

GLOBAL Insight



Wealth
Management

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Perspectives from the Global Portfolio Advisory Committee



Power, storage, and electrification: A revolution

As burgeoning demand and innovation transform the energy landscape, we examine key trends that are likely to shape the future of renewable power and industrial electrification.

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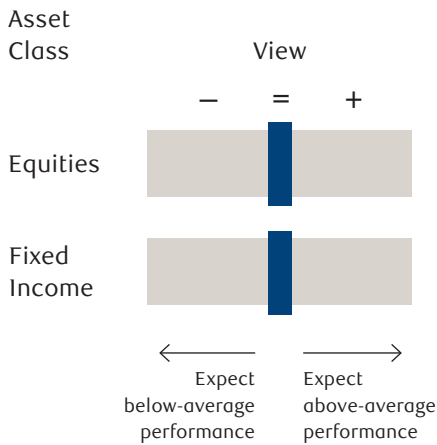
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Global asset class views



(+/-/=) represents the Global Portfolio Advisory Committee's (GPAC) view over a 12-month investment time horizon.

+ Overweight implies the potential for better-than-average performance for the asset class or for the region relative to other asset classes or regions.

= Market Weight implies the potential for average performance for the asset class or for the region relative to other asset classes or regions.

- Underweight implies the potential for below-average performance for the asset class or for the region relative to other asset classes or regions.

Source - RBC Wealth Management

Equities

- As enthusiasm for the Magnificent 7 stocks has taken a breather and U.S. economic data has softened, markets in other countries have outperformed or held their own against U.S. indexes thus far in 2025.
- Softer U.S. data raises questions about whether the economy can deliver a fourth straight year of GDP growth above 2%. Typically, the U.S. market performs well when GDP growth registers between 2.1%–3% per annum as this supports solid corporate revenue and profit gains. But the market often falters during slower growth periods of 1%–2% as sales and earnings are dampened.
- While RBC Global Asset Management currently forecasts 2.5% U.S. GDP growth in 2025, we are mindful there are downside risks to this forecast, particularly given the high level of Washington D.C. policy uncertainty. In our view, portfolios should stay committed to equities up to but not beyond their long-term targeted exposure.

Fixed income

- The yield narrative has shifted to start 2025. After rising sharply over the last three months of 2024, U.S. bond yields have dropped notably since January, with the benchmark 10-year Treasury yield falling to just 4.3% as of late February after trading as high as 4.8% in January. Post-election optimism has seemingly given way to greater uncertainty, and fears of higher inflation and slower growth. Global yields, however, traded modestly higher in February as market expectations for greater fiscal deficits to counter soft growth have increased. Most global central banks have paused rate cut cycles, or likely will in March, with only the European Central Bank likely to cut rates in March, in our view.
- In the U.S., we maintain our Underweight position in U.S. Treasuries after the recent drop in yields. We maintain a Neutral outlook for global developed bonds as other central banks near the end of their respective rate cut cycles, with many taking a wait-and-see approach.
- We reiterate our Market Weight stance on U.S. fixed income with yields remaining above multi-decade averages. Credit valuations remain historically rich, so we continue to be selective in our allocations to credit sectors. Globally, the risks are balanced, in our view, justifying a Neutral outlook for sovereign and corporate bonds.

MONTHLY
Focus



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Power, storage, and electrification: A revolution

The energy landscape is being transformed by a combination of burgeoning demand, technological innovation, and geopolitical tensions. Against this backdrop, renewable energy has become an integral part of the global economy and is poised to play an even greater role in the coming decades. We examine key trends that are likely to generate opportunities and risks for investors.

Key points

- **New technologies are driving both rapid growth in electricity demand and innovations in renewable energy supply.**
- **The electrification of industrial processes is gaining momentum as renewable power becomes cheaper and more reliable.**
- **Energy security is an important theme as economies seek to diversify beyond fossil fuel dependence.**

The ongoing steep decline in the costs of renewable electric power, now in its second decade, promises more abundant, cheaper supplies of electricity in the years to come. Meanwhile, the rapid pace of innovation in storage and electrification is opening up important possibilities for harnessing all that cheap electric power.

Electric vehicles and artificial intelligence (AI) are the poster children for new technologies that have a growing thirst for economical electricity. Less often considered, but arguably just as important, are basic industries—notably cement, chemicals, and steel—for which cheap electric power offers opportunities to significantly reduce both input and processing costs.

We expect some of the most intriguing innovations that appear set to transform heavy industry will present a number of investable opportunities.

Power: satisfying a growing appetite

The rapid proliferation of wind farms, solar collectors, and now storage systems has driven the cost of renewable power (without subsidies) down to levels that already make renewables the least expensive energy sources in many countries, as we detailed in our 2025 Global Outlook focus article [The “Unstoppables”](#). The cost of electricity from renewables has fallen to levels that seemed unimaginable just a decade ago.

The International Energy Agency (IEA) estimates that the installed power generation capacity of renewables reached a record 666 gigawatts (GW) in 2024, a remarkable 30 percent increase from 2023. By 2030, the IEA estimates global renewable energy capacity could increase 2.7 times.

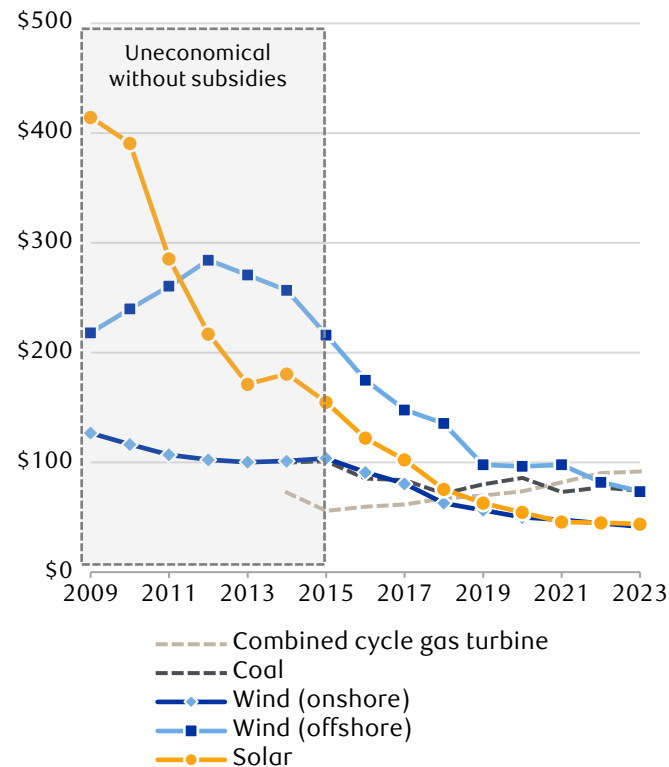


For more on major trends we see shaping the future including renewable energy and electrification, please see the *Global Insight 2025 Outlook* focus article [“The ‘Unstoppables’”](#).

POWER, STORAGE, AND ELECTRIFICATION

Solar and onshore wind are now the cheapest electricity sources

Global levelized cost of electricity per megawatt-hour



The LCOE is the long term breakeven price a power project needs to recoup all costs and meet the required rate of return. LCOEs do not include subsidies.

Source - BloombergNEF; data not available for coal and gas plants prior to 2014

Annual worldwide installation of new solar power generation plants has routinely exceeded the IEA’s forward estimates over the past decade, sometimes by 100 percent or more.

This remarkable growth is being driven not only by cost advantages, but also by the world’s ever-growing appetite for electricity. This demand is likely to accelerate in the future, with a major contributor being electricity consumption by more and larger data centres. Mostly owned by major technology companies, data centres consume vast amounts of energy, particularly when training and deploying AI models. For example, it takes 10 times more power to complete an AI chatbot request than a Google search.

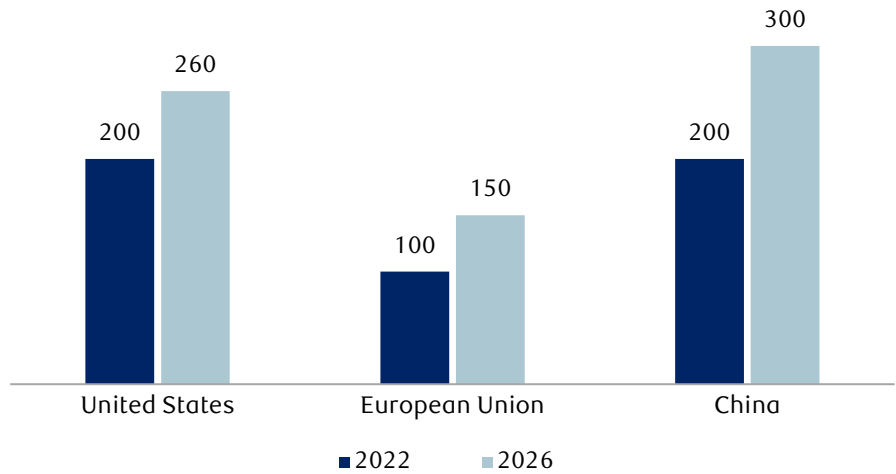
In the U.S., more than one-third of new electricity demand between 2022 and 2026 is expected to come from data centre expansion. According to the IEA, these facilities will likely leap from consuming four percent of all electricity in the U.S. in 2022 to six percent in just four years. That extra two percentage points may not seem like much, but it is equivalent to an average annual growth rate of 10 percent—a rate of expansion that could outpace the development of energy infrastructure, with consequences conceivably including more frequent power outages.

The U.S. government’s decision to abandon federal climate goals has weakened corporate commitments to green initiatives. Many technology companies are reverting or trying to revert to fossil fuels, but remain committed to renewables owing to their low costs as energy demand rises.

POWER, STORAGE, AND ELECTRIFICATION

Data centre electricity consumption is rising rapidly

Estimated data centre electricity consumption (terawatt-hours)



A terawatt is 1 trillion watts.

Source - RBC Wealth Management, Statista

Some companies are also exploring nuclear power as an additional source of reliable energy over the long term.

At first glance, nuclear appears well suited to the needs of data centres as it provides highly reliable, clean energy 24 hours a day. However, building new nuclear plants not only involves substantial investment but also typically entails long delays and cost overruns, exacerbated by the dearth of nuclear expertise after the industry fell out of favour for security reasons at the turn of the century.

One emerging approach that aims to overcome these challenges is the Small Modular Reactor (SMR). These advanced reactor designs, which generate a fraction of the power produced by traditional nuclear power plants, are intended to be built in factories and assembled on site to meet customers’ specific needs.

Companies are seeking to diversify their energy sources

Microsoft is a case in point. The company now anticipates that by 2030 it will need over five times more electricity than it had projected in 2020. It has signed a multi-billion-dollar deal with Brookfield Renewable Partners that will facilitate more than 10.5 gigawatts of power generation starting in 2026, largely derived from solar and wind. It will also purchase power from Constellation Energy, which plans to restart the Three Mile Island nuclear plant in the U.S. Moreover, the company created the role of Director of Nuclear Technologies in 2024 to oversee the development of Small Modular Reactor systems for data centres.

POWER, STORAGE, AND ELECTRIFICATION

Storage: solving the variability problem

If lower costs have been behind the proliferation of renewable capacity, equally important to the overall energy picture have been technological advancements that address the intermittent nature of wind and solar power.

Technical, managerial, and systems-engineering changes have improved traditional grids to accommodate renewable sources. In particular, the rapid expansion of facilities capable of storing enough electricity to compensate for the natural variability in renewable energy production has become a game changer. These so-called grid-scale batteries are electrochemical devices that collect energy from the grid, store it, and release it later to provide power when it is needed.

Beyond the obvious need to harness intermittent renewable energy sources, rapidly decreasing battery prices are contributing to this growth. The price of stationary lithium-ion batteries per kilowatt-hour of storage dropped by some 40 percent between 2020 and 2023 according to BloombergNEF.

The IEA has identified grid-scale storage as the fastest-growing energy technology. It estimates some 80 GW of new capacity will have been added in the three years to 2025, or eight times the capacity expansion in the decade to 2020.

Like electricity generation, the electricity storage category is being broadened by innovation. Sodium-ion batteries in particular have shown promise. Because sodium is a very abundant element, these batteries pose fewer [supply chain risks](#) and are also less susceptible to geopolitical tensions than lithium, an element derived from minerals concentrated in a few politically volatile regions.

Besides being cheaper to produce than lithium-ion batteries, another potential advantage of sodium-ion batteries is that they are less flammable, which reduces fire risks and results in lower insurance premiums for users. This benefit should not be underestimated; in 2021 and 2023, fires damaged two grid-scale battery facilities operated by Tesla in Australia. More recently, in January 2025, a fire at the world's largest battery storage plant in California destroyed 300 megawatts of lithium battery storage, clipping two percent off the state's total energy storage capacity.

Sodium-ion battery technology is now under active development around the world. Chinese battery manufacturer Contemporary Amperex Technology Limited (CATL) recently announced a sodium-ion battery capable of functioning at -40°C, an important attribute for colder climates. In the U.S., private company Natron Energy, backed by oil giant Chevron, is investing \$1.4 billion to establish a sodium-ion battery factory in North Carolina.

The IEA estimates sodium ion batteries will make up 10 percent of all energy storage installed in five years' time.



For more on the supply chain risks associated with minerals that have key roles in the energy transition, please see the Global Insight special report “[Mission critical: Securing supply of critical minerals](#)”.

POWER, STORAGE, AND ELECTRIFICATION



For more on the growing global importance of energy security, please see the Global Insight special report “[Recharging the energy transition?](#)”

Electrification of industry: heating things up

The electrification of basic industries has long been deemed unfeasible based on the belief that electrical furnaces couldn’t produce heat high enough for many industrial processes to take place. However, recent innovations have overcome many of these limitations, enabling the electrification of processes that were previously the sole remit of fossil fuels, such as the calcination process in cement production.

In his book *Zero-Carbon Industry*, Jeffrey Rissman explains that electrification of industrial processes should be viewed in terms of the *cost-effective replacement* of fuel-based processes with electrified alternatives. In the age of [energy security](#), this objective is particularly important for countries aiming to reduce their dependence on imported fossil fuels.

Rissman points out that the electrification of industry largely boils down to a question of how to produce heat from electricity, as heat accounts for more than 90 percent of U.S. fuel use for industrial processes (excluding raw materials), according to the U.S. Energy Information Administration.

Moreover, he estimates that less half the heat for industrial processes is for applications below 500°C. For example, the food and pulp & paper industries rely on processes that require temperatures of 200°C or less. Cement kilns, by contrast, need to reach temperatures of 1300–1450°C, and steelmaking blast furnaces operate at 1600–1800°C.

For processes that require less extreme heat, such as those in the food, pulp & paper, or even pharmaceutical and textile industries, heat pumps have emerged as an alternative. Increasingly used for domestic heating, heat pumps act as reverse refrigerators, taking heat from outside and moving it inside. They are energy efficient as they do not produce new heat but merely move it, delivering substantial energy savings.

Industrial heat pumps are in use in Europe and Japan, two regions where electricity prices are low compared to natural gas prices. Japan’s Kobe Steel, for instance, sells industrial heat pumps that produce steam at 165°C. Subsidies and policy incentives have helped the take-up of this new technology.

But even in the energy-rich U.S., heat pumps are garnering more interest. It costs no more to run a heat pump to get temperatures up to 130°C than a gas boiler, according to the Renewable Thermal Collaborative (RTC), an industry consortium. Higher-temperature heat pumps are also being developed. German industrial company SPH Sustainable Process Heat GmbH has developed a heat pump that harnesses waste industrial heat and reaches temperatures of up to 200°C.

For processes that require much more intense heat, thermal batteries have emerged as a potential solution. One version consists of bricks housed in a metal box, heated by electrical conductors to over 1000°C. Thanks to effective insulation, they can retain heat for days and release it when needed at various temperatures.

POWER, STORAGE, AND ELECTRIFICATION

Many companies are working towards the electrification of industrial processes

Chemicals: A newly formed consortium bringing together German chemical behemoth BASF, Saudi chemical powerhouse SABIC, and global industrial-gases firm Linde aims to develop an electric furnace capable of producing heat sufficiently intense for the chemical reactions required in their manufacturing processes.

Mining: Rio Tinto and BHP, two of the world's largest mining firms, have launched a collaborative initiative to construct Australia's first electric smelter for iron ore.

Cement: Holcim, the German cement giant, is exploring the electrification of kilns and already incorporates renewable electricity in various stages of the production process.

Steel: Sweden's SSAB aims to commercialize green steel by 2026 by replacing coal-powered blast furnaces by hydrogen direct reduction, where hydrogen is produced via electrolysis powered by renewable electricity.

Another technology that has taken on a critical role is electrolysis. Instead of stimulating chemical reactions with heat, electrolysis drives reactions by passing an electric current through a solution. Extensively used for green hydrogen production, electrolysis is being investigated for the smelting of iron ore and potentially to replace the kiln in cement production.

Finally, where the most extreme temperatures are required, a technology that has been around for almost a century is increasingly being used: the electric arc furnace. In the steel industry, these devices use electric arcs to melt scrap metal to be repurposed into new steel. They offer a more energy-efficient and environmentally friendly alternative to traditional blast furnaces, which make steel from iron ore and coking coal in a process known as smelting. Electric arc furnaces are mostly suited to developed markets where scrap is easily available and plentiful.

Though well established, this technology is attracting new converts. In 2024, Tata Steel shut down its blast furnaces in Wales, UK, intending to move to electrified steelmaking.

Innovate, baby, innovate

Will these new technologies work at large scales? Time will tell. But sceptics should remember that other low carbon technologies like wind and solar initially experienced high failure rates and slow rollouts. As engineers and businesses progressed along the learning curve, failure rates declined and adoption accelerated faster than anyone had anticipated.

POWER, STORAGE, AND ELECTRIFICATION

Even if these new technologies prove scalable and efficient, electrifying industry will take time. Changing processes may involve high upfront costs, including training, and disruptive stoppages.

Yet the march toward electrification, underpinned by the falling cost of renewable electric power and the rising importance of energy security, is progressing. Innovations in power, storage, and electrification of industrial processes continue.

While new technologies and disruptive innovations may present promising opportunities for investors in time, they come with inherent risks. As companies grow and at times merge, market dynamics shift and prices fluctuate; the path forward can be uncertain. Thus, although staying alert to new developments is important, many investors may opt to focus on more established industries and themes. Energy efficiency, for example, is an investment theme that underpins many businesses providing products and services aimed at optimizing consumption and lowering energy costs.

As new innovations emerge to meet the challenges of a changing world, we encourage investors to consider the opportunities and risks in light of their long-term investment goals.

GLOBAL Equity



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“Everything else” takes its revenge

Over the last month, each of the so-called “Magnificent 7” (Alphabet, Amazon, Apple, Meta Platforms, Microsoft, NVIDIA, and Tesla) has been falling in price, led by Tesla down 40% from its peak and 32% on the month. That’s been enough to bring all the U.S. large-cap indexes down by somewhere in the mid-to-high single digits. Over the same interval, indexes elsewhere are either up sharply (Europe, the UK, and Hong Kong) or holding their own (Canada, South Korea, Taiwan, and Japan).

This is all the more remarkable, in our view, because much of the “everything else”—e.g., Canada, Europe, Asia, and the UK—looks likely to feel the painful bite of U.S. tariffs. So too will some important segments of U.S. manufacturing—mostly autos—even before retaliatory tariffs are factored in.

This apparent buoyancy in the equity indexes of threatened economies is being read by some market participants as indicating that tariffs will prove to be much more moderate and short-lived than headlines suggest. For our part, we are uncomfortable with an investment approach that starts with the premise that the stock market is an infallible predictor of the future.

Equity markets are driven in some large part by expectations for the economy—particularly the U.S. economy. RBC Capital Markets Head of U.S. Equity Strategy Lori Calvasina makes an important distinction between moderate U.S. GDP growth of 2.1%–3% per annum and slow growth of 1%–2%. The former allows for solid corporate revenue and profit growth, enough to stimulate capital spending and innovation. Such growth tends to be non-inflationary, not requiring the U.S. Federal Reserve to take action to cool things off. Periods of moderate GDP growth have tended to be good for equities.

Equity views

Region	Current
Global	=
United States	=
Canada	=
Continental Europe	–
United Kingdom	–
Asia (ex Japan)	=
Japan	=

+ Overweight; = Market Weight; – Underweight
Source - RBC Wealth Management

However, GDP growth rates below 2% dampen sales and earnings. Equity performance typically falters during periods of slow growth.

The “Goldilocks” zone, between 2.1% and 3% per annum, is where U.S. GDP growth has been running for some time. In Q4 of last year the annualised rate was 2.3%. In the past three calendar years it ran at 2.5%, 2.9%, and 2.8%. That has been a very good stretch for corporate revenues, earnings, and share prices.

Consensus estimates for 2025 U.S. GDP growth have been running in the low-to-mid-2% range and the Q1 pace had been widely expected to come in between 2.2% and 2.5%. However, some recent data is putting both the Q1 forecasts and the conviction around the full-year estimates into question. January foreign trade and consumer spending results were much weaker than the market expected or than quarterly consensus estimates had factored in. Now some are raising the prospect that Q1 GDP growth could be negative: somewhere between minus 1% and minus 2% rather than the plus 2.3% previously pencilled in.

Forecasters on the Street are quick to point out that special factors are to blame: on the international trade front, many U.S. businesses

GLOBAL EQUITY

pre-bought foreign-sourced supplies to get ahead of tariffs, which temporarily worsened the trade deficit; while on the consumer front, lingering effects of the Boeing strike, the California wildfires, and cold weather produced not just slower growth in consumer spending but an outright decline. These shortfalls are all expected by most economists to reverse themselves in the coming months.

Maybe. But all of the “special factors” noted above were visible for some time and presumably factored into Q1 estimates but clearly not to anything like a sufficient degree. So, investors can be forgiven if they are now a bit leery of accepting assurances that all this undershooting will be recouped quickly. So far, full-year consensus estimates have not been adjusted or pared back. But uncertainty around this won’t even partially go away until the first estimates of Q2 growth are released by the U.S. Bureau of Economic Analysis in midsummer, if then.

For now, RBC Global Asset Management Chief Economist Eric Lascelles believes the damage to Q1 won’t be as great as currently feared. His team estimates full-year 2025 GDP at 2.5%.

But if investors decide to worry that this sudden data confusion is in fact marking a negative change of trend, they may decide to act first and wait for clarity later. Rich price-to-earnings multiples need to have the underlying positive fundamental assumptions constantly and unequivocally reaffirmed.

Confidence in a sufficiently robust growth path for U.S. GDP in 2025 and 2026 has become more elusive in a world where policy uncertainty has soared. And policy uncertainty inevitably has translated into business and consumer uncertainty. CEOs reporting good, often better-than-expected results for Q4 have been reluctant to give guidance for 2025. Plans for hiring and capital expenditure look to have become more fluid, less set in stone.

Even lower growth than we are forecasting could feature sticky, perhaps even higher, inflation. (The “prices paid” component of the February ISM Manufacturing Purchasing Managers’ Index soared to a new cycle high.) Manufacturers protected by tariffs are likely to raise prices because they can. Meanwhile, businesses that are hit by rising input costs from tariffs on imported goods have said in surveys they will try to pass on these costs to consumers. Faced with this dynamic, the Fed and other central banks may well stay “on pause” regarding further rate cuts.

All that said, we see plausible scenarios that could reignite the uptrend in North American equities while building on the recent upsurge in the European and UK stock markets. One would be a peace treaty, ceasefire, or any other agreed gearing down of the Russia-Ukraine conflict. Recent chaotic developments notwithstanding, that can’t be ruled out.

Another, obviously, would be some meaningful scaling back of trade issues. We think hopes for some quick resolution on the trade front are just that—“hopes.” Banking on their saving the day in the short run looks to us like a risky stance. But equity markets are known for the propensity to “climb a wall of worry,” and to that end any movement in the right direction on trade or the situation in Ukraine might well be all the bulls need to keep control.

And, of course, the distortions in the January trade and consumer spending data could be recouped more rapidly and fully than we expect, restoring credibility and confidence in full-year GDP growth estimates in the market-friendly 2.1%–3% zone.

For now, worries that the world’s largest economy could be downshifting into slow-growth mode are weighing on markets. A selective, cautious approach to equities has served us well for some time. In our view, it continues to be the right setting.

GLOBAL
Fixed income



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Proceed with caution

After a series of rate cuts in recent months, we think most central banks will likely take a pass in March in favor of waiting for some level of clarity before taking the next steps.

The Federal Reserve already skipped a rate hike in January, so another skip likely won't come as much of a surprise. But we think the Fed may soon find itself between a rock and a hard place.

Inflation expectations everywhere—from business surveys, consumer surveys, and market-derived measures—are on the rise, and notably so. But at the same time, various measures of economic activity are showing early signs of deterioration. Retail sales data was soft in January, while companies are increasingly flagging waning consumer spending in earnings calls. The S&P Global Purchasing Managers' Index for the U.S. service sector showed its first contraction in headline activity since January 2023.

While the inflation backdrop, and uncertainty around tariffs, would suggest the Fed is—at a minimum—

Fixed income views

Region	Gov't bonds	Corp. credit	Duration
United States	–	=	3–7
Canada	+	=	3–7
Continental Europe	+	=	3–7
United Kingdom	=	=	3–7

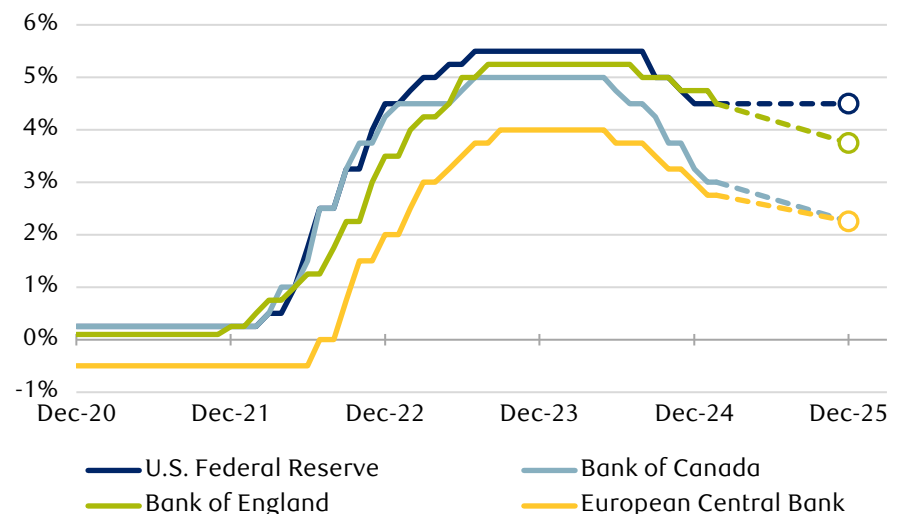
+ Overweight; = Market Weight; – Underweight
Source - RBC Wealth Management

likely to hold rates steady for an extended stretch, the growth backdrop, should it continue to soften, could argue for further rate cuts. But doing so might also add to inflation pressures. A tightrope walk could be awaiting the Fed, indeed.

Globally, it's a similar story. Recent rate cuts have helped to shore up economic activity, allowing both the Bank of Canada and the Bank of England to take a gradual approach from here. In Europe, all signs point to continued rate cuts. As the chart shows, all central banks sans the

After a series of rate cuts, many central banks are likely to proceed cautiously

Policy interest rates of major central banks



Dashed lines and circles show RBC Capital Markets year-end forecasts.

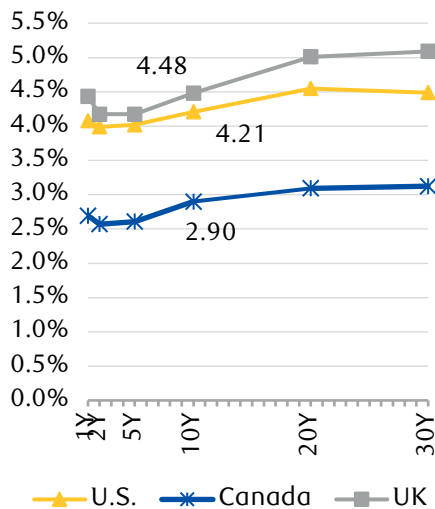
Source - RBC Wealth Management, Bloomberg

GLOBAL FIXED INCOME

Fed are still expected to proceed with further cuts this year with the European Central Bank still on track to cut rates this month, in our view.

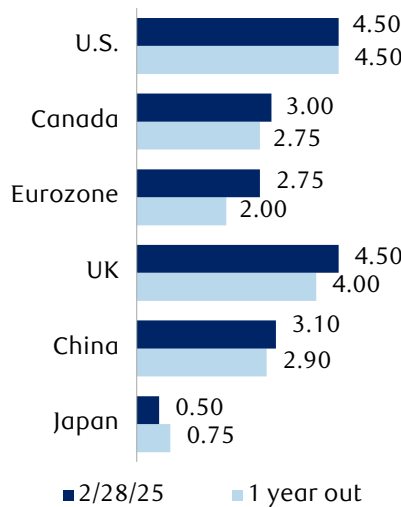
While the hope is always for more clarity, it's rarely realized. Though some may come on the tariff front in upcoming months, the biggest risks around tariffs and trade wars—higher inflation and lower growth—could eventually pose a problem for central banks.

Sovereign yield curves



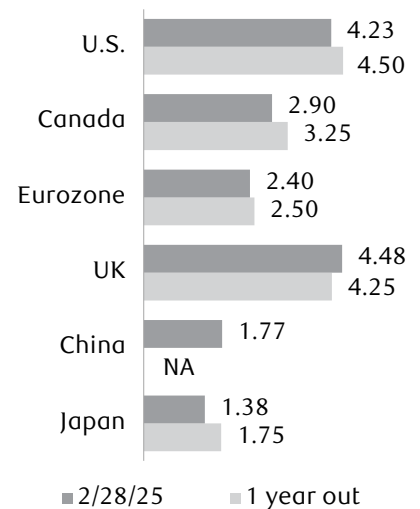
Source - Bloomberg; data through 2/28/25

Central bank rates (%)



Source - RBC Investment Strategy Committee, RBC Capital Markets forecasts, Global Portfolio Advisory Committee, RBC Global Asset Management

10-year rates (%)



Note: Eurozone utilizes German Bunds.
Source - RBC Investment Strategy Committee, Global Portfolio Advisory Committee, RBC Global Asset Management

U.S. RECESSION
Scorecard

Waiting for clarity

As 2025 proceeds, the Scorecard’s leading indicators remain undecided on balance and unchanged from last month. We believe a mixed Scorecard, with the preponderance sitting in less-positive columns, argues for investors to stick to a watchful, cautious approach.

Two, perhaps three, of the indicators could shift to more positive readings over the next month or two. At the same time, distortions induced by very elevated policy uncertainty extending into future months, and the fluidity of the tariff situation make us reluctant to confidently extrapolate any one month’s direction.

Yield curve

In November, the yield curve returned to a “normal” positioning where short-term Treasury yields are lower than long-term yields. This shift ended the longest-ever inversion of the curve—29 months—from July 2022 to November 2024. Normalization of the yield curve resulted from the Fed taking short-term rates down by 100 basis points in response to inflation getting to within 1% of its 2% target, while bond investors were pushing longer-term Treasury yields higher by about 100 basis points as they

worried inflation might stay higher than hoped under the influence of a stronger-than-expected U.S. economy and the prospect for broad implementation of tariffs.

The good news is that the drag from the extended period of tight monetary conditions should gradually abate across the economy. However, the historical record would argue there remains room for a recession. In seven of the past 10 U.S. recessions, the yield curve had de-inverted before or just as the recession got underway.

But there are two glimmers of better news on the credit front: while all consumer loan rates remain very high compared to three years ago, credit cards, auto loans and mortgages have all seen borrowing rates ease slightly in the past month; and the latest Senior Loan Officer Survey indicated a (very narrow) majority of banks lowering lending standards on consumer loans.

These (modest) improvements are arriving “on schedule” about six months after the first fed rate cut. The additional cuts to the fed funds rate made after September point to further easing in consumer lending

U.S. Recession Scorecard

Indicator	Status		
	Expansionary	Neutral/ Cautionary	Recessionary
Yield curve (10-year to 1-year Treasuries)			✓
Unemployment claims		✓	
Unemployment rate			✓
Conference Board Leading Economic Index			✓
Non-financial corporate cash flows	✓		
ISM New Orders minus Inventories		✓	
Fed funds rate vs. nominal GDP growth			✓

Source - RBC Wealth Management

U.S. RECESSION SCORECARD

rates in the coming months, in conformation with the notion that monetary policy changes act with a lag of six months to a year.

A further widening of the gap between the 10-year and 1-year Treasury yields together with more signs of bank credit standards easing would be needed to persuade us to shift our rating of this indicator out of the Recessionary column.

Conference Board Leading Economic Index

The U.S. leading index rose by 0.3% in November after 30 straight months of decline. It scratched out another 0.1% increase in December before sagging back by 0.3% in January. For our part, we would need to see several months of a sustained upward trend before moving this indicator to a more benign rating.

Unemployment claims

Claims set a low for this cycle in September 2022, but subsequently have failed to establish the sustained upward trend that typically precedes the start of a recession. The weekly count jumped sharply higher in early December, but the seasonal adjustment factor around the holiday period is generally regarded as unreliable. As things stand, we think “undecided” is the correct interpretation of the claims data.

Unemployment rate

The unemployment rate usually surges higher just before or just as a recession is getting underway. Typically, it takes an upward move of as little as half-of-one percentage point from the cycle low to signal the start of recession. The low for the unemployment rate was set at 3.4% in April 2023, so that condition has been met. However, as with claims, the anticipated “surge” higher has been more of a “creep” to a recent high of 4.3%. The unemployment rate sits at 4.0% as of this writing.

Also, like claims, seasonality adjustments in December and January may be suspect, not to mention the fallout from how tariffs and other big Washington policy shifts play out. Those concerns notwithstanding, were the unemployment rate to settle back convincingly below 4%, we would re-rate this indicator to Neutral/Cautionary.

ISM New Orders minus Inventories

The difference between the New Orders and Inventories sub-indexes of the ISM Purchasing Managers’ Index has turned negative near the start of most U.S. recessions. But it has also registered occasional false positives—signaling a recession was imminent when none subsequently arrived. Moreover, this indicator only relates to activity in the manufacturing sector (some 15% of the U.S. economy) and is derived from a survey rather than hard data. For those reasons, we look at it as a corroborative indicator rather than a decisive one taken on its own.

After setting its most recent low in September 2022, this series has risen steadily (we use a three-month moving average) and moved back above zero in August 2023. It has managed to stay above zero over the intervening 17 months and recently surged to levels that would usually have us re-rate this indicator to Expansionary. However, we think the prospects for tariffs, which have been on the rise since Election Day, have pulled some demand forward which may get reversed in the coming months. For now, we are leaving the rating unchanged.

Fed funds rate vs. nominal GDP growth

The fed funds rate has risen above the six-month annualized run rate of nominal GDP either before or at the start of every recession in the past 70 years. (Nominal GDP is GDP

U.S. RECESSION SCORECARD

not adjusted for inflation.) That GDP run rate has been declining since its pandemic reopening high of 23% recorded in Q4 2020. By the end of last year, it had slowed to 6.7%, still above the 5.50% fed funds rate. However, for Q2 and most of Q3 the six-month annualized run rate of nominal GDP was running below where the fed funds rate sat at the time, meeting the condition observed before every recession. This indicator remains in the Recessionary column.

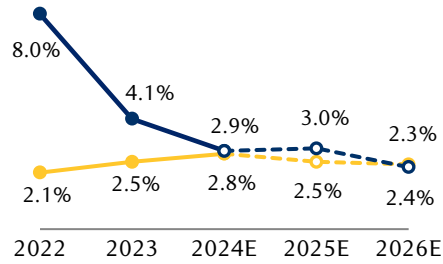
Non-financial corporate cash flows

This gives an indication of the ability of such businesses, in aggregate, to internally fund any capital spending they want or need to do. Historically,

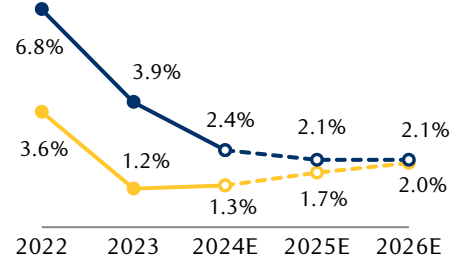
whenever it has posted a year-over-year negative reading, a decline in corporate capital spending has typically followed, either indicating a recession is coming or a deepening one is already underway. These cash flows, while down from their pandemic peak, are still above a negative crossing point as of Q3, which leaves it as the sole indicator still giving the U.S. economy an expansionary “green” light. There is a long lag time before this data is reported with the Q4 release not coming until later this month.

KEY Forecasts

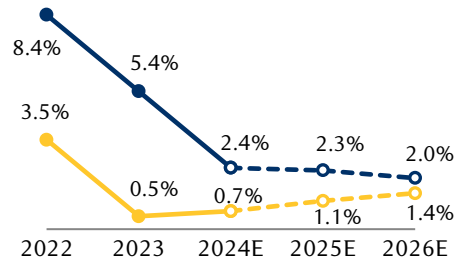
United States



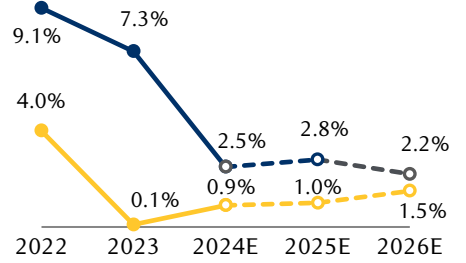
Canada



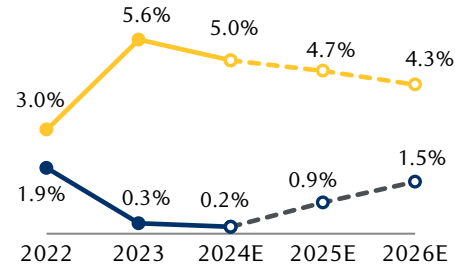
Eurozone



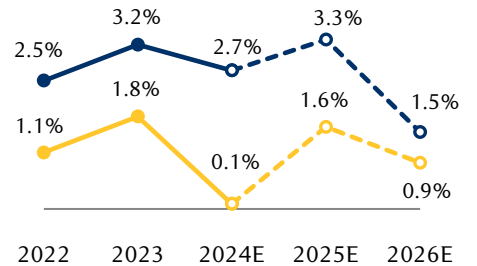
United Kingdom



China



Japan



—●— Real GDP growth

—●— Inflation rate

Source - RBC Investment Strategy Committee, RBC Capital Markets, Global Portfolio Advisory Committee, RBC Global Asset Management, Bloomberg consensus estimates

Research resources

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			Count	Percent
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