GLOBAL Insight

Perspectives from the Global Portfolio Advisory Committee

January 2022

U.S. recession scorecard update

All of our U.S. leading indicators—including a new one—are giving a green light to the economic expansion and to equity markets.

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Insight

January 2022

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All values in U.S. dollars and priced as of market close, December 31, 2021, unless otherwise stated.

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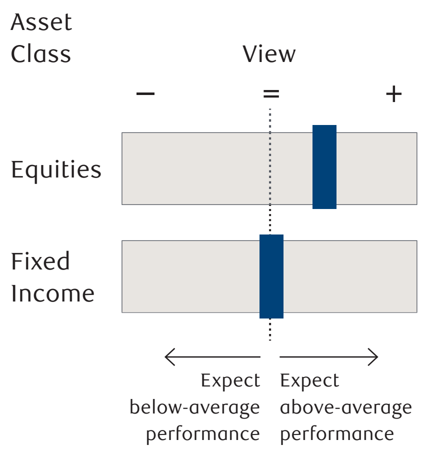

(+/=/–) represents the Global Portfolio Advisory Committee's (GPAC) view over a 12-month investment time horizon.

+ 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 2022 begins, it appears the era of outsized, globally synchronized fiscal stimulus and unprecedented monetary stimulus is starting to recede. From now until well into 2023, we see the trajectory of the world's major economies being shaped by the normal progression of the business cycle.
- This phase should be good for equities so long as U.S. and global recessions can be avoided. All seven of our U.S. leading economic indicators are signaling that the economic expansion has further to run. These tailwinds provide good reasons to expect that GDP and corporate profits should continue growing through 2022—and probably 2023 as well. If this proves to be the case, it would be unusual for share prices not to maintain an upward trend for at least another 12 to 18 months. We expect equities to be the asset class of choice once again in 2022, and recommend holding a moderate Overweight position to start the year.

FIXED INCOME

- Central bank rate hike fears have thrown fixed income markets for a loop, as markets now see many major global central banks needing to raise policy rates sooner and farther than previously expected, largely due to inflationary pressures that are proving more persistent than anticipated. The net result has been a sharp rise in yields across the curve, but most notably in short-dated maturities; this is driving yield curves sharply flatter, a sign that overly aggressive action by central banks could risk choking off growth and inflation expectations—and perhaps the economic recovery.
- We continue to favor shorter maturities in government debt, as we think markets still need to reprice around a more-aggressive Fed, but we maintain targets of 2% for the 10-year Treasury and 2.5% for the 30-year as levels where we would consider favoring longer maturities. In credit markets, valuations remain historically rich, but with few credit risks on the horizon, we still expect credit to outperform government debt in 2022 absent a policy misstep from central banks.
- We maintain our Market Weight in global fixed income with a Neutral allocation to corporate credit, but favor adding income via preferred shares and leveraged loans.

MONTHLY
Focus

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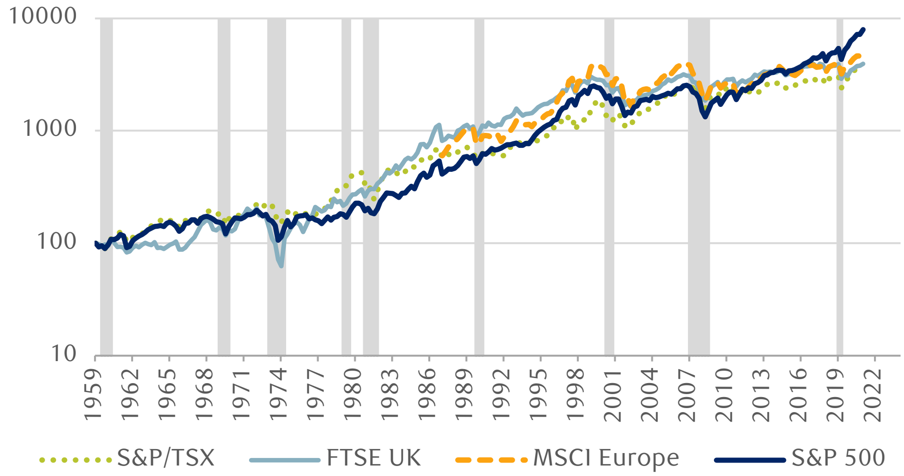
U.S. recession scorecard update

In our view, an equity investor's principal focus should be on the U.S. economy—the world's largest and the one that sets the rhythm and tone for much of the developed world. A U.S. recession has usually been bad news for other economies and equity markets. Every U.S. recession has been associated with a bear market for U.S. stocks—and for most other equity markets.

Beware U.S. recessions

All U.S. recessions (shaded regions) have been associated with equity bear markets



Source - FactSet, RBC Capital Markets

We have monitored six different variables which have done a good job individually and collectively of signaling when a U.S. recession is on the way. Effective with this update we are adding a seventh leading U.S. recession indicator—free cash flow of non-financial corporate business.

All seven indicators (see table on the next page) are giving readings consistent with this economic expansion having quite a bit further to run. Powerful tailwinds are driving the U.S. economy and most developed economies forward including: extremely easy credit conditions; excess savings totaling about 10% of GDP in the U.S. and Canada (somewhat less in the UK and Europe); the need to replenish depleted business inventories; and a U.S. capital spending upswing already underway. It's worth noting that none of the developed economies, including the U.S. and China, are fully reopened, but we expect they will be as this year progresses.

These economic tailwinds provide good reasons to expect above-trend GDP and corporate profit growth through 2022 and probably 2023 as well. It would be unusual for share prices not to maintain an upward trend for at least another 12–18 months in that case.

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U.S. recession scorecard update

U.S. recession scorecard

Indicator	Status: Expansionary	Status: Neutral	Status: Recessionary
Yield curve (10-year to 1-year Treasuries)	✓		
Unemployment claims	✓		
Unemployment rate	✓		
Conference Board Leading Economic Index	✓		
Free cash flow of non-financial corporate business	✓		
ISM New Orders minus Inventories	✓		
Fed funds rate vs. nominal GDP growth	✓		

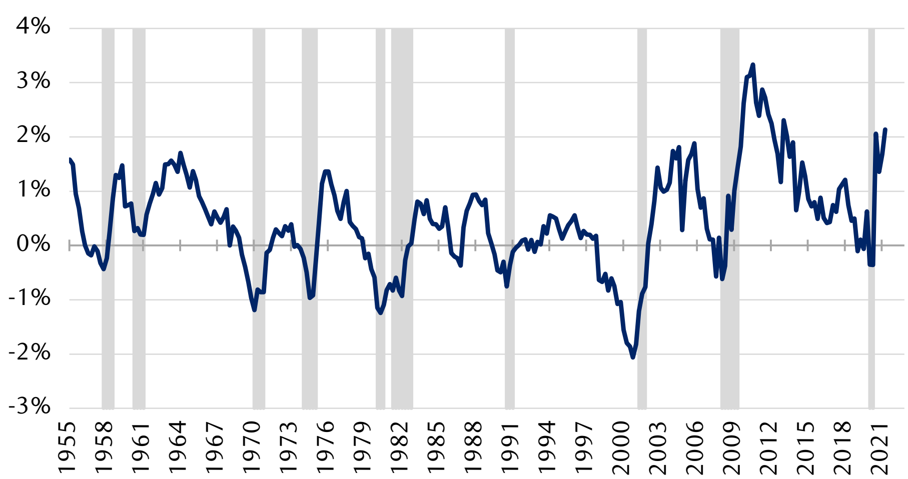
Source - RBC Wealth Management

The seventh leading indicator—Free cash flow of non-financial corporate business

This measures the cash generated by non-financial corporate business as a percentage of GDP. It is derived from the Financial Accounts of the U.S. published quarterly by the Federal Reserve. It has given only one false positive signal in more than 65 years. When this indicator has fallen below zero, a recession has followed—typically two to three quarters later. More particularly, shrinking corporate cash flows have most often signaled an upcoming period of weaker capital spending, a highly cyclical component of GDP. Today these cash flows are growing far faster than the economy, and this indicator looks to be in no danger of signaling an approaching recession any time soon.

Free cash flow of U.S. non-financial corporate business as % of GDP

Shaded areas indicate recessions



Source - RBC Wealth Management, Federal Reserve

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U.S. recession scorecard update

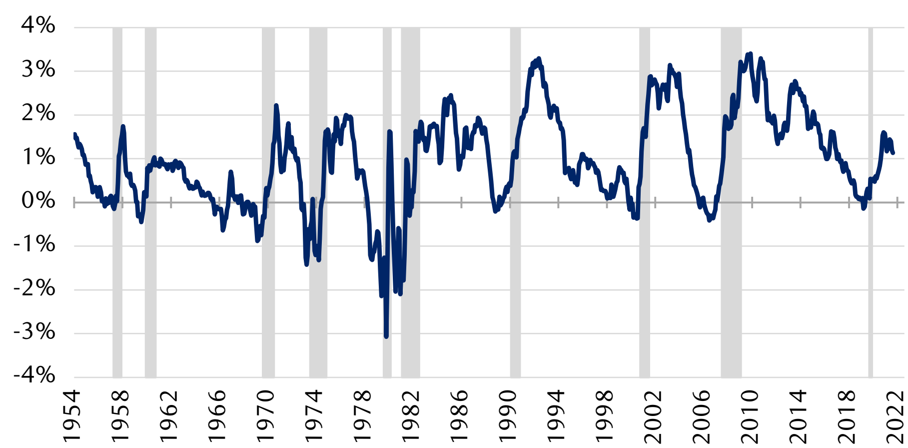
Yield curve

Most of the time the 10-year Treasury yield is higher than the 1-year Treasury yield, but this relationship usually turns upside down (inverts) several quarters before a U.S. recession begins. The monthly data did in fact invert in August 2019, suggesting a U.S. recession was on the way. Most yield curve inversions are caused by the Fed pushing short-term rates higher in an effort to cool down an overheating economy. This last time, however, the inversion was caused by the 10-year Treasury yield plummeting as European and Japanese investors, dissatisfied with negative yields in their home debt markets, rushed into U.S. Treasuries, thereby pushing the price of those bonds higher and the yields they offer sharply lower. There were few, if any, signs that credit conditions had tightened in the U.S. or elsewhere. Nonetheless, the U.S. fell into recession in February/March 2020 keeping the yield curve's predictive track record intact—undoubtedly by accident, unless one is disposed to believe the credit markets saw the pandemic coming five months ahead of when it arrived.

As things stand today the gap between the 10-year Treasury yield (1.79%) and that of the 1-year Note (0.43%) stands at a positive 136 basis points. We think any inversion would be at least a year away, probably further.

Yield differential between the 10-year and 1-year U.S. Treasury Notes

Shaded areas indicate recessions; negative values indicate yield curve inversions



RBC Wealth Management, Federal Reserve

Unemployment claims

A bottoming of unemployment claims has reliably preceded the arrival of a U.S. recession, with the cycle low typically occurring three to four quarters before the recession's onset. Currently, the smoothed trend of weekly claims continues to move lower. If the trend were to turn higher from here without a new weekly low being set, history suggests a recession would most likely materialize late in 2022 or early 2023. However, with more than 10 million unfilled jobs in the U.S. vs. 6.3 million unemployed and with widespread indications of large, medium, and small businesses unable to find the workers they desperately need, we think a sustained uptrend in new weekly claims is not about to start anytime soon.

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U.S. recession scorecard update

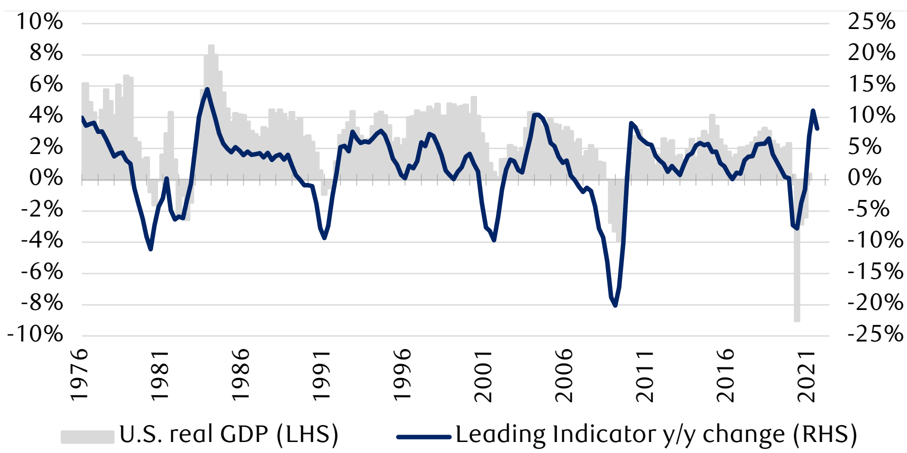
Unemployment rate

When the unemployment rate turns the corner and begins trending higher, the start of a recession is typically two to six months away. The most recent data leaves the 3.9% unemployment rate still above its pre-pandemic 3.5% low. From here it would take at least six months of readings in the 5%–6% range to turn the trend convincingly higher and signal a recession is approaching. However, as noted above, with record high job openings and widespread job shortages in an economy not yet fully reopened, we believe any concerning new sustained uptrend in the unemployment rate remains a long way off.

Conference Board Leading Economic Index (LEI)

This indicator is something of a hybrid; it is put together by the Conference Board using 10 monthly economic variables. Two of them (Unemployment Insurance claims and the yield curve) figure in our recession scorecard, so there is a bit of double counting here; we don't know exactly how much, because the Conference Board's method of dynamically weighting the 10 variables is proprietary. Whenever the LEI has fallen below where it was a year earlier (shown as negative values on the chart), a recession has always followed—typically, about six months later. Currently, the LEI sits about 8 percentage points above where it was a year ago. We think it could take many months of persistent weakness to trigger a negative signal from this indicator.

Conference Board U.S. Leading Indicator



Source - RBC Wealth Management, U.S. Commerce Department, The Conference Board Inc.

ISM New Orders minus Inventories

Two components of the ISM Manufacturing Index, taken together, have a helpful track record of signaling recessions as they begin or shortly before they begin. The difference between the New Orders component and the Inventories component has fallen below zero near the start of most U.S. recessions. But it has also occasionally registered a false positive, signaling that a recession was imminent when none occurred. It also only relates to activity in the manufacturing sector (some 15% of the economy) and is derived from a survey rather than hard data. Therefore, we view this as a corroborative indicator—one to pay attention to if other, longer-term

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U.S. recession scorecard update

indicators are implying a recession is on the way. The spread between new orders and inventories has narrowed from its post-pandemic peak of a few months ago but remains well above zero.

Fed funds rate vs. nominal GDP growth

Since the federal funds rate arrived in the early 1950s, there has never been a U.S. recession that was not preceded by the fed funds rate rising above the year-over-year nominal growth rate of the economy (the growth rate before adjusting for inflation). As of year-end 2021, we expect the nominal GDP growth rate to have been about 9%. The fed funds rate is now sitting at 0.1%—that's 8.9% below the run rate of the economy, or thirty-five quarter-point Fed rate hikes from here. This indicator implies borrowing rates are nowhere close to high enough to choke off growth in the U.S. economy. Even assuming the nominal GDP run rate has slowed to 6% by the end of this year and that the Fed raises rates three times between now and then (as indicated at its December meeting) rates will still be far short of what it has taken in the past to make a recession likely. This indicator is not a great timing tool—it has signaled recession several times in the past when none has occurred—but it seems to be a necessary pre-condition of recession which we think makes it worth watching.

Moderately overweight equities

The unanimity across our recession scorecard strongly suggests the U.S. economic expansion is unlikely to run out of steam anytime soon. However, alongside all the tailwinds noted above are points of contention that are likely to provoke periodic bouts of investor concern and, perhaps, market volatility. These include the course of both inflation and central bank policy as well as China's property debt issues, geopolitics, Congressional logjams as the midterm elections draw closer, and the prospect of more unsettling curve balls from the pandemic.

While each of these can present problems for equity markets, we think a recession will require a prolonged period of monetary tightening, which has yet to get underway, suggesting the economy, corporate earnings, and share prices have further to run. In our view, the investment climate favours moderately overweight equities positioning until an economic downturn becomes inevitable.

MONTHLY

Focus

Technology makes growth inclusive

Inclusion is an important, and often overlooked, piece of the economic puzzle. Decisive contributions to economies and businesses can be made by underutilised or untapped parts of society. We look at some of the ways technology can bring about economic inclusion, and in doing so, open the doors to growth.

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In 2021, we featured a series of articles on how developing technologies can respond to the challenge of making the global economy more sustainable, a concept we call “SusTech.” This year, we are digging deeper into some of these themes in a new series.

First up, we look at how SusTech technologies can help some segments of the population that are finding it difficult to fully participate in the workplace. This should enable the labour force to expand and improve productivity over time, fostering economic growth in the process.

Opening the doors

Much as technology swept away small workshops and expedited the establishment of large factories in the 19th century, advancements over the past few decades are changing the nature of work. The proliferation of connectivity and the fast, cheap exchange of large amounts of data and information are instrumental to this profound transformation.

As a result, certain segments of society that have been facing barriers to fully contribute to the global economy can now participate more meaningfully. Women, in particular, should benefit from these trends. Employment prospects for people with disabilities should also improve. This should not only grow the labour force but also enhance productivity, countering at least partly the negative impact of ageing populations now prevalent across the developed economies, as well as China, on economic growth.

Technology can cultivate greater inclusion by creating new ways of working, such as through digital labour platforms, and by mitigating obstacles to employment, such as long commutes. Beyond the world of work, technology can support educational attainment at all levels and enable faster, more effective retraining, thereby accelerating the adoption of innovations to boost productivity and grow businesses. All this can help lift more people out of poverty, narrow the gender gap, and increase the overall participation in the global labour force, nurturing a stronger and more sustainable economy for all of us.

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Technology makes growth inclusive

Technology transforms work processes

Digital innovations in areas such as information communication technology (ICT networks), artificial intelligence (AI), blockchain, Internet of Things devices, cloud computing, and the use of Big Data and algorithms have dramatically transformed the workplace (see appendix for definitions).

Many semi-skilled jobs that have been central to middle class life—e.g., bank tellers, production line workers, brick-and-mortar retail and cashier positions—are under threat even as other opportunities have emerged, such as warehousing and logistics with Amazon alone employing more than a million workers. Over the past 15 years, digital labour platforms have emerged, connecting businesses and clients to workers, enabling and simplifying how they all interact. Some examples include facilitating the search for a freelancer to translate a document or design a website, as well as meal delivery and ride-hailing services.

Digital labour platforms have fostered innovative ways of working, and underpinned the explosion in e-commerce, e-services, and online freelance work. They are enabling a more productive society to become richer over time, with demand for goods and services escalating more and more.

Mastercard estimates that global "gig economy" transaction volumes reached some $350 billion in 2021, and it expects that to grow by more than 30 percent over the next two years, having doubled in size over the past five years. This exceptionally fast growth has brought challenges, including the need for protection of workers' and consumers' rights. Continued

An efficient way to deliver services

Digital labour platforms

Online web-based platforms

- Freelance & contest-based
  - 99designs (Australia)
  - Kabanchik (Ukraine)
  - Upwork (U.S.)
- Microtask
  - AMT (U.S.)
  - Clickworker (U.S.)
  - Microworkers (U.S.)
- Competitive programming
  - Codeforces (Russia)
  - HackerRank (U.S.)
  - Topcoder (U.S.)
- Medical consultation
  - 1Doc3 (Colombia)
  - DocOnline (India)
  - MDLive (U.S.)

Location-based platforms

- Ride-hailing
  - Bolt (Estonia)
  - Ola (India)
  - Uber (U.S.)
- Delivery
  - Meituan (China)
  - Rappi (Colombia)
  - Uber Eats (U.S.)
- Home services
  - Doit4u (Australia)
  - Task Rabbit (U.S.)
  - Urban Company (Australia)
- Domestic work
  - Batmaid (Switzerland)
  - BookMyBai (India)
  - SweepSouth (South Africa)
- Care services
  - Care24 (India)
  - CareLinx (U.S.)
  - Greymate Care (Nigeria)

Note: A microtask is a temporary task-type job of all types, often booked online, such as writing blogs, child-sitting, website design, and virtual assistants.

Source - International Labour Organization, RBC Wealth Management growth will require adapting existing policy settings in traditional labour and product markets and applying them to digital labour platforms.

The Organisation for Economic Co-operation and Development (OECD), a group of mostly rich countries, puts the gig economy's share of total employment at between one percent and three percent in 2019, though other sources suggest the numbers are higher. For instance, in the UK, the number of gig workers reached 4.7 million in 2019, according to the University of Hertfordshire, or just under 15 percent of the country's labour force at that time.

COVID-19 has reinforced and accelerated the metamorphosis in the nature of work, and increased the prevalence of remote working or working-from-home (WFH) arrangements, particularly for office jobs.

In a February 2021 report, McKinsey estimated that up to a quarter of the labour force in advanced economies could work remotely three to five days a week, a fourfold increase compared to pre-pandemic days.

Both digital labour platforms and WFH facilitate more job flexibility, a main motivating factor for workers making use of these arrangements, according to the International Labour Organization (ILO). But businesses also benefit. The metamorphosis of work processes will have profound consequences beyond the potential reduction of office space and carbon footprints as companies are seeing the clear boon to their operations and output.

Inclusion spurs growth and productivity

The ILO found that these platforms help migrant workers and people with disabilities join the labour force. Both are sizeable groups. Migrant workers represent just under 20 percent of the U.S. labour force, while close to 20 percent of workers in the U.S. have disabilities.

Women, the largest affected group, make up some 39 percent of the global labour force, according to McKinsey, and are perhaps the biggest beneficiaries of this opportunity. Already in five of the G20 countries, the percentage of women who work via digital platforms exceeds the global participation rate for women in the traditional economy: 58 percent in Italy, 53 percent in the UK, 51 percent in Canada, 48 percent in the U.S., and 41 percent in Germany.

Bringing all these groups, and women in particular, more fully into the labour force stands to benefit the global economy. The Japan experience is noteworthy (see side panel).

Canada has also sought to increase its labour force to boost its economy. It has done so by continuing to pursue a controlled immigration policy even as many other developed economies have soured on immigration. These workers not only fill available jobs and gaps in the workforce, they also pay

Increasing the labour force participation of women is good for the economy

In 2013, faced with a rapidly ageing population, the Japanese government made getting more women into the workforce a core pillar of the nation's growth strategy, which it dubbed "Womenomics." Then-Prime Minister Shinzo Abe removed barriers to labour market opportunity, such as providing access to affordable daycare and ensuring that women's economic contributions were not capped.

According to the World Bank, the labour force participation rate of women between the ages of 15 and 64 in Japan rose to as much as 72.7 percent in 2019 (from just 40.4 percent in 1990), one of the highest rates in the world and an important offset to Japan's shrinking working-age population, which has been in steady decline since the mid-1990s (and is forecast by the government to continue declining for decades).

The policy lifted living standards by increasing household income, improved women's economic security, and promoted the overall empowerment and advancement of women in society. It was unable alone to counteract the drastic ageing of the working-age population, but one can surmise that the country's muted economic growth would have been even weaker without the increased participation of women in the labour force.

taxes and spend money on goods and services. China's strong economic growth from the late 1970s to the 2008 financial crisis was in part achieved thanks to the expansion of its industrial labour force as people migrated from rural areas to cities. The low-productivity agricultural labour force represented three-quarters of total workers in China in the late 1970s, but has declined steadily to no more than 25 percent four decades later.

In addition to growing the labour force, the transformation of work processes and WFH in particular can also boost productivity by removing barriers to work, such as the miserable commutes endured by many workers. Women are often constrained by childcare arrangements and family priorities, which can lead them to compromise on the nature of their job. A job close to home might be chosen over one farther away even if the former doesn't make full use of their skills or provide adequate satisfaction. The increased prevalence of remote working means that more roles are feasible options, many of which may provide a closer match with existing skills or qualifications, creating higher engagement and in turn higher performance.

Remote working can also free up time that can be put to productive use, such as towards entrepreneurship. The Peterson Institute for International Economics, an American think tank, calculates that business startups in the U.S. grew from 3.5 million in 2019 to 4.4 million in 2020, and a similar boom was observed in the UK, lending a hand to the underlying vibrancy of the economy.

Despite technological advancement, progress on inclusion of women does not occur in a straight line. Even as digital platforms and WFH were in full use during the initial stages of the pandemic, women's jobs were disproportionately affected. WFH after all does not apply to the majority of the labor force, as most people are unable to work a full day from home without suffering productivity losses, given that many responsibilities and tasks need to be performed onsite. McKinsey calculates that women's jobs were 1.8 times more vulnerable to the crisis than men's, and that they accounted for 54 percent of overall job losses. The pandemic also increased the burden of unpaid care, which women disproportionately undertake. In effect, gender equality took a step backward during the pandemic. But overall, digital labour platforms and WFH can help to redress this inequality and may have contributed to the recent strength of the labour market, with the overall unemployment rate falling back in most Western countries close to pre-pandemic levels.

Mind the gap!

The issue of the gender gap needs to be tackled and here too, technology can play a role.

When one hears the expression "gender gap"—the well-documented gender *pay* gap comes to mind. The UN estimates the global gender pay gap to be 23 percent, meaning that women on average earn 77 percent of what men earn for work of equal value. But these figures understate the real extent of the problem, according to the UN, as women with children face an even greater discrepancy, while in developing countries, informal,

MONTHLY FOCUS

Technology makes growth inclusive

low-paying self-employment is prevalent. It estimates that the gender pay gap costs the global economy some 15 percent of GDP.

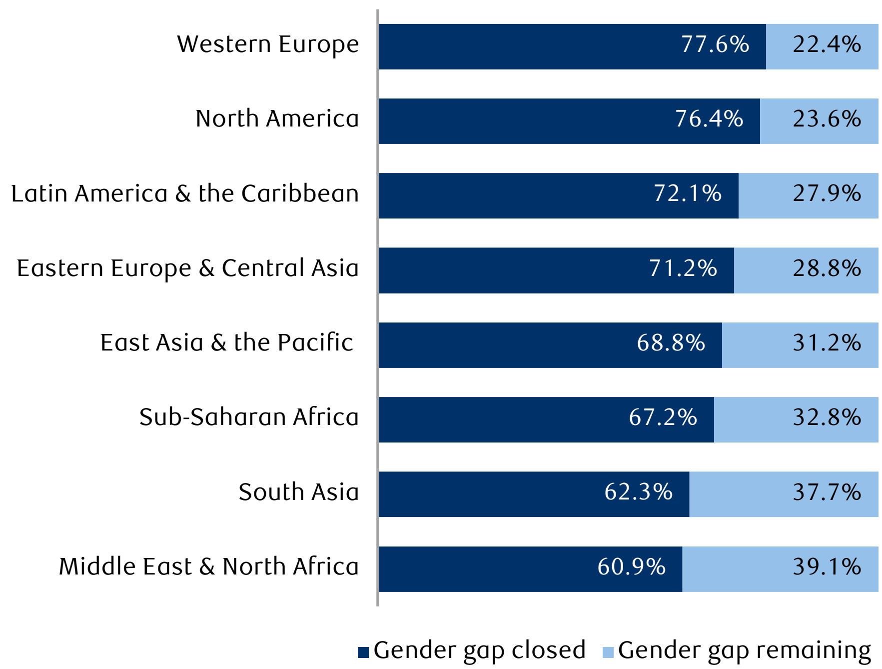
The reasons for this gap are many. In a December 2019 report, the World Economic Forum (WEF) pointed out that as many as 10 percent of girls aged 15–24 in the world are illiterate, largely, but not exclusively, in developing countries, which limits their opportunities. It noted that “in many countries, women are significantly disadvantaged in accessing credit, land or financial products, which makes it difficult to start a company or make a living by managing assets.”

Moreover, even though the proportion of women among skilled professionals continues to increase, women tend to be underrepresented in the sectors with the highest employment growth rate, including data and AI, engineering, and cloud computing. The WEF also lamented the persistent lack of women in leadership positions, with women representing just 27 percent of all manager positions.

Women are also at a disadvantage with respect to access to health care and representation in the political classes. The WEF encapsulates all these conditions in the Global Gender Gap Index, in which it assesses four key areas: economic participation and opportunity, education attainment, health, and political empowerment. On all metrics, women’s conditions fall below those of men, with stark regional differences.

Western Europe has the smallest gender gap, though it remains substantial

Extent of the gender gap by region



Source - World Economic Forum’s Global Gender Gap Report 2021, RBC Wealth Management

Governments can do much to address these gaps. Liberating markets and ensuring there are no restrictive practices, e.g., forbidding women’s access to bank accounts, property ownership, or inheritance rights, are the most essential steps towards empowerment. Targeted policies such as basic social safety nets also help, but improved access to education, health care, and basic financial services are critical.

Technology can help provide education, as well as opportunities to upgrade skills and re-skill. It can also deliver the financing that nurtures businesses. For instance, a digital wallet linked to a debit card can help small farmers or shop owners gain access to financial services, facilitating their ability to obtain better pricing from suppliers, greater savings, faster payments, credit, and government subsidies.

Finally, remote health care not only widens access to treatment but also gives working mothers flexibility. It may no longer be necessary to miss a day of work to go to a pediatrician's office as virtual appointments can allow patients to see a doctor via online videoconferencing.

According to McKinsey, taking action to counter the excess deterioration in the employment condition of women over the past two years and advancing gender equality could add some $7 trillion to global GDP in 2030, with this figure representing some eight percent of 2020 global GDP.

Untapped resources

The global economy has untapped resources that could make decisive contributions as populations age and growth slows. Inclusion can draw in those segments of society that have been unable to fully participate in the labour force, with improving gender equality a key way to boost growth. Progress remains slow and uneven across countries, but as policymakers and the corporate sector start to grasp that the persistent decline in the working-age population in most developed countries is a headwind to growth, they may be quick to embrace inclusion as a desirable and necessary strategy. We expect technology will be at the forefront of leading this charge.

Appendix: Technologies that are part of the ecosystem fostering inclusion

Glossary of technology terms

5G	Fifth-generation mobile network. Much more powerful than its 3G and 4G predecessors, it is designed to connect people and machines.
Artificial intelligence	Machines that are programmed to learn, solve problems, and mimic the actions of humans.
Blockchain	A digital ledger of transactions. It is a system of recording information that is difficult to hack because it is duplicated and distributed across its network of computers.
Cloud computing	The on-demand delivery of computer services such as data storage and computing power, without direct active management by the user.
Big Data	Large, complex datasets so voluminous and varied that traditional data processing software cannot cope with them.
Internet of Things	Computer devices installed in cars, appliances, medical devices, etc. that connect wirelessly to a network and transmit and analyze huge amounts of data.

Source - RBC Wealth Management

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The path forward

Our outlook for 2022 features worthwhile global equity returns and moderate earnings growth, supported by above-average GDP growth and strong consumer and business capital spending. Major central banks seem set to begin raising interest rates, yet equity markets typically perform well surrounding the first rate hike. Furthermore, even as rates inch higher, we expect them to remain rather low by historical standards. These factors should make equities the asset class of choice once again in 2022. We recommend holding a moderate Overweight position in equities.

Equity views

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

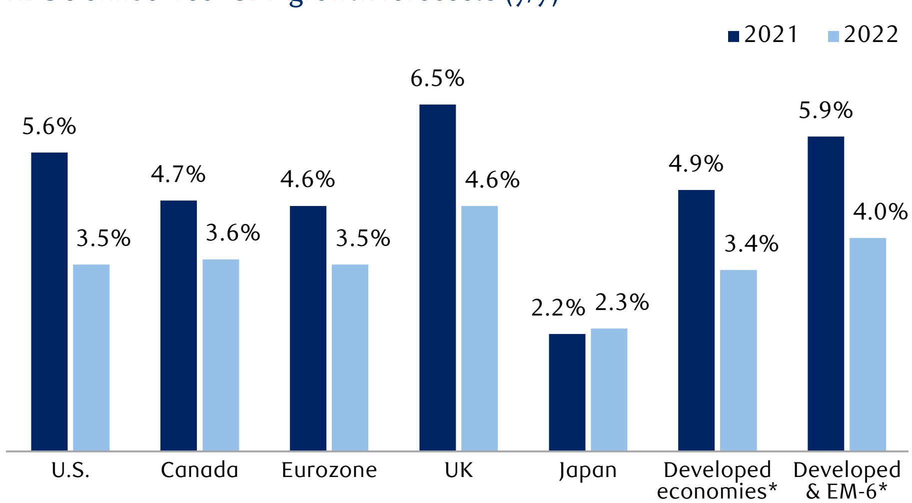
+ Overweight; = Market Weight; – Underweight
Source - RBC Wealth Management

REGIONAL HIGHLIGHTS

United States

■ Above-trend GDP growth should set the stage for moderately higher U.S. earnings growth and stock prices in 2022. The inflation, supply chain, and labor headwinds should gradually dissipate as we move further away from the peak of the COVID-19-related disruption, but are unlikely to fully abate and could generate market volatility at times. We think most industries and leading companies will continue to manage around these headwinds by containing costs and using technology to support productivity. The S&P 500 consensus earnings forecast of $223 per share for 2022 seems achievable and has potential for upside, in our view, so long as omicron or other COVID-19 variants do not seriously disrupt economic momentum.

RBC's annual real GDP growth forecasts (y/y)



* Estimates based on purchasing power partity (PPP) calculations; "EM-6" represents the six largest emerging market economies, including China.

Source - RBC Global Asset Management; data as of December 2021

GLOBAL EQUITY

■ The market will be laser-focused on gauging both the timing of the Fed's first rate hike, likely in 2022, and the magnitude and pace of the rate hike cycle thereafter. Historically, the S&P 500 has performed well in the 12 months that precede and follow the first rate hike, on average, and has outperformed bonds during each tightening cycle since 1989. Typically, a bull market becomes threatened only when rate hikes pile up, constricting access to credit, and when recession risks rise notably. We don't foresee this occurring in 2022. We would moderately Overweight U.S. equities to start the year.

Canada

■ We expect 2021's solid market performance to continue into 2022, albeit at a more moderate pace. Above-trend global economic growth should persist, which we expect to support the Canadian market given its cyclical orientation.

■ The Canadian banks had a strong year, but valuations remain reasonable, in our opinion. The single largest risk to the group, in our view, is the Canadian housing market. However, discerning a catalyst that could shift the positive momentum remains a challenge. Canada's population growth over the next several decades is expected to be amongst the strongest globally, largely the result of immigration, while the persistence of supplyside constraints arguably also supports continued strength in housing. Overall, we maintain a positive view on the banks group, based on an expectation of improving loan growth and margins, as well as increased cash returns to shareholders given the lifting of regulatory capital restrictions.

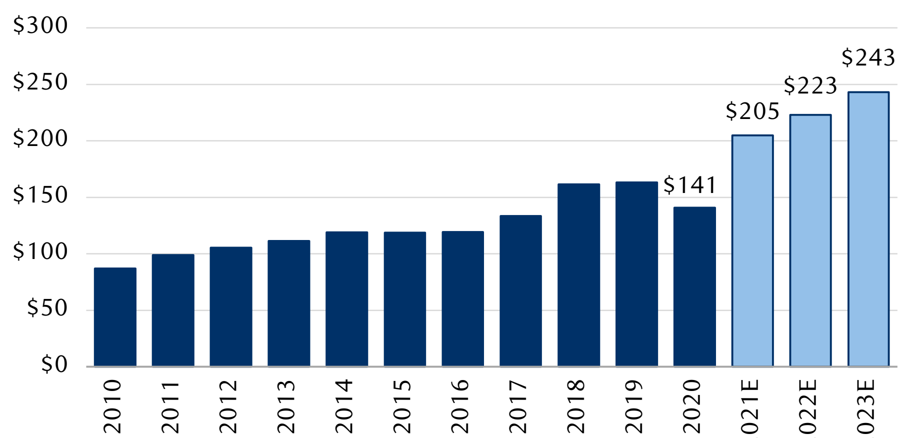
■ West Texas Intermediate crude oil prices, while off the multiyear highs they reached a few months ago, appear well supported heading into 2022, led by expectations for post-pandemic demand growth to outpace supply. The supportive backdrop for oil leaves us constructive on oil producers, as we believe valuations remain reasonable despite what we see as impressive free cash flow generation potential.

Europe & UK

■ We would hold an Overweight, or above-benchmark, position in European equities. Ongoing fiscal support and a relatively dovish European Central Bank should continue to support the economy, while supply chain disruptions should start to diminish over the course of 2022. Moreover, the region typically outperforms as bond yields rise, and valuations remain attractive on most measures. With the initial

S&P 500 annual earnings per share and estimates

Actual results in dark blue; RBC Capital Markets estimates in light blue



Source - RBC Wealth Management, RBC Capital Markets, FactSet; data through 12/31/21

GLOBAL EQUITY

bounce-back phase of the business cycle morphing into a more normal expansion phase, we suggest positioning equity portfolios with secular growth stocks and select quality cyclicals, ensuring companies have strong pricing power to defend their profit margins in an elevated inflation environment.

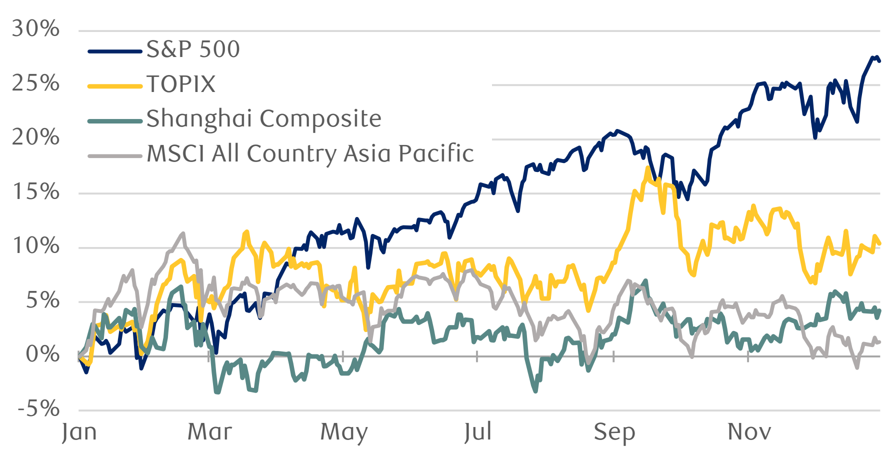
- There are growing concerns regarding the UK economy. A relatively hawkish Bank of England and a chancellor of the exchequer eager to return to fiscal rectitude by raising taxes make for a complicated outlook given the existing Brexit and COVID-19 challenges. Consumer confidence has been falling. Despite this, we retain a Market Weight recommendation on UK equities, which continue to stand out given their low valuations with the FTSE All-Share Index trading close to a record discount to global developed markets. Given the difficult domestic background, we have a bias towards internationally oriented UK-based companies. We prefer the Financials and Health Care sectors in particular.

Asia Pacific

- China underperformed among emerging market equities in 2021. We believe the regulatory overhang could still lead to market volatility in 2022. However, a large part of the unwinding of Chinese equities is likely over and we think there could be some trading opportunities in 2022. Valuations are undemanding, we expect macro policy to become moderately growth-supportive, and there may be some policy fine-tuning in key industries, i.e., housing policies. Overall, we prefer China A-shares within the broad China equity space due to their lower exposure to growth stocks and tech in particular, which is in the crosshairs of regulators. We believe tension between the U.S. and China is still a risk that investors should closely monitor.

- In Japan, we expect private consumption to rebound and the recovery to extend into the first half of 2022. With new COVID-19 cases declining, the government plans to resume travel and dining-out subsidies. Meanwhile, wage growth has been encouraging. While production and exports remain weak, manufacturers expect that the gradual easing of bottlenecks will lead to a strong rebound. With the Liberal Democratic Party maintaining its "absolute stable majority" in the lower house of parliament, we expect attention to turn toward the additional economic stimulus. We are positive on Japanese equities for the near term given these supporting factors and reasonable valuations. We are cautious on the medium- to longer-term outlook as political risks remain.

2021 calendar year returns



Source - RBC Wealth Management, FactSet; data through 12/31/21

GLOBAL

Fixed income

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Central bank recalibration

Central banks will aim to right-size policy support in 2022 amid an ongoing economic recovery, with the process of dialing back accommodation all about finding the right balance. Persistent inflationary pressures around the world will likely cause central banks to act earlier and slightly more aggressively than previously anticipated, but earlier action may actually allow central banks to be more patient later on should the policy steps taken prove sufficient in easing inflation and inflation expectations.

Unable to wait until the new year, the Bank of England was the first central bank out of the gates, delivering a surprise rate hike at its December meeting. RBC Capital Markets expects another one to follow as early as February and sees the Bank Rate ultimately reaching 0.75% by year end.

Of the major central banks, the Fed will be on deck with respect to taking the next steps to rein in monetary policy, with markets now looking for the first 0.25% rate hike to come as early as the Fed's March meeting, which would also likely coincide with the conclusion of the Fed's asset purchase program. Policymakers signaled a policy rate of 0.75% to 1.00% by the end of 2022 at the December confab, which is currently in line with market expectations.

Fixed income views

Region	Gov't bonds	Corp. credit	Duration
Global	=	=	5–7 yr
United States	–	=	5–7 yr
Canada	=	=	5–7 yr
Continental Europe	=	=	5–7 yr
United Kingdom	=	=	5–7 yr

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

However, markets will be looking for the Fed to deliver a soft landing this year: getting inflation in check, but not putting the longer-term economic recovery at risk in order to do so. For investors, we believe the key metric to watch will be the slope of key yield curves which flattened sharply over the course of 2021. While we don't anticipate yield curve inversions this year—typically a harbinger of increased recession risks—they remain historically flat and will likely be the best gauge of whether the Fed is seen to be at risk of tightening policy too quickly, and too aggressively.

Though global monetary policy will begin to tighten, it will remain broadly accommodative through at least 2022, in our view.

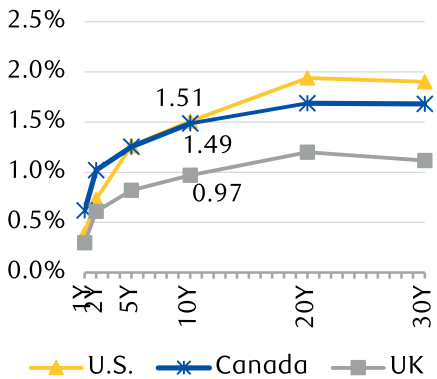
REGIONAL HIGHLIGHTS

United States

■ The window for Federal Reserve policy rate hikes will open in the middle of 2022 following the completion of its bond-buying program as early as March, based on the current rate of reduction in its asset purchases. Both the Fed and the market are now on the same page following the Fed's December meeting where policymakers updated their rate hike projections to signal a median estimate of three 0.25% rate hikes in 2022. However, even with the Fed expected to tighten policy, that will not necessarily mean monetary policy will be tight. The Fed currently projects a median policy rate of 0.875% by the end of 2022, and 1.625% in 2023. Both levels would still be well below what the Fed judges to be the "neutral" rate for the economy at

GLOBAL FIXED INCOME

Sovereign yield curves



Source - Bloomberg; data through 12/31/21

2.5%, meaning that policy will remain accommodative for the foreseeable future.

■ Treasury yields, and the shape of Treasury yield curves, could be the dominant theme of 2022 as the Fed embarks on its next policy tightening cycle. While short-term policy rates may climb as a result, we expect stable long-term Treasury yields, with the 10-year Treasury likely to hold below 2.0% for the balance of 2022. This should result in a gradually flattening yield curve. Should it flatten too much, or even near the point of inverting, it could raise fears about the durability of the economic recovery.

■ Credit markets will likely remain well supported through 2022 on account of strong corporate balance sheets and historically low default rate forecasts. We continue to be comfortable augmenting portfolio income with lower-rated credits and preferred shares as long as the economic recovery stays intact.

Canada

■ Improvements in the economy have reduced the need for further monetary accommodation, and while 2021 involved a great deal of debate about the timing of central bank rate hikes, 2022 is scheduled to be the year that policy rates actually start to rise. The Bank of Canada (BoC) has been on the more aggressive end in dialing back COVID-19 monetary stimulus, and we expect this will be the case in the coming year as inflation continues to dominate the narrative.

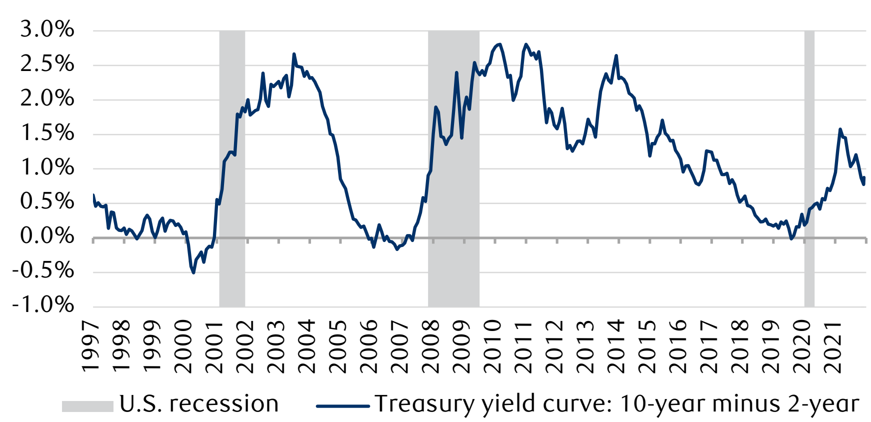
■ Despite the likelihood of rate increases in 2022, the additional yield available when extending duration in bond portfolios compensates investors now for rate hike expectations that the market has already priced in. We see intermediate-term bonds as relatively attractive, offering a meaningful pickup in yield over cash, without being overly exposed to rising rates should inflation prove to be more persistent than initially expected.

■ Corporate credit was very well supported in 2021, primarily by near-zero interest rates and BoC asset purchases. While support from the BoC is now being gradually reduced, we expect the economic backdrop to remain supportive for corporate bonds in the coming year. However, this environment is already reflected in the low compensation available for assuming credit risk, particularly in high-yield bonds, and for this reason we are recommending a high-quality bias in bond portfolios.

Europe & UK

■ The Bank of England (BoE) raised interest rates by 0.15% at the December policy meeting despite uncertainty due to the omicron variant. The move caught markets by surprise, but we would argue that

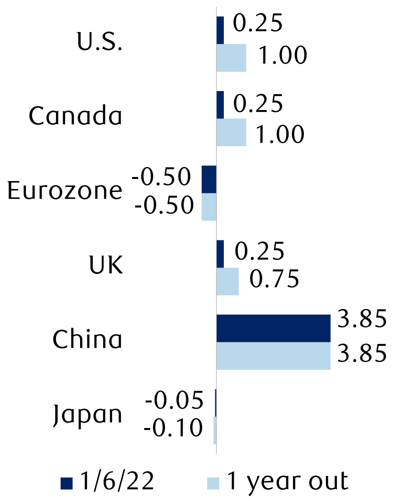
Slope of the Treasury yield already historically flat as the Fed embarks on a path to raising short-term rates



Source - RBC Wealth Management, Bloomberg; data through 1/5/22

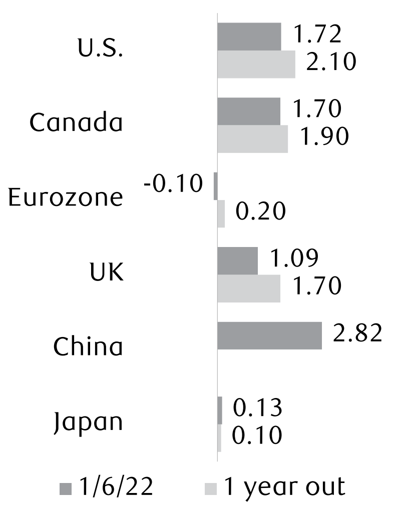
GLOBAL FIXED INCOME

Central bank rate (%)



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

10-year rate (%)



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

the data were in favour of a hike. The December data showed that demand for labour remained strong, while the Consumer Price Index rose to 5.1% y/y in November from 4.2% y/y in October—above the 4.8% consensus estimate. BoE Governor Andrew Bailey now expects inflation to top 6% in the coming months—above the 5% peak in Q2 2022 expected in the November Monetary Policy Report. We maintain our expectations for further hikes in Q1 and Q3 2022 to reach a 0.75% bank rate in 2022.

- The European Central Bank (ECB) announced the end of the Pandemic Emergency Purchase Programme (PEPP) in March 2022, as expected by the market. To avoid a “brutal transition” the ECB extended the existing Asset Purchase Programme—which came as no surprise—but with some nuances: Q2 and Q3 purchases will be boosted to €40 billion and €30 billion, respectively, before returning to the current pace of €20 billion in Q4 for “as long as necessary.”

- The ECB’s 2024 staff forecasts were significantly boosted, with inflation now seen at 3.2% in 2022, and 1.8% in 2023 and 2024. In line with our view, ECB President Christine Lagarde stated during the press conference after the policy meeting that “under present circumstances, it is very unlikely that we will raise interest rates in 2022.” Due to lower bond purchases post-PEPP, we expect German Bund yields to rise from their current range-bound levels in the second half of 2022.

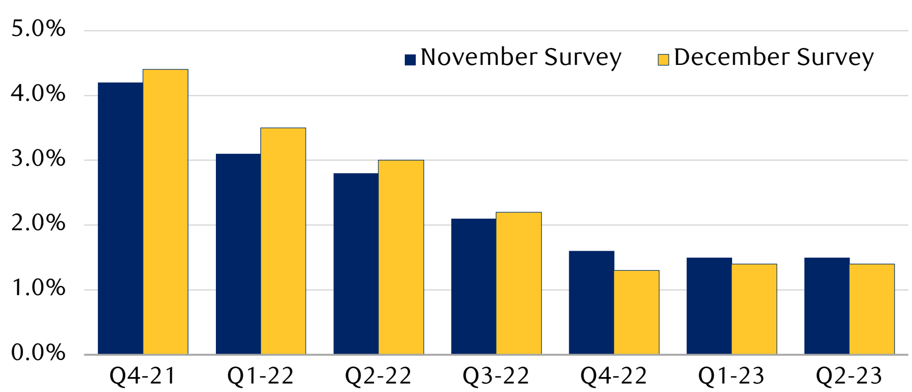
Asia Pacific

- We believe the volatility in the Chinese bond market that began in 2021, due to efforts to step up economic reforms, is likely to persist into 2022 as policies remain uncertain across sectors. In particular, the deleveraging campaign within the property sector has led to a massive volatility spike, mainly on refinancing concerns. Unlike previous cycles, where the Chinese leadership fine-tuned its policies after a gradual correction started, the government has so far taken a harder stance and refused to alter its policy.

- Asia high-yield bonds have repriced to multiyear lows, with the JP Morgan Non-Investment Grade Index showing that companies are paying an average yield spread of 11% over the benchmark rate. While the higher yields have attracted more investors, the delay in policy response from the government has added volatility to Chinese property developers as refinancing is becoming increasingly difficult. Until the government softens its policy significantly, we believe investors should exercise caution when investing within the sector.

- Looking beyond the volatility, we think the government’s reforms should create a better long-term growth foundation for China, enabling the country to overcome the middle-income trap and to establish a more developed credit market.

CPI year-over-year aggregate eurozone survey expectations



Source - RBC Wealth Management, Bloomberg

Commodities

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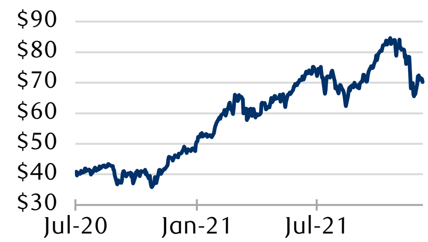
Crude oil: Constructive

WTI gained 55% in 2021 but retraced approximately 11% from last year's highs following the discovery of the omicron variant. Looking ahead, RBC Capital Markets' oil strategist believes the environment remains constructive, supported by tight supply and strengthening demand conditions. RBC Capital Markets is anticipating a balanced market in 2022, but larger-than-expected drawdowns could support higher prices.



Natural gas: Volatility

North American natural gas prices compressed meaningfully in the final stretches of 2021, driven in part by an uptick in U.S. production and a warmer-than-expected winter. RBC Capital Markets believes the selloff seems overdone and the beginning of the withdrawal season may provide additional support. RBC Capital Markets is also calling for greater volatility in the near term.

Copper: Green support

While copper has pared its gains amid slowing Chinese demand, we think the ramp-up in green initiatives should allow copper prices to stay elevated in 2022. RBC Capital Markets expects supply deficits to persist until 2023.

Gold: Challenging setup

Gold was a relative underperformer in 2021, driven primarily by the robust economic rebound, offset marginally by the run in inflation. In our view, the setup remains challenging because of the premise that economic growth remains intact and major central banks are expected to hike rates this year. Bond markets are pricing in about two U.S. rate hikes in 2022.

Soybeans: Record production

North American production is on pace for a record 2021 as soaring fertilizer prices have incentivized farmers to grow more soybeans relative to corn or wheat. Soybean prices are down approximately 5% in 2021 and will likely require a rebound in Chinese demand before prices can pick up in 2022.

Wheat: Uptrend

The U.S. Department of Agriculture is calling for a rise in global supplies driven by strong production out of Australia, Russia, and Canada within the 2021—2022 season. Demand is also forecast to rise, but to a lesser extent, than supplies. Ending inventories are estimated to be about 5% lower y/y.

Commodity forecasts

Commodity	2022E	2023E
Oil (WTI $/bbl)	$76.75	$84.75
Natural gas ($/mmBtu)	$3.50	$3.45
Gold ($/oz)	$1696	$1650
Copper ($/lb)	$3.75	$3.50
Soybean ($/bu)	$12.62	$12.10
Wheat ($/bu)	$7.88	$7.57

Source - RBC Capital Markets forecasts (oil, natural gas, gold, and copper), Bloomberg consensus forecasts (soybean and wheat); data as of 12/15/21

Chart source - RBC Wealth Management, Bloomberg; date range: 7/7/20–12/14/21

Currencies

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U.S. dollar: Bullish on Fed rate hikes

In December, a hawkish Federal Reserve announced an accelerated pace of tapering of its asset purchases, which will now conclude in March instead of June, and it forecast three rate hikes in 2022. We expect U.S. dollar strength to continue in 2022, with investors currently underpricing what the Fed sees as the long-run neutral rate. In the short term, uncertainty stemming from the omicron variant is seeing the greenback benefit from "safe-haven" flows, especially against the riskier commodity-linked currencies.

Euro: Weaker despite ECB turning more hawkish

The European Central Bank (ECB) had a hawkish tilt in December, announcing future asset purchases for 2022 lower than what the market expected. Despite the change in tone, we expect the euro to underperform due to monetary policy divergence between the ECB and other more hawkish global central banks. Increasing uncertainty ahead of the French presidential election in April is also a potential headwind for the euro.

Canadian dollar: Neutral as USD/CAD nears 1.30

The omicron variant and the resulting 20% correction lower in WTI oil prices have weighed on the Loonie's recent performance. We are neutral on the USD/CAD pair as it approaches the 1.30 level, and we expect the Bank of Canada to be more aggressive on rate hikes compared to the Fed in 2022.

British pound: BoE hikes to control inflation

The Bank of England surprised investors with a December rate hike to 0.25%, prioritizing the control of inflation, which recently rose by 5.1% on a yearly basis, over slowing economic growth. The downside risks to growth should see GBP underperform.

Japanese yen: USD/JPY to rally with Fed hikes

With the Fed expected to hike rates and the Bank of Japan in no hurry to adjust monetary policy, interest rate differentials between the U.S. and Japan will likely be the main driver for a higher USD/JPY in 2022.

Currency forecasts

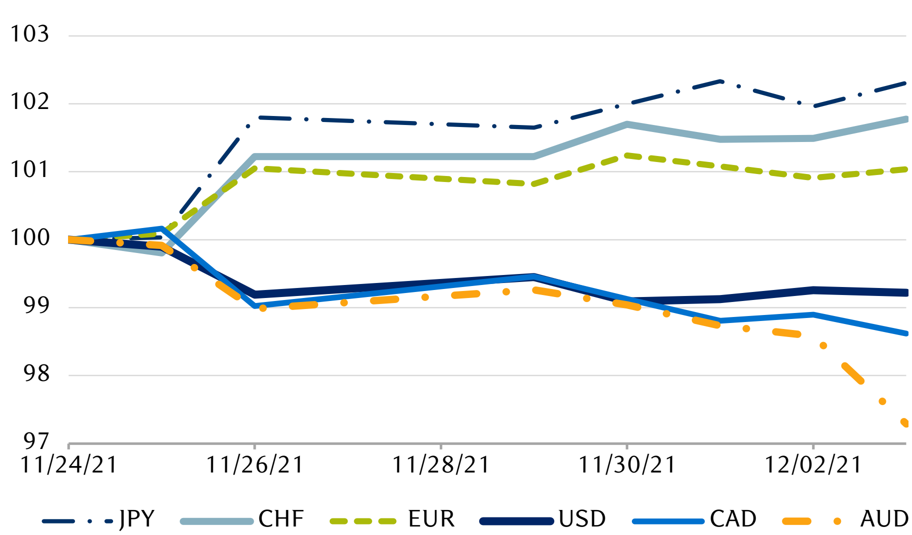
Currency pair	Current rate	Forecast Dec. 2022	Change
Major currencies			
USD Index	95.67	100.80	5%
CAD/USD	0.79	0.79	0%
USD/CAD	1.26	1.27	1%
EUR/USD	1.13	1.08	-4%
GBP/USD	1.35	1.19	-12%
USD/CHF	0.91	1.01	11%
USD/JPY	115.08	117.0	2%
AUD/USD	0.72	0.67	-7%
NZD/USD	0.68	0.71	4%
EUR/JPY	130.90	126.0	-4%
EUR/GBP	0.84	0.91	8%
EUR/CHF	1.03	1.09	6%
Emerging currencies			
USD/CNY	6.35	6.35	0%
USD/INR	74.33	74.50	0%
USD/SGD	1.34	1.31	-2%

Change is defined as the implied appreciation or depreciation of the first currency in the pair quote. Examples of how to interpret currency data can be found in the Market Scorecard.

Source - RBC Capital Markets forecasts, Bloomberg

USD outperformed the commodity-linked AUD & CAD, but underperformed the JPY & CHF in a risk-off environment

Performance of select currencies against the USD in aftermath of omicron headlines



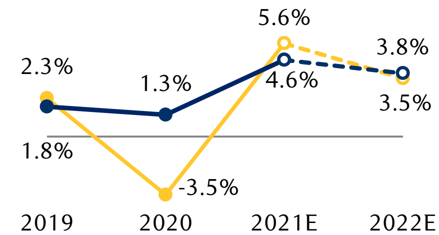
Source - Bloomberg, RBC Wealth Management, data range: 11/24/21 – 12/3/21

KEY

Forecasts

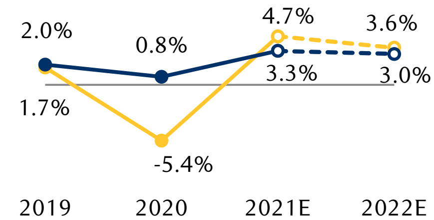
United States: Inflation woes

Q4 looks to have rebounded from delta-variant-weakened Q3 as consumer spending picked up and business investment surged. Omicron likely to take a toll on Q1 but not sustained. Surging inflation numbers getting a lot of attention. Fed expects CPI to subside in H2 but has advanced its tapering schedule and expects three rate hikes in 2022, up from one less than two months ago. Supply chain issues have lessened but likely to remain well into H2.



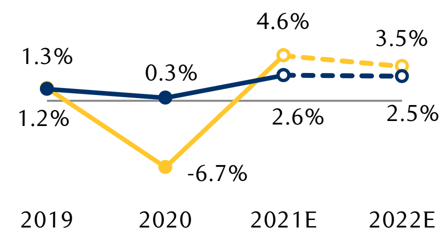
Canada: Omicron shutdowns

Q3 GDP improved after an early quarter delta-related slump. The improvement looks to have continued into Q4. Employment was very strong in November with total employment now comfortably above its pre-pandemic level and the unemployment rate only fractionally above a multi-decade low. Omicron shutdowns likely to put a hole in Q1, but Bank of Canada looks to be heading toward a first rate hike in the spring as inflation readings float higher.



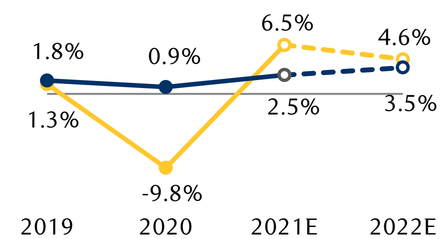
Eurozone: Services weak

Q3 GDP surged on the back of widespread reopening, but now renewed restrictions and "lockdown for the unvaccinated" starting in December point to a weaker Q4. Supply chain/shipping disruptions look to have eased modestly. Hiring remained robust and inflation elevated. German services giving readings below 50 while France bucked the softening trend. ECB to end its bond purchase program in March but no rate increases are forecast for the coming year.



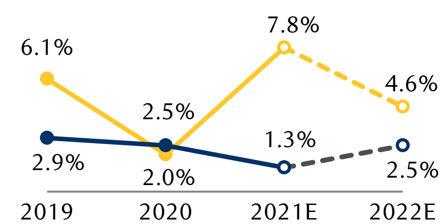
UK: BoE tightening cycle begins

The services sector weakened noticeably in December mostly in response to the omicron variant. Backlogs and business expectations followed suit. Delivery times improved as supply chain/shipping disruptions eased somewhat. At 5.1%, inflation was well ahead of Bank of England expectations which prompted a 15 bps hike, bringing the bank rate to 0.25%. We expect a further 25 bps increase in February and another in August.



China: GDP struggles

GDP growth has slowed in response to COVID-19 variant outbreaks, power shortages, and regulatory tightening. Industrial production remains subdued after a September slump; however, the manufacturing PMI has moved back up into expansionary territory. New orders and business confidence have improved. Credit woes in the large property development sector have been brought about by government tightening policies which have eased somewhat but not yet decisively.



Japan: Exports recovering

Industrial production has been revived as exports have improved steadily from August lows. Supply chain/shipping disruptions easing somewhat. Capex remain weak. Household spending has weakened again post-Olympic COVID-19-related restrictions but much lower caseloads in response to an improved vaccine programme holds some hope for a consumer spending revival in 2022. Inflation moribund. The BoJ is expected to stay on hold.

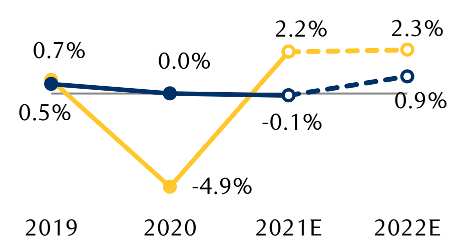


Chart source - RBC Investment Strategy Committee, RBC Capital Markets, Global Portfolio Advisory Committee, RBC Global Asset Management, Bloomberg consensus estimates

MARKET
Scorecard

*Data as of December 31, 2021**

Equities

The S&P 500 posted strong results in FY2021, outperforming global equity markets.

Bond yields

U.S. 2-year and 10-year Treasuries weakened in December amid rising omicron cases.

Commodities

World commodity prices were mostly higher with the exception of natural gas prices, which declined 18.3% to $3.73.

Currencies

The U.S. Dollar Index lost ground against most of the world's major currencies, including the CAD, EUR, and GBP, amid ongoing U.S. pandemic-driven economic challenges.

Index (local currency)	Level	1 month	YTD	12 month
S&P 500	4,766.18	4.4%	26.9%	26.9%
Dow Industrials (DJIA)	36,338.30	5.4%	18.7%	18.7%
Nasdaq	15,644.97	0.7%	21.4%	21.4%
Russell 2000	2,245.31	2.1%	13.7%	13.7%
S&P/TSX Comp	21,222.84	2.7%	21.7%	21.7%
FTSE All-Share	4,208.02	4.5%	14.5%	14.5%
STOXX Europe 600	487.80	5.4%	22.2%	22.2%
EURO STOXX 50	4,298.41	5.8%	21.0%	21.0%
Hang Seng	23,397.67	-0.3%	-14.1%	-14.1%
Shanghai Comp	3,639.78	2.1%	4.8%	4.8%
Nikkei 225	28,791.71	3.5%	4.9%	4.9%
India Sensex	58,253.82	2.1%	22.0%	22.0%
Singapore Straits Times	3,123.68	2.7%	9.8%	9.8%
Brazil Ibovespa	104,822.40	2.9%	-11.9%	-11.9%
Mexican Bolsa IPC	53,272.43	7.2%	20.9%	20.9%
Bond yields	**12/31/21**	**1130/21**	**12/31/20**	**12 mo. chg**
U.S. 2-Yr Tsy	0.732%	0.565%	0.121%	0.61%
U.S. 10-Yr Tsy	1.510%	1.444%	0.913%	0.60%
Canada 2-Yr	0.951%	0.984%	0.201%	0.75%
Canada 10-Yr	1.426%	1.568%	0.677%	0.75%
UK 2-Yr	0.687%	0.484%	-0.160%	0.85%
UK 10-Yr	0.971%	0.809%	0.197%	0.77%
Germany 2-Yr	-0.620%	-0.601%	-0.700%	0.08%
Germany 10-Yr	-0.177%	-0.185%	-0.569%	0.39%
Commodities (USD)	**Price**	**1 month**	**YTD**	**12 month**
Gold (spot $/oz)	1,829.20	3.1%	-3.6%	-3.6%
Silver (spot $/oz)	23.31	2.1%	-11.7%	-11.7%
Copper ($/metric ton)	9,740.63	2.4%	25.7%	25.7%
Oil (WTI spot/bbl)	76.99	16.3%	58.7%	58.7%
Oil (Brent spot/bbl)	77.78	10.2%	50.2%	50.2%
Natural Gas ($/mmBtu)	3.73	-18.3%	46.9%	46.9%
Agriculture Index	445.22	3.3%	21.1%	21.1%
Currencies	**Rate**	**1 month**	**YTD**	**12 month**
U.S. Dollar Index	95.6700	-0.3%	6.4%	6.4%
CAD/USD	0.7912	1.1%	0.8%	0.8%
USD/CAD	1.2637	-1.1%	-0.7%	-0.7%
EUR/USD	1.1370	0.3%	-6.9%	-6.9%
GBP/USD	1.3532	1.8%	-1.0%	-1.0%
AUD/USD	0.7263	1.9%	-5.6%	-5.6%
USD/JPY	115.0800	1.7%	11.5%	11.5%
EUR/JPY	130.9000	2.0%	3.7%	3.7%
EUR/GBP	0.8413	-1.3%	-5.9%	-5.9%
EUR/CHF	1.0375	-0.4%	-4.0%	-4.0%
USD/SGD	1.3490	-1.2%	2.0%	2.0%
USD/CNY	6.3561	-0.1%	-2.6%	-2.6%
USD/MXN	20.5294	-4.3%	3.1%	3.1%
USD/BRL	5.5758	-0.9%	7.3%	7.3%

Equity returns do not include dividends, except for the Brazilian Ibovespa. Equity performance and bond yields in local currencies. U.S. Dollar Index measures USD vs. six major currencies. Currency rates reflect market convention (CAD/USD is the exception). Currency returns quoted in terms of the first currency in each pairing.

Examples of how to interpret currency data: CAD/USD 0.79 means 1 Canadian dollar will buy 0.79 U.S. dollar. CAD/USD 0.8% return means the Canadian dollar has risen 0.8% vs. the U.S. dollar during the past 12 months. USD/JPY 115.08 means 1 U.S. dollar will buy 115.08 yen. USD/JPY 11.5% return means the U.S. dollar has risen 11.5% vs. the yen during the past 12 months.

Source - RBC Wealth Management, RBC Capital Markets, Bloomberg; *data through 12/31/21 except for WTI Oil which is through 12/30/21

Research resources

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