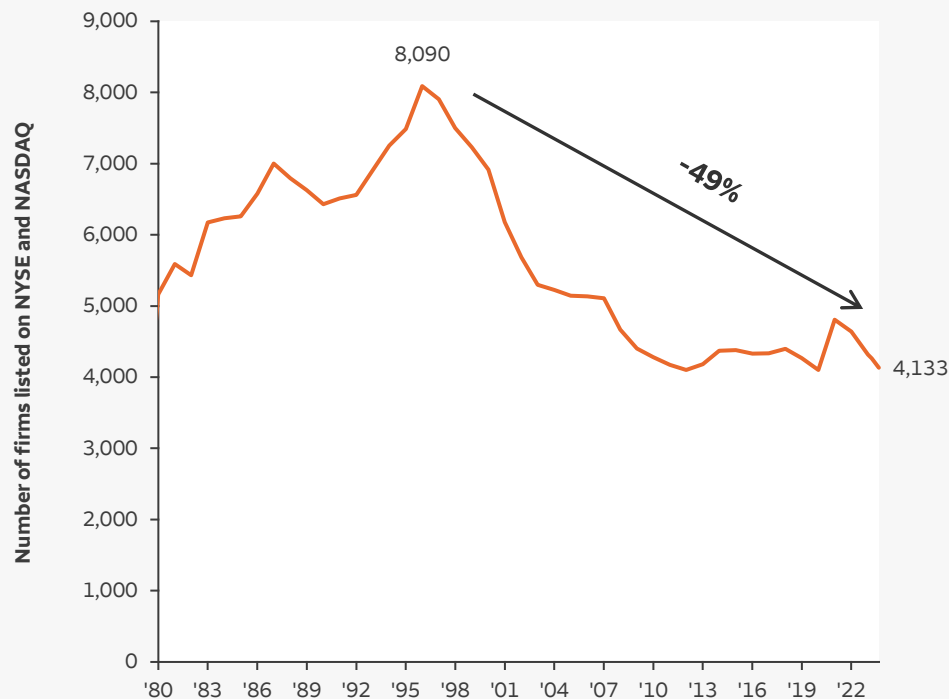
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■ Public companies (~4,130)  
■ Private companies (~6,300,000)

### Number of public companies has fallen



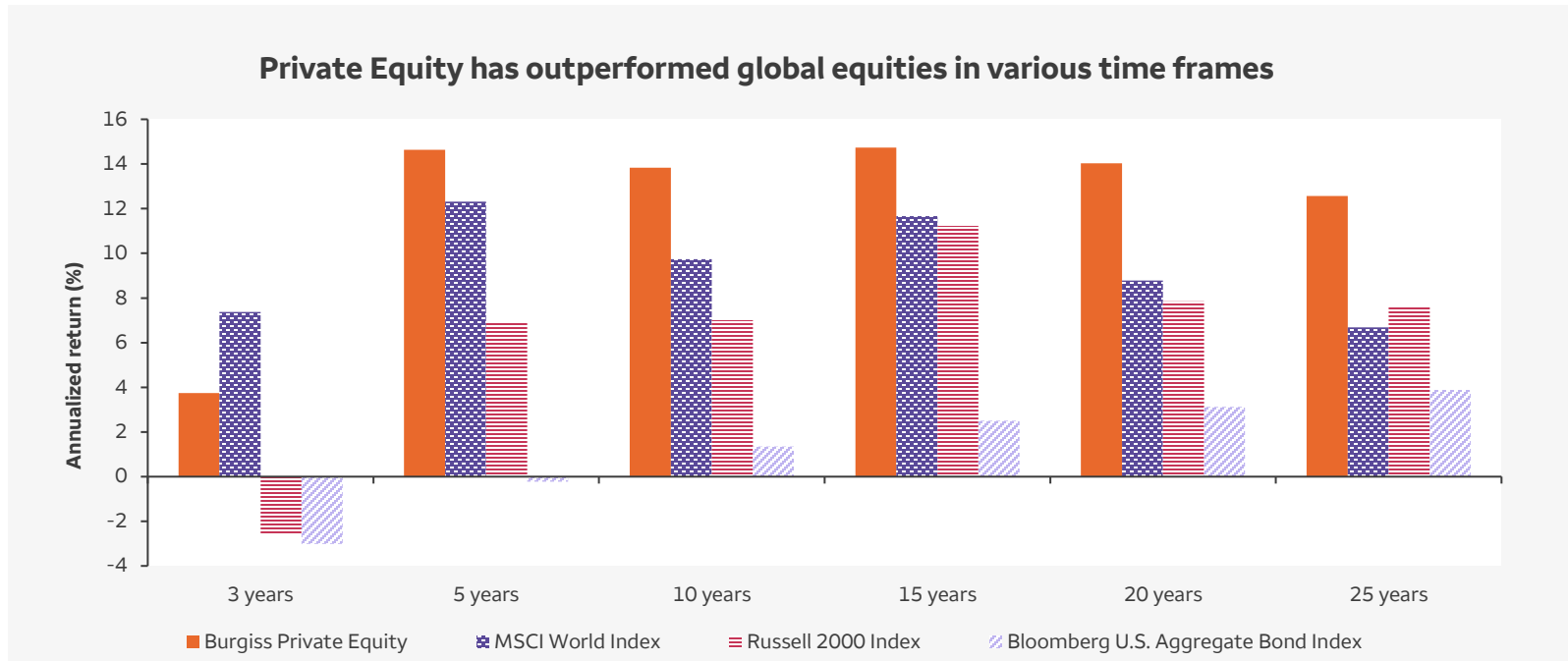
Sources: U.S. Census Bureau, World Federation of Exchanges, and Wells Fargo Investment Institute. Data from January 1, 1980, to August 31, 2024. NYSE = New York Stock Exchange. ~ = approximately. NASDAQ = National Association of Securities Dealers Automated Quotations.

Alternative investments, such as private equity funds, are not appropriate for all investors and are only open to “accredited” or “qualified” investors within the meaning of the U.S. securities laws. They are speculative and entail significant risks that are appropriate only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program.

## Key takeaways

- The majority of companies remain private, which inherently offers Private Equity strategies a robust opportunity set.
- The delist rate since 2000 is due to an unusually high rate of acquisitions of publicly listed firms.

# Illiquidity premium for Private Equity



Sources: The Burgiss Group, LLC (Burgiss), © Morningstar Direct, All Rights Reserved,<sup>1</sup> and Wells Fargo Investment Institute, as of June 30, 2024. Most recent data lags up to 2 quarters for Burgiss Private Equity Index. Index returns represent general market results, assume the reinvestment of dividends and other distributions, and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** More information on the limitations of utilizing this Index can be found on the following page, along with index definitions and asset class risk.

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## Key takeaways

- Private Equity funds strive to deliver significant capital appreciation for investors over longer periods of time.
- Private Equity has historically provided an illiquidity premium compared to publicly traded equities. This illiquidity premium has helped compensate investors for the additional risk assumed, in part due to the lack of ease and efficiency to trade or liquidate these assets frequently.

# Illiquidity premium for Private Equity Cont'd

Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions. Small cap stocks are generally more volatile than large cap stocks. Foreign investing has additional risks including currency, transaction, volatility and political and regulatory uncertainty. These risks are heightened in emerging markets. Bonds are subject to interest rate, credit/default, liquidity, inflation and other risks. Prices tend to be inversely affected by changes in interest rates.

Alternative investments, such as private equity funds, are not appropriate for all investors and are only open to “accredited” or “qualified” investors within the meaning of the U.S. securities laws. They are speculative and involve a high degree of risk that is appropriate only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program. Private equity funds use complex trading strategies, including hedging and leveraging through derivatives and short selling. These funds often demand long holding periods to allow for a turnaround and exit strategy. Private equity investing involves other material risks including capital loss and the loss of the entire amount invested.

## **Index definitions**

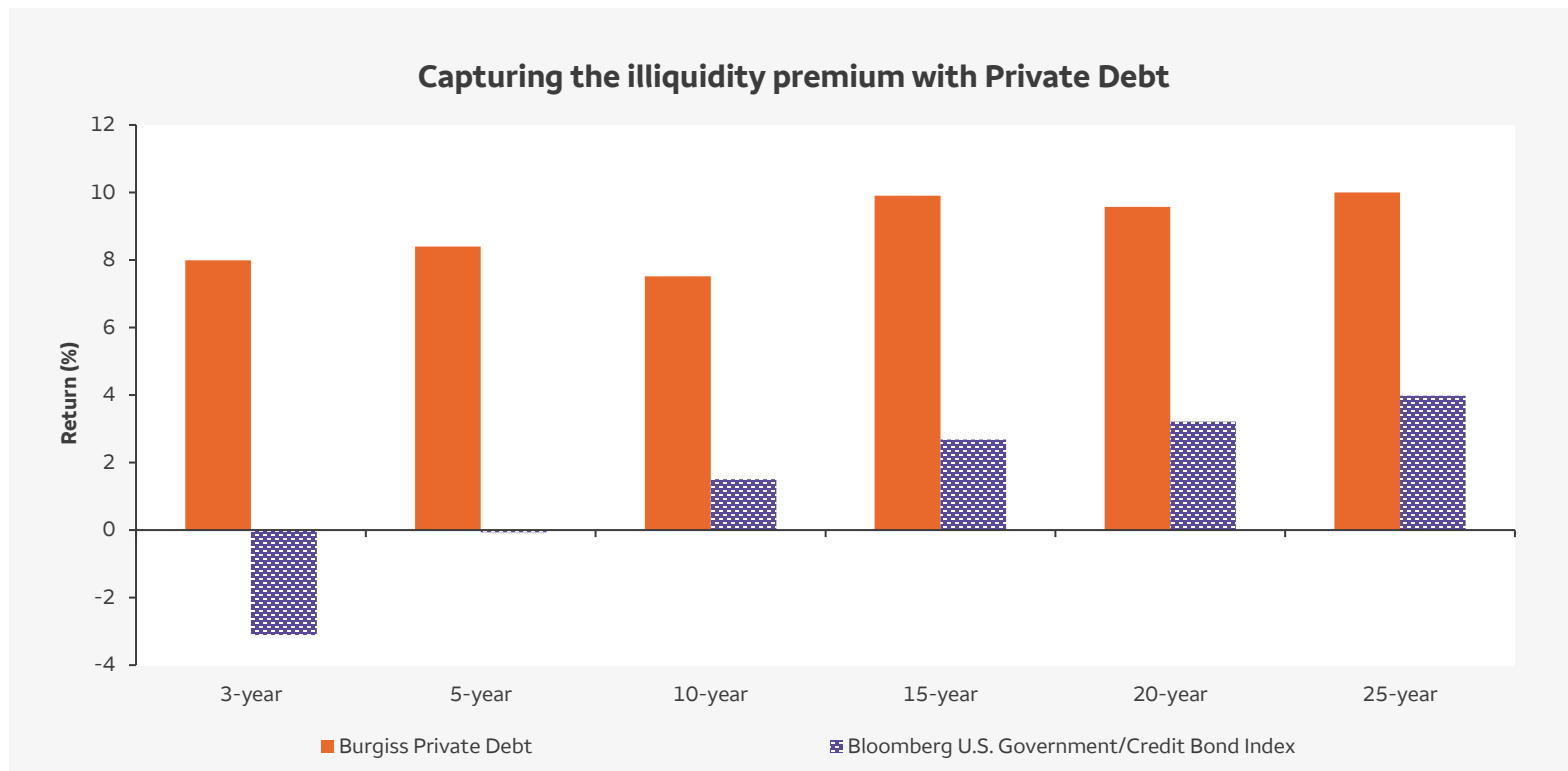
**Bloomberg U.S. Aggregate Bond Index** is a broad-based measure of the investment grade, U.S. dollar-denominated, fixed-rate taxable bond market.

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The **MSCI World Index** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets including the United States.

The **Russell 2000** measures the performance of the 2,000 smallest companies in the Russell 3000 Index, which represents approximately 8% of the total market capitalization of the Russell 3000 Index.

# Private Debt can provide an illiquidity premium

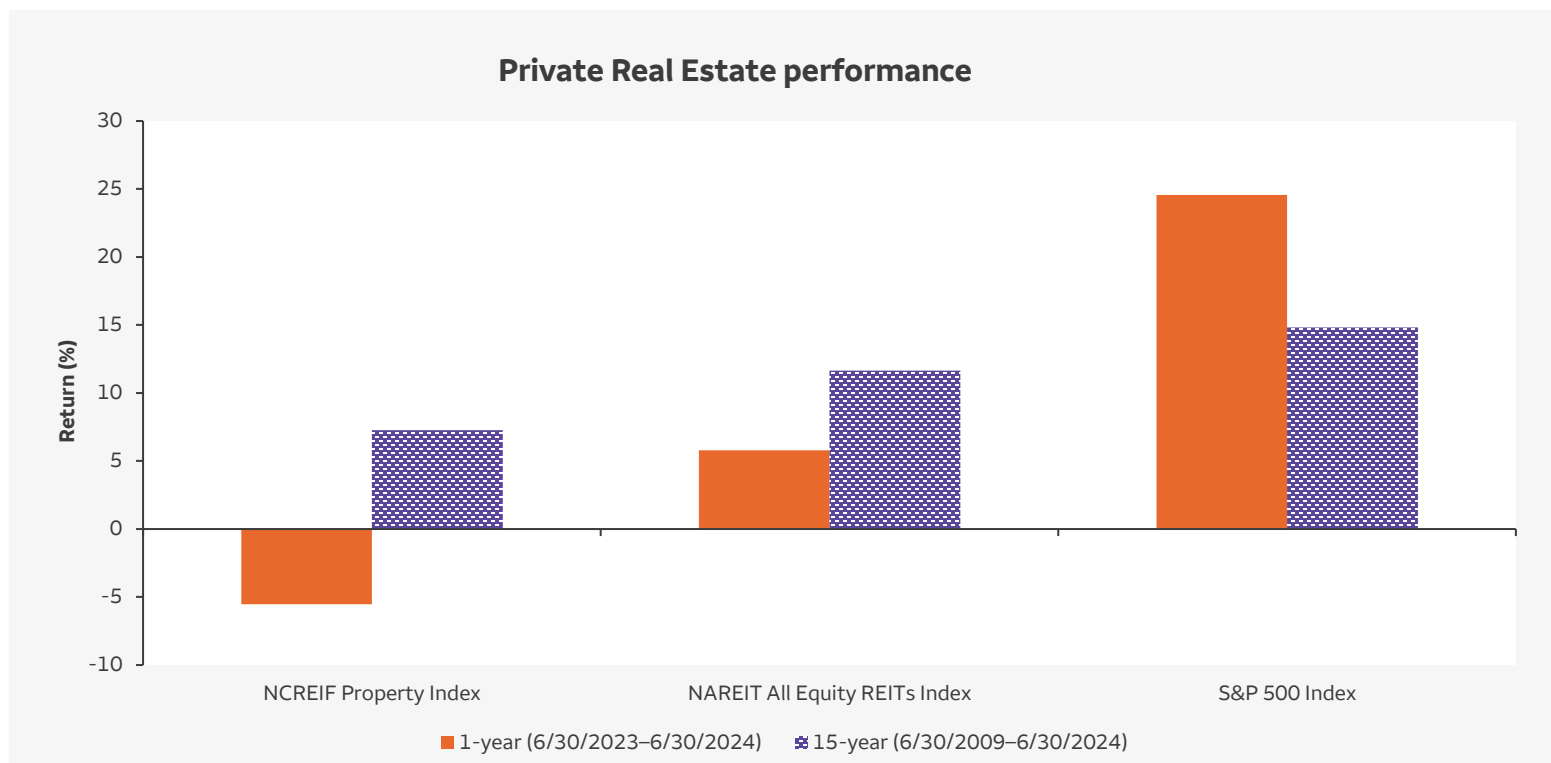


Sources: Bloomberg, The Burgiss Group, LLC (Burgiss), and Wells Fargo Investment Institute, as of June 30, 2024. For illustrative purposes only. The Burgiss Private Debt Index is a pooled quarterly time weighted rate of return series based on data compiled by Burgiss from over 800 private debt funds (generalist, senior, mezzanine, and distressed debt), including fully liquidated partnerships, formed after 1986. The return series is net of fees, expenses, and carried interest. The benchmark is issued on a quarterly basis, approximately 80 calendar days after quarter end. Most recent data lags up to 2 quarters for the Burgiss Private Debt Index. The Bloomberg U.S. Government/Credit Index is a broad-based index that measures the non-securitized component of the Bloomberg U.S. Aggregate Index. It includes investment grade, U.S. dollar-denominated, fixed-rate Treasuries, government-related and corporate securities. Broad-based Indexes do not represent investment performance or the results of actual trading. Index returns reflect general market results, assume the reinvestment of dividends and other distributions, and do not reflect deduction for fees, expenses, or taxes applicable to an actual investment. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.**

## Key takeaways

- Though less liquid than public debt, Private Debt has historically provided an attractive premium given the complexity of lending to entities that are unable to borrow from traditional capital market sources.

Bonds are subject to market, interest rate, price, credit/default, liquidity, inflation and other risks. Prices tend to be inversely affected by changes in interest rates. Alternative investments, such as private debt funds are not appropriate for all investors and are only open to “accredited” or “qualified” investors within the meaning of the U.S. securities laws. They are speculative and involve a high degree of risk that is appropriate only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program. Private debt investments are subject to potential default, limited liquidity, the creditworthiness of the private company, and the infrequent availability of independent credit ratings for private companies.



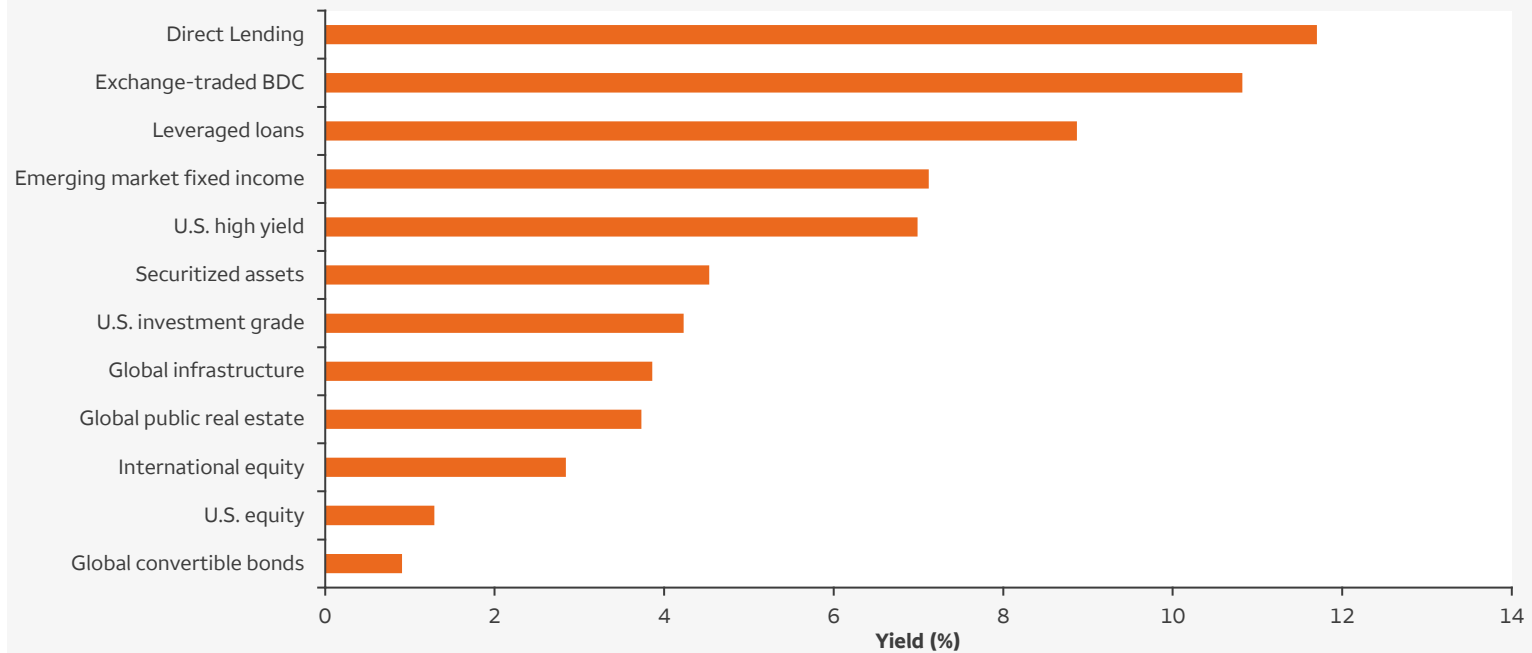
Sources: Bloomberg, National Council of Real Estate Investment Fiduciaries (NCREIF), and Wells Fargo Investment Institute, as of June 30, 2024. REIT = real estate investment trust. For illustrative purposes only. NCREIF Property Index is a composite total return for private commercial real estate properties held for investment purposes only. NAREIT All Equity REIT Index is considered representative of the equity REIT market. S&P 500 Index consists of 500 stocks chosen for market size, liquidity, and industry group representation. It is a market-value-weighted index with each stock's weight in the index proportionate to its market value. Index returns do not represent investment performance or the results of actual trading. Index returns reflect general market results, assume the reinvestment of dividends and other distributions, and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.**

Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions. Private real assets are not appropriate for all investors. REITs have special risks, including the possible illiquidity of the underlying properties, credit risk, interest rate fluctuations, and the impact of varied economic conditions.

## Key takeaways

- Despite difficult current conditions, private real assets have returned mid-single digits over a full market cycle, offering diversification through non-correlated return streams.
- Private Real Estate features various strategies with differing risk-return profiles. At this point in the cycle, higher interest rates and slowing growth have increased risks and weighed on recent returns and have pulled down longer-term returns as well. Later in the cycle, lower prices in the Private Real Estate market may signal an attractive entry point.

## Wide spectrum of yields across alternative, fixed-income, and equity assets



Sources: Bloomberg, Cliffwater, Morgan Stanley Capital International (MSCI), and Wells Fargo Investment Institute, as of September 30, 2024. Direct lending yield is as of March 31, 2024. For illustrative purposes only. BDC = Business Development Companies. Direct lending: Cliffwater Direct Lending Index; BDC: Cliffwater BDC Index; Emerging market fixed income: J.P. Morgan EMBI Global; U.S. high yield: Bloomberg U.S. Corporate High Yield; Leveraged loans: S&P/LSTA U.S. Leveraged Loan 100 Index; Global infrastructure: S&P Global Infrastructure Index; Global public real estate: FTSE NAREIT Equity REITs Index; International equity: MSCI All Country World ex-U.S. Index; Securitized assets: Bloomberg U.S. Securitized: MBS/ABS/CMBS; U.S. investment grade: Bloomberg U.S. Aggregate Bond Index; U.S. equity: MSCI USA Index; Global convertible bonds: Bloomberg Global Convertibles Composite Index. Yields represent past performance and fluctuate with market conditions. Current yields may be higher or lower than those quoted above. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Please see following slide for the definitions of the indexes.

Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions. Foreign investing has additional risks including currency, transaction, volatility and political and regulatory uncertainty. These risks are heightened in emerging markets. Bonds are subject to interest rate, credit/default, liquidity, inflation and other risks. Prices tend to be inversely affected by changes in interest rates. REITs have special risks, including the possible illiquidity of the underlying properties, credit risk, interest rate fluctuations, and the impact of varied economic conditions. Business Development Companies (BDC) involve economic, credit and liquidity risks in addition to the special risks associated with investing in a portfolio of small and developing or financially trouble businesses.

### Key takeaways

- Alternative investments can be a source of income for investors seeking to diversify their fixed-income portfolios.
- Yields are currently attractive for Direct Lending strategies and exchange-traded business development companies (BDCs).

# Finding yield in alternative sources Cont'd

*Alternative investments, such as private equity funds, are not appropriate for all investors and are only open to “accredited” or “qualified” investors within the meaning of the U.S. securities laws. They are speculative and involve a high degree of risk that is appropriate only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program. Private equity funds use complex trading strategies, including hedging and leveraging through derivatives and short selling. These funds often demand long holding periods to allow for a turnaround and exit strategy. Private equity investing involves other material risks including capital loss and the loss of the entire amount invested.*

## Index definitions

**Bloomberg Global Convertibles Index** blends the three regional Bloomberg Convertibles indexes - the U.S. Convertibles Index, the MEA Convertibles Index, and the APAC Convertibles Index - into a single global benchmark for the convertible asset class. The Global Convertibles Index is rules-based with an objective and transparent set of criteria used for index membership determination and rebalancing.

**Bloomberg U.S. Aggregate Bond Index** is composed of the Bloomberg U.S. Government/Credit Index and the Bloomberg U.S. Mortgage-Backed Securities Index and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities.

**Bloomberg U.S. Corporate High Yield Bond Index** covers the U.S.-dollar-denominated, non-investment-grade, fixed-rate, taxable corporate bond market. Securities are classified as high yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB= or below. Included issues must have at least one year until final maturity.

**Bloomberg U.S. Securitized: MBS/ABS/CMBS** racks agency mortgage backed pass-through securities (both fixed-rate and hybrid ARM) guaranteed by Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC); investment grade debt asset backed securities; and investment grade commercial mortgage backed securities.

**Cliffwater BDC Index** measures the performance of lending-oriented, exchange-traded Business Development Companies (BDCs), subject to certain eligibility criteria regarding portfolio composition, market capitalization, and dividend history. The CWBDC is a capitalization-weighted index that is calculated on a daily basis using publicly-available closing share prices and reported dividend payouts.

**Cliffwater Direct Lending Index** seeks to measure the unlevered, gross of fee performance of U.S. middle market corporate loans, as represented by the asset-weighted performance of the underlying assets of Business Development Companies (BDCs), including both exchange-traded and unlisted BDCs, subject to certain eligibility requirements.

**FTSE NAREIT Equity REITS Index** is a broad-based index consisting of real estate investment trusts (REITs). This excludes any equity REITs that are designated as Timber REITs.

**J.P. Morgan EMBI Global (USD)** is a U.S.-dollar-denominated, investible, market-cap-weighted index representing a broad universe of emerging market sovereign and quasi-sovereign debt. While products in the asset class have become more diverse, focusing on both local currency and corporate issuance, there is currently no widely accepted aggregate index reflecting the broader opportunity set available, although the asset class is evolving. By using the same index provider as the one used in the developed market bonds asset class, there is consistent categorization of countries among developed international bonds (ex-U.S.) and emerging market bonds.

**MSCI All Country World ex USA Index** is a free-float weighted equity index that is designed to measure the equity market performance of 22 developed and 23 emerging markets.

**MSCI USA Index** is a free-float-adjusted market-capitalization-weighted index that is designed to measure the equity market performance of the United States.

**S&P Global Infrastructure Index** provides liquid and tradable exposure to 75 companies from around the world that represent the listed infrastructure universe. To create diversified exposure, the index includes three distinct infrastructure clusters: utilities, transportation and energy.

**The S&P/LSTA U.S. Leveraged Loan 100 Index** is designed to reflect the performance of the largest facilities in the leveraged loan market.

## **U.S. dollar**

- The U.S. Dollar Index (DXY) fell during the third quarter. Expectations for continued Federal Reserve (Fed) rate cuts have increased greatly, while rate cut expectations from other developed central banks have increased to a lesser degree, causing a steep drop in the dollar during the quarter.
- We expect the DXY to range-trade near current levels or rise slightly through year-end 2024, supported by better relative economic strength in the U.S. and still elevated interest rate differentials.

## **Developed currencies**

- We believe a Fed pivot in late 2024 should limit dollar strength relative to recent highs, but significant rate cuts from other developed central banks should support the dollar somewhat as higher interest rate differentials remain. Therefore, Fed policy actions in comparison to other major central banks over the next few months are expected to remain a key driver for the dollar's near-term levels.
- We expect euro and yen values versus the U.S. to remain near current levels.

## **Emerging currencies**

- Emerging market (EM) currencies rose against the U.S. dollar during the third quarter, though some currencies like the Mexican peso struggled with the unwinding of the carry trade.
- We continue to believe that sustained stronger performance in EM currencies may not be seen until we experience sustained dollar weakness.



# Currencies scorecard

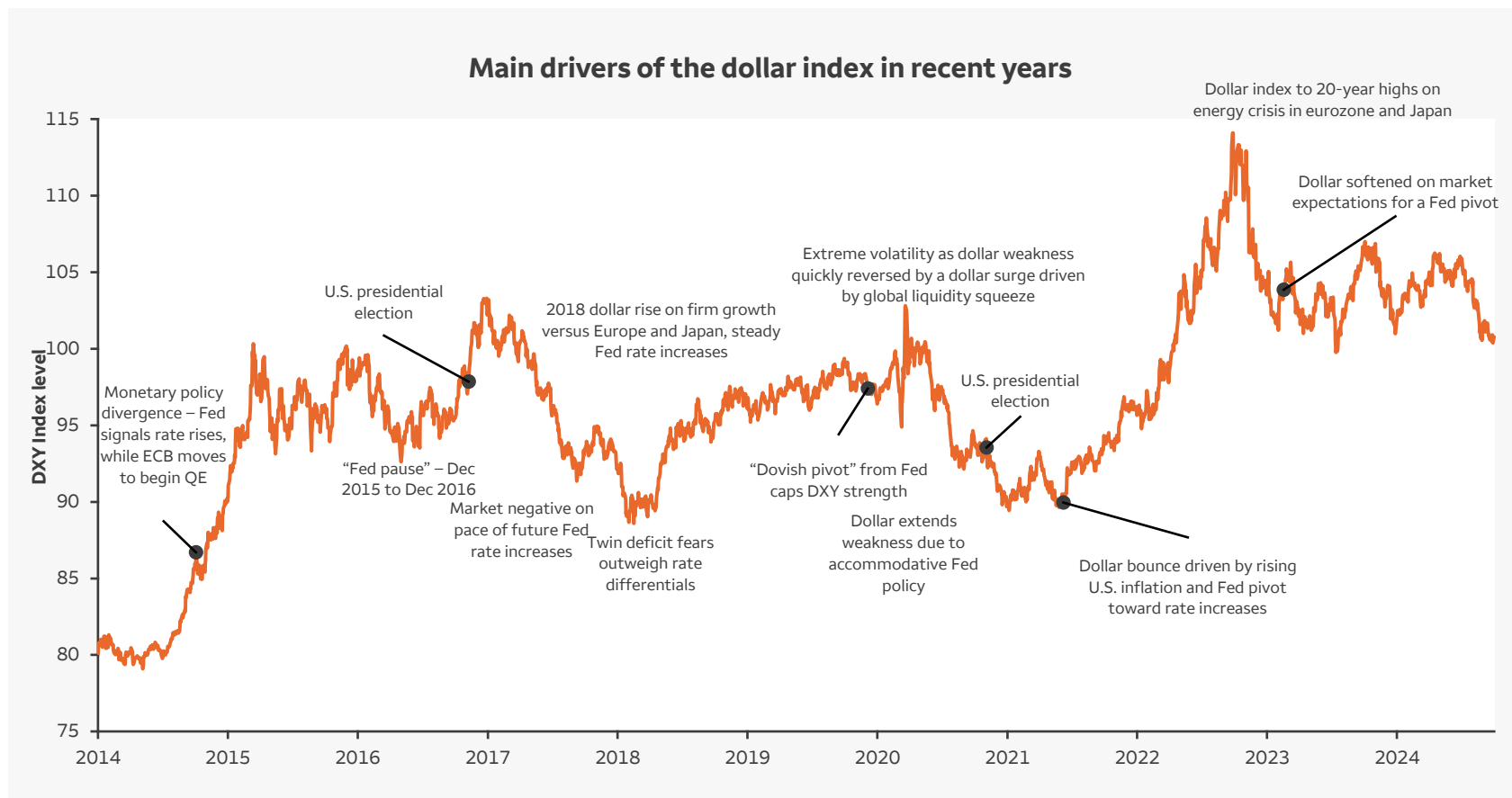
Currency	3Q24	QOQ change (%)	YOY change (%)	Year-end 2023
DXY Index	100.78	-4.81	-5.08	101.33
Euro (dollars per euro)	\$1.11	3.94	5.32	\$1.10
Japanese yen (yen per dollar)	¥143.63	-10.72	3.84	¥141.04
British pound sterling (dollar per pound)	\$1.34	5.77	9.64	\$1.27
Chinese renminbi (yuan per dollar)	¥7.02	-3.42	3.83	¥7.10

Sources: Bloomberg and Wells Fargo Investment Institute, as of September 30, 2024. 3Q = third quarter. QOQ = quarter over quarter. YOY = year over year. The DXY Index measures the value of the U.S. dollar relative to major developed market currencies, notably the euro, the Japanese yen, and the British pound. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.**

## Key takeaways

- The U.S. Dollar Index (DXY) fell in the third quarter as the Federal Reserve pivot became more evident and expected interest rate differentials declined. The euro strengthened from early second quarter lows, ending above the \$1.10 level. The yen gain was significant, supported by a surprise rate hike from the Bank of Japan in July.
- The Chinese yuan rose against the dollar, reversing some of the underperformance on Chinese economic recovery concerns.

# U.S. dollar weakened in the third quarter of 2024

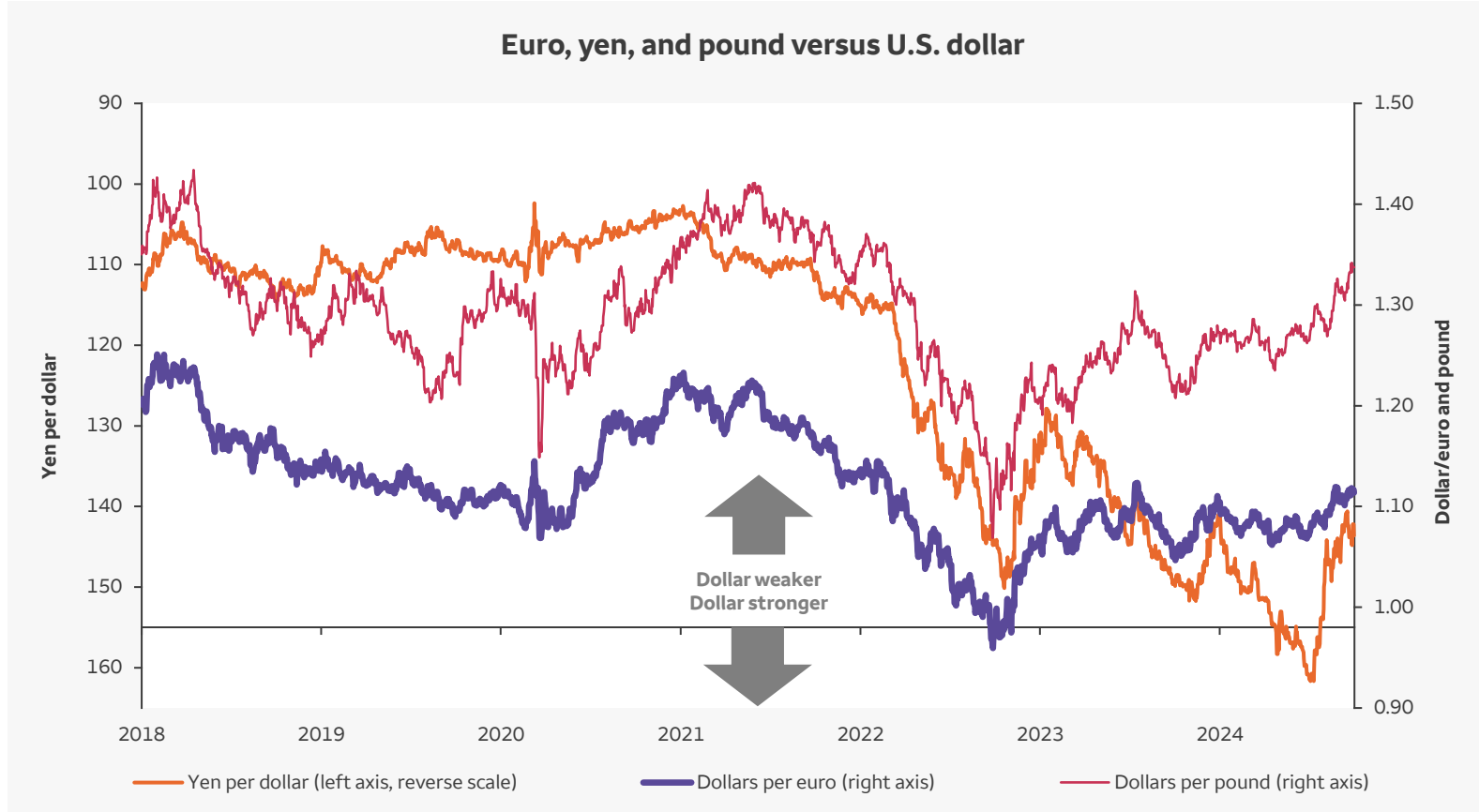


Sources: Bloomberg and Wells Fargo Investment Institute. Daily data from January 1, 2014, to September 30, 2024. The DXY Index measures the value of the U.S. dollar relative to major developed market currencies, notably the euro, the Japanese yen, and the British pound. Fed = Federal Reserve. ECB = European Central Bank. QE = quantitative easing. DXY = U.S. Dollar Index. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.**

## Key takeaways

- Our bias is now for the U.S. dollar to trade inside the current range through 2024, supported by a stronger U.S. economy versus that of developed markets ex-U.S. We expect the dollar to find support while U.S. interest rates exceed those in the eurozone and Japan.
- A moderating interest rate environment in emerging markets (EMs) may provide a broad negative driver to EM currencies in 2024. We believe EM currencies are unlikely to see gains until the current period of dollar relative strength ends.

# Euro and yen gained ground against the dollar



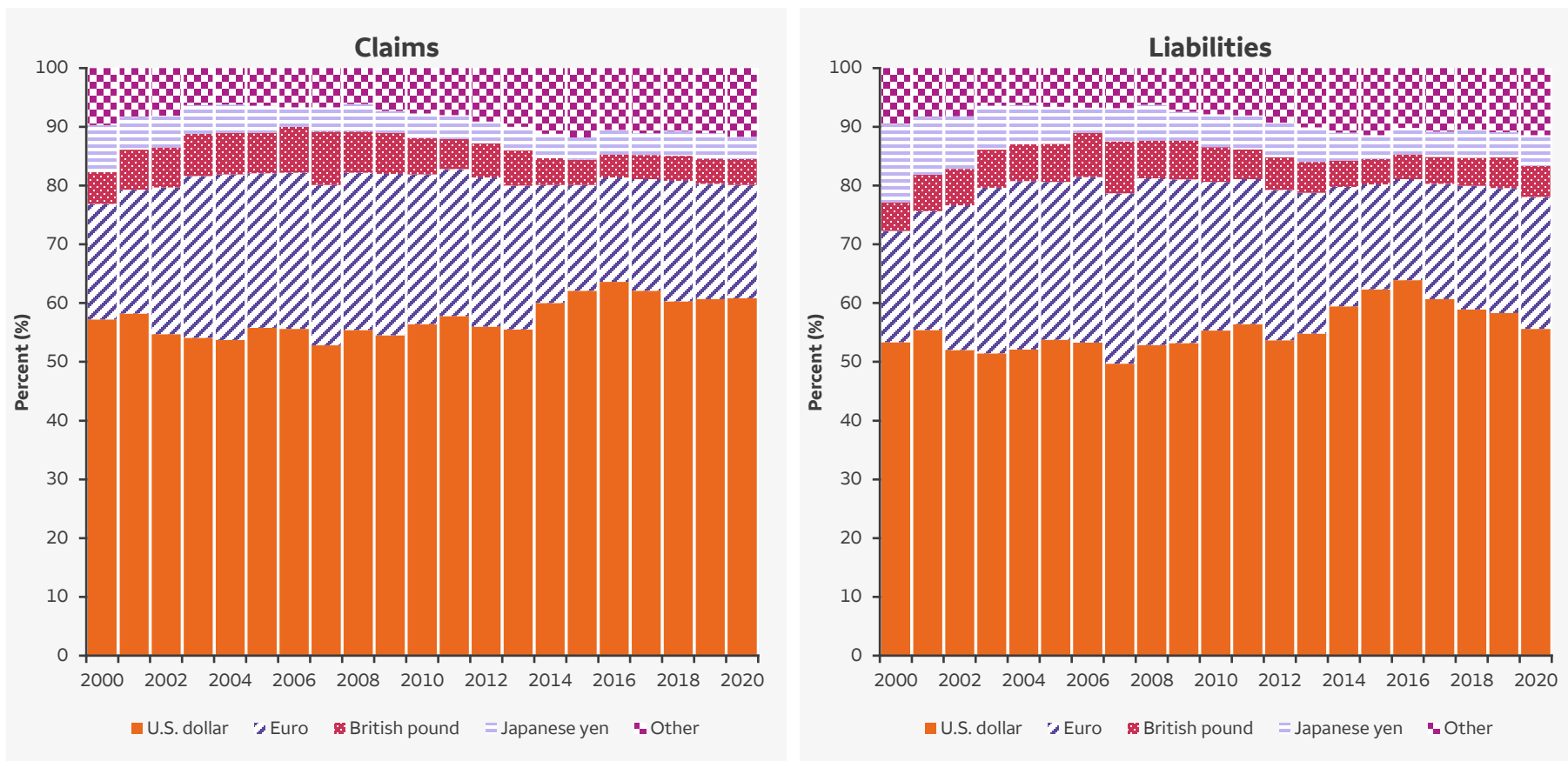
Sources: Bloomberg and Wells Fargo Investment Institute. Daily data from January 1, 2018, to September 30, 2024.

## Key takeaways

- The euro may trade near recent ranges on forthcoming European Central Bank rate cuts as European interest rates decline alongside U.S. rates.
- The yen seems unlikely to see further gains as traders digest a slow policy normalization cycle and Japanese rates remain incredibly low relative to other major developed countries.

# “De-dollarization” fears are overblown

## Share of international and foreign currency banking claims and liabilities



Sources: U.S. Federal Reserve, Bank for International Settlements and Wells Fargo Investment Institute. Annual data from January 1, 2000, to December 31, 2020. Data shows share of banking claims and liabilities across national borders or denominated in a foreign currency, excludes intra-euro area international liabilities and claims, and is at current exchange rates.

### Key takeaways

- Moves to denominate some trade transactions in Chinese yuan and other non-U.S.-dollar currencies have led to a surge in reports about “de-dollarization” and the loss of the U.S. currency’s dominant role in global finance.
- The U.S. dollar’s leading share in global banking and trade, backed by the rule of law and robust institutions, cannot easily be replaced.

# Local-currency vs. U.S. dollar-denominated returns

## Annual returns for local-currency and U.S.-dollar-denominated equity and fixed income indexes

Index	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	YTD
<b>U.S. Dollar Index</b>	<b>1.50</b>	<b>1.46</b>	<b>-0.51</b>	<b>0.37</b>	<b>12.68</b>	<b>9.25</b>	<b>3.57</b>	<b>-9.87</b>	<b>4.26</b>	<b>0.32</b>	<b>-6.75</b>	<b>6.37</b>	<b>8.21</b>	<b>-2.11</b>	<b>-0.55</b>
MSCI EAFE Index (local currency)	5.26	-11.74	17.89	27.46	6.38	5.78	5.88	15.77	-10.54	22.31	1.28	19.25	-6.52	16.77	12.48
MSCI EAFE Index (U.S. dollar)	8.21	-11.73	17.90	23.29	-4.48	-0.39	1.51	25.62	-13.36	22.66	8.28	11.78	-14.01	18.85	13.50
MSCI EM Index (local currency)	14.40	-12.47	17.39	3.79	5.57	-5.40	10.11	31.00	-9.73	18.52	19.50	0.14	-15.16	10.29	18.73
MSCI EM Index (U.S. dollar)	19.20	-18.17	18.63	-2.27	-1.82	-14.60	11.60	37.75	-14.25	18.90	18.69	-2.22	-19.74	10.27	17.24
J.P. Morgan GBI Global (Hedged)	3.36	4.71	5.11	1.26	9.95	1.56	4.19	0.50	1.11	5.25	3.36	-2.56	-13.88	4.18	0.54
J.P. Morgan GBI Global (Unhedged)	6.78	5.91	0.84	-5.08	-2.53	-4.84	1.86	9.92	-1.68	5.23	10.52	-9.51	-21.87	3.99	1.00
J.P. Morgan GBI EM Global Diversified (local currency)	15.68	-1.75	16.76	-8.98	-5.72	-14.92	9.94	15.21	-6.21	13.47	2.69	-8.75	-11.69	12.70	4.95
J.P. Morgan EMBI Global (dollar denominated)	12.04	8.46	18.54	-6.58	5.53	1.23	10.19	9.32	-4.61	14.42	5.88	-1.51	-16.45	10.45	8.02

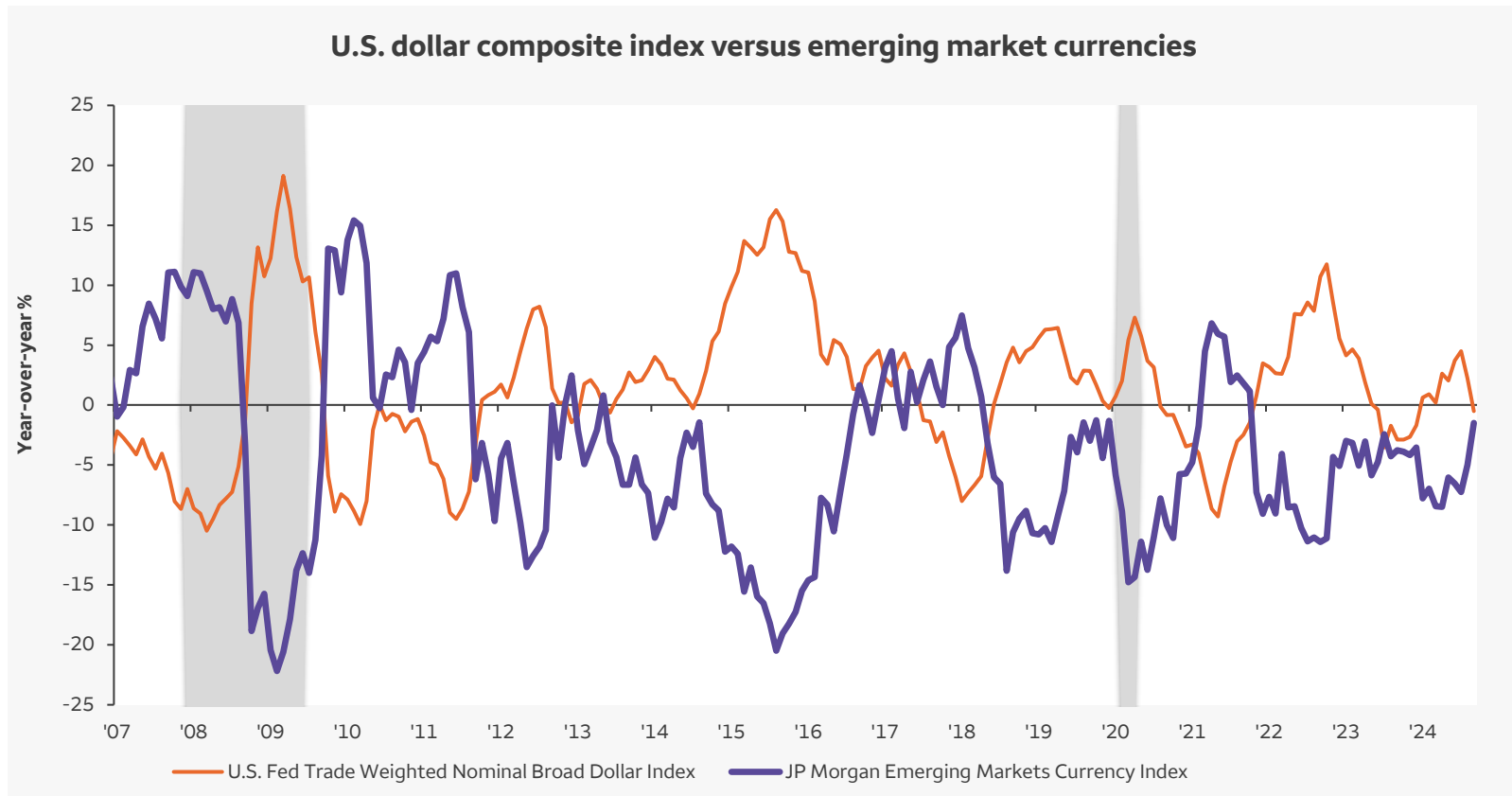
Sources: Bloomberg, © Morningstar Direct, All Rights Reserved,<sup>1</sup> and Wells Fargo Investment Institute, as of September 30, 2024. YTD = year to date. EM = emerging markets. For illustrative purposes only. **The higher value for local currency/hedged vs. U.S. dollar denominated/unhedged is highlighted in green.** MSCI EAFE Index is designed to represent the performance of large and mid-cap securities across 21 developed markets, including countries in Europe, Australasia and the Far East, excluding the U.S. and Canada. The MSCI Emerging Markets Index (USD/Local) is a free float-adjusted market capitalization index that is designed to measure equity market performance of emerging markets. J.P. Morgan GBI Global ex-U.S. (Unhedged) in USD is an unmanaged index market representative of the total return performance in U.S. dollars on an unhedged basis of major non-U.S. bond markets. J.P. Morgan GBI Global ex-U.S. (Hedged) is an unmanaged market index representative of the total return performance, on a hedged basis, of major non-U.S. bond markets. J.P. Morgan Emerging Markets Bond Index Global (EMBI Global) is a U.S. dollar-denominated, investible, market cap-weighted index representing a broad universe of emerging market sovereign and quasi-sovereign debt. J.P. Morgan GBI Emerging Markets Global Diversified (Local Currency) (USD Unhedged) tracks the performance of bonds issued by emerging market governments and denominated in the local currency of the issuer. Index returns do not represent investment performance or the results of actual trading. Index returns reflect general market results, assume the reinvestment of dividends and other distributions, and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions. Bonds are subject to market, interest rate, price, credit/default, liquidity, inflation and other risks. Prices tend to be inversely affected by changes in interest rates. Foreign investing has additional risks including currency, transaction, volatility and political and regulatory uncertainty. Currency risk is the risk that foreign currencies will decline in value relative to that of the U.S. dollar. Exchange rate movements between the U.S. dollar and foreign currencies may cause the value of an investment to decline.

### Key takeaways

- International equity assets, priced in U.S. dollars, have tended to underperform their local-currency-denominated counterparts when the U.S. dollar is up strongly.
- In the third quarter, fixed-income indexes priced in their local currency (or unhedged) underperformed U.S.-dollar-denominated indexes.

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# Emerging market currencies have mirrored the U.S. dollar



Sources: Bloomberg, Federal Reserve, and Wells Fargo Investment Institute. Monthly data from January 1, 2007, to September 30, 2024. Shaded areas represent periods of a U.S. economic recession. The U.S. Fed Trade Weighted Nominal Broad Dollar Index is a weighted average of the foreign exchange value of the U.S. dollar against the currencies of a broad group of major U.S. trading partners. The J.P. Morgan Emerging Market Currency Index tracks the performance of emerging market currencies relative to the U.S. dollar. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Foreign investing involves risks typically not associated with investing domestically, including currency, transaction, volatility and political and regulatory uncertainty. These risks are heightened in emerging markets. Currency risk is the risk that foreign currencies will decline in value relative to that of the U.S. dollar. Exchange rate movements between the U.S. dollar and foreign currencies may cause the value of an investment to decline.

## Key takeaways

- Emerging market (EM) currencies rose against the U.S. dollar during the third quarter. The Mexican peso depreciated considerably, while most currencies elsewhere in Asia and Latin America gained ground against the dollar.
- We continue to believe that sustained stronger performance in EM currencies may not be seen until we experience sustained dollar weakness.

## **Background**

- Historical performance may serve as a useful guide for investors, but markets frequently trade on factors outside of fundamental valuations for long periods of time.

## **Potential benefits of diversification and rebalancing**

- Regularly rebalancing a portfolio can add value.
- Because each asset class has unique risk, return, and correlation characteristics, a diversified allocation has the potential to provide more consistent returns with lower volatility.
- Attempting to reduce downside volatility can be critical to long-term performance, as it can allow a portfolio to recover more quickly after a crisis event.
- It is important to recognize that the more a portfolio loses in a downturn, the longer it typically takes to recoup those losses.
- Diversification has tended to reduce the time it takes to break even from a downside event.

## **Dangers of market timing**

- Missing even a handful of days when the market achieves its best gains can dramatically reduce returns.
- Exiting the market after a bad day could be costly. The stock market's best days have often been preceded by the worst days.
- We do not advocate market timing, but we do believe that modest tactical shifts have the potential to take advantage of short-term investment opportunities or help mitigate short-term risks.

# Asset allocation scorecard

Diversified allocation	3Q24 return (%)	2Q24 return (%)	YTD return (%)	YOY return (%)	3-year return (% annualized)
Moderate income liquid	5.63	0.64	8.63	17.31	1.85
Moderate growth and income liquid	6.27	0.99	11.98	22.00	4.00
Moderate growth liquid	7.00	1.33	15.25	26.66	5.60
60% MSCI ACWI/40% Bloomberg Multiverse	6.87	0.58	9.82	20.07	1.74
60% S&P 500 Index/40% Bloomberg U.S. Aggregate Bond Index	5.61	2.60	14.88	26.07	6.63

Sources: © Morningstar Direct, All Rights Reserved,<sup>1</sup> and Wells Fargo Investment Institute, as of September 30, 2024. 2Q = second quarter. 3Q = third quarter. YTD = year to date. YOY = year over year. Performance results for Moderate Income, Moderate Growth and Income, Moderate Growth, and the 60/40 blends are calculated using blended index returns and are for illustrative purposes only. Moderate Income, Moderate Growth & Income, and Moderate Growth allocations are dynamic and change as needed with adjustments to the strategic allocations. Index returns do not represent investment performance or the results of actual trading. Index returns reflect general market results; assume the reinvestment of dividends and other distributions; and do not reflect deductions for fees, expenses, or taxes applicable to an actual investment. An index is unmanaged and not available for direct investment. **Past performance does not guarantee future results.** [See following page for blended index compositions of the Moderate Income, Moderate Growth and Income, Moderate Growth Liquid, and 60/40 blends, risks and index definitions.]

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## Key takeaways

- Our analysis shows a diversified allocation has typically helped smooth returns over time.
- Adding diversifiers, like Commodities and, where appropriate, Hedge Funds, can help enhance return potential and mitigate risk in a traditional portfolio consisting of stocks and bonds.



# Asset allocation scorecard Cont'd

## Risk considerations

Asset allocation cannot eliminate the risk of fluctuating prices and uncertain returns.

Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions. Small- and mid-cap stocks are generally more volatile, subject to greater risks and are less liquid than large company stocks. Foreign investing has additional risks including currency, transaction, volatility and political and regulatory uncertainty. These risks are heightened in emerging markets. Bonds are subject to market, interest rate, price, credit/default, liquidity, inflation and other risks. Prices tend to be inversely affected by changes in interest rates. High-yield fixed-income securities are considered speculative, involve greater risk of default, and tend to be more volatile than investment-grade fixed-income securities. Investing in commodities is not appropriate for all investors and may subject an investment to greater share price volatility than an investment in traditional equity or debt securities.

Alternative investments, such as private equity funds, are not appropriate for all investors and are only open to “accredited” or “qualified” investors within the meaning of the U.S. securities laws. They are speculative and involve a high degree of risk that is appropriate only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program. Private equity funds use complex trading strategies, including hedging and leveraging through derivatives and short selling. These funds often demand long holding periods to allow for a turnaround and exit strategy. Private equity investing involves other material risks including capital loss and the loss of the entire amount invested.

## Allocation compositions

- **Moderate Income:** 2% Bloomberg U.S. Treasury Bills (1–3 Month) Index, 60% Bloomberg U.S. Aggregate Bond Index, 4% Bloomberg U.S. Corporate High Yield Bond Index, 5% J.P. Morgan EMBI Global, 18% S&P 500 Index, 5% Russell Midcap Index, 4% MSCI EAFE Index, 2% Bloomberg Commodity Index.
- **Moderate Growth and Income:** 2% Bloomberg U.S. Treasury Bills (1–3 Month) Index, 30% Bloomberg U.S. Aggregate Bond Index, 6% Bloomberg U.S. Corporate High Yield Bond Index, 5% J.P. Morgan EMBI Global, 27% S&P 500 Index, 10% Russell Midcap Index, 3% Russell 2000 Index, 8% MSCI EAFE Index, 5% MSCI Emerging Markets Index, 4% Bloomberg Commodity Index.
- **Moderate Growth:** 2% Bloomberg U.S. Treasury Bills (1–3 Month) Index, 8% Bloomberg U.S. Aggregate Bond Index, 3% Bloomberg U.S. Corporate High Yield Bond Index, 35% S&P 500 Index, 14% Russell Midcap Index, 6% Russell 2000 Index, 15% MSCI EAFE Index, 12% MSCI Emerging Markets Index, 5% Bloomberg Commodity Index.

**60/40 Blends:** 60% MSCI ACWI/40% Bloomberg Multiverse Index; 60% S&P 500 Index/40% Bloomberg Aggregate Bond Index.

## Index definitions

**Bloomberg Multiverse Index** provides a broad-based measure of the global fixed-income bond market. The index represents the union of the Global Aggregate Index and the Global High-Yield Index and captures investment grade and high yield securities in all eligible currencies. **Bloomberg U.S. Treasury Bills (1-3M) Index** is representative of money markets. **Bloomberg U.S. Aggregate Bond Index** is composed of the Bloomberg U.S. Government/Credit Index and the Bloomberg U.S. Mortgage-Backed Securities Index and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities. **Bloomberg U.S. Corporate High Yield Bond Index** covers the U.S. dollar-denominated, non-investment grade, fixed-rate, taxable corporate bond market. **Bloomberg Commodity Index** is calculated on an excess return basis and reflects commodity futures price movements. **J.P. Morgan EMBI Global (USD)** is a U.S. dollar-denominated, investible, market cap-weighted index representing a broad universe of emerging market sovereign and quasi-sovereign debt. **MSCI All Country World Index (ACWI)** is a free-float-adjusted market-capitalization-weighted index that is designed to measure the equity market performance of developed and emerging markets. **MSCI EAFE (DM) and MSCI Emerging Markets (EM) indexes** are equity indexes which capture large and mid cap representation across DM countries (excluding Canada and the U.S.) and EM countries around the world. **Russell Midcap Index** measures the performance of the 800 smallest companies in the Russell 1000 Index, which represent approximately 25% of the total market capitalization of the Russell 1000 Index. **Russell 2000 Index** measures the performance of the 2,000 smallest companies in the Russell 3000 Index, which represents approximately 8% of the total market capitalization of the Russell 3000 Index. **S&P 500 Index** is a market capitalization-weighted index composed of 500 stocks generally considered representative of the U.S. stock market.

# Market conditions can determine the choice of strategy



## Catastrophe

Cash  
U.S. IG fixed income  
Commodities  
Hedge funds  
Managed futures



## Income

U.S. IG bonds  
U.S. high-yield fixed income  
Int'l bonds (DM/EM)  
Large- and mid-cap equity  
DM equity  
Real estate



## Volatility

U.S. IG fixed income  
DM fixed income  
Hedge funds  
Managed futures



## Liquidity

Cash  
U.S. IG fixed income  
DM fixed income  
Large-cap equity  
DM equity



## Inflation

TIPS or short-term fixed income  
Domestic equity  
Int'l equity (DM/EM)  
Real estate  
Commodities



## Growth

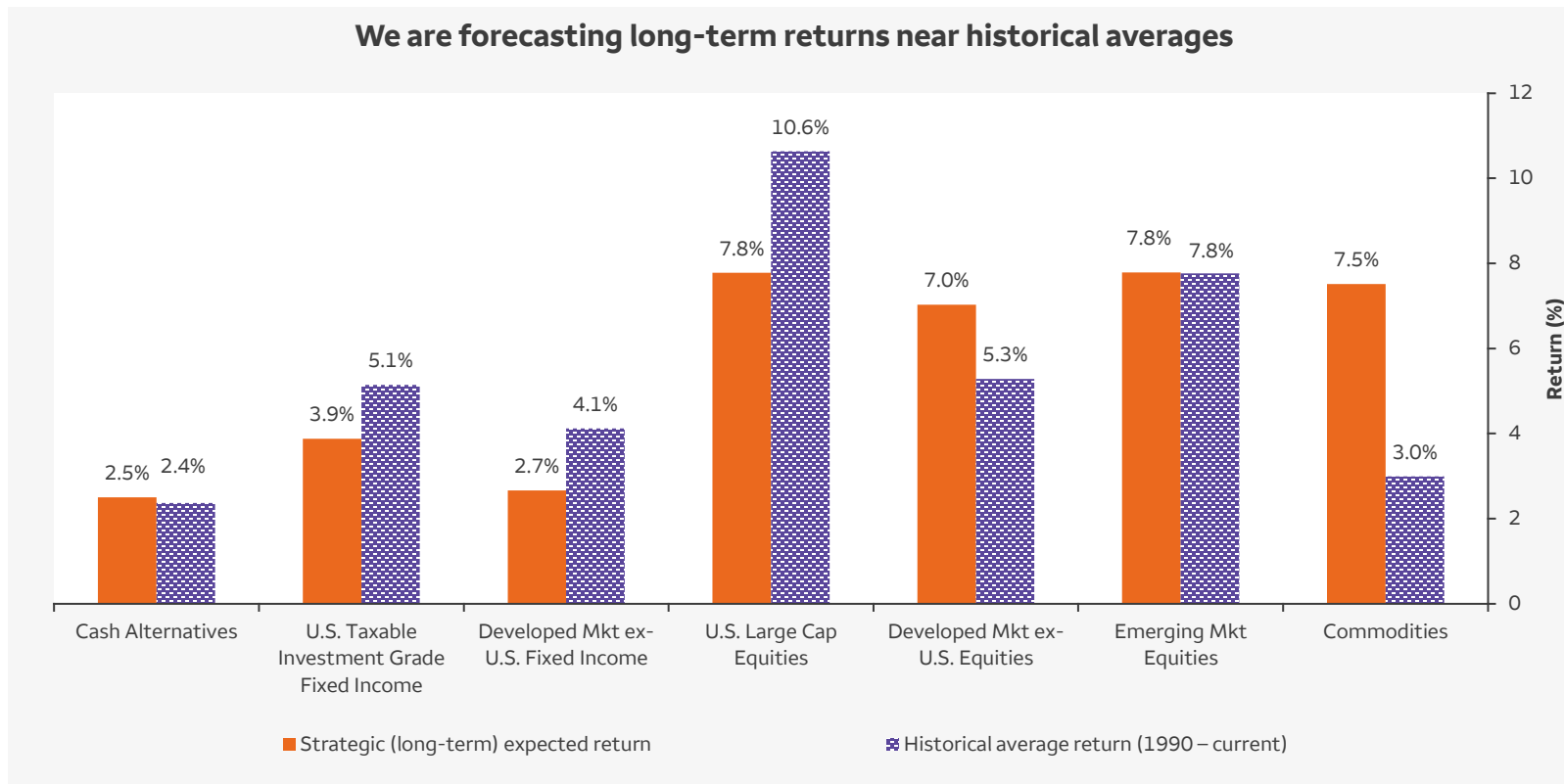
U.S. high-yield fixed income  
EM fixed income  
U.S. equity  
Int'l equity (DM/EM)  
Real estate  
Private Equity

Source: Wells Fargo Investment Institute, as of September 30, 2024. IG = investment grade. DM = developed markets. EM = emerging markets. TIPS = Treasury Inflation-Protected Securities. Hedge Funds, Managed Futures, Real Estate, and Private Equity funds are not appropriate for all investors and are only open to “accredited” or “qualified” investors within the meaning of U.S. securities laws. Equity, fixed income, foreign, cash alternatives, and alternative investments are materially different investments with materially different risk and reward characteristics. These risk and reward characteristics should be evaluated carefully before making any investment decision.

## Key takeaways

- Certain asset classes may be appropriate under different circumstances or for different investment objectives.
- Our research indicates that the top-performing asset classes when inflation is above average have been U.S. Mid Cap Equities and Commodities, represented by the Russell Midcap Index and Bloomberg Commodity Index, respectively.

# Expect returns near historical averages



Sources: Bloomberg and Wells Fargo Investment Institute. Historical average returns are for data from January 1, 1990, to September 30, 2024. Strategic (long-term) return assumptions are as of July 16, 2024. Forecasts are based on certain assumptions and on views of market and economic conditions which are subject to change. Strategic expected returns are forward-looking geometric return estimates from Wells Fargo Investment Institute of how asset classes and combinations of classes may respond during various market environments. Expected returns do not represent the returns that an investor should expect in any particular year. They are not designed to predict actual performance and may differ greatly from actual performance. There are no assurances that any estimates given will be achieved. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Indexes in order represented by Bloomberg U.S. Treasury Bill (1–3 Month) Index, Bloomberg U.S. Aggregate Bond Index, J.P. Morgan GBI Global Ex U.S., S&P 500 Index, MSCI EAFE Index, MSCI Emerging Markets Index, Bloomberg Commodity Index. See following page for index definitions and risks.

## Key takeaways

- Our long-term return expectations for most asset classes fall below long-term historical average returns.
- Investors may need to consider saving more or spending less in this environment to reach their financial goals.

# Expect returns near historical averages Cont'd

## **Risk considerations**

Equity securities are subject to market risk which means their value may fluctuate in response to general economic and market conditions and the perception of individual issuers. Investments in equity securities are generally more volatile than other types of securities. Foreign investing has additional risks including currency, transaction, volatility and political and regulatory uncertainty. These risks are heightened in emerging markets. Bonds are subject to market, interest rate, price, credit/default, liquidity, inflation and other risks. Prices tend to be inversely affected by changes in interest rates. Investing in commodities is not appropriate for all investors and may subject an investment to greater share price volatility than an investment in traditional equity or debt securities.

## **Index definitions**

**Bloomberg U.S. Treasury Bills (1-3M) Index** is representative of money markets.

**Bloomberg U.S. Aggregate Bond Index** is a broad-based flagship benchmark that measures the investment grade, U.S.-dollar-denominated, fixed-rate taxable bond market.

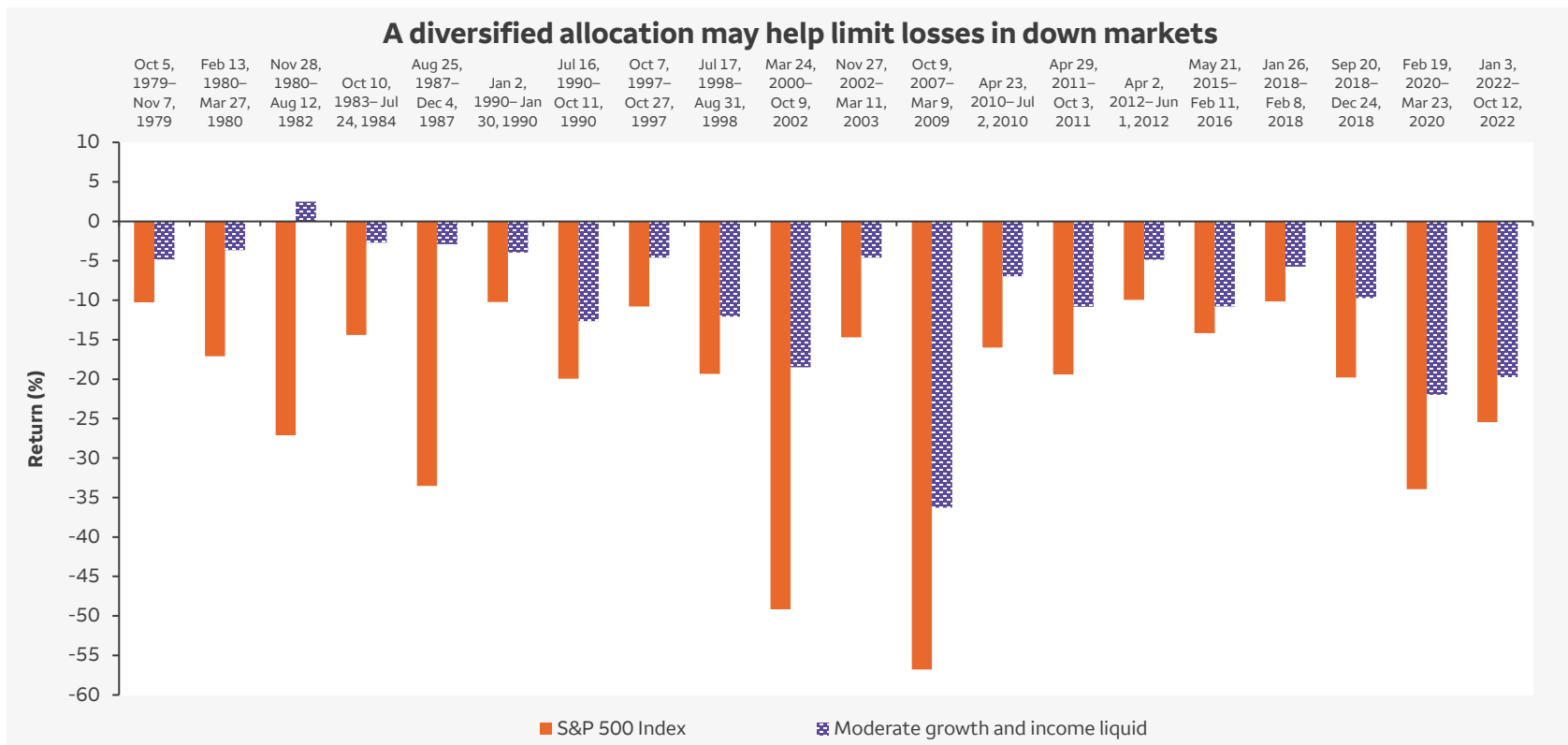
**Bloomberg Commodity Index** is calculated on an excess return basis and reflects commodity futures price movements. The index rebalances annually, weighted two-thirds by trading volume and one-third by world production, and weight-caps are applied at the commodity, sector, and group level for diversification.

**J.P. Morgan GBI Global ex-U.S. (Unhedged) in USD** is an unmanaged index market representative of the total return performance in U.S. dollars on an unhedged basis of major non-U.S. bond markets.

**MSCI EAFE (DM) and MSCI Emerging Markets (EM) indexes** are equity indexes which capture large and mid cap representation across DM countries (excluding Canada and the U.S.) and EM countries around the world.

**S&P 500 Index** is a market capitalization-weighted index generally considered representative of the U.S. stock market. Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions.

# Diversification may reduce downside risk



Sources: © Morningstar Direct, All Rights Reserved<sup>1</sup>, and Wells Fargo Investment Institute. Data from October 5, 1979, to September 30, 2024. Performance results for Moderate Growth and Income Liquid are calculated using blended index returns and is presented for illustrative purposes only. Moderate Growth & Income allocation is dynamic, and changes as needed with adjustments to the strategic allocations. Index returns do not represent investment performance or the results of actual trading. Index returns reflect general market results, assume the reinvestment of dividends and other distributions, and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. An index is unmanaged and not available for direct investment. **Past performance does not guarantee future results.** Blended index composition provided on the following page.

Note: Corrections are declines of 10% or more. Bear markets are declines of 20% or more.

Diversification strategies do not guarantee investment returns or eliminate the risk of loss.

## Key takeaways

- A diversified allocation may not experience losses as sharp as an all-equity position during an equity correction or bear market.
- Attempting to reduce downside volatility can be critical to long-term performance, as it can allow a portfolio to recover more quickly after a crisis event.

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# Diversification may reduce downside risk Cont'd

## Risk considerations

Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions. Small- and mid-cap stocks are generally more volatile, subject to greater risks and are less liquid than large company stocks. Foreign investing has additional risks including currency, transaction, volatility and political and regulatory uncertainty. These risks are heightened in emerging markets. Bonds are subject to market, interest rate, price, credit/default, liquidity, inflation and other risks. Prices tend to be inversely affected by changes in interest rates. High-yield fixed-income securities are considered speculative, involve greater risk of default, and tend to be more volatile than investment-grade fixed-income securities. Investing in commodities is not appropriate for all investors and may subject an investment to greater share price volatility than an investment in traditional equity or debt securities.

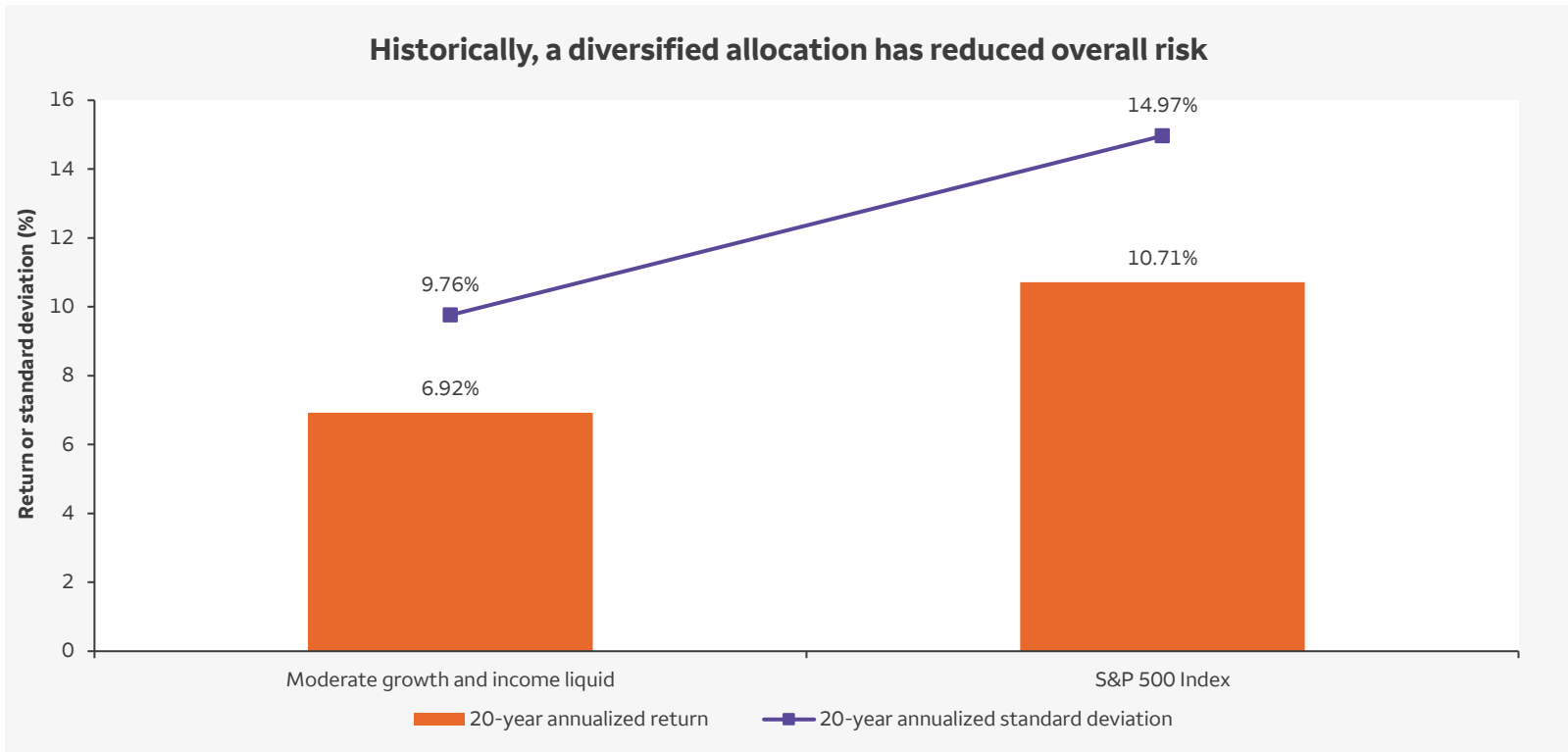
## Allocation composition

- **Moderate Growth and Income:** 2% Bloomberg U.S. Treasury Bills (1–3 Month) Index, 30% Bloomberg U.S. Aggregate Bond Index, 6% Bloomberg U.S. Corporate High Yield Bond Index, 5% J.P. Morgan EMBI Global, 27% S&P 500 Index, 10% Russell Midcap Index, 3% Russell 2000 Index, 8% MSCI EAFE Index, 5% MSCI Emerging Markets Index, 4% Bloomberg Commodity Index.

## Index definitions

**Bloomberg Commodity Index** is calculated on an excess return basis and reflects commodity futures price movements. **Bloomberg U.S. Treasury Bills (1-3M) Index** is representative of money markets. **Bloomberg U.S. Aggregate Bond Index** is composed of the Bloomberg U.S. Government/Credit Index and the Bloomberg U.S. Mortgage-Backed Securities Index and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities. **Bloomberg U.S. Corporate High Yield Bond Index** covers the U.S. dollar-denominated, non-investment grade, fixed-rate, taxable corporate bond market. **J.P. Morgan EMBI Global (USD)** is a U.S. dollar-denominated, investible, market cap-weighted index representing a broad universe of emerging market sovereign and quasi-sovereign debt. **MSCI EAFE (DM) and MSCI Emerging Markets (EM) indexes** are equity indexes which capture large and mid cap representation across DM countries (excluding Canada and the U.S.) and EM countries around the world. **Russell Midcap Index** measures the performance of the 800 smallest companies in the Russell 1000 Index, which represent approximately 25% of the total market capitalization of the Russell 1000 Index. **Russell 2000 Index** measures the performance of the 2,000 smallest companies in the Russell 3000 Index, which represents approximately 8% of the total market capitalization of the Russell 3000 Index. **S&P 500 Index** is a market capitalization-weighted index composed of 500 stocks generally considered representative of the U.S. stock market.

# Diversification may improve risk-adjusted returns



Sources: © Morningstar Direct, All Rights Reserved<sup>1</sup>, and Wells Fargo Investment Institute. Data from January 1, 2004, to, September 30, 2024. Performance results for Moderate Growth and Income Liquid are calculated using blended index returns and for illustrative purposes only. Moderate Growth & Income allocation is dynamic, and changes as needed with adjustments to the strategic allocations. Index returns do not represent investment performance or the results of actual trading. Index returns reflect general market results, assume the reinvestment of dividends and other distributions, and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. **Past performance does not guarantee future results.** Standard deviation is a measure of the volatility of returns. The higher the standard deviation, the greater volatility has been. The risk associated with the representative asset classes and the definitions of the Indexes and the blended index composition are provided on following pages.

Diversification does not guarantee investment returns or eliminate risk of loss.

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## Key takeaways

- Over time, a diversified allocation has helped mitigate volatility during times of market uncertainty and smooth out returns.
- Real assets and alternative investments can add an element of diversification to a traditional portfolio comprised of stocks and bonds.

# Diversification may improve risk-adjusted returns Cont'd

## Risk considerations

Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions. Small- and mid-cap stocks are generally more volatile, subject to greater risks and are less liquid than large company stocks. Foreign investing has additional risks including currency, transaction, volatility and political and regulatory uncertainty. These risks are heightened in emerging markets. Bonds are subject to market, interest rate, price, credit/default, liquidity, inflation and other risks. Prices tend to be inversely affected by changes in interest rates. High-yield fixed-income securities are considered speculative, involve greater risk of default, and tend to be more volatile than investment-grade fixed-income securities. Investing in commodities is not appropriate for all investors and may subject an investment to greater share price volatility than an investment in traditional equity or debt securities.

## Allocation Composition

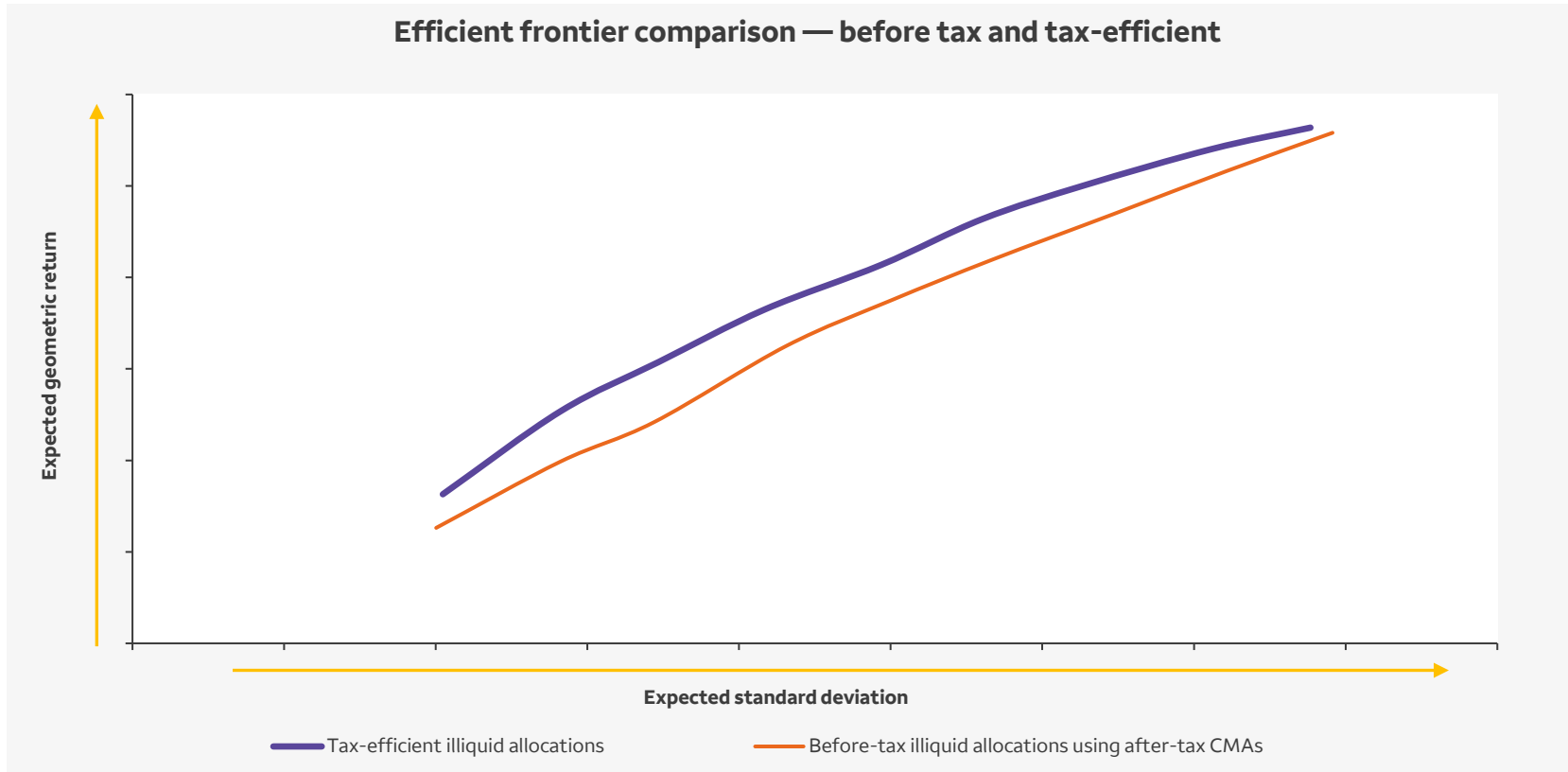
- **Moderate Growth and Income:** 2% Bloomberg U.S. Treasury Bills (1–3 Month) Index, 30% Bloomberg U.S. Aggregate Bond Index, 6% Bloomberg U.S. Corporate High Yield Bond Index, 5% J.P. Morgan EMBI Global, 27% S&P 500 Index, 10% Russell Midcap Index, 3% Russell 2000 Index, 8% MSCI EAFE Index, 5% MSCI Emerging Markets Index, 4% Bloomberg Commodity Index.

## Index definitions

**Bloomberg Commodity Index** is calculated on an excess return basis and reflects commodity futures price movements. **Bloomberg U.S. Treasury Bills (1-3M) Index** is representative of money markets. **Bloomberg U.S. Aggregate Bond Index** is composed of the Bloomberg U.S. Government/Credit Index and the Bloomberg U.S. Mortgage-Backed Securities Index and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities. **Bloomberg U.S. Corporate High Yield Bond Index** covers the U.S. dollar-denominated, non-investment grade, fixed-rate, taxable corporate bond market. **J.P. Morgan EMBI Global (USD)** is a U.S. dollar-denominated, investible, market cap-weighted index representing a broad universe of emerging market sovereign and quasi-sovereign debt. **MSCI EAFE (DM) and MSCI Emerging Markets (EM) indexes** are equity indexes which capture large and mid cap representation across DM countries (excluding Canada and the U.S.) and EM countries around the world. **Russell Midcap Index** measures the performance of the 800 smallest companies in the Russell 1000 Index, which represent approximately 25% of the total market capitalization of the Russell 1000 Index. **Russell 2000 Index** measures the performance of the 2,000 smallest companies in the Russell 3000 Index, which represents approximately 8% of the total market capitalization of the Russell 3000 Index. **S&P 500 Index** is a market capitalization-weighted index composed of 500 stocks generally considered representative of the U.S. stock market.



# Taking taxes into consideration can add value



Source: Wells Fargo Investment Institute, as of September 30, 2024. Strategic (long-term) return and standard deviation assumptions are as of July 16, 2024. Forecasts are not guaranteed and are subject to change. Strategic expected returns are forward-looking geometric return estimates from Wells Fargo Investment Institute of how asset classes and combinations of classes may respond during various market environments. Expected returns do not represent the returns that an investor should expect in any particular year. They are not designed to predict actual performance and may differ greatly from actual performance. There are no assurances that any estimates given will be achieved.

Standard Deviation is a statistical measure of the volatility of a portfolio's returns. The higher the standard deviation, the greater volatility has been. CMA = capital market assumption.

## Key takeaways

- When developing tax-efficient allocations, we have taken into consideration state, federal, and capital gains taxes.
- The tax-efficient allocations are made more tax-efficient by swapping from taxable fixed income to tax-exempt fixed income and reducing allocations to tax-inefficient asset classes like Hedge Funds and Emerging Market Fixed Income.

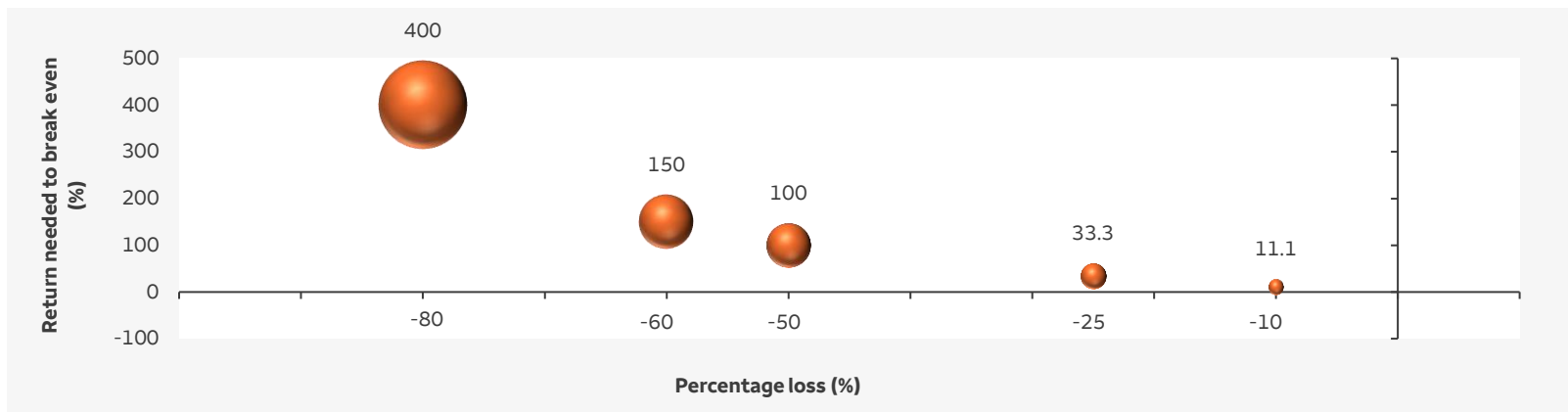
# The greater the loss, the longer it takes to break even

## To break even in one period

If you lose	You need ...
10%	11%
25%	33%
50%	100%
60%	150%
80%	400%

## Periods necessary to break even given a percentage return of

	1%	5%	10%
10%	10.6	2.2	1.1
25%	28.9	5.9	3.0
50%	69.7	14.2	7.3
60%	92.1	18.8	9.6
80%	161.7	33.0	16.9



Source: Wells Fargo Investment Institute, as of September 30, 2024. There is no guarantee it will be possible to break even. All investing involves risk including the possible loss of principal. **Past performance is no guarantee of future results.**

## Key takeaways

- It is important to recognize that the more a portfolio loses in a downturn, the longer it typically takes to recoup those losses.

# The worst and best days in the market

## 20 worst days for S&P 500 Index October 1994 – September 2024

Rank (worst days)	Date	S&P 500 Index daily return
1	3/16/2020	-12.0%
2	3/12/2020	-9.5%
3	10/15/2008	-9.0%
4	12/1/2008	-8.9%
5	9/29/2008	-8.8%
6	10/9/2008	-7.6%
7	3/9/2020	-7.6%
8	10/27/1997	-6.9%
9	8/31/1998	-6.8%
10	11/20/2008	-6.7%
11	8/8/2011	-6.7%
12	11/19/2008	-6.1%
13	10/22/2008	-6.1%
14	6/11/2020	-5.9%
15	4/14/2000	-5.8%
16	10/7/2008	-5.7%
17	1/20/2009	-5.3%
18	11/5/2008	-5.3%
19	11/12/2008	-5.2%
20	3/18/2020	-5.2%

## 20 best days for S&P 500 Index October 1994 – September 2024

Rank (best days)	Date	S&P 500 Index daily return
1	10/13/2008	11.6%
2	10/28/2008	10.8%
3	3/24/2020	9.4%
4	3/13/2020	9.3%
5	3/23/2009	7.1%
6	4/6/2020	7.0%
7	11/13/2008	6.9%
8	11/24/2008	6.5%
9	3/10/2009	6.4%
10	11/21/2008	6.3%
11	3/26/2020	6.2%
12	3/17/2020	6.0%
13	7/24/2002	5.7%
14	11/10/2022	5.5%
15	9/30/2008	5.4%
16	7/29/2002	5.4%
17	12/16/2008	5.1%
18	10/28/1997	5.1%
19	9/8/1998	5.1%
20	1/3/2001	5.0%

Sources: Bloomberg and Wells Fargo Investment Institute. Data from October 1, 1994, to September 30, 2024. For illustrative purposes only. Analysis uses S&P 500 Index price returns. The S&P 500 Index is a market capitalization weighted index composed of 500 stocks generally considered representative of the U.S. stock market. The performance shown is not indicative of any particular investment. An index is unmanaged and not available for direct investment. A price index is not a total return index and does not include the reinvestment of dividends. Total returns assume reinvestment of dividends and capital gain distributions. **Past performance is not a guarantee of future results.** Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions.

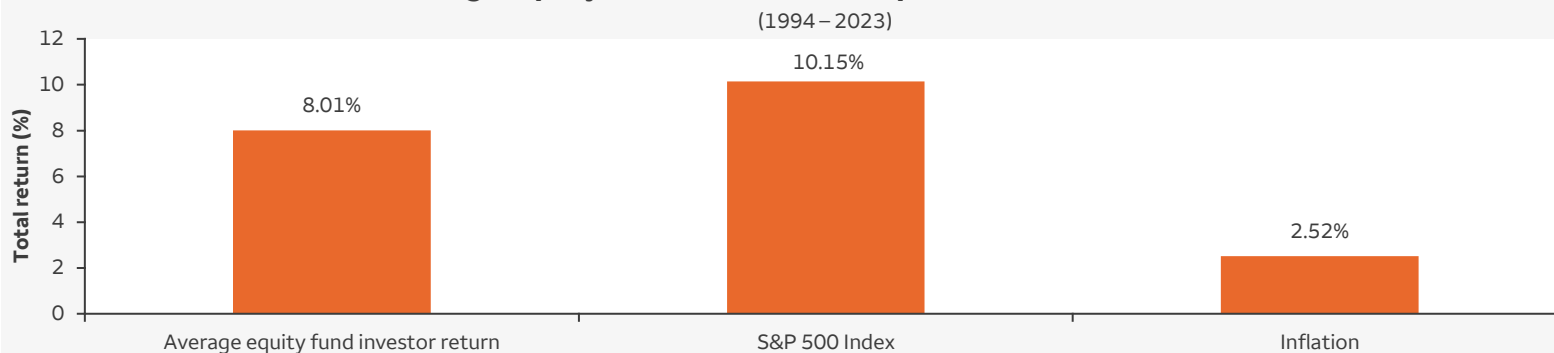
Green highlighted cells represent dates during the October 9, 2007 – March 9, 2009, bear market are highlighted in green. Orange highlighted cells represent dates during the February 19, 2020 – March 23, 2020, bear market.

### Key takeaways

- The market's best and worst days, based on the S&P 500 Index's daily returns, have tended to happen during times of high volatility, like bear markets and recessions. Over the past 30 years, most of the 10 worst days and all of the 10 best days occurred during either the Great Recession of 2007 – 2009 or the COVID-19 2020 recession.
- Additionally, the best and worst days are often clustered together. For example, two of the 20 best days and four of the 20 worst days occurred during the seven trading days between March 9 and March 18, 2020.

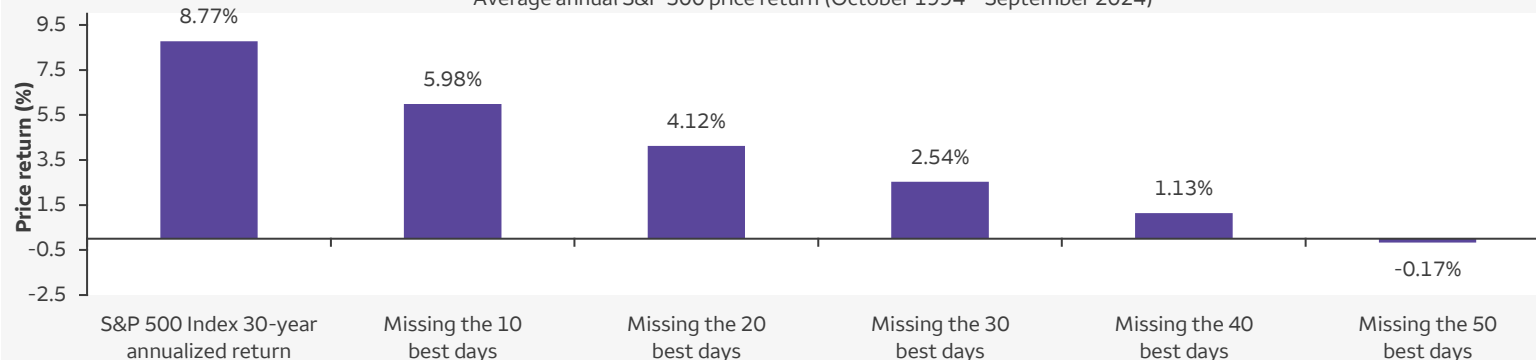
# Timing the market is risky

## Average equity fund investor underperformed benchmark



## Missing the best days in the market is costly

Average annual S&P 500 price return (October 1994 – September 2024)



Sources: Top chart: Dalbar, Inc., 30 years from 1994 – 2023; “Quantitative Analysis of Investor Behavior,” 2024, DALBAR, Inc. Bottom chart: Bloomberg and Wells Fargo Investment Institute. Data from October 1, 1994, to September 30, 2024. For illustrative purposes only. Dalbar computed the average stock fund investor return by using industry cash flow reports from the Investment Company Institute. The Average Equity Fund Investor is comprised of a universe of both domestic and world equity mutual funds. It includes growth, sector, alternative strategy, value, blend, emerging markets, global equity, international equity, and regional equity funds. The S&P 500 Index is a market capitalization weighted index composed of 500 stocks generally considered representative of the U.S. stock market. The fact that buy and hold has been a successful strategy in the past does not guarantee that it will continue to be successful in the future. The performance shown is not indicative of any particular investment. An index is unmanaged and not available for direct investment. A price index is not a total return index and does not include the reinvestment of dividends. Total returns assume reinvestment of dividends and capital gain distributions. **Past performance is not a guarantee of future results.** Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions.

### Key takeaways

- Market timing is difficult. Investors who allow their emotions to get the best of them can suffer lower returns.
- We do not advocate market timing, but we do believe that modest tactical shifts have the potential to take advantage of short-term investment opportunities or help mitigate short-term risks.

## Market downturns (1928 – current)

Drawdowns	Number of occurrences	Average number of occurrences per year	Average drawdown (%)	Average drawdown time (months)
-5% or more	331	3.4	-10.8	1.2
-10% or more	103	1.1	-19.4	3.3
-15% or more	47	0.5	-27.8	6.0
-20% or more	27	0.3	-35.2	9.5

## Investing \$1,000,000 in the S&P 500 Index

Time in the market	Past 30 years	Past 20 years	Past 10 years	Past 7 years	Past 5 years
Remain fully invested	\$12,454,300	\$5,170,091	\$2,921,720	\$2,287,279	\$1,935,836
Missing the 10 best days	\$5,717,990	\$2,373,104	\$1,602,901	\$1,254,400	\$1,076,323
<b>% drop by missing the 10 best days</b>	<b>-54%</b>	<b>-54%</b>	<b>-45%</b>	<b>-45%</b>	<b>-44%</b>
Missing the 50 best days	\$951,223	\$457,121	\$551,768	\$440,491	\$388,513
<b>% drop by missing the 50 best days</b>	<b>-92%</b>	<b>-91%</b>	<b>-81%</b>	<b>-81%</b>	<b>-80%</b>

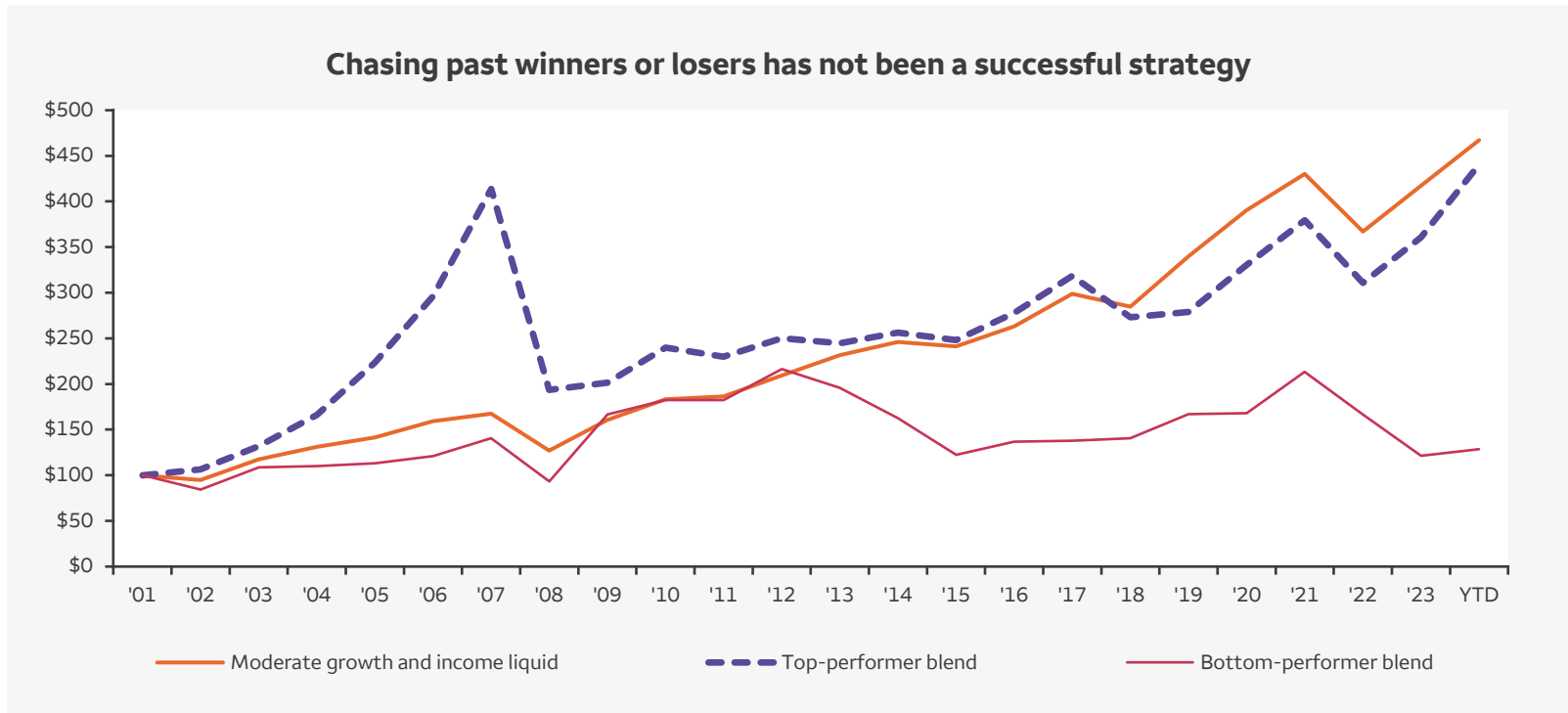
Sources: Bloomberg, Ned Davis Research, and Wells Fargo Investment Institute. Market downturn analysis: data from January 3, 1928, to September 30, 2024. Past 30 years: data from October 1, 1994, to September 30, 2024. Past 20 years: data from October 1, 2004, to September 30, 2024. Past 10 years: data from October 1, 2014, to September 30, 2024. Past 7 years: data from October 1, 2017, to September 30, 2024. Past five years: data from October 1, 2019, to September 30, 2024. For illustrative purposes only. The S&P 500 Index is a market capitalization weighted index composed of 500 stocks generally considered representative of the U.S. stock market. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** A price index is not a total return index and does not include the reinvestment of dividends. Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions.

Note: Corrections are declines of 10% or more. Bear markets are declines of 20% or more.

### Key takeaways

- Most market drawdowns have been between 5% and 10% declines. These have tended to recover much quicker than more severe corrections.
- Over long and short time periods, missing the best 10 days reduced the potential investment amount by 50%. Missing the 50 best days resulted in an ending period balance that was below the original investment.

# Behavioral biases could be costly



Sources: © Morningstar Direct, All Rights Reserved,<sup>1</sup> and Wells Fargo Investment Institute. Data from December 31, 2001, to September 30, 2024. Indexed to 100 as of December 31, 2001. YTD = year to date. The top-performer blend allocates 100% in the current year to the top performing asset class of the previous year. The bottom-performer blend allocates 100% in the current year to the bottom performing asset class of the previous year. Performance results for Moderate Growth and Income Liquid and the top and bottom performer blends are calculated using blended index returns. Moderate Growth & Income allocation is dynamic, and changes as needed with adjustments to the strategic allocations. Index return information is provided for illustrative purposes only. Index returns do not represent investment performance or the results of actual trading. Index returns represent general market results, assume the reinvestment of dividends and other distributions and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. **Past performance is no guarantee of future results.** Unlike most asset class Indexes, HFR Index returns reflect deduction for fees. Because the HFR Indexes are calculated based on information that is voluntarily provided actual returns may be lower than those reported. An index is unmanaged and not available for direct investment. See following pages for blended index compositions, risks and index definitions.

Diversification strategies do not guarantee investment returns or eliminate the risk of loss.

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## Key takeaways

- Chasing the previous year's top-performing asset class or worst-performing investment is a strategy that some investors have tended to follow.
- We have found that following the best-performing asset class (hot hand fallacy) and worst-performing investment (gambler's fallacy) did not result in better performance than a diversified allocation.

# Behavioral biases could be costly Cont'd

## Allocation compositions

- **Moderate Growth and Income:** 2% Bloomberg U.S. Treasury Bills (1–3 Month) Index, 30% Bloomberg U.S. Aggregate Bond Index, 6% Bloomberg U.S. Corporate High Yield Bond Index, 5% J.P. Morgan EMBI Global, 27% S&P 500 Index, 10% Russell Midcap Index, 3% Russell 2000 Index, 8% MSCI EAFE Index, 5% MSCI Emerging Markets Index, 4% Bloomberg Commodity Index.
- **Top-performer blend:** 2002: 100% Bloomberg U.S. Aggregate Bond Index (1–3 year); 2003: 100% Bloomberg Commodity Index; 2004: 100% MSCI Emerging Markets Index; 2005: 100% MSCI Emerging Markets Index; 2006: 100% MSCI Emerging Markets Index; 2007: 100% MSCI Emerging Markets Index; 2008: 100% MSCI Emerging Markets Index; 2009: 100% J.P. Morgan GBI Global ex-U.S.; 2010: 100% MSCI Emerging Markets Index; 2011: 100% Russell 2000 Index; 2012: 100% Bloomberg U.S. Aggregate Bond Index (10+ year); 2013: 100% MSCI Emerging Markets Index; 2014: 100% Russell 2000 Index; 2015: 100% Bloomberg U.S. Aggregate Bond Index (10+ year); 2016: 100% S&P 500 Index; 2017: 100% Russell 2000 Index; 2018: 100% MSCI Emerging Markets Index; 2019: 100% Bloomberg U.S. Treasury Bill 1–3 Month Index; 2020: 100% S&P 500 Index; 2021: 100% Russell 2000 Index; 2022: 100% S&P 500 Index; 2023: 100% Bloomberg Commodity Index; and 2024: 100% S&P 500 Index.
- **Bottom-performer blend:** 2002: 100% MSCI EAFE Index; 2003: 100% S&P 500 Index; 2004: 100% Bloomberg U.S. Treasury Bill 1–3 Month Index; 2005: 100% Bloomberg U.S. Treasury Bill 1–3 Month Index; 2006: 100% J.P. Morgan GBI Global ex-U.S.; 2007: 100% Bloomberg Commodity Index; 2008: 100% Russell 2000 Index; 2009: 100% MSCI Emerging Markets Index; 2010: 100% Bloomberg U.S. Aggregate Bond Index (10+ year); 2011: 100% Bloomberg U.S. Treasury Bill 1–3 Month Index; 2012: 100% MSCI Emerging Markets Index; 2013: 100% Bloomberg Commodity Index; 2014: 100% Bloomberg Commodity Index; 2015: 100% Bloomberg Commodity Index; 2016: 100% Bloomberg Commodity Index; 2017: 100% Bloomberg U.S. Treasury Bill 1–3 Month Index; 2018: 100% Bloomberg U.S. Treasury Bill 1–3 Month Index; 2019: 100% MSCI Emerging Markets Index; 2020: 100% Bloomberg U.S. Treasury Bill 1–3 Month Index; 2021: 100% Bloomberg Commodity Index; 2022: 100% J.P. Morgan GBI Global ex-U.S.; 2023: 100% Bloomberg U.S. Aggregate Bond Index (10+ year); and 2024: 100% Bloomberg Commodity Index.

## Index definitions

**Bloomberg Commodity Index** is calculated on an excess return basis and reflects commodity futures price movements. **Bloomberg U.S. Treasury Bills (1-3M) Index** is representative of money markets. **Bloomberg U.S. Aggregate Bond Index** is composed of the Bloomberg U.S. Government/Credit Index and the Bloomberg U.S. Mortgage-Backed Securities Index and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities. **Bloomberg U.S. Aggregate 1-3 Year Bond Index** is the one- to three-year component of the U.S. Aggregate Index, which represents fixed-income securities that are SEC-registered, taxable, dollar-denominated, and investment-grade. **Bloomberg U.S. Aggregate 5-7 Year Bond Index** is composed of the Bloomberg U.S. Government/Credit Index and the Bloomberg U.S. Mortgage-Backed Securities Index, and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities with maturities of 5-7 years. **Bloomberg U.S. Aggregate 10+ Year Bond Index** is unmanaged and is composed of the Bloomberg U.S. Government/Credit Index and the Bloomberg U.S. Mortgage-Backed Securities Index, and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities with maturities of 10 years or longer. **Bloomberg U.S. Corporate High Yield Bond Index** covers the U.S. dollar-denominated, non-investment grade, fixed-rate, taxable corporate bond market. **HFRI Fund Weighted Composite Index** is a fund-weighted (equal-weighted) index designed to measure the total returns (net of fees) of the approximately 2,000 hedge funds that comprise the Index. Constituent funds must have either \$50 million under management or a track record of greater than 12 months. **J.P. Morgan GBI Global ex-U.S.** (Unhedged) in USD is an unmanaged index market representative of the total return performance in U.S. dollars on an unhedged basis of major non-U.S. bond markets. **J.P. Morgan EMBI Global (USD)** is a U.S. dollar-denominated, investible, market cap-weighted index representing a broad universe of emerging market sovereign and quasi-sovereign debt. **MSCI EAFE (DM) and MSCI Emerging Markets (EM) indexes** are equity indexes which capture large and mid cap representation across DM countries (excluding Canada and the U.S.) and EM countries around the world. **Russell Midcap Index** measures the performance of the 800 smallest companies in the Russell 1000 Index, which represent approximately 25% of the total market capitalization of the Russell 1000 Index. **Russell 2000 Index** measures the performance of the 2,000 smallest companies in the Russell 3000 Index, which represents approximately 8% of the total market capitalization of the Russell 3000 Index. **S&P 500 Index** is a market capitalization-weighted index composed of 500 stocks generally considered representative of the U.S. stock market.

The HFRI indexes are based on information self-reported by hedge fund managers that decide, on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indexes may not be complete or accurate representations of the hedge fund universe and may be biased in several ways.

# Behavioral biases could be costly - Cont'd

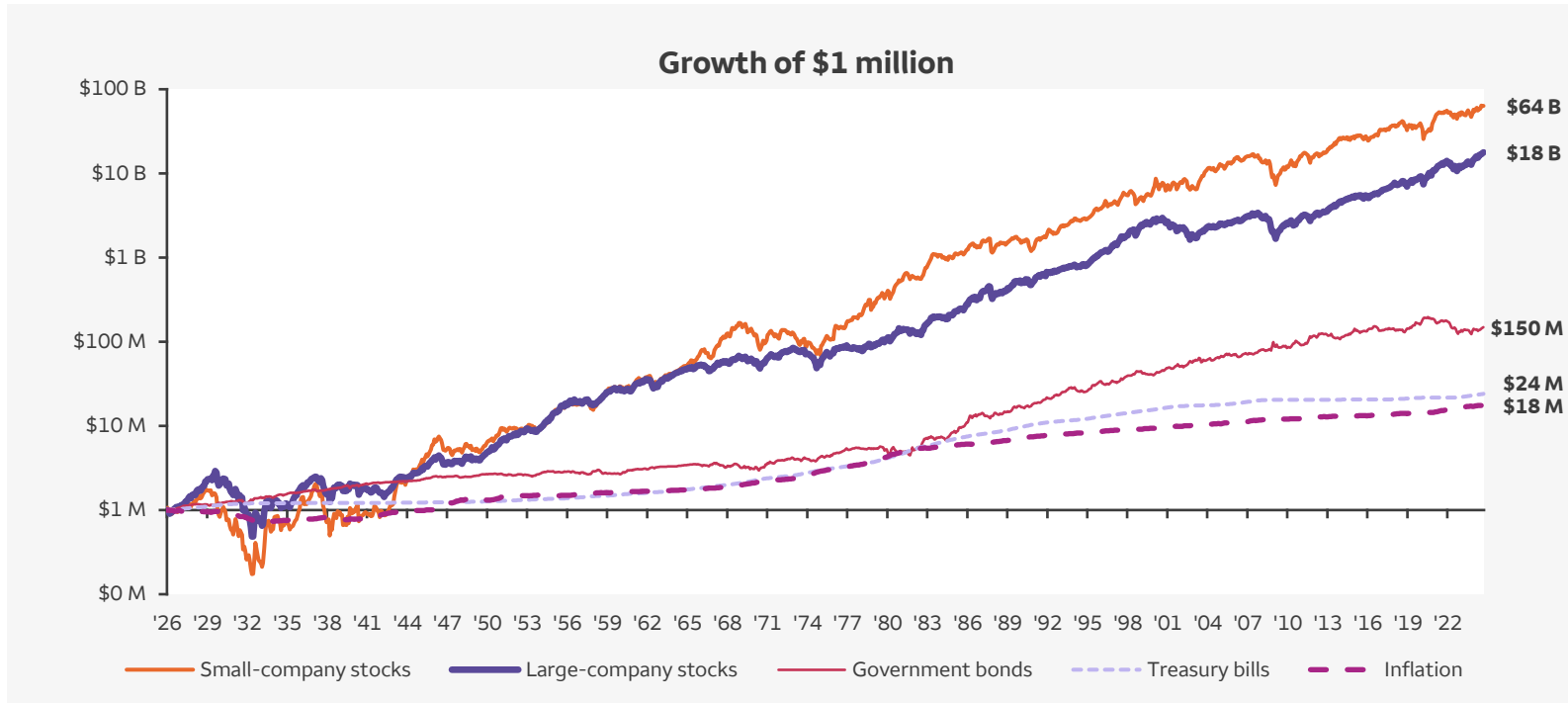
## **Risk considerations**

Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions. Small- and mid-cap stocks are generally more volatile, subject to greater risks and are less liquid than large company stocks. Foreign investing has additional risks including currency, transaction, volatility and political and regulatory uncertainty. These risks are heightened in emerging markets. Bonds are subject to market, interest rate, price, credit/default, liquidity, inflation and other risks. Prices tend to be inversely affected by changes in interest rates. High-yield fixed-income securities are considered speculative, involve greater risk of default, and tend to be more volatile than investment-grade fixed-income securities. Investing in commodities is not appropriate for all investors and may subject an investment to greater share price volatility than an investment in traditional equity or debt securities.

*Alternative investments, such as hedge funds, are not appropriate for all investors and are only open to “accredited” or “qualified” investors within the meaning of the U.S. securities laws. They are speculative and involve a high degree of risk that is appropriate only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program. While investors may potentially benefit from the ability of alternative investments to potentially improve the risk-reward profiles of their portfolios, the investments themselves can carry significant risks. There may be no secondary market for alternative investment interests and transferability may be limited or even prohibited. Hedge fund strategies, such as Equity Hedge, Event Driven, Macro and Relative Value may expose investors to risks such as short selling, leverage, counterparty, liquidity, volatility, the use of derivative instruments and other significant risks.*



# Asset values have grown over time



Sources: © Morningstar Direct, All Rights Reserved,<sup>1</sup> and Wells Fargo Investment Institute. Monthly data from January 1, 1926, to September 30, 2024. Large-company stocks: S&P 500 Index consists of 500 stocks chosen for market size, liquidity, and industry group representation. It is a market-value-weighted index with each stock's weight in the index proportionate to its market value. Small-company stocks: Russell 2000 Index measures the performance of the 2,000 smallest companies in the Russell 3000 Index, which represents approximately 8% of the total market capitalization of the Russell 3000 Index. Government bonds: Bloomberg U.S. Aggregate Government-Related Long Index measures the investment grade, US dollar-denominated, fixed-rate, government-related taxable bond market with long-dated maturities. Treasury bills: Bloomberg U.S. Treasury Bill (1-3 Month) Index is representative of money markets. Inflation: Consumer Price Index measures the price of a fixed basket of goods and services purchased by an average consumer. Prior to April 1, 2023, the following representative indexes were used. Small-company stocks: IA SBBI U.S. Small Stock Index is a custom index designed to measure the performance of small-capitalization U.S. stocks. Government bonds: IA SBBI U.S. Long-Term Government Bond Index is a custom index designed to measure the performance of long-term U.S. government bonds. Treasury bills: IA SBBI U.S. 30-Day Treasury Bill Index is a custom index designed to measure the performance of U.S. Treasury bills maturing in 0 to 30 days. Inflation: IA SBBI U.S. Inflation Index is a custom unmanaged index designed to track the U.S. inflation rate. For illustrative purposes only. Index returns do not represent investment performance or the results of actual trading. Index returns reflect general market results, assume the reinvestment of dividends and other distributions, and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** M = million. B = billion.

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## Key takeaways

- Since 1926, riskier assets have outperformed less risky assets.
- U.S. Treasury bills (T-bills) have tracked inflation fairly closely over this time frame. More recently, T-bill yields have been lower than inflation.

Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions. Small-cap stocks are generally more volatile, subject to greater risks and are less liquid than large company stocks. Bonds are subject to market, interest rate, price, credit/default, liquidity, inflation and other risks. Prices tend to be inversely affected by changes in interest rates. Government bonds are guaranteed as to payment of principal and interest if held to maturity and are subject to interest rate risk.

# Asset performance — Correlations

Asset class	Cash	U.S. Taxable IG FI	Municipal FI	HY Taxable FI	DM ex-U.S. FI	EM FI	U.S. LC Equities	U.S. MC Equities	U.S. SC Equities	DM ex-U.S. Equities	EM Equities	Commodities	Hedge Funds
Cash	1.00	0.13	0.04	-0.06	0.14	0.05	-0.04	-0.07	-0.07	0.07	0.10	0.00	0.03
U.S. Taxable IG FI		1.00	0.82	0.20	0.72	0.61	0.07	0.06	-0.01	0.11	0.15	-0.21	-0.01
Municipal FI			1.00	0.43	0.59	0.75	0.26	0.28	0.17	0.31	0.35	-0.08	0.24
HY Taxable FI				1.00	0.24	0.79	0.79	0.85	0.76	0.80	0.82	0.51	0.82
DM ex-U.S. FI					1.00	0.57	0.18	0.19	0.13	0.34	0.33	0.07	0.15
EM FI						1.00	0.62	0.66	0.56	0.68	0.74	0.31	0.63
U.S. LC Equities							1.00	0.96	0.91	0.89	0.77	0.44	0.86
U.S. MC Equities								1.00	0.95	0.91	0.82	0.51	0.92
U.S. SC Equities									1.00	0.85	0.74	0.43	0.88
DM ex-U.S. Equities										1.00	0.90	0.51	0.90
EM Equities											1.00	0.57	0.90
Commodities												1.00	0.63
Hedge Funds													1.00

Source: Wells Fargo Investment Institute. Strategic (long-term) correlation assumptions are as of July 16, 2024, and are based on data from January 1, 2004, to December 31, 2023. For illustrative purposes only. **Negative values are shaded in red.** Correlation measures the degree to which asset classes move in sync; it does not measure the magnitude of that movement. There is no guarantee that future correlations between the Indexes will remain the same. Index returns do not represent investment performance or the results of actual trading. Index returns reflect general market results, assume the reinvestment of dividends and other distributions and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. Unlike most asset class Indexes, HFR Index returns are net of all fees. Because the HFR Indexes are calculated based on information that is voluntarily provided, actual returns may be lower than those reported. An index is unmanaged and not available for direct investment. Index correlations represent past performance. **Past performance is no guarantee of future results.** See following pages for risks and index definitions.

## Key takeaways

- Correlations can play an important role in portfolio diversification. In addition to risk and return, correlations are primary components of portfolio construction.
- Investing in asset classes with low or negative correlation to equities can achieve diversification and reduce overall portfolio risk.

Indexes in order represented by Bloomberg U.S. Treasury Bill 1 (-3 Month) Index, Bloomberg U.S. Aggregate Bond Index, Bloomberg U.S. Municipal Index, Bloomberg U.S. Corporate High Yield Bond Index, Bloomberg High Yield Muni Index, J.P. Morgan GBI Global Ex U.S., J.P. Morgan EMBI Global, S&P 500 Index, Russell Midcap Index, Russell 2000 Index, MSCI EAFE Index, MSCI EM Index, FTSE EPRA/NAREIT Developed Index, Bloomberg Commodity Index, HFRI Fund Weighted Index. IG = investment grade. FI = fixed income. LC = large cap. MC = mid cap. SC = small cap. HY = high yield. DM = developed market. EM = emerging market.

# Asset performance — Correlations cont'd

## Risk considerations

Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions. Small- and mid-cap stocks are generally more volatile, subject to greater risks and are less liquid than large company stocks. Foreign investing has additional risks including currency, transaction, volatility and political and regulatory uncertainty. These risks are heightened in emerging markets. Bonds are subject to market, interest rate, price, credit/default, liquidity, inflation and other risks. Prices tend to be inversely affected by changes in interest rates. High-yield fixed-income securities are considered speculative, involve greater risk of default, and tend to be more volatile than investment-grade fixed-income securities. Municipal bonds offer interest payments exempt from federal taxes, and potentially state and local income taxes and may be subject to the alternative minimum tax, and legislative and regulatory risk. Investing in commodities is not appropriate for all investors and may subject an investment to greater share price volatility than an investment in traditional equity or debt securities.

*Alternative investments, such as hedge funds, are not appropriate for all investors and are only open to “accredited” or “qualified” investors within the meaning of the U.S. securities laws. They are speculative and involve a high degree of risk that is appropriate only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program. While investors may potentially benefit from the ability of alternative investments to potentially improve the risk-reward profiles of their portfolios, the investments themselves can carry significant risks. Hedge funds trade in diverse complex strategies that are affected in different ways and at different times by changing market conditions. Strategies may, at times, be out of market favor for considerable periods which can result in adverse consequences for the investor.*

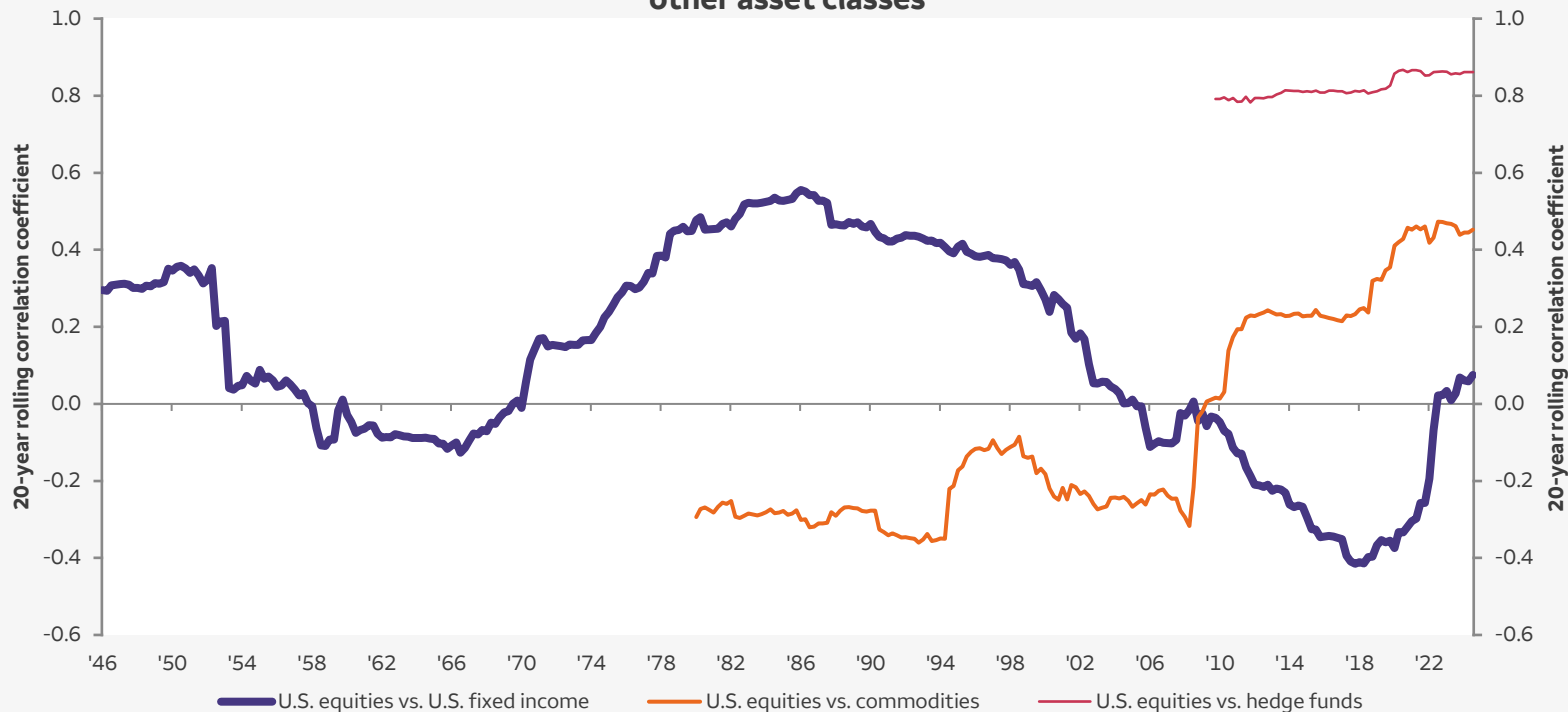
## Index definitions

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The HFRI indexes are based on information self-reported by hedge fund managers that decide, on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indexes may not be complete or accurate representations of the hedge fund universe and may be biased in several ways.

# Stocks and bonds correlations have moved higher

## Long-term equity correlation with fixed income remains relatively lower than with other asset classes



Sources: © Morningstar Direct, All Rights Reserved,<sup>1</sup> and Wells Fargo Investment Institute. Quarterly data from January 1, 1946, to September 30, 2024. Correlation measures the degree to which asset classes move in sync; it does not measure the magnitude of that movement. There is no guarantee that future correlations between the Indexes will remain the same. U.S. equities: S&P 500 Index. U.S. fixed income: Blend of IA SBBI U.S. Long-Term Government Bond Index and IA SBBI U.S. Long-Term Corporate Bond Index until 1976, and then the Bloomberg U.S. Aggregate Bond Index. Commodities: Bloomberg Commodity Index. Hedge Funds: HFRI Hedge Fund Weighted Composite Index. Index returns do not represent investment performance or the results of actual trading. Index returns reflect general market results, assume the reinvestment of dividends and other distributions and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. Unlike most asset class Indexes, HFR Index returns are net of all fees. Because the HFR Indexes are calculated based on information that is voluntarily provided, actual returns may be lower than those reported. An index is unmanaged and not available for direct investment. Index correlations represent past performance. **Past performance is no guarantee of future results.** See following pages for risks and index definitions.

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### Key takeaways

- The rapid increase in correlation between equities and fixed income has come in stark contrast to the period of extremely low — and even negative at times — correlation over most of the past two decades. While the correlation between equities and fixed income has risen in the past two years, it is still relatively low compared to the market environment from the 1980s to 2000s.
- When compared to other diversifiers like commodities and hedge funds, fixed income remains less correlated with equities.

# Stocks and bonds correlations have moved higher Cont'd

## Risk considerations

Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions. Small- and mid-cap stocks are generally more volatile, subject to greater risks and are less liquid than large company stocks. Bonds are subject to market, interest rate, price, credit/default, liquidity, inflation and other risks. Prices tend to be inversely affected by changes in interest rates. Investing in commodities is not appropriate for all investors and may subject an investment to greater share price volatility than an investment in traditional equity or debt securities.

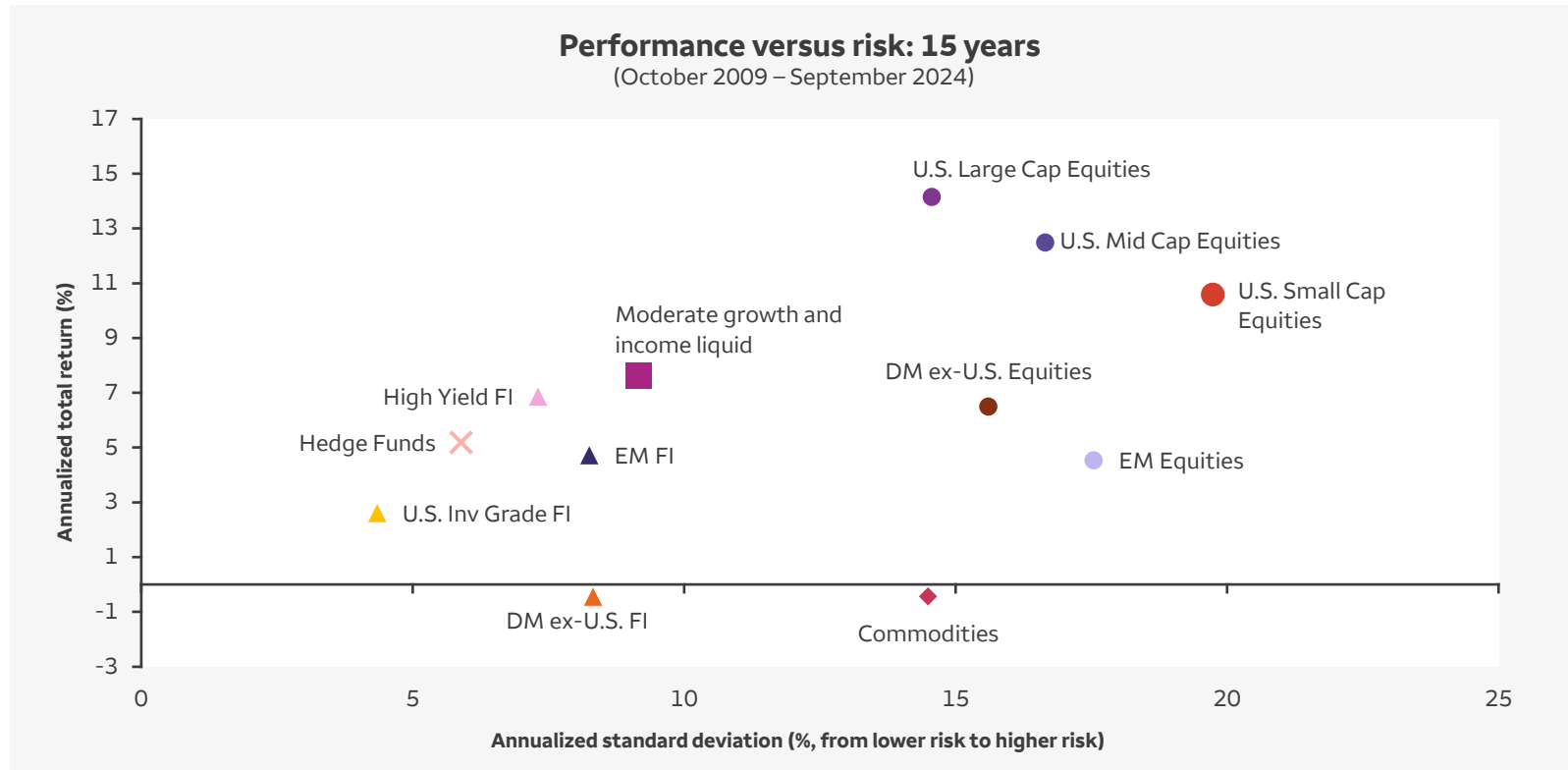
*Alternative investments, such as hedge funds, are not appropriate for all investors and are only open to “accredited” or “qualified” investors within the meaning of the U.S. securities laws. They are speculative and involve a high degree of risk that is appropriate only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program. While investors may potentially benefit from the ability of alternative investments to potentially improve the risk-reward profiles of their portfolios, the investments themselves can carry significant risks. Hedge funds trade in diverse complex strategies that are affected in different ways and at different times by changing market conditions. Strategies may, at times, be out of market favor for considerable periods which can result in adverse consequences for the investor.*

## Index definitions

**Bloomberg Commodity Index** is calculated on an excess return basis and reflects commodity futures price movements. **Bloomberg U.S. Aggregate Bond Index** is composed of the Bloomberg U.S. Government/Credit Index and the Bloomberg U.S. Mortgage-Backed Securities Index and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities. **HFRI Fund Weighted Composite Index** is a fund-weighted (equal-weighted) index designed to measure the total returns (net of fees) of the approximately 2,000 hedge funds that comprise the Index. **IA SBBI U.S. Long-Term Government Bond Index** is a custom index designed to measure the performance of long-term U.S. government bonds. **IA SBBI U.S. Long-Term Government Bond Index** is a custom index designed to measure the performance of long-term U.S. corporate bonds. **S&P 500 Index** is a market capitalization-weighted index composed of 500 stocks generally considered representative of the U.S. stock market.

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# Finding a potential balance between risk and reward



Sources: © Morningstar Direct, All Rights Reserved,<sup>1</sup> and Wells Fargo Investment Institute. Data from October 1, 2009, to September 30, 2024. Hedge funds: data from September 1, 2009, to August 31, 2024. Performance results for Moderate Growth and Income Liquid are calculated using blended index returns and is for illustrative purposes only. Moderate Growth & Income allocation is dynamic, and changes as needed with adjustments to the strategic allocations. Index returns do not represent investment performance or the results of actual trading. Index returns reflect general market results, assume the reinvestment of dividends and other distributions, and do not reflect deduction for fees, expenses or taxes applicable to an actual investment. Unlike most asset class indexes, HFR Index returns are net of all fees. Because the HFR Indexes are calculated based on information that is voluntarily provided actual returns may be lower than those reported. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** Standard deviation is a measure of the volatility of returns. The higher the standard deviation, the greater volatility has been. See following pages for the blended index composition, risks and definitions of indexes.

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## Key takeaways

- We believe a diversified allocation can strike a good balance between risk and return.

Diversification strategies do not guarantee investment returns or eliminate the risk of loss. Indexes represented: U.S. Investment Grade FI = Bloomberg U.S. Aggregate Bond Index. Hedge Funds = HFRI Fund Weighted Index. Emerging Market FI = J.P. Morgan EMBI Global. High Yield FI = Bloomberg U.S. Corporate HY Bond Index. U.S. Mid Cap Equities = Russell Midcap Index. U.S. Small Cap Equities = Russell 2000 Index. Developed Market Ex-U.S. FI = J.P. Morgan GBI Global Ex U.S. U.S. Large Cap Equities = S&P 500 Index. Developed Market Ex-U.S. Equities = MSCI EAFE Index. Emerging Market Equities = MSCI Emerging Markets Index. Public Real Estate = FTSE EPRA/ NAREIT Developed REITs Index. Commodities = Bloomberg Commodity Index. FI = fixed income. DM = developed market. EM = emerging market.

# Finding a potential balance between risk and reward Cont'd

## Risk considerations

Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions. Small- and mid-cap stocks are generally more volatile, subject to greater risks and are less liquid than large company stocks. Foreign investing has additional risks including currency, transaction, volatility and political and regulatory uncertainty. These risks are heightened in emerging markets. Bonds are subject to market, interest rate, price, credit/default, liquidity, inflation and other risks. Prices tend to be inversely affected by changes in interest rates. High-yield fixed-income securities are considered speculative, involve greater risk of default, and tend to be more volatile than investment-grade fixed-income securities. Municipal bonds offer interest payments exempt from federal taxes, and potentially state and local income taxes and may be subject to the alternative minimum tax, and legislative and regulatory risk. Investing in commodities is not appropriate for all investors and may subject an investment to greater share price volatility than an investment in traditional equity or debt securities.

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## Allocation composition

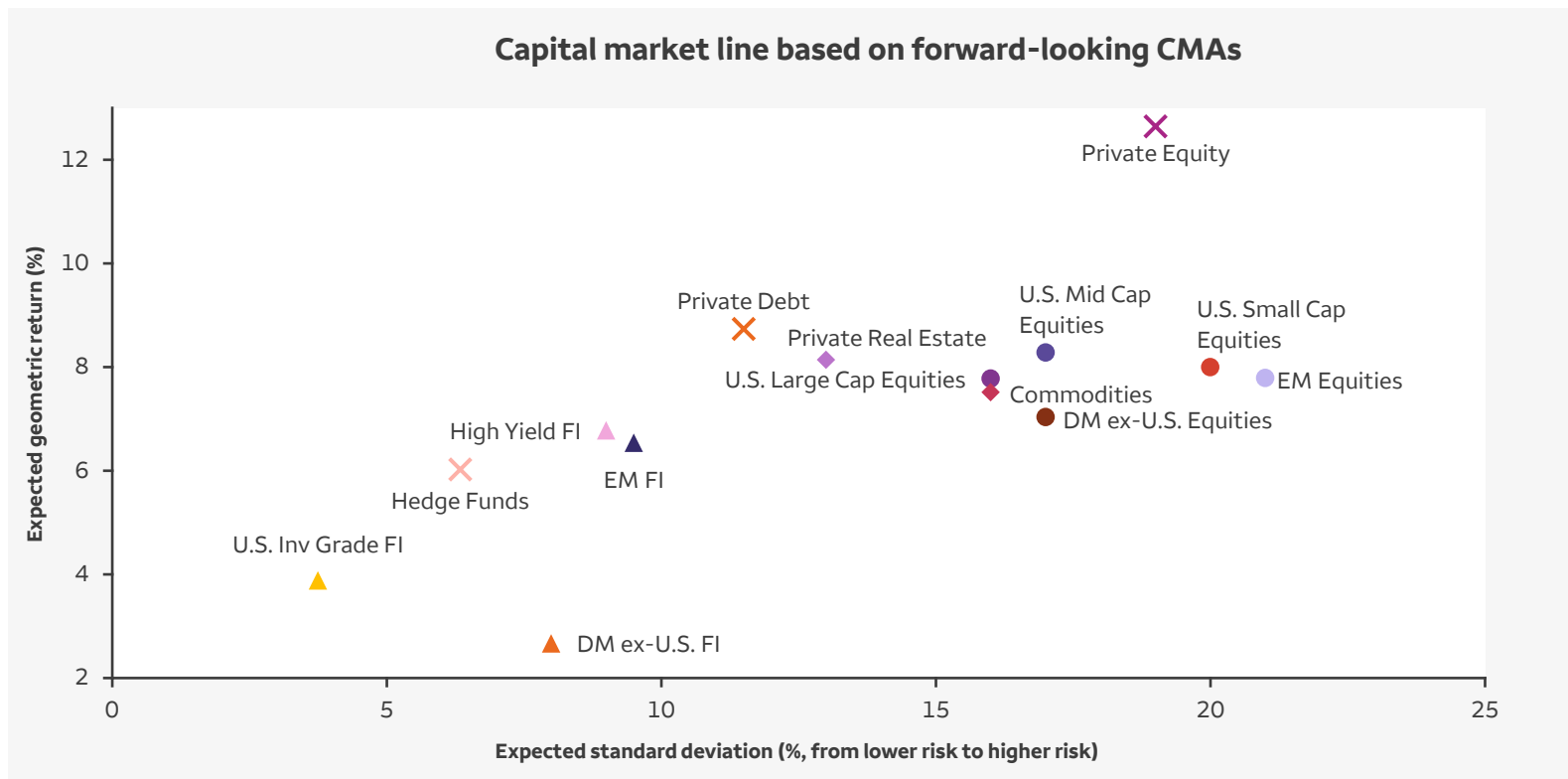
- **Moderate Growth and Income:** 2% Bloomberg U.S. Treasury Bills (1–3 Month) Index, 30% Bloomberg U.S. Aggregate Bond Index, 6% Bloomberg U.S. Corporate High Yield Bond Index, 5% J.P. Morgan EMBI Global, 27% S&P 500 Index, 10% Russell Midcap Index, 3% Russell 2000 Index, 8% MSCI EAFE Index, 5% MSCI Emerging Markets Index, 4% Bloomberg Commodity Index.

## Index definitions

**Bloomberg Commodity Index** is calculated on an excess return basis and reflects commodity futures price movements. **Bloomberg U.S. Treasury Bills (1-3M) Index** is representative of money markets. **Bloomberg U.S. Aggregate Bond Index** is composed of the Bloomberg U.S. Government/Credit Index and the Bloomberg U.S. Mortgage-Backed Securities Index and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities. **Bloomberg U.S. Corporate High Yield Bond Index** covers the U.S. dollar-denominated, non-investment grade, fixed-rate, taxable corporate bond market. **HFRI Fund Weighted Composite Index** is a fund-weighted (equal-weighted) index designed to measure the total returns (net of fees) of the approximately 2,000 hedge funds that comprise the Index. **J.P. Morgan GBI Global ex-U.S. (Unhedged)** in USD is an unmanaged index market representative of the total return performance in U.S. dollars on an unhedged basis of major non-U.S. bond markets. **J.P. Morgan EMBI Global (USD)** is a U.S. dollar-denominated, investible, market cap-weighted index representing a broad universe of emerging market sovereign and quasi-sovereign debt. **MSCI EAFE (DM) and MSCI Emerging Markets (EM) indexes** are equity indexes which capture large and mid cap representation across DM countries (excluding Canada and the U.S.) and EM countries around the world. **Russell Midcap Index** measures the performance of the 800 smallest companies in the Russell 1000 Index, which represent approximately 25% of the total market capitalization of the Russell 1000 Index. **Russell 2000 Index** measures the performance of the 2,000 smallest companies in the Russell 3000 Index, which represents approximately 8% of the total market capitalization of the Russell 3000 Index. **S&P 500 Index** is a market capitalization-weighted index composed of 500 stocks generally considered representative of the U.S. stock market.

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# With higher expected risk comes higher expected returns



Source: Wells Fargo Investment Institute. Strategic (long-term) return assumptions are as of July 16, 2024. For illustrative purposes only. Forecasts are based on certain assumptions and on views of market and economic conditions which are subject to change. Strategic expected returns are forward-looking geometric return estimates from Wells Fargo Investment Institute of how asset classes and combinations of classes may respond during various market environments. Expected returns do not represent the returns that an investor should expect in any particular year. They are not designed to predict actual performance and may differ greatly from actual performance. There are no assurances that any estimates given will be achieved. FI = fixed income. DM = developed markets. EM = emerging markets. Inv grade = investment grade.

## Key takeaways

- In general, similar asset classes have similar expected risk and return relationships. Asset classes in the same asset group, like fixed income or equity, tend to be grouped together on the forward-looking capital market line.
- The alternative investments asset group is somewhat of an exception to that tendency. Some alternative asset classes such as hedge funds exhibit more moderate risk and return expectations, compared to others like private equity which exhibit higher risk and return expectations.



# With higher expected risk comes higher expected returns

## Cont'd

*Capital market and asset class assumptions are estimates of how asset classes and combinations of classes may respond during various market environments. Expected returns represent our estimate of likely average returns over the next several market cycles. They do not represent the returns that an investor should expect in any particular year. Geometric return is the compounded annual return that would give the same result as a given series of annual returns based on those same assumptions. The return and risk assumptions are statistical averages that do not represent the experience of any individual investor or any specific time period. Standard deviation is a measure of volatility. It reflects the degree of variability surrounding the outcome of an investment decision; the higher the standard deviation, the greater the risk.*

*CMA forecasts are not promises of actual returns or performance that may be realized. They are based on estimates and assumptions that may not occur.*

*The information does not take into account the specific investment objectives, financial situation and particular needs of any specific person who may receive it. Investors should understand that statements regarding future prospects may not be realized.*

### Risk considerations

*Each asset class has its own risk and return characteristics. The level of risk associated with a particular investment or asset class generally correlates with the level of return the investment or asset class might achieve. **Stock markets**, especially foreign markets, are volatile. Stocks may fluctuate in response to general economic and market conditions, the prospects of individual companies, and industry sectors. **Foreign investing** has additional risks including those associated with currency fluctuation, political and economic instability, and different accounting standards. These risks are heightened in emerging markets. **Small- and mid-cap stocks** are generally more volatile, subject to greater risks and are less liquid than large company stocks. **High yield (junk) bonds** have lower credit ratings and are subject to greater risk of default and greater principal risk. The **commodities markets** are considered speculative, carry substantial risks, and have experienced periods of extreme volatility. Investing in a volatile and uncertain commodities market may cause a portfolio to rapidly increase or decrease in value which may result in greater share price volatility.*

***Alternative investments**, such as hedge funds, private equity/private debt funds and private real estate funds, are speculative and entail significant risks that can include losses due to leveraging or other speculative investment practices, lack of liquidity, volatility of returns, restrictions on transferring interests in a fund, potential lack of diversification, absence and/or delay of information regarding valuations and pricing, complex tax structures and delays in tax reporting, less regulation and higher fees than mutual funds.*

*Hedge fund, private equity, private debt and private real estate fund investing involves other material risks including capital loss and the loss of the entire amount invested. They are intended for qualified, financially sophisticated investors who can bear the risks associated with these investments. Hedge fund strategies, such as **Equity Hedge, Event Driven, Macro and Relative Value** may expose investors to risks such as short selling, leverage, counterparty, liquidity, volatility, the use of derivative instruments and other significant risks.*

# Net flows of mutual funds and exchange-traded funds

\$Billions	YTD 2024	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Domestic equity MF	-306	-421	-316	-419	-471	-302	-251	-236	-235	-170	-60
Domestic equity ETF	355	319	317	519	189	132	139	185	167	63	143
Int'l equity MF	-32	-44	-87	-43	-120	-19	34	71	23	111	69
EM Equity MF	-4	-15	-23	20	-12	2	4	13	-4	-4	7
Global/Int'l equity ETF	52	83	100	211	62	30	71	160	20	110	47
Taxable bond MF	106	-18	-393	306	205	219	-2	233	84	-40	16
Government Bond	5	-3	-33	15	26	29	6	2	11	12	6
High yield Bond	5	-26	-46	22	4	-30	-34	-18	7	-36	-44
Tax-exempt bond MF	18	-20	-148	84	39	93	4	26	23	15	28
Total bond ETF	160	201	197	203	201	146	98	121	84	55	51
Money market	187	957	-3	422	691	553	159	107	-30	21	6

Sources: Bloomberg, Investment Company Institute (ICI), and Wells Fargo Investment Institute. Data from January 1, 2014, to August 31, 2024. For illustrative purposes only. **Negative values are shaded in red.** Data represents net new cash flows of mutual funds and net issuance of shares of ETFs. Numbers rounded to the nearest whole number. For the number of funds in each category and the definitions and components of each category according to ICI please refer to the ICI website. MF= mutual fund. ETF = exchange-traded fund. EM = emerging market. YTD = year to date.

# Active versus passive heat map

## Percentage of funds in respective Morningstar categories that outperformed their passive benchmark

### Equity

Morningstar category	Benchmark index	Core	Value	Growth
Large cap	Russell 1000 Index	33	19	55
Mid cap	Russell Mid Cap Index	25	22	41
Small cap	Russell 2000 Index	33	14	35
Developed market ex-U.S.	MSCI EAFE Index	48	31	62
Emerging market	MSCI Emerging Market Index	16		
Global large cap	MSCI All Country World Index	47		
Global small cap	MSCI All Country World Small Cap Index	39		

### Fixed Income

Morningstar category	U.S. investment grade	U.S. investment grade municipal	U.S. government	High yield
Benchmark index	Bloomberg U.S. Aggregate Bond Index	Bloomberg U.S. Municipal Index	Bloomberg Intermediate Treasury Index	Bloomberg U.S. Corporate High Yield Index
	42	27	92	10

### Real Assets

Morningstar category	Domestic REITs	Global REITs	MLPs	Commodities
Benchmark index	FTSE NAREIT All Equity REITs Index	FTSE EPRA/NAREIT Developed Index	Alerian MLP Index	Bloomberg Commodity Index
	52	14	95	40

### Liquid Alternatives

Morningstar category	Equity Hedge	Macro	Relative Value	Event Driven
Benchmark index	Wilshire Liquid Alternatives Equity Hedge Index	Wilshire Liquid Alternatives Macro Index	Wilshire Liquid Alternatives Relative Value Index	Wilshire Liquid Alternatives Event Driven Index
	52	17	16	51

Sources: © Morningstar Direct, All Rights Reserved,<sup>1</sup> and Wells Fargo Investment Institute, as of September 30, 2024. REITs = real estate investment trusts. MLPs = Master Limited Partnerships. **Past performance is no guarantee of future results.** An index is unmanaged and not available for direct investment. Morningstar developed the Morningstar Categories. While the prospectus objective identifies a fund's investment goals based on the wording in the fund prospectus, the Morningstar Category identifies funds based on their actual investment styles as measured by their underlying portfolio holdings. Please see following slides for the definitions of the indexes and the Morningstar Categories. **Shading represents a heat map, ranging from the highest value in the darkest green to the lowest value in the darkest red.**

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# Active versus passive heat map Cont'd

## Index definitions

**Alerian MLP Index** is the leading gauge of energy infrastructure Master Limited Partnerships (MLPs). The capped, float-adjusted, capitalization-weighted index, whose constituents earn the majority of their cash flow from midstream activities involving energy commodities, is disseminated real-time on a price-return basis (AMZ) and on a total-return basis (AMZX). **Bloomberg U.S. Aggregate Bond Index** is composed of the Bloomberg U.S. Government/Credit Index and the Bloomberg U.S. Mortgage-Backed Securities Index and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities. **Bloomberg U.S. Corporate High Yield Bond Index** covers the U.S. dollar-denominated, non-investment grade, fixed-rate, taxable corporate bond market. **Bloomberg U.S. Municipal Index** is considered representative of the broad market for investment-grade, tax-exempt bonds with a maturity of at least one year. **Bloomberg U.S. Intermediate Treasury Index** measures U.S.-dollar-denominated, fixed-rate, nominal debt issued by the U.S. Treasury with maturities greater than or equal to 1 year and less than 10 years. **Bloomberg Commodity Index** is calculated on an excess return basis and reflects commodity futures price movements. **FTSE EPRA/NAREIT Developed Index** is designed to track the performance of listed real estate companies and REITs in developed countries worldwide. **FTSE NAREIT All Equity REITs Index** is designed to track the performance of REITs representing equity interests in (as opposed to mortgages on) properties. It represents all tax-qualified REITs with more than 50% of total assets in qualifying real estate assets, other than mortgages secured by real property that also meet minimum size and liquidity criteria. **MSCI All Country World Index (ACWI)** is a free-float-adjusted market-capitalization-weighted index that is designed to measure the equity market performance of developed and emerging markets. **MSCI All Country World Small Cap Index** is a free-float-adjusted market-capitalization-weighted index that is designed to measure small cap performance of developed and emerging markets. **MSCI EAFE (DM) and MSCI Emerging Markets (EM) indexes** are equity indexes which capture large and mid cap representation across DM countries (excluding Canada and the U.S.) and EM countries around the world. **Russell Midcap Index** measures the performance of the 800 smallest companies in the Russell 1000 Index, which represent approximately 25% of the total market capitalization of the Russell 1000 Index. **Russell 2000 Index** measures the performance of the 2,000 smallest companies in the Russell 3000 Index, which represents approximately 8% of the total market capitalization of the Russell 3000 Index. **Russell 1000 Index** measures the performance of the 1,000 largest companies in the Russell 3000 Index, which represents approximately 92% of the total market capitalization of the Russell 3000 Index. **Wilshire Liquid Alternative Equity Hedge Index** measures the performance of the equity hedge strategy component of the Wilshire Liquid Alternative Index. Equity hedge investment strategies predominantly invest in long and short equities. **Wilshire Liquid Alternative Relative Value Index** measures the performance of the relative value strategy component of the Wilshire Liquid Alternative Index. Relative value strategies are focused on the valuation discrepancy in the relationships between markets or securities. **Wilshire Liquid Alternative Global Macro Index** measures the performance of the global macro strategy component of the Wilshire Liquid Alternative Index. Global macro strategies predominantly invest in situations driven by the macro-economic environment across the capital structure as well as currencies and commodities. **Wilshire Liquid Alternative Event Driven Index** measures the performance of the event driven strategy component of the Wilshire Liquid Alternative Index. Event driven strategies predominantly invest in companies involved in corporate transactions such as mergers, restructuring, distressed, buy backs, or other capital structure changes.

## Morningstar category definitions

**Large cap:** Large-blend portfolios are fairly representative of the overall U.S. stock market in size, growth rates and price. Stocks in the top 70% of the capitalization of the U.S. equity market are defined as large cap. The blend style is assigned to portfolios where neither growth nor value characteristics predominate. These portfolios tend to invest across the spectrum of U.S. industries, and owing to their broad exposure, the portfolios' returns are often similar to those of the S&P 500 Index.

**Mid cap:** The typical mid-cap blend portfolio invests in U.S. stocks of various sizes and styles, giving it a middle-of-the-road profile. Most shy away from high-priced growth stocks but aren't so price-conscious that they land in value territory. The U.S. mid-cap range for market capitalization typically falls between \$1 billion and \$8 billion and represents 20% of the total capitalization of the U.S. equity market. The blend style is assigned to portfolios where neither growth nor value characteristics predominate.

**Small cap:** Favor U.S. firms at the smaller end of the market-capitalization range. Some aim to own an array of value and growth stocks while others employ a discipline that leads to holdings with valuations and growth rates close to the small-cap averages. Stocks in the bottom 10% of the capitalization of the U.S. equity market are defined as small cap. The blend style is assigned to portfolios where neither growth nor value characteristics predominate.

**Developed market ex-U.S equity:** Invest in a variety of big international stocks. Most of these portfolios divide their assets among a dozen or more developed markets, including Japan, Britain, France, and Germany. These portfolios primarily invest in stocks that have market caps in the top 70% of each economically integrated market (such as Europe or Asia ex-Japan). The blend style is assigned to portfolios where neither growth nor value characteristics predominate. These portfolios typically will have less than 20% of assets invested in U.S. stocks.

**Emerging market equity:** Diversified emerging-markets portfolios tend to divide their assets among 20 or more nations, although they tend to focus on the emerging markets of Asia and Latin America rather than on those of the Middle East, Africa, or Europe. These portfolios invest predominantly in emerging market equities, but some funds also invest in both equities and fixed-income investments from emerging markets.

**Global large cap (World Stock):** invest in a variety of international stocks that are larger. Global portfolios have few geographical limitations. It is common for these portfolios to invest the majority of their assets in developed markets, with the remainder divided among the globe's smaller markets. These portfolios typically have 20%-60% of assets in U.S. stocks.

**Global small cap:** invest in a variety of international stocks that are smaller. Global portfolios have few geographical limitations. It is common for these portfolios to invest the majority of their assets in developed markets, with the remainder divided among the globe's smaller markets. These portfolios typically have 20%-60% of assets in U.S. stocks.

# Active versus passive heat map - Cont'd

## Morningstar category definitions

**U.S. investment grade:** Intermediate-term bond portfolios invest primarily in corporate and other investment-grade U.S. fixed-income issues and typically have durations of 3.5 to 6.0 years. These portfolios are less sensitive to interest rates, and therefore less volatile, than portfolios that have longer durations.

**U.S. investment grade municipal:** Muni national intermediate portfolios invest in bonds issued by various state and local governments to fund public projects. The income from these bonds is generally free from federal taxes. To lower risk, these portfolios spread their assets across many states and sectors. These portfolios have durations of 4.0 to 6.0 years (or average maturities of five to 12 years).

**U.S. government:** Intermediate-government portfolios have at least 90% of their bond holdings in bonds backed by the U.S. government or by government-linked agencies. This backing minimizes the credit risk of these portfolios, as the U.S. government is unlikely to default on its debt. These portfolios have durations typically between 3.5 and 6.0 years.

**High yield:** High-yield bond portfolios concentrate on lower-quality bonds, which are riskier than those of higher-quality companies. These portfolios generally offer higher yields than other types of portfolios, but they are also more vulnerable to economic and credit risk. These portfolios primarily invest in U.S. high-income debt securities where at least 65% or more of bond assets are not rated or are rated by a major agency such as Standard & Poor's or Moody's at the level of BB (considered speculative for taxable bonds) and below.

**Domestic REITs:** Real estate portfolios invest primarily in real estate investment trusts of various types. REITs are companies that develop and manage real estate properties. There are several different types of REITs, including apartment, factory-outlet, health-care, hotel, industrial, mortgage, office, and shopping center REITs. Some portfolios in this category also invest in real estate operating companies.

**Global REITs:** Global real estate portfolios invest primarily in non-U.S. real estate securities but may also invest in U.S. real estate securities. Securities that these portfolios purchase include: debt securities, equity securities, convertible securities, and securities issued by real estate investment trusts and REIT-like entities. Portfolios in this category also invest in real estate operating companies.

**MLPs:** Energy Limited Partnership funds invest a significant amount of their portfolio in energy master limited partnerships. These include but are not limited to limited partnerships specializing in midstream operations in the energy industry.

**Commodities:** Broad-basket portfolios can invest in a diversified basket of commodity goods including but not limited to grains, minerals, metals, livestock, cotton, oils, sugar, coffee, and cocoa. Investment can be made directly in physical assets or commodity-linked derivative instruments, such as commodity swap agreements.

**Equity Hedge:** Long-short portfolios hold sizable stakes in both long and short positions in equities, exchange traded funds, and related derivatives. Some funds that fall into this category will shift their exposure to long and short positions depending on their macro outlook or the opportunities they uncover through bottom-up research. At least 75% of the assets are in equity securities or derivatives, and funds in the category will typically have beta values to relevant benchmarks of between 0.3 and 0.8 during a three-year period.

**Macro:** These funds offer investors exposure to several different alternative investment tactics. Funds in this category have a majority of their assets exposed to alternative strategies. An investor's exposure to different tactics may change slightly over time in response to market movements. Funds in this category include both funds with static allocations to alternative strategies and funds tactically allocating among alternative strategies and asset classes. The gross short exposure is greater than 20%.

**Relative Value:** These funds offer investors exposure to several different alternative investment tactics. Funds in this category have a majority of their assets exposed to alternative strategies. An investor's exposure to different tactics may change slightly over time in response to market movements. Funds in this category include both funds with static allocations to alternative strategies and funds tactically allocating among alternative strategies and asset classes. The gross short exposure is greater than 20%.

**Event Driven:** These funds offer investors exposure to several different alternative investment tactics. Funds in this category have a majority of their assets exposed to alternative strategies. An investor's exposure to different tactics may change slightly over time in response to market movements. Funds in this category include both funds with static allocations to alternative strategies and funds tactically allocating among alternative strategies and asset classes. The gross short exposure is greater than 20%.

# Moderate growth and income quilt chart

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	YTD	'09 - '23 average
Emg-Mkt Equity 79.0%	US Small Cap Equity 26.9%	Emg-Mkt Fixed Inc 8.5%	Emg-Mkt Equity 18.6%	US Small Cap Equity 38.8%	US Large Cap Equity 13.7%	US Large Cap Equity 1.4%	US Small Cap Equity 21.3%	Emg-Mkt Equity 37.8%	CPI 1.9%	US Large Cap Equity 31.5%	US Small Cap Equity 20.0%	US Large Cap Equity 28.7%	Commod 16.1%	US Large Cap Equity 26.3%	US Large Cap Equity 19.5%	US Large Cap Equity 14.0%
High Yield Fixed Inc 58.2%	US Mid Cap Equity 25.5%	Inv-Grade Fixed Inc 7.8%	Emg-Mkt Fixed Inc 18.5%	US Mid Cap Equity 34.8%	US Mid Cap Equity 13.2%	Emg-Mkt Fixed Inc 1.2%	High Yield Fixed Inc 17.1%	Dev ex US Equity 25.6%	Cash Alternative 1.8%	US Mid Cap Equity 30.5%	Emg-Mkt Equity 18.7%	Commod 27.1%	CPI 6.5%	Dev ex US Equity 18.9%	60%/40% Blend 12.8%	US Mid Cap Equity 13.6%
US Mid Cap Equity 40.5%	Emg-Mkt Equity 19.2%	Dev ex US Fixed Inc 5.9%	Dev ex US Equity 17.9%	US Large Cap Equity 32.4%	60%/40% Blend 10.6%	60%/40% Blend 1.2%	US Mid Cap Equity 13.8%	US Large Cap Equity 21.8%	Inv-Grade Fixed Inc 0.0%	US Small Cap Equity 25.5%	US Large Cap Equity 18.4%	US Mid Cap Equity 22.6%	Cash Alternative 1.5%	60%/40% Blend 17.7%	Dev ex US Equity 12.4%	US Small Cap Equity 11.3%
Dev ex US Equity 32.5%	Commod 16.8%	High Yield Fixed Inc 5.0%	US Mid Cap Equity 17.3%	Dev ex US Equity 23.3%	Mod Grwth Inc 6.2%	CPI 0.7%	US Large Cap Equity 12.0%	US Mid Cap Equity 18.5%	Dev ex US Fixed Inc -1.7%	Dev ex US Equity 22.7%	US Mid Cap Equity 17.1%	60%/40% Blend 16.0%	Hedge Funds -4.1%	US Mid Cap Equity 17.2%	US Mid Cap Equity 12.1%	60%/40% Blend 9.7%
Emg-Mkt Fixed Inc 28.2%	High Yield Fixed Inc 15.1%	60%/40% Blend 5.0%	US Small Cap Equity 16.3%	60%/40% Blend 17.7%	Inv-Grade Fixed Inc 6.0%	Inv-Grade Fixed Inc 0.5%	Commod 11.8%	US Small Cap Equity 14.6%	High Yield Fixed Inc -2.1%	60%/40% Blend 22.1%	60%/40% Blend 15.4%	US Small Cap Equity 14.8%	High Yield Fixed Inc -11.2%	US Small Cap Equity 16.9%	US Small Cap Equity 10.4%	High Yield Fixed Inc 9.2%
US Small Cap Equity 27.2%	US Large Cap Equity 15.1%	CPI 3.0%	US Large Cap Equity 16.0%	Mod Grwth Inc 10.7%	Emg-Mkt Fixed Inc 5.5%	Cash Alternative 0.0%	Emg-Mkt Equity 11.6%	60%/40% Blend 14.3%	60%/40% Blend -2.3%	Mod Grwth Inc 19.5%	Mod Grwth Inc 14.8%	Dev ex US Equity 11.8%	Inv-Grade Fixed Inc -13.0%	Mod Grwth Inc 13.7%	Emg-Mkt Equity 9.9%	Mod Grwth Inc 8.3%
Mod Grwth Inc 26.6%	Mod Grwth Inc 14.0%	US Large Cap Equity 2.1%	High Yield Fixed Inc 15.8%	Hedge Funds 9.1%	US Small Cap Equity 4.9%	Dev ex US Equity -0.4%	Emg-Mkt Fixed Inc 10.2%	Mod Grwth Inc 13.6%	US Large Cap Equity -4.4%	Emg-Mkt Equity 18.9%	Hedge Funds 11.8%	Mod Grwth Inc 10.2%	Dev ex US Equity -14.0%	High Yield Fixed Inc 13.4%	Mod Grwth Inc 9.8%	Dev ex US Equity 7.4%
US Large Cap Equity 26.5%	60%/40% Blend 12.2%	Mod Grwth Inc 1.7%	Mod Grwth Inc 12.2%	High Yield Fixed Inc 7.4%	Hedge Funds 3.0%	Hedge Funds -1.1%	Mod Grwth Inc 9.1%	Dev ex US Fixed Inc 9.9%	Emg-Mkt Fixed Inc -4.6%	Emg-Mkt Fixed Inc 14.4%	Dev ex US Fixed Inc 10.5%	Hedge Funds 10.2%	Mod Grwth Inc -14.7%	Emg-Mkt Fixed Inc 10.5%	Hedge Funds 6.8%	Emg-Mkt Equity 6.9%
Hedge Funds 20.0%	Emg-Mkt Fixed Inc 12.0%	Cash Alternative 0.1%	60%/40% Blend 11.4%	CPI 1.5%	High Yield Fixed Inc 2.5%	Mod Grwth Inc -2.0%	60%/40% Blend 8.2%	Emg-Mkt Fixed Inc 9.3%	Hedge Funds -4.7%	High Yield Fixed Inc 14.3%	Dev ex US Equity 8.3%	CPI 7.0%	60%/40% Blend -15.9%	Emg-Mkt Equity 10.3%	High Yield Fixed Inc 6.3%	Emg-Mkt Fixed Inc 5.8%
Commod 18.9%	Hedge Funds 10.2%	US Mid Cap Equity -1.5%	Hedge Funds 6.4%	Cash Alternative 0.0%	CPI 0.8%	US Mid Cap Equity -2.4%	Hedge Funds 5.4%	Hedge Funds 8.6%	Mod Grwth Inc -4.8%	Hedge Funds 10.4%	Inv-Grade Fixed Inc 7.5%	High Yield Fixed Inc 5.3%	Emg-Mkt Fixed Inc -16.5%	Hedge Funds 8.1%	Emg-Mkt Fixed Inc 6.1%	Hedge Funds 5.6%
60%/40% Blend 18.5%	Dev ex US Equity 8.2%	US Small Cap Equity -4.2%	Inv-Grade Fixed Inc 4.2%	Inv-Grade Fixed Inc -2.0%	Cash Alternative 0.0%	US Small Cap Equity -4.4%	Inv-Grade Fixed Inc 2.6%	High Yield Fixed Inc 7.5%	US Mid Cap Equity -9.1%	Inv-Grade Fixed Inc 8.7%	High Yield Fixed Inc 7.1%	Cash Alternative 0.0%	US Mid Cap Equity -17.3%	Inv-Grade Fixed Inc 5.5%	Cash Alternative 3.6%	Inv-Grade Fixed Inc 2.7%
Inv-Grade Fixed Inc 5.9%	Dev ex US Fixed Inc 6.8%	Hedge Funds -5.3%	CPI 1.7%	Emg-Mkt Equity -2.3%	Emg-Mkt Equity -1.8%	High Yield Fixed Inc -4.5%	CPI 2.1%	Inv-Grade Fixed Inc 3.5%	US Small Cap Equity -11.0%	Commod 7.7%	Emg-Mkt Fixed Inc 5.9%	Emg-Mkt Fixed Inc -1.5%	US Large Cap Equity -18.1%	Cash Alternative 5.1%	Inv-Grade Fixed Inc 3.1%	CPI 2.6%
Dev ex US Fixed Inc 3.9%	Inv-Grade Fixed Inc 6.5%	Dev ex US Equity -11.7%	Dev ex US Fixed Inc 0.8%	Dev ex US Fixed Inc -5.1%	Dev ex US Fixed Inc -2.5%	Dev ex US Fixed Inc -4.8%	Dev ex US Fixed Inc 1.9%	CPI 2.1%	Commod -11.2%	Dev ex US Fixed Inc 5.2%	CPI 1.4%	Inv-Grade Fixed Inc -1.5%	Emg-Mkt Equity -19.7%	Dev ex US Fixed Inc 4.0%	CPI 2.6%	Cash Alternative 0.8%
CPI 2.7%	CPI 1.5%	Commod -13.3%	Cash Alternative 0.1%	Emg-Mkt Fixed Inc -6.6%	Dev ex US Equity -4.5%	Emg-Mkt Equity -14.6%	Dev ex US Equity 1.5%	Commod 1.7%	Dev ex US Equity -13.4%	CPI 2.3%	Cash Alternative 0.5%	Emg-Mkt Equity -2.2%	US Small Cap Equity -20.4%	CPI 3.4%	Commod 0.9%	Dev ex US Fixed Inc -0.1%
Cash Alternative 0.1%	Cash Alternative 0.1%	Emg-Mkt Equity -18.2%	Commod -1.1%	Commod -9.5%	Commod -17.0%	Commod -24.7%	Cash Alternative 0.3%	Cash Alternative 0.8%	Emg-Mkt Equity -14.2%	Cash Alternative 2.2%	Commod -3.1%	Dev ex US Fixed Inc -9.5%	Dev ex US Fixed Inc -21.9%	Commod -7.9%	Dev ex US Fixed Inc -1.1%	Commod -0.2%

DATA AS OF 8/31/2024

Sources: © Morningstar Direct, All Rights Reserved,<sup>1</sup> and Wells Fargo Investment Institute. Consumer price inflation (CPI) data is as of August 31, 2024. YTD = year to date. Average is calculated as geometric mean. Average is calculated as 15 years from 2009 – 2023. Blends are rebalanced quarterly. Performance results for Moderate Growth and Income Liquid and the 60/40 blend are calculated using blended index returns. **Past performance does not guarantee future results.** An index is unmanaged and not available for direct investment. Please following slides for definitions of the indexes that correlate to each asset class.

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# Moderate growth and income quilt chart Cont'd

Performance results for the MGI Liquid and 60/40 blends are calculated using blended index returns and for illustrative purposes only. Moderate Growth & Income allocation is dynamic, and changes as needed with adjustments to the strategic allocations. Performance results do not represent actual trading, and the results achieved do not represent the experience of any individual investor. In addition, performance results do not reflect the impact of any fees, expenses, or taxes applicable to an actual investment. Unlike most asset-class Indexes, HFR index returns are net of all fees. The Indexes reflect the historical performance of the represented assets and assume the reinvestment of dividends and other distributions. An index is unmanaged and not available for direct investment. **Past performance does not guarantee future results.** Definitions of the Indexes and descriptions of the risks associated with investment in these asset classes are provided below.

**60%/40% blend:** 60% S&P 500 Index and 40% Bloomberg U.S. Aggregate Bond Index.

**Moderate Growth and Income:** 2% Bloomberg U.S. Treasury Bills (1–3 Month) Index, 30% Bloomberg U.S. Aggregate Bond Index, 6% Bloomberg U.S. Corporate High Yield Bond Index, 5% J.P. Morgan EMBI Global, 27% S&P 500 Index, 10% Russell Midcap Index, 3% Russell 2000 Index, 8% MSCI EAFE Index, 5% MSCI Emerging Markets Index, 4% Bloomberg Commodity Index.

- **Investment Grade Fixed Income: Bloomberg U.S. Aggregate Bond Index** is composed of the Bloomberg U.S. Government/Credit Index and the Bloomberg U.S. Mortgage-Backed Securities Index and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities.
- **High Yield Fixed Income: Bloomberg U.S. Corporate High Yield Bond Index** covers the U.S.-dollar-denominated, non-investment-grade, fixed-rate, taxable corporate bond market. Securities are classified as high yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB= or below. Included issues must have at least one year until final maturity.
- **Cash Alternatives/Treasury bills: Bloomberg U.S. Treasury Bill (1–3 Month) Index** is representative of money markets.
- **Commodities: Bloomberg Commodity Index** is a broadly diversified index of commodity futures on 20 physical commodities, subdivided into energy, U.S. agriculture, livestock, precious metals, and industrial metals sectors. Commodity weights are derived in a manner that attempts to fairly represent the importance of a diversified group of commodities to the world economy.
- **Hedge Funds: HFRI Fund Weighted Index** is a fund-weighted (equal-weighted) index designed to measure the total returns (net of fees) of the approximately 2,000 hedge funds that comprise the index. Constituent funds must have either \$50 million under management or a track record of greater than 12 months. Substrategies include: HFRI Event Driven, Distressed/Restructuring Index, and HFRI Event Driven (Total) Index.
- **Developed Market Ex-U.S. Fixed Income: J.P. Morgan (Government Bond Index) GBI Global Ex U.S.** is a total return, market-capitalization-weighted index, rebalanced monthly, consisting of the following countries: Australia, Germany, Spain, Belgium, Italy, Sweden, Canada, Japan, the United Kingdom, Denmark, the Netherlands, and France.
- **Emerging Market Fixed Income: J.P. Morgan Emerging Market Bond Index (EMBI) Global** is a U.S.-dollar-denominated, investible, market-cap-weighted index representing a broad universe of emerging market sovereign and quasi-sovereign debt. While products in the asset class have become more diverse, focusing on both local currency and corporate issuance, there is currently no widely accepted aggregate index reflecting the broader opportunity set available, although the asset class is evolving. By using the same index provider as the one used in the developed market bonds asset class, there is consistent categorization of countries among developed international bonds (ex. U.S.) and emerging market bonds.
- **Developed Market Ex-U.S. Equities: MSCI EAFE Index (Europe, Australasia, Far East) Index** is a free-float-adjusted market-capitalization-weighted index designed to measure the equity market performance of developed markets, excluding the U.S. and Canada.
- **Emerging Market Equities: MSCI Emerging Markets Index** is a free-float-adjusted market-capitalization-weighted index designed to measure equity market performance of emerging markets.
- **U.S. Small Cap Equities: Russell 2000 Index** measures the performance of the 2,000 smallest companies in the Russell 3000 Index, which represents approximately 8% of the total market capitalization of the Russell 3000 Index.
- **U.S. Mid Cap Equities: Russell Midcap Index** measures the performance of the 800 smallest companies in the Russell 1000 Index, which represent approximately 25% of the total market capitalization of the Russell 1000 Index.
- **U.S. Large Cap Equities: S&P 500 Index** consists of 500 stocks chosen for market size, liquidity, and industry group representation. It is a market-value-weighted index with each stock's weight in the index proportionate to its market value.
- **Inflation-CPI: IA SBBI U.S. Inflation Index** is a custom unmanaged index designed to track the U.S. inflation rate.

# Moderate growth and income quilt chart – Cont'd

While the HFRI Indexes are frequently used, they have limitations (some of which are typical of other widely used Indexes). These limitations include survivorship bias (the returns of the Indexes may not be representative of all the hedge funds in the universe because of the tendency of lower performing funds to leave the index); heterogeneity (not all hedge funds are alike or comparable to one another, and the index may not accurately reflect the performance of a described style); and limited data (many hedge funds do not report to Indexes, and, therefore, the index may omit funds, the inclusion of which might significantly affect the performance shown). The HFRI Indexes are based on information self-reported by hedge fund managers that decide on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these Indexes may not be complete or accurate representations of the hedge fund universe, and may be biased in several ways. Returns of the underlying hedge funds are net of fees and are denominated in USD.

## **Risk considerations**

Investing in stocks involves risk and their returns and risk levels can vary depending on prevailing market and economic conditions. Small- and mid-cap stocks are generally more volatile, subject to greater risks and are less liquid than large company stocks. Foreign investing has additional risks including currency, transaction, volatility and political and regulatory uncertainty. These risks are heightened in emerging markets. Bonds are subject to market, interest rate, price, credit/default, liquidity, inflation and other risks. Prices tend to be inversely affected by changes in interest rates. High-yield fixed-income securities are considered speculative, involve greater risk of default, and tend to be more volatile than investment-grade fixed-income securities. Municipal bonds offer interest payments exempt from federal taxes, and potentially state and local income taxes and may be subject to the alternative minimum tax, and legislative and regulatory risk. Investing in commodities is not appropriate for all investors and may subject an investment to greater share price volatility than an investment in traditional equity or debt securities.

*Alternative investments, such as hedge funds, are not appropriate for all investors and are only open to “accredited” or “qualified” investors within the meaning of the U.S. securities laws. They are speculative and involve a high degree of risk that is appropriate only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program. While investors may potentially benefit from the ability of alternative investments to potentially improve the risk-reward profiles of their portfolios, the investments themselves can carry significant risks. Hedge funds trade in diverse complex strategies that are affected in different ways and at different times by changing market conditions. Strategies may, at times, be out of market favor for considerable periods which can result in adverse consequences for the investor.*



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