



2025 Global Market Outlook

# Investing during transition

# Investing during transition



**Eric Veiel, CFA®**  
*Head of Global Investments  
 and CIO*

Change is constant, but in some periods it occurs more dramatically than in others. We believe the world is currently undergoing transition at a pace and scale rarely seen before. Technological developments are driving extraordinary innovations in artificial intelligence (AI) and health care. Continuing geopolitical tensions and the probability of higher tariffs globally following the U.S. election will likely lead to the reconfiguration of supply chains, disrupted labor supplies and a strong focus on secure energy transition. At the same time, the global economy is adjusting to a world of higher trend inflation, higher rates, and greater volatility.

Transition at this degree may seem daunting. However, we believe it will bring with it an opportunity set of

a breadth and richness not experienced since the aftermath of the global financial crisis (GFC). The nature of this opportunity set will inevitably evolve as markets change, but, in our view, the overall trend will be for earnings growth to broaden beyond a handful of dominant tech stocks, across both sectors and regions.

As we navigate this new equilibrium, our portfolio construction themes argue for greater diversification across asset classes.<sup>1</sup> Bond yields have been on a roller-coaster ride as markets have been overly enthusiastic about pricing in bank rate cuts. High yield bonds, bank loans, and emerging markets bonds present income opportunities.

We are likely past the first innings of the AI infrastructure buildout. However, the AI wave is not over—as companies employ AI, we will see an acceleration in speed, productivity, and innovation. At the same time, we believe

conditions are in place for a golden age for the health care sector amid a flurry of radical innovations.

We also think it is prudent for investors to consider diversifying into areas that have valuation support and robust fundamentals, such as value and small-cap stocks. Additionally, there are select opportunities in underappreciated sectors such as energy, financials, and industrials. Countries such as Japan and South Korea could also benefit from structural changes.

The year 2025 is shaping up to be one of transition marked by a clear broadening of investment opportunities. In this evolving world, curiosity is vital. Asking smart questions about new opportunities—within asset classes or major themes such as health care innovation, energy transition, or artificial intelligence—is the best way to source the insights on which smart investment decisions can be made.

<sup>1</sup> Diversification cannot assure a profit or protect against loss in a declining market.

<b>Introduction</b>	Page 1	<b>U.S. Equities</b>	Page 9	<b>Health Care</b>	Page 16
<b>Global Economy</b>	Page 2	<b>Fixed Income</b>	Page 11	<b>Artificial Intelligence</b>	Page 18
<b>U.S. Economy</b>	Page 5	<b>Private Markets</b>	Page 14	<b>Asset Allocation</b>	Page 20
<b>Global Equities</b>	Page 7				

# Mapping the path from slowdown to recovery



**Nikolaj Schmidt**  
Chief Global Economist

The global economy is likely heading for a growth slowdown in the first few months of 2025 if weaker data from China weigh on the rest of the world. The good news is that central banks, particularly the European Central Bank (ECB), are well positioned to respond swiftly with rate cuts. A manufacturing-led recovery in

the second half of the year is highly plausible—although the precise timing of any such rebound is harder to call.

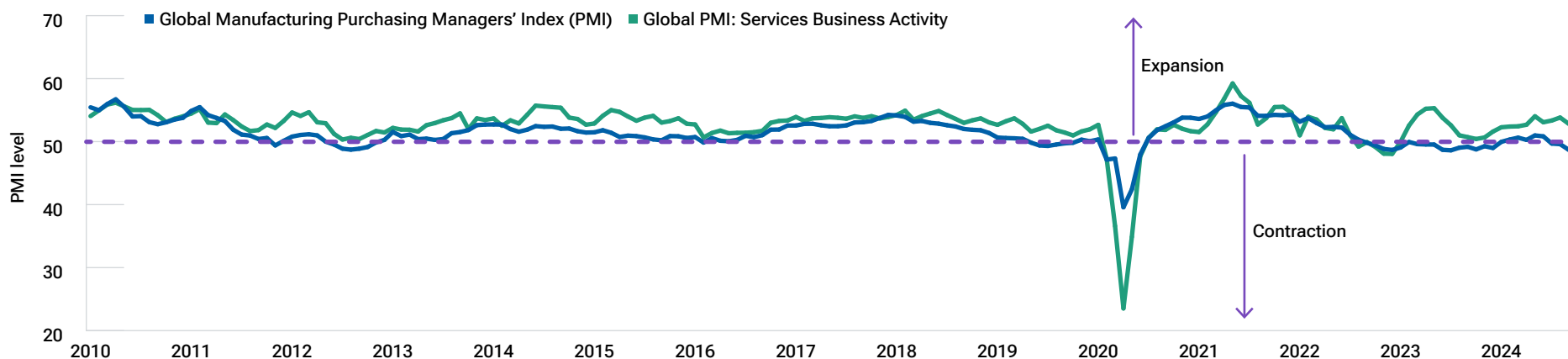
Monetary policy has been tight since 2022. Until now, however, this has been offset by the lingering impact of generous fiscal support. This has meant two things: first, that the rate hikes have not been as devastating as they might have been in the past; and second, that central banks have been able to hike more than anyone thought possible at the outset of the tightening cycle. Conditions are changing, however, and as fiscal tailwinds fade, the

world is beginning to feel the impact of these hikes—and will continue to do so in the first few months of 2025.

Despite China's recent stimulus injection, the macroeconomic picture there remains uncertain. Any slowdown in China will impact the rest of the world, but it will not affect all other regions equally: Europe's heavier dependence on manufacturing exports means that China's growth slump will hit it harder than the U.S.

## Manufacturing-led growth is positioned for a comeback

(Fig. 1) It has lagged services for most of the past 14 years



As of October 31, 2024.

Source: Copyright © 2024, Markit Economics Limited now part of S&P Global. All rights reserved and all intellectual property rights retained by S&P Global.

## Recovery will speed up transition to manufacturing-led growth

High interest rates mean the ECB has the luxury of being able to ease monetary policy rapidly—and this is exactly what we expect it to do. Then, once rates come down meaningfully in Europe, the impact on growth is likely to be seen quickly as European households, which have accumulated a large amount of excess savings since the coronavirus pandemic, are likely to spend more. With some good fortune, the improving outlook for Europe could be further enhanced should there be a thaw in the Russia-Ukraine conflict.

When it comes, the recovery is likely to hasten the ongoing transition to manufacturing-led growth, which has been lagging services for several years (Figure 1).

We believe there will be three key drivers of this: first, the release of pent-up demand for interest rate-sensitive goods consumption; second, a surge in infrastructure spending to meet the global push toward renewable energy and the rise of generative artificial intelligence; and third, the growing trend of companies choosing to shift their manufacturing bases to “friendlier” countries to ease supply chain concerns.

## Capex surge will boost international markets

What these drivers have in common is that each of them will require a major injection of capital. The sectors that provide the solutions—including industrials, energy, and materials—are likely to attract enormous flows of investments into physical assets in the years ahead.

These are multiyear developments, but their impact on the global economy is likely to be visible in 2025—particularly in the second half of the year. At that point, we expect monetary easing to have sparked a global economic recovery, albeit inconsistent across regions, characterized by a shift from services to manufacturing.

## Key takeaway

A recovery in the second half of 2025 will likely hasten the transition to manufacturing-led growth.



# Global macro and monetary policy guide 2025



## Growth



## Inflation



## Monetary Policy

### U.S.

The U.S. economy should continue to outperform peers due to the support of fiscal measures and monetary policy easing.

Upside risks for goods prices and ongoing volatility in the shelter component will likely keep inflation above the U.S. Federal Reserve's (Fed's) target.

The Fed is expected to deliver more cuts in 2025, but economic resilience could mean the central bank eases less than markets expect.

### Eurozone

Concerns around tariffs may undermine consumer and business confidence, reducing growth in 2025.

There is potential for disinflation if tariffs are implemented that lead to excess capacity of Chinese goods in the European market.

The potential for survey data to weaken could see the ECB deliver at least one 50 basis point interest rate cut in the first quarter of 2025.

### Emerging Markets

Fears of a renewed trade war are likely to undermine confidence and weigh on growth.

Latin America and emerging Europe regions may continue to struggle with the last mile of disinflation.

Countries tied to the Fed's cycle may deliver more cuts in 2025, while those that started easing before the Fed are likely finished.

### China

Stimulus measures should help stabilize growth, but a material boost is unlikely given ongoing structural challenges.

Inflation is in a below-trend zone, but policy shift and stimulus should help to avoid deflation in the near term.

The People's Bank of China is likely to deliver more interest rate cuts.

### Japan

Improving real (inflation-adjusted) wages should be supportive for consumption and economic growth in 2025.

Risks are to the downside, with potential for core inflation to fall below the central bank's 2% target.

The Bank of Japan may remain an outlier among major central banks, with potential for an interest rate hike in the first quarter.



# U.S. exceptionalism has not run out of steam



**Blerina Uruçi**

*Chief U.S. Economist,  
Fixed Income*

The ingredients are present for another year of robust growth in the U.S. In recent years, healthy expansion in the U.S. has spilled over to the rest of the world, helping offset the softness in Europe and China. We expect this to continue in 2025.

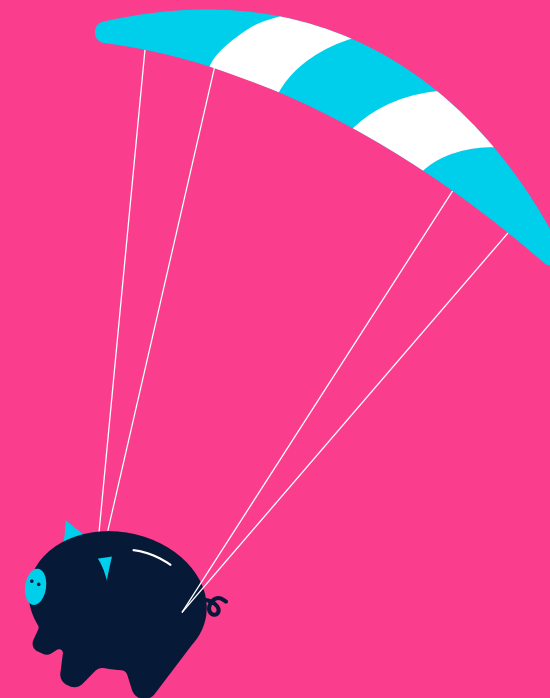
The U.S.'s economic outperformance over the rest of the world during the past few years was not merely down to consumers "buying stuff." Nonresidential investment has also been strong in response to incentives put in place by fiscal policy. The continued development of AI-related technologies and the green energy transition have been important in supporting investment growth and what could be the start of a much-needed upgrade in the capital stock of the U.S. economy.

The positive fiscal impulse in the U.S. is now fading, but fiscal measures such as the Inflation Reduction Act and the CHIPS and Science Act should ensure further disbursement of tax incentives and industry-specific grants during the coming years.

## Coordinated easing provides supportive backdrop

The recent monetary policy easing will likely provide a more supportive macro backdrop for U.S. and global demand than in 2022–2023. After all, it has been rare to witness such a coordinated and widespread easing of monetary policy and financial conditions outside of a global downturn. This relaxing of financial conditions has already helped boost the wealth and balance sheets of U.S. consumers.

Despite this positive backdrop, job creation will likely slow down in 2025 as companies have front-loaded hiring and are likely to focus on productivity improvements. But without a catalyst for mass layoffs, we expect the unemployment rate to remain low by historical standards. The notable increase in productivity growth in recent quarters should support robust wage gains. Coupled with the downshift in inflation rates, real disposable incomes are likely to be another tailwind to growth.



On the inflation front, raising existing tariffs and/or imposing additional levies on imports could cause a one-off price shock. The magnitude would depend on the ability of businesses to pass these higher costs along to consumers, which is hard to predict. Another area to watch is the president-elect's vow to tighten immigration policies. A tough stance here could result in a negative shock to the supply of workers, tightening U.S. labor markets. Unlike higher tariffs, such a scenario likely would have a more sustained impact on prices.

### Improving productivity can boost economy

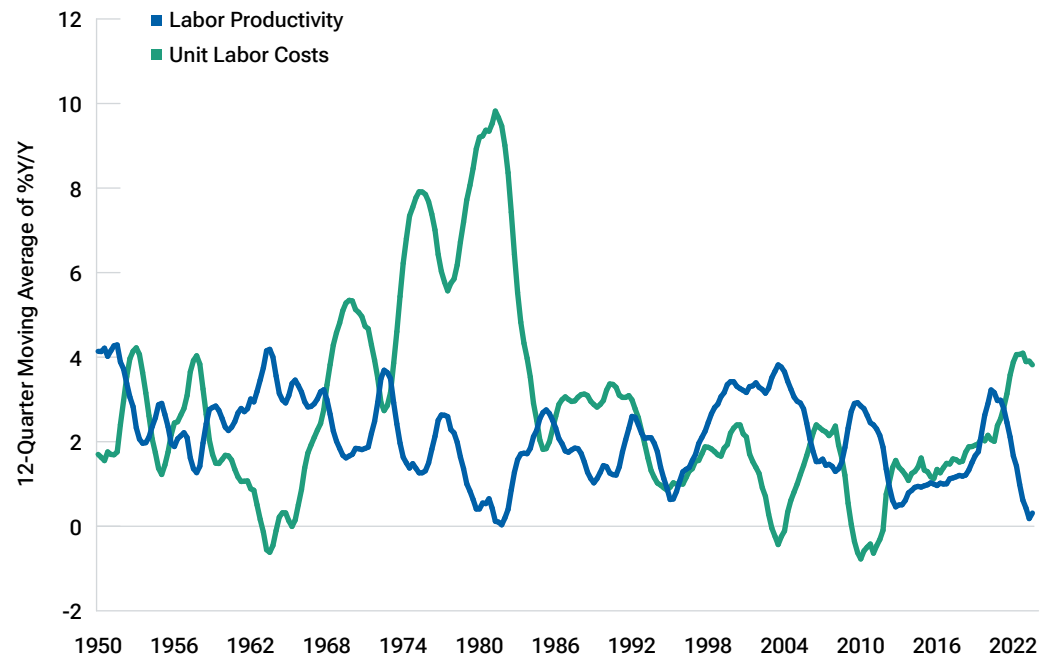
Improving productivity could also foretell the end of generally lackluster growth after the GFC, excluding the recession at the onset of the coronavirus pandemic and the boom that came following the reopening of the economy. Positive productivity shocks are rare, and it is even rarer to be able to predict them correctly.

However, some of the factors that historically have driven productivity improvements seem to be in place today. Both labor and nonlabor input costs have surged higher, so businesses are looking for ways to deliver the same output levels without hurting profitability (Figure 2).

In addition, capital and intellectual property investment have paved the way for significant progress on AI and other technologies that have high capital and low labor intensity, thus leading to higher productivity growth outcomes.

### Higher labor costs have historically led productivity up

(Fig. 2) Productivity growth appears to have bottomed recently



As of April 1, 2024.  
Y/Y= Year-over-Year.  
Source: Macrobond.

### Key takeaway

Despite a slowing jobs market, supportive monetary policy and improving productivity should keep the U.S. economy out of recession.

## Value and small-caps could power international equities



**Justin Thomson**  
Head of International Equity

The extent to which the inflation and interest rate shocks of 2022 are reshaping the dynamics of international (ex U.S.) equities should become clearer in 2025. We expect there to be more evidence of a broadening opportunity set that favors international stock markets—and, within them, value and small-cap stocks and countries such as Japan and South Korea.

We are emerging from a highly unusual period in which one market (the U.S.) and one sector (technology)

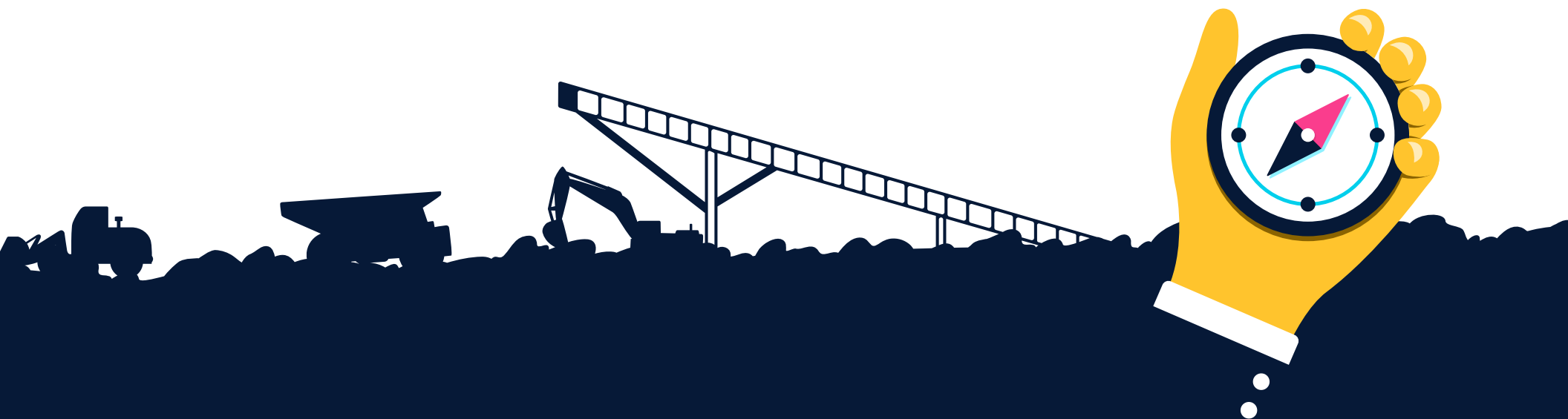
dominated returns—and within that sector, a handful of exceptional firms drove the large bulk of those returns. This dominance has skewed investor positioning and valuations: Many investor portfolios are heavily exposed to U.S. equities while virtually every sector in non-U.S. equities is currently cheaper than its U.S. equivalent.

### Small-caps appear positioned to deliver strong earnings growth

Valuations alone are not a compelling reason to invest in a particular market or asset class, but they do provide a useful starting point when determining the potential for long-term returns. Within international markets, value

stocks have been trading at a discount to growth stocks. This is likely to change as we expect non-tech capex (capital expenditure) to surge amid widespread factory automation and the relocation of supply chains. The fastest-growing firms in the period following the GFC were U.S. tech companies whose business models were built around intangible assets. We expect the period ahead to be marked by a higher-trend level of demand for tangible assets, supporting sectors such as industrials, energy, and materials, which are typically value oriented.

International small-caps (typically represented by the MSCI All Country World ex-USA Small and Mid Cap Index) usually traded at a premium to large-caps, but in 2024 this premium disappeared following several years





of COVID-related disruption and supply chain challenges (Figure 3). In our view, international small-caps offer the potential to deliver stronger earnings per share (EPS) growth than their international large-cap peers in the period ahead as the economic environment improves. History shows that following periods of earnings decline, earnings growth for small-caps have typically exceeded large-caps. We expect this to occur again on this occasion, but this time coming from a point of extreme valuation support for small-caps that should help compound investor returns.

### The bull case for Japan still holds

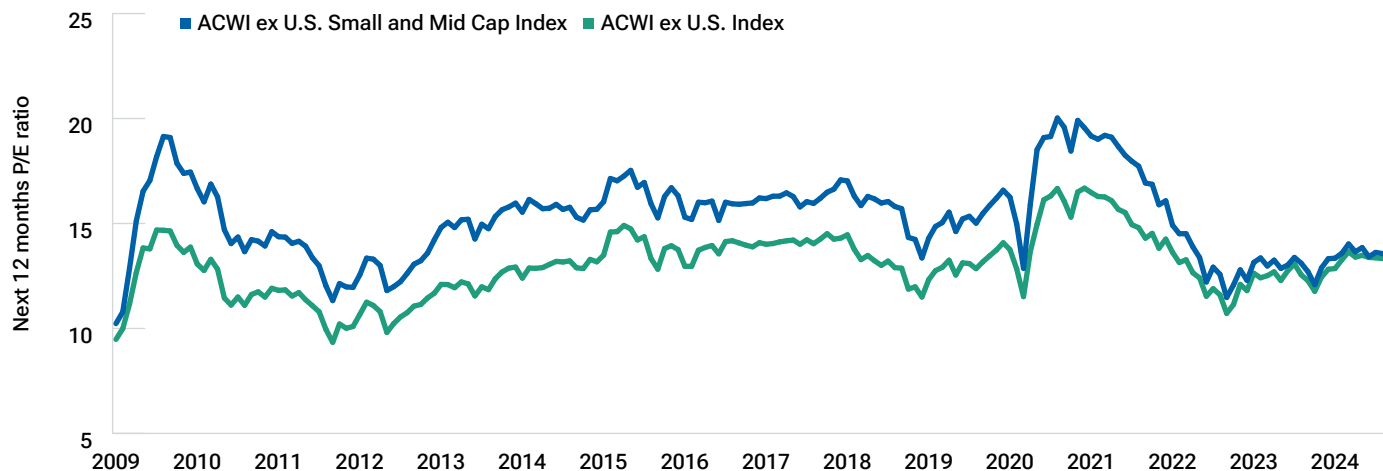
The world will likely need to get used to a structural downshift in China from the 5% to 6% growth rates seen over the past few decades. A further challenge to Chinese growth may come if U.S. President-elect Donald Trump delivers on his promise to impose more tariffs on China—although it is not yet clear how far any new measures will go, nor how much scope there is to negotiate a new trade deal between the two countries. In the meantime, the combination of compressed valuations, bottom-up innovation, and potential for strong countertrend rallies means that opportunities to invest in China will continue to arise.

We believe the medium-term bull case for Japan still holds as Japanese firms switch focus from market share to profit maximization. Notwithstanding South Korea's recent political instability, it has sought to emulate Japan's success in boosting stock valuations with a corporate governance drive. Tax incentives have been offered to businesses that prioritize shareholder returns, while the new "Korea ValueUp Index" will list firms that have improved capital efficiency.

These are significant structural opportunities available at attractive prices.

### International small-cap and large-cap valuations have converged

(Fig. 3) The traditional premium of small-caps has virtually disappeared



January 30, 2009 through October 31, 2024.

Source: MSCI (see Additional Disclosures). Analysis by T. Rowe Price.

P/E= Price-to-earnings. **Past performance is not a reliable indicator of future results. Actual future results may differ materially from estimates.**

### Key takeaway

We anticipate a broadening opportunity set that favors international markets, particularly value and small-cap stocks.

# Rate cuts provide opportunities for U.S. small-caps and financials



**Stephon Jackson**  
 Head of T. Rowe Price  
 Investment Management

U.S. equity returns were dominated by three themes in 2024: one, the rise of AI and its derivatives; two, the strong performance of rate-sensitive cyclical stocks in anticipation of Fed cuts; and three, soaring valuations of

perceived “safe bets” despite unchanged earnings growth. In 2025, all three of these themes could unwind.

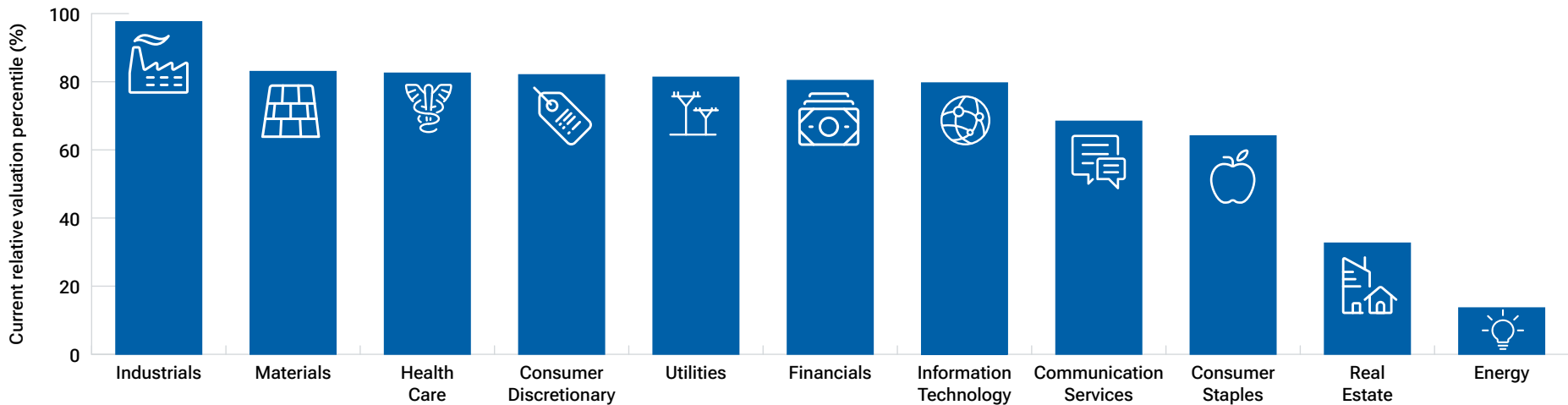
The growth rate of AI infrastructure is likely to slow due to increased competition. Cyclical stocks’ valuations are currently high after strong performance this year, although their risk/reward profile is more mixed for 2025. Many of the stocks are now at or near all-time high valuations, with low expected growth rates.

## Valuations are high across most sectors

Stretched valuations suggest that U.S. stocks will underperform bonds in the medium term (Figure 4). However, a combination of improving earnings and lower rates could result in a soft landing. We believe the Fed will continue to be data-dependent when determining the speed and extent of the rate-cutting cycle.

## U.S. equity valuations are close to historic highs in many sectors

(Fig. 4) Returns may underperform bonds in the medium term



**Past performance is not a reliable indicator of future performance.**

As of October 31, 2024.

Source: Standard & Poor’s, via FactSet (see Additional Disclosures). Analysis by T. Rowe Price.

Time period range to determine the current relative valuation percentile as of October 31, 2024 is January 31, 1990 through October 31, 2024. Valuations are calculated monthly.

That said, we see a broadening opportunity set in U.S. equity markets, spanning several sectors. Small-caps, which are trading at a historic discount to large-caps, should benefit from further rate cuts and any signs of an improving economy. In addition, the current position of the energy cost curve indicates that we could be in for a multiyear regime change of capex and investment spend in energy, which would also benefit small-cap stocks.

From a sector perspective, financials looks interesting. After Fed rate increases led to such poor performance for banks and real estate investment trusts in 2024, the market is anticipating better performance for this rate-sensitive group should rate cuts continue into 2025. Energy has also underperformed significantly over the past year, but we see reasonable upside potential in several subsectors. Natural gas is attractive and likely to outperform due to limiting supply from rig count restrictions and pipeline constraints, and there is a longer-term case for carbon-based fuels owing to slower technological productivity gains and a delay in peak demand until after 2035.

**Broader opportunities signal a stock pickers’ market**

We see company-specific opportunities in industrials given the normalization of markets following the

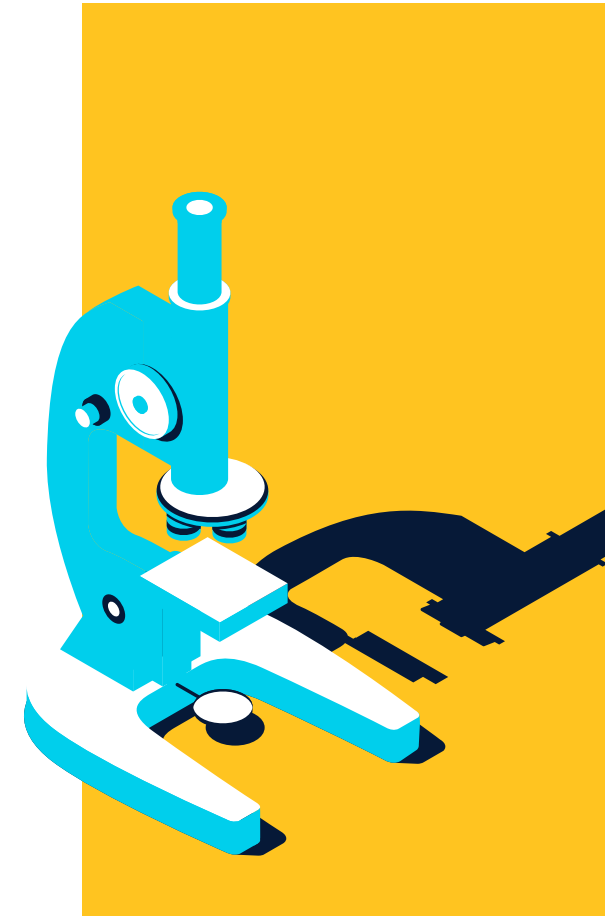
post-COVID volatility. Most of these are in aerospace, electrical contractors, agriculture, municipal spending, and consumer-related building products. In health care, the life sciences sector appears likely to benefit from a reacceleration of growth in biopharma production and as early-stage research picks back up after some major patent expirations among large pharmaceutical firms.

Elsewhere, there are plenty of software firms that were not immediate beneficiaries of AI that have strong earnings growth prospects and are attractively valued. Although utilities have traded higher recently, the sector should benefit from rising demand due to AI, and is therefore likely to deliver faster earnings growth.

Overall, we anticipate a continued expansion of investible opportunities, characterized by historically attractive valuations in certain sectors, the normalization of fundamental trends post-COVID, and improvement in growth aided by lower interest rates and fiscal support.

**Key takeaway**

The key trends that dominated U.S. equities in 2024 may fade in 2025, but this will likely expand the opportunity set.



# Finding income in high yield bonds, bank loans, and emerging markets



**Ken Orchard, CFA®**  
Head of International  
Fixed Income

Despite the U.S. Federal Reserve starting its monetary easing cycle in September, yields could move higher if the central bank does not cut as deeply as markets expect. High yield bonds and bank loans remain the two fixed income sectors with the most potential to generate meaningful income in 2025, while emerging market bonds also present solid income opportunities.

## Expect modestly wider credit spreads

We anticipate continued volatility in the wake of the U.S. presidential election, leading credit spreads<sup>2</sup> to widen from the unusually narrow levels experienced through most of 2024. As a result, all-in yields in sectors with credit risk would remain attractive even if high-quality government bond yields decrease as the Fed and other global central banks cut rates.

However, I do not foresee a global recession in the next 12 months, so the spread widening should be relatively modest as rate cuts and lower energy prices continue to support the consumer and economic

growth. Credit spreads could tighten again in 2025 as the uncertainty clears and investors become confident in the economy's health.

## Bank loans and high yield bonds are best positioned for income

The non-investment-grade sectors—high yield bonds and bank loans—are best positioned to generate income in 2025, in our view. With their floating coupons, we expect loans to perform better than high yield bonds if the Fed easing cycle is shallower than expected and yields increase. Loans are higher in the capital structure than bonds, making them more stable (although they are also less liquid). The bank loan sector also has less exposure to volatile energy prices than non-investment-grade bonds.

High yield bonds should also produce attractive income, but thorough credit analysis and selection is even more critical. If short-term interest rates decrease, creating steeper yield curves, non-investment-grade bonds could actually generate more income than floating rate loans.

**“...high yield bonds and bank loans...are best positioned to generate income in 2025, in our view.”**

<sup>2</sup> Credit spreads measure the additional yield that investors demand for holding a bond with credit risk over a similar-maturity, high-quality government security.

Corporate bonds with the lowest credit ratings in the investment-grade universe (BBB on the S&P Global Ratings scale) could also produce healthy incomes as a result of their high credit spreads relative to other investment-grade issues.

### Emerging market bonds to benefit from favorable growth

Casting a wider net, emerging market corporate and sovereign bonds should benefit from a favorable growth environment in developing countries, where many central banks are well into their rate-cutting cycle. Emerging

markets are well positioned to generate higher growth than developed European markets, for example. The credit quality of emerging market corporate bonds has steadily moved higher over the past several years.

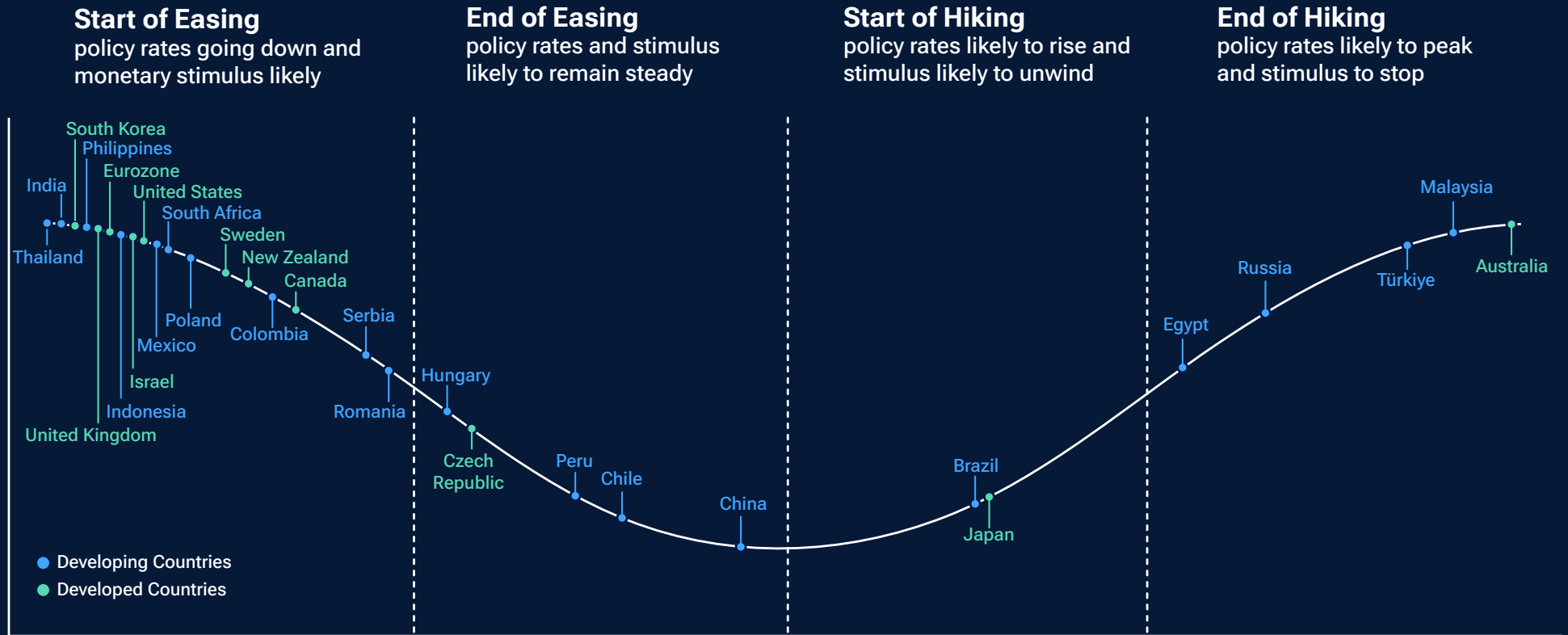
Global growth could surprise on the upside. In this scenario, markets would likely price in rate hikes to battle inflation, resulting in a steeper yield curve as intermediate- and longer-term yields move higher. The risk of an inflation resurgence is high enough to consider including a small allocation to inflation-adjusted bonds such as Treasury inflation protected securities in a diversified portfolio.

### Key takeaway

Non-investment-grade sectors and emerging market bonds offer attractive yield opportunities even if government bond yields decrease.



# Divergent monetary policy is today's global fixed income reality



As of September 30, 2024.  
 Country classifications in the chart are in line with IMF groupings as of reporting date.  
 Sources: IMF, CB Rates. Analysis by T. Rowe Price.  
 For illustrative purposes only.  
 These represent estimates of where the stated countries are in their monetary policy cycle. Actual future outcomes may differ materially.

## Weaker growth and lower rates set to open up private markets



**David DiPietro**  
*Head of Private Equity,  
T. Rowe Price*



**Alan Schrager**  
*Portfolio Manager and  
Senior Partner, Oak  
Hill Advisors*

We anticipate two developments that should open up private markets for investors in 2025. First, a challenging economic environment will likely fuel demand among borrowers for more complex, bespoke credit solutions; and second, the Fed's rate-cutting cycle could deliver conditions conducive to more firms going public and increased mergers and acquisitions (M&A).

### Increasing customization to drive the private credit outlook

Capital deployment in private credit rebounded strongly in 2024 as M&A activity increased, driven by a benign macroeconomic environment and pent-up demand. We expect this to continue in 2025, expanding the role of private credit as the financing source for situations requiring flexibility unavailable in the broadly syndicated loan market.

For borrowers, private credit offers benefits particularly useful for M&A activity, such as speed and certainty of execution, confidentiality, customization, and partnership with fewer lenders. For investors, private credit may provide a spread premium over traditional fixed income, which comes in largely two forms: an illiquidity premium, which should compensate investors for locking up their capital for extended periods of time; and a complexity premium for delivering the benefits to borrowers mentioned above.

We believe the opportunity to capture alpha through complexity could increase if the U.S. economy slows meaningfully in 2025. Private credit is well positioned to deliver bespoke solutions, including liquidity financings and capital structure restructurings, to companies with more challenged debt service requirements. If the broader economy continues to rally, these situational opportunities may be more limited and more conventionally performing private credit will take precedence.

### Private equity investors eye end to the IPO drought

The long period of low interest rates following the GFC led to many companies remaining private for longer, even when they became very large. We believe one of the biggest areas of opportunity in private equity is in large private companies, ideally at attractive valuations, before they go public.

**“For borrowers, private credit offers benefits particularly useful for M&A activity...”**

However, the three-year-long drought in initial public offerings (IPOs) has dampened the opportunity set. This fall in IPOs has been more of a supply problem than a demand problem: Private companies do not want to subject themselves to the price volatility of publicly traded shares, and many firms seek to avoid the heavier quarter-to-quarter financial scrutiny that being public involves.

Another key reason has been the challenge of forecasting revenues and earnings given the widely disparate views of the state of the economy. As the economic outlook becomes clearer and companies are more

confident with their projections, private companies should be more comfortable with the decision to go public. Also, with more certainty about the Federal Reserve's rate-cutting cycle, equity market volatility could ease in 2025, clearing the way for more IPOs.

Investors can also usually access liquidity from their private investments via M&A activity. Lower interest rates will help loosen up the M&A market by lowering the cost of capital for acquirers. If both IPOs and M&A activity pick up, existing investors in private companies would have two avenues to redeem their cash, potentially at better valuations.

## Key takeaway

A more challenging economic environment and the Fed's rate-cutting cycle should open up opportunities for private market investors in 2025.





# Radical innovations revealing real prospects in health care



**Nabil Hanano, CFA®**  
Associate Portfolio Manager, Global Focused Growth Equity Strategy

Health care stocks have struggled since the pandemic amid rising costs and falling revenues, but a wave of innovation is transforming the sector’s prospects. A new generation of treatments and technologies are coming

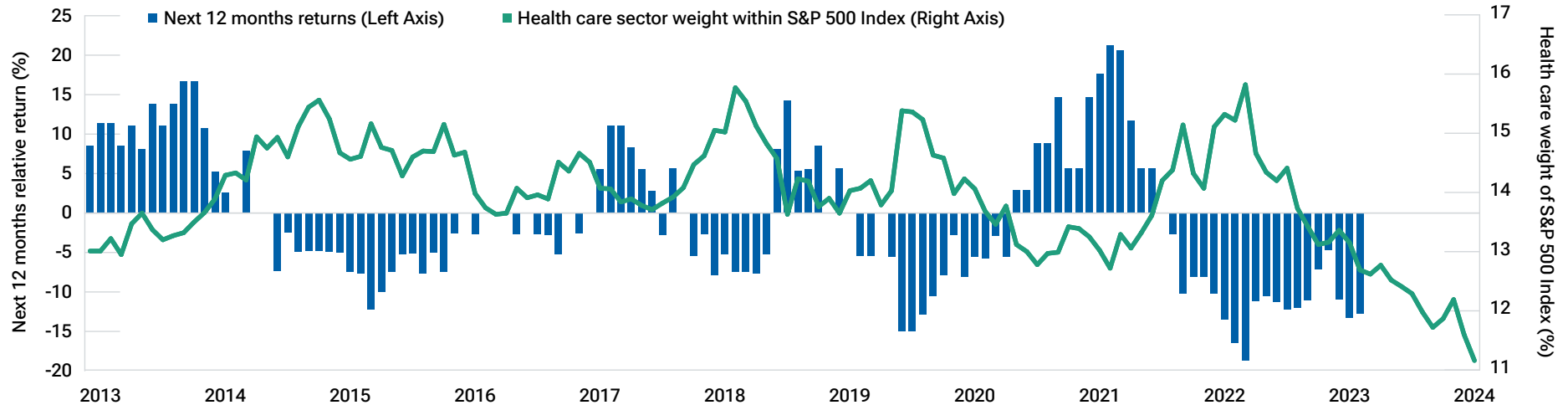
to market that deliver radical outcomes, establishing the conditions for what we believe will be a golden age of health care.

The emergence of GLP-1 drugs targeted at obesity and diabetes has been a seismic development. The investment implications of GLP-1s are large, not just for the earnings potential of drug developers, but across every part of the health care ecosystem and

the wider economy. So far, however, this has not translated into sectorwide outperformance: All health care segments in the S&P 500 have underperformed the broader index over the past two years, and the weighting of the overall health care sector within the index was at its lowest level in 10 years at the end of October (Figure 5). History shows that following periods of declining returns, the weighting of health care within the S&P 500 has typically fallen before recovering.

## Health care weighting in S&P 500 is lowest in 10 years

(Fig. 5) All segments in the sector have underperformed the broader index



Next twelve month relative return data end October 31, 2023 and S&P 500 Index data end October 31, 2024. The relative return shown on the y-axis is that of the healthcare sector within the S&P 500 Index vs. that of the index as a whole.

**Past performance is not a reliable indicator of future performance. Next 12 months are subsequent returns to a given point in time and are not a projection of any return.**

Source: Standard & Poor’s, via FactSet (see Additional Disclosures).

## Leading GLP-1 manufacturers have still benefited

Despite declining valuations across health care segments, barriers to entry are high in the GLP-1 space. The leading manufacturers have gained a competitive advantage by amassing huge amounts of clinical data and building production capacity, and they are also developing next generation drugs that are likely to be better than those currently available. These firms are spending billions of dollars on capital expenditure and research and development in aiming to maintain their dominance.

One of the most important innovations is in small-molecule GLP-1s that can be taken in pill form rather than the currently available injection. Due to capacity constraints, there will never be enough injectable drugs to reach the number of people who need them, which means that GLP-1s in pill form are needed to address the global market in obesity treatments.

The wave of health care innovation is not just limited to GLP-1s, however. Technological developments are leading to major breakthroughs in areas such as AI-led cancer screening and robotic surgery, while therapeutic innovations are poised to accelerate demand for companies that sell the necessary bioprocessing production equipment.

## Lower rates and inventory normalization should bring timely boost

Rising interest rates in 2022/2023 hit the earnings potential and valuations of biopharma stocks particularly hard. The return to a lower rate environment—and, with that, funding—should be a major boost for the sector. Further support could come from post-pandemic inventory normalization as the industry returns to more stable demand patterns.

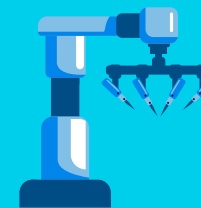
Elsewhere, managed health care organizations are adapting to external cost pressures and technological advances by delivering more value-based care (where providers are paid based on patient health outcomes) and remote care. They are also increasingly using AI and machine learning to predict patient health outcomes and guide decision-making.

Investors seeking to benefit from these changes will need to look beyond traditional financial analysis and gain a deeper understanding of the scientific developments underpinning them. For those able to do this, the extraordinary innovation taking place across many health care sectors, combined with the current low valuations available, provide a compelling opportunity.

## Key areas of health care development outside of GLP-1s



AI-led cancer screening



Robotic surgery



Therapeutic innovation



Biopharma



Managed health care

## Key takeaway

A new generation of treatments and technologies are paving the way for what could be a golden age in healthcare.

# AI’s “easy money” era is over, but an abundance of opportunities remain



**Dom Rizzo, CFA®**  
*Portfolio Manager, Global Technology Equity Strategy*

The launch of ChatGPT in November 2022 sparked a frenzy around AI stocks, as illustrated by the sevenfold rise in NVIDIA’s stock price in less than two years. The first phase of the AI cycle, which centered on firms providing infrastructure and those with the most direct AI use cases, is nearing an end. However, we still believe AI will prove to be the biggest productivity enhancer for the global economy since electricity and that the technology opportunity set remains a rich one.

Productivity-enhancing technologies often fuel speculative asset bubbles. During the dot-com bubble of the 1990s, the NASDAQ Composite Index—home to most newly listed dot-com firms—rose from a level of around 750 in early 1990 to a peak of more than 5,000 by March 2000. The index then crashed, plunging 78% by October 2002, contributing to a recession in the U.S.

## The rise of AI is not the dot-com bubble revisited

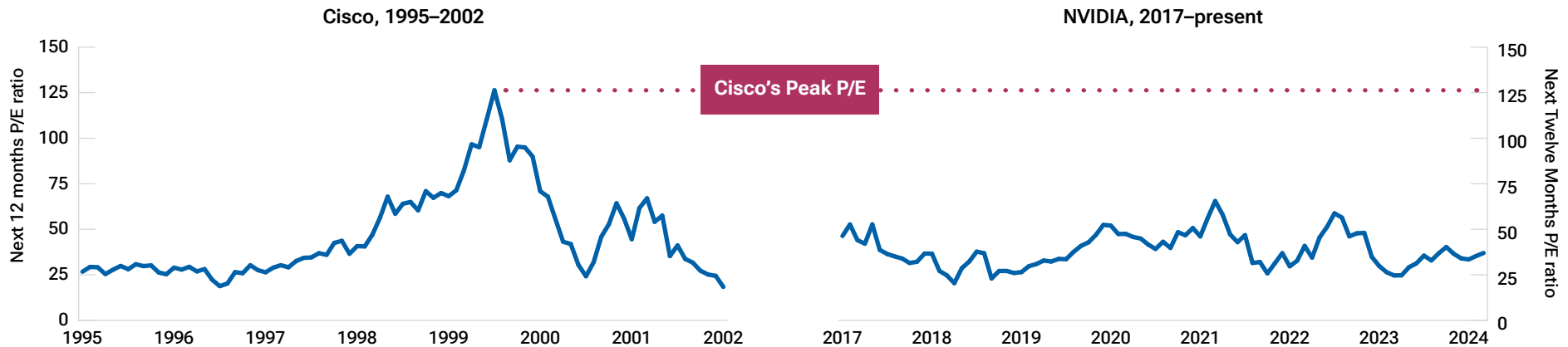
Parallels are often drawn between the dot-com bubble and the recent surge in AI, but we believe there are important

differences between the two. Unlike the dot-com bubble, this AI cycle has been driven by a surge in earnings rather than by speculation. Back in March 2000, for example, technology giant Cisco was one of the most popular stocks on the U.S. equity market, with a next 12 months (NTM) price-to-earnings (P/E) ratio of more than 125x.

By contrast, and as an example, NVIDIA’s NTM P/E at the end of October was 35X (Figure 6). Wall Street’s estimate for NVIDIA’s full-year 2026 earnings had increased from USD 0.62 in November 2022 to USD 4.07 at the end of September this year, meaning that its sevenfold share price increase was almost entirely driven by earnings growth estimates rather than by market sentiment alone.

## AI’s surge is not a repeat of the dot-com bubble

(Fig. 6) NVIDIA’s P/E ratio is far less elevated than Cisco’s at its peak



As of October 31, 2024.

Source: FactSet (see Additional Disclosures).

The specific securities identified and described are for informational purposes only and do not represent recommendations. P/E is price-to-earnings ratio and next 12 months earnings are third-party consensus estimates. Actual outcomes may differ materially from forward estimates.

Rather than seeing AI as a bubble that is about to burst, we regard it as a multiyear investment cycle in which the initial period of incredibly rapid growth is now giving way to a period of moderating, yet still impressive, growth.

Another major difference between the AI investment cycle and the dot-com bubble is the funding source for much of the infrastructure spend. During the 1990s, the fiber infrastructure was primarily debt funded, issued by companies such as WorldCom. Today, NVIDIA's growth has been driven by selling the linchpin AI technology to some of the most cash flow-generative companies in history (Microsoft, Google, Amazon, Meta). The key question is whether NVIDIA can retain its dominant status as we potentially go from an estimated USD 45 billion AI chip market in 2023 to an estimated USD 500 billion AI chip market in 2028,<sup>3</sup> or will it be challenged by new competitors.

### Innovative linchpin companies offer strongest growth prospects

Investors looking to navigate the next phase of the AI investment cycle responsibly should seek to identify those

key linchpin companies that are innovating within secular growth markets. Improving fundamentals are also crucial—firms with accelerating revenues, increasing operating margins, and/or improving free cash flows are worth looking at closely. Finally, it is important to ensure that any valuations paid are reasonable.

When analyzing AI's impact on the wider global technology field, investors should include the semiconductor industry, where new kinds of semiconductors are being designed for AI applications. Also, AI is being used to improve the existing chip design and manufacturing processes. Among software firms, data infrastructure companies, vertical application vendors, and cybersecurity vendors are well placed to capitalize on the advancements in AI. Finally, in financial technology (fintech), generative AI is being used to improve the customer experience in areas such as personalized banking, fraud detection, and credit risk assessment.

### Key takeaway

Investors seeking to navigate the next phase of the AI investment cycle should look for key tech firms that are innovating within growth markets.

The specific securities identified and described are for informational purposes only and do not represent recommendations to buy or sell any security.  
<sup>3</sup> Source: AMD Advancing AI Event 2024 for 2028 estimates, and AI Chip Market- AMD Data Center and AI Technology Premier for 2023 estimates. Estimates provided are for the AI Chip Total Addressable Market (TAM). TAM is the total potential market for a product or service. There is no guarantee that any forecasts (AMD forecast, October 2024) made will come to pass and actual outcomes may differ materially.

## Why the rise of AI is not the dot-com bubble part II



### Earnings versus speculation

Unlike the dot-com bubble, this AI cycle has been driven by a surge in earnings rather than by speculation.



### Valuations

NVIDIA's sevenfold share price increase was almost entirely driven by earnings growth estimates rather than by market sentiment alone.



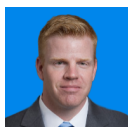
### Funding source

AI growth has been driven by selling linchpin AI technology to cash flow-generative companies, versus the dot-com bubble, which was primarily funded by debt.



For illustrative purposes only.

# High yield debt, financial stocks offer value amid uncertainty



**Tim Murray, CFA®**  
Capital Markets Strategist

There is not enough uncertainty priced into markets. While 2025 could certainly turn out to be another year of prosperity, an optimistic outcome is already priced in to almost every asset category, generating sometimes

conflicting cross-asset signals. Against that backdrop, there are two primary questions that will determine the direction of markets in 2025:

## 1. How long and variable is the lag after Federal Reserve action on monetary policy?

If the lag is lengthy, it will take more time for the effects of Fed easing to work through the economy. In this

scenario, we should worry more about the labor market (and potentially a recession), not resurgent inflation. If it is short, we should be more concerned about inflation than unemployment.

Our view is that the lag from Fed easing will be relatively short, making us more positive on growth but wary of sticky inflation.

## Fixed income yields are attractive

(Fig. 7) High yield bonds offer premium to equities



**Past performance is not a reliable indicator of future performance.**

January 29, 2010 through October 15, 2024.

Source: Bloomberg Finance L.P.

Earnings yield is 12-month earnings per share divided by stock price. Earnings yield uses forward earnings estimates. Actual outcomes may differ materially from forward estimates.

<sup>1</sup> Fixed income yields (Bloomberg U.S. High Yield, cash, Bloomberg U.S. Aggregate) are yield to worst. Equity yields (S&P 500, S&P 500 ex. Magnificent 7) are earnings yield.

<sup>2</sup> The "Magnificent 7" is Apple, Alphabet, Amazon, Meta, Microsoft, NVIDIA, and Tesla. The specific securities identified and described are for informational purposes only and do not represent recommendations.

## 2. Will the hyperscalers maintain the needed very high levels of capital expenditure on artificial intelligence?

The AI revolution drove the 2024 gains in mega-cap U.S. technology stocks. The durability of hyperscaler (mega-cap companies that provide cloud computing services) spending on AI will help determine the fate of this group of stocks as well as whether the rally can broaden.

AI spending could be peaking, making 2025 a year of transition. If this is the case, we could see AI enthusiasm take a back seat to other market themes. The economy has also benefited from AI spending—we have essentially had modest growth with an AI kicker that made it look stronger. A capex slowdown would weigh on economic expansion.

### Value in non-investment-grade debt

High yield bonds and bank loans, which typically have non-investment-grade credit ratings, are two segments that offer attractive all-in yields despite tight credit spreads. High yield bonds

and loans feature credit quality that has steadily improved since the global financial crisis, and their current yields more than compensate for their credit risk even if the economy weakens.

### Financials expected to benefit from steeper yield curve

In equities, we favor the health care and energy sectors as well as financials, so 2025 could see a resurgence in value stocks over growth companies. Bank stocks in particular should benefit from expanding net interest margins as yield curves steepen with the Fed cutting rates. International small-caps, with their relatively heavy weights in cyclically sensitive sectors like financials, consumer discretionary, and industrials, also fit this thesis.

Across international markets, Japanese equities stand out even after their strong performance in recent years. Corporate governance in Japan continues to improve. The country has finally succeeded in generating reflation and now needs to manage it effectively, but the level of uncertainty in Japan is meaningfully lower than in other developed markets.

### Key takeaway

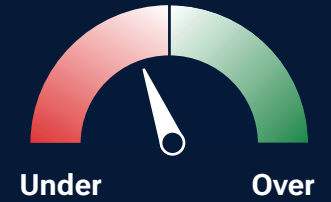
In an environment where not enough uncertainty is priced into most asset classes, high yield debt, value stocks, and Japanese equities are attractive.



# 2025 tactical allocation views

As of October 31, 2024.

## Weighting Guide

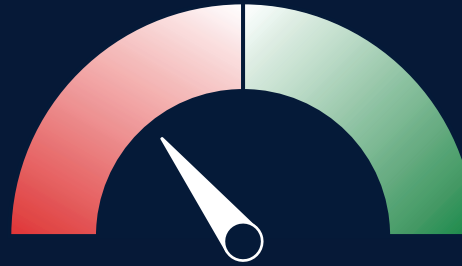


## T. Rowe Price multi-asset positioning—asset class



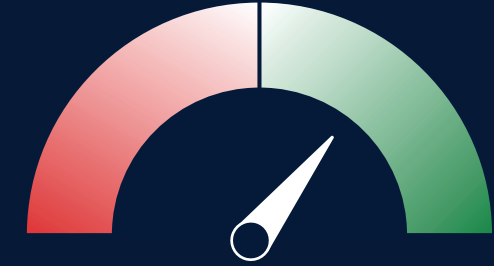
### Stocks

Despite elevated valuations, we see potential for broadening of earnings growth as developed market central banks cut rates. Questions remain around AI momentum, economic growth, and geopolitical tensions.



### Bonds

Longer-term bond yields could face upward pressure on resilient growth backdrop and prospects for increased fiscal spending, while shorter-term yields move lower with easing central bank policies. Credit fundamentals should remain supportive, with limited upside to valuations given tight spread levels.



### Cash

Despite recent shift downward on the back of Fed easing, cash/cash equivalents still provide attractive yields and offer liquidity should market opportunities arise.

For informational purposes only. This material is not intended to be investment advice or a recommendation to take any particular investment action. Actual future outcomes may differ materially from any forward-looking statements made.

## T. Rowe Price multi-asset positioning—stocks



U.S.

Monetary policy easing could stimulate broader economic activity and earnings growth. Technology and pharmaceutical innovation remain key differentiators, although valuations remain elevated.



Global ex U.S.

Dividend yields and valuations are attractive on a relative basis. Improving European growth and inflation outlook, easing central bank policies, and Chinese stimulus provide incremental support against a still-fragile backdrop.



Europe

Valuations remain attractive on a relative basis with potential for improvement in economic growth from low levels, particularly against a backdrop of easing monetary policy. However, lack of durable catalysts for long term growth and trade policy uncertainty are headwinds.



Japan

Japan should continue to benefit from corporate governance efforts as well as other structural improvements, despite tepid growth environment. A weaker yen could also provide support to Japanese export companies.



Emerging Markets

Valuations are attractive, monetary policy is easing, and China has signaled a willingness to provide more significant monetary and fiscal support.



U.S. Growth vs. Value<sup>1</sup>

Easing monetary policy has been supportive of rate-sensitive sectors and could lead to earnings broadening. Meanwhile, growth stocks face elevated expectations, challenging valuations, and growing AI skepticism.



Global ex U.S. Growth vs. Value<sup>1</sup>

Value stocks are cheap and could benefit from improving financial conditions. Growth stocks' valuations are more expensive and face headwinds from structural consumer weakness in emerging markets.



U.S. Small- vs. Large-Cap<sup>1</sup>

Small-caps offer attractive relative valuations with support from a dovish tilt in Fed expectations. However, a modest economic growth backdrop could pose a challenge.



Global ex U.S. Small- vs. Large-Cap<sup>1</sup>

Monetary easing, lower inflation, and less exposure to trade policy could provide tailwinds with still very attractive valuations.



Real Assets Equities

Commodity-related equities offer a hedge against a resurgence in inflation. Peaking benefits from productivity advancements could lead to higher oil prices, while some industrial metals could see increased demand from AI spending and decarbonization.

For informational purposes only. This material is not intended to be investment advice or a recommendation to take any particular investment action. Actual future outcomes may differ materially from any forward-looking statements made.

<sup>1</sup> For pairwise decisions in style and market capitalization, positioning pointed represents positioning in the first mentioned asset class relative to the second asset class.



## T. Rowe Price multi-asset positioning—bonds



**U.S. Investment Grade (IG)**

Yield curve likely to steepen as longer rates biased higher and short rates lower with Fed easing. Within credit, fundamentals supportive, while valuations leave limited upside.



**Global High Yield**

Fundamentals remain supportive, and defaults are expected to remain contained. Despite elevated valuations, yield levels remain compelling and could offset spread widening.



**Developed ex U.S. IG (Hedged)**

Most global central banks have begun rate cutting cycles, with the exception of the Bank of Japan. Yields remain attractive on a hedged basis but could fade as the Fed continues to cut.



**Floating Rate Loans**

More modest pace of Fed cuts should weigh less on floating rate loans with yield levels still attractive and underlying fundamentals still strong, while keeping a cautious eye on liquidity.



**U.S. Treasury Long**

Longer-term yields to remain vulnerable to better growth outlook, possible stickier inflation, and increased supply on fiscal spending outlook.



**Emerging Market (EM) Dollar Sovereigns**

EM sovereign valuations are relatively attractive. Constructive backdrop amid central bank easing and potential for lower U.S. dollar.



**Inflation Linked**

Current breakeven levels reflecting inflation settling slightly higher than Fed target level, with further upside possible given fiscal outlook and trade policy uncertainty.



**EM Local Currency**

Central bank easing and stronger currencies could provide a tailwind.

For informational purposes only. This material is not intended to be investment advice or a recommendation to take any particular investment action. Actual future outcomes may differ materially from any forward-looking statements made.

The asset classes across the equity and fixed income markets shown are represented in our multi-asset portfolios. Certain style and market capitalization asset classes are represented as pairwise decisions as part of our tactical asset allocation framework.

T. Rowe Price identifies and actively invests in opportunities to help people thrive in an evolving world, bringing our dynamic perspective and meaningful partnership to clients so they can feel more confident.

This document reflects the views of the respective associates of T. Rowe Price Associates, Inc., and certain of its investment advisory affiliates. Where noted (articles “U.S. Equities” and “Private Markets”), the views expressed are those of associates of T. Rowe Price Investment Management, Inc., and Oak Hill Advisors, L.P., respectively. The views expressed in this material may differ from the views of other associates and/or T. Rowe Price group companies. T. Rowe Price Associates, Inc. (TRPA), and T. Rowe Price Investment Management, Inc. (TRPIM), have separate research platforms and make investment decisions independently. Oak Hill Advisors, L.P. (OHA), an alternative credit manager, is a T. Rowe Price company. T. Rowe Price Investment Management, Inc., T. Rowe Price Associates, Inc., and Oak Hill Advisors are affiliated companies.

T. Rowe Price cautions that economic estimates and forward-looking statements are subject to numerous assumptions, risks, and uncertainties, which change over time. **Actual outcomes could differ materially from those anticipated in estimates and forward-looking statements, and future results could differ materially from any historical performance.** The information presented herein is shown for illustrative, informational purposes only. Any historical data used as a basis for this analysis are based on information gathered by T. Rowe Price and from third-party sources and have not been independently verified.

Forward-looking statements speak only as of the date they are made, and T. Rowe Price assumes no duty to and does not undertake to update forward-looking statements.

Where securities are mentioned, the specific securities identified and described are for informational purposes only and do not represent recommendations.

---

#### Additional Disclosures

Copyright © 2024, S&P Global Market Intelligence (and its affiliates, as applicable). Reproduction of any information, data or material, including ratings (“Content”) in any form is prohibited except with the prior written permission of the relevant party. Such party, its affiliates and suppliers (“Content Providers”) do not guarantee the accuracy, adequacy, completeness, timeliness or availability of any Content and are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, or for the results obtained from the use of such Content. In no event shall Content Providers be liable for any damages, costs, expenses, legal fees, or losses (including lost income or lost profit and opportunity costs) in connection with any use of the Content. A reference to a particular investment or security, a rating or any observation concerning an investment that is part of the Content is not a recommendation to buy, sell or hold such investment or security, does not address the suitability of an investment or security and should not be relied on as investment advice. Credit ratings are statements of opinions and are not statements of fact.

MSCI and its affiliates and third party sources and providers (collectively, “MSCI”) makes no express or implied warranties or representations and shall have no liability whatsoever with respect to any MSCI data contained herein. The MSCI data may not be further redistributed or used as a basis for other indices or any securities or financial products. This report is not approved, reviewed, or produced by MSCI. Historical MSCI data and analysis should not be taken as an indication or guarantee of any future performance analysis, forecast or prediction. None of the MSCI data is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such.

CFA® and Chartered Financial Analyst® are registered trademarks owned by CFA Institute.

---

#### Important Information

##### **This material is being furnished for general informational and/or marketing purposes only.**

The material does not constitute or undertake to give advice of any nature, including fiduciary investment advice. Prospective investors are recommended to seek independent legal, financial and tax advice before making any investment decision. T. Rowe Price group of companies including T. Rowe Price Associates, Inc. and/or its affiliates receive revenue from T. Rowe Price investment products and services. **Past performance is not a reliable indicator of future performance.** The value of an investment and any income from it can go down as well as up. Investors may get back less than the amount invested.

The material does not constitute a distribution, an offer, an invitation, a personal or general recommendation or solicitation to sell or buy any securities in any jurisdiction or to conduct any particular investment activity. The material has not been reviewed by any regulatory authority in any jurisdiction.

Information and opinions presented have been obtained or derived from sources believed to be reliable and current; however, we cannot guarantee the sources’ accuracy or completeness. There is no guarantee that any forecasts made will come to pass. The views contained herein are as of the date written and are subject to change without notice; these views may differ from those of other T. Rowe Price group companies and/or associates. Under no circumstances should the material, in whole or in part, be copied or redistributed without consent from T. Rowe Price.

The material is not intended for use by persons in jurisdictions which prohibit or restrict the distribution of the material and in certain countries the material is provided upon specific request. It is not intended for distribution to retail investors in any jurisdiction.

**DISCLOSURE CONTINUES ON THE FOLLOWING PAGE.**

## Important Information (cont.)

**Australia**—Issued by T. Rowe Price Australia Limited (ABN: 13 620 668 895 and AFSL: 503741), Level 28, Governor Phillip Tower, 1 Farrer Place, Sydney NSW 2000, Australia. For Wholesale Clients only.

**Brunei**—This material can only be delivered to certain specific institutional investors for informational purpose only. Any strategy and/or any products associated with the strategy discussed herein has not been authorised for distribution in Brunei. No distribution of this material to any member of the public in Brunei is permitted.

**Canada**—Issued in Canada by T. Rowe Price (Canada), Inc. T. Rowe Price (Canada), Inc.'s investment management services are only available to Accredited Investors as defined under National Instrument 45-106. T. Rowe Price (Canada), Inc. enters into written delegation agreements with affiliates to provide investment management services.

**Colombia, Chile, Mexico, Perú, Uruguay**—This material is prepared by T. Rowe Price International Ltd - Warwick Court, 5 Paternoster Square, London, EC4M 7DX which is authorised and regulated by the UK Financial Conduct Authority - and issued and distributed by locally authorized distributors only. For professional investors only.

**DIFC**—Issued in the Dubai International Financial Centre by T. Rowe Price International Ltd which is regulated by the Dubai Financial Services Authority as a Representative Office. For Professional Clients only.

**EEA**—Unless indicated otherwise this material is issued and approved by T. Rowe Price (Luxembourg) Management S.à r.l. 35 Boulevard du Prince Henri L-1724 Luxembourg which is authorised and regulated by the Luxembourg Commission de Surveillance du Secteur Financier. For Professional Clients only.

**Hong Kong**—Issued in Hong Kong by T. Rowe Price Hong Kong Limited, 6/F, Chater House, 8 Connaught Road Central, Hong Kong. T. Rowe Price Hong Kong Limited is licensed and regulated by the Securities & Futures Commission. For Professional Investors only.

**Indonesia**—This material is intended to be used only by the designated recipient to whom T. Rowe Price delivered; it is for institutional use only. Under no circumstances should the material, in whole or in part, be copied, redistributed or shared, in any medium, without prior written consent from T. Rowe Price. No distribution of this material to members of the public in any jurisdiction is permitted.

**Korea**—This material is intended only to Qualified Professional Investors. Not for further distribution.

**Mainland China**—This material is provided to qualified investors only. No invitation to offer, or offer for, or sale of, the shares will be made in the mainland of the People's Republic of China ("Mainland China", not including the Hong Kong or Macau Special Administrative Regions or Taiwan) or by any means that would be deemed public under the laws of the Mainland China. The information relating to the strategy contained in this material has not been submitted to or approved by the China Securities Regulatory Commission or any other relevant governmental authority in the Mainland China. The strategy and/or any product associated with the strategy may only be offered or sold to investors in the Mainland China that are expressly authorized under the laws and regulations of the Mainland China to buy and sell securities denominated in a currency other than the Renminbi (or RMB), which is the official currency of the Mainland China. Potential investors who are resident in the Mainland China are responsible for obtaining the required approvals from all relevant government authorities in the Mainland China, including, but not limited to, the State Administration of Foreign Exchange, before purchasing the shares. This document further does not constitute any securities or investment advice to citizens of the Mainland China, or nationals with permanent residence in the Mainland China, or to any corporation, partnership, or other entity incorporated or established in the Mainland China.

**Malaysia**—This material can only be delivered to specific institutional investor. This material is solely for institutional use and for informational purposes only. This material does not provide investment

advice or an offering to make, or an inducement or attempted inducement of any person to enter into or to offer to enter into, an agreement for or with a view to acquiring, disposing of, subscribing for or underwriting securities. Nothing in this material shall be considered a making available of, solicitation to buy, an offering for subscription or purchase or an invitation to subscribe for or purchase any securities, or any other product or service, to any person in any jurisdiction where such offer, solicitation, purchase or sale would be unlawful under the laws of Malaysia.

**New Zealand**—Issued by T. Rowe Price Australia Limited (ABN: 13 620 668 895 and AFSL: 503741), Level 28, Governor Phillip Tower, 1 Farrer Place, Sydney NSW 2000, Australia. No Interests are offered to the public. Accordingly, the Interests may not, directly or indirectly, be offered, sold or delivered in New Zealand, nor may any offering document or advertisement in relation to any offer of the Interests be distributed in New Zealand, other than in circumstances where there is no contravention of the Financial Markets Conduct Act 2013.

**Philippines**—ANY STRATEGY AND/ OR ANY SECURITIES ASSOCIATED WITH THE STRATEGY BEING DISCUSSED HEREIN HAVE NOT BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION UNDER THE SECURITIES REGULATION CODE. ANY FUTURE OFFER OR SALE OF THE STRATEGY AND/ OR ANY SECURITIES IS SUBJECT TO REGISTRATION REQUIREMENTS UNDER THE CODE, UNLESS SUCH OFFER OR SALE QUALIFIES AS AN EXEMPT TRANSACTION.

**Singapore**—Issued by T. Rowe Price Singapore Private Ltd. (UEN: 201021137E), 501 Orchard Rd, #10-02 Wheelock Place, Singapore 238880. T. Rowe Price Singapore Private Ltd. is licensed and regulated by the Monetary Authority of Singapore. For Institutional and Accredited Investors only.

**South Africa**—Issued in South Africa by T. Rowe Price International Ltd (TRPIL), Warwick Court, 5 Paternoster Square, London EC4M 7DX, is an authorised financial services provider under the Financial Advisory and Intermediary Services Act, 2002 (Financial Services Provider (FSP) Licence Number 31935), authorised to provide "intermediary services" to South African Investors. TRPIL's Complaint Handling Procedures are available to clients upon request. The Financial Advisory and Intermediary Services Act Ombud in South Africa deals with complaints from clients against FSPs in relation to the specific services rendered by FSPs. The contact details are noted below: Telephone: +27 12 762 5000, Web: www.faisombud.co.za, Email: info@faisombud.co.za

**Switzerland**—Issued in Switzerland by T. Rowe Price (Switzerland) GmbH, Talstrasse 65, 6th Floor, 8001 Zurich, Switzerland. For Qualified Investors only.

**Taiwan**—This does not provide investment advice or recommendations. Nothing in this material shall be considered a solicitation to buy, or an offer to sell, a security, or any other product or service, to any person in the Republic of China.

**Thailand**—This material has not been and will not be filed with or approved by the Securities Exchange Commission of Thailand or any other regulatory authority in Thailand. The material is provided solely to "institutional investors" as defined under relevant Thai laws and regulations. No distribution of this material to any member of the public in Thailand is permitted. Nothing in this material shall be considered a provision of service, or a solicitation to buy, or an offer to sell, a security, or any other product or service, to any person where such provision, offer, solicitation, purchase or sale would be unlawful under relevant Thai laws and regulations.

**UK**—This material is issued and approved by T. Rowe Price International Ltd, Warwick Court, 5 Paternoster Square, London EC4M 7DX which is authorised and regulated by the UK Financial Conduct Authority. For Professional Clients only.

**USA**—Issued in the USA by T. Rowe Price Associates, Inc., and T. Rowe Price Investment Management, Inc., 100 East Pratt Street, Baltimore, MD, 21202, which are regulated by the U.S. Securities and Exchange Commission. For Institutional Investors only.

© 2024 T. Rowe Price. All Rights Reserved. T. ROWE PRICE, INVEST WITH CONFIDENCE, and the Bighorn Sheep design are, collectively and/or apart, trademarks of T. Rowe Price Group, Inc.