GLOBAL
Insight

RBC Wealth Management

Perspectives from the Global Portfolio Advisory Committee

March 2022

The market, earnings, and the economy from 10,000 feet

During market-shaking events, we would look to the path of earnings to get a sense of where equity market values are headed over the next few years.

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Net zero: What will life be like in 2050?

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And so it begins

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GLOBAL

Insight

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All values in U.S. dollars and priced as of market close, February 28, 2022, unless otherwise stated.

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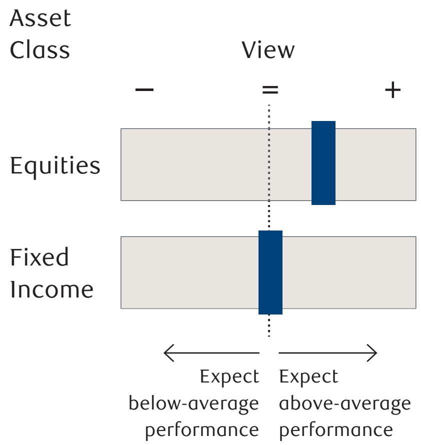
RBC'S INVESTMENT Stance

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

- The Russian invasion of Ukraine is testing equity markets' nerves. Historically, geopolitical conflicts have had a temporary impact on stock markets, with long-lasting and deep corrections being rare events. However, investors should remain vigilant. Recently imposed sanctions on Russia could result in oil prices remaining elevated and improvements in disrupted supply chains being delayed. Both would weigh on economic growth and corporate earnings, as well as continue to underpin inflation. We believe central banks will take geopolitical factors into consideration at their upcoming meetings.
- Despite this darker outlook, all of our recession indicators are still flashing green, suggesting there is no recession in sight. We maintain our modest Overweight in global equities and suggest investors ride out the ongoing volatility.

FIXED INCOME

- Government bond yields continue to move higher as inflationary pressures are expected to lead to tighter monetary policy. Despite the turmoil caused by Russia's invasion of Ukraine, the Fed and other central banks remain likely to begin removing accommodation, although the potential for more aggressive, front-loaded rate hikes by the Fed has diminished.
- With long-term yields now at or approaching our target levels, we favor shifting government bond exposure to long-dated from short-dated maturities. To compensate for the former's greater sensitivity to changes in interest rates, we are reducing our overall exposure to government bonds and looking for opportunities to increase our exposure to corporate bonds, which have sold off post-invasion.
- We maintain our Market Weight in global fixed income with a Neutral allocation to corporate credit.

MONTHLY
Focus

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The market, earnings, and the economy from 10,000 feet

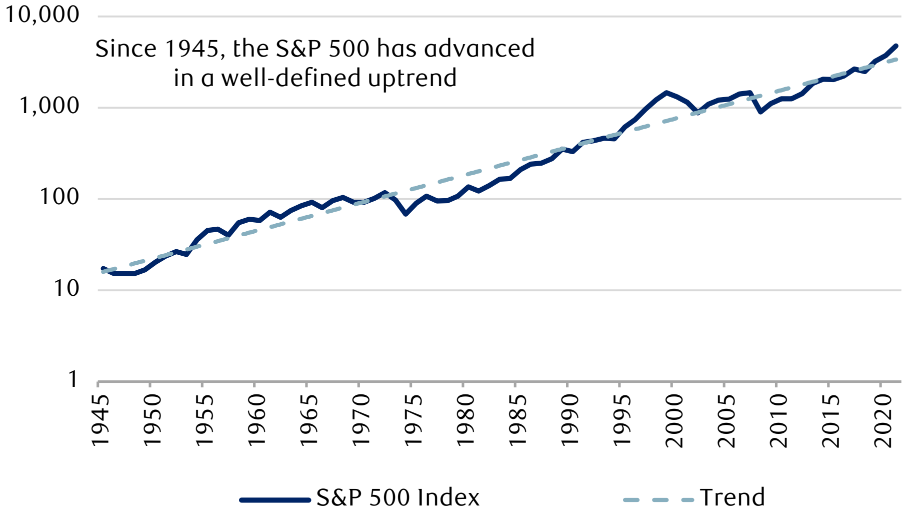
During market-shaking events, we remind investors that it would take a serious deterioration in the earnings outlook to push the market into a state of overvalued vulnerability. We would likely see this ahead of time in the leading indicators of recession. Our recession scorecard is showing no such weakness. Ultimately, the long-term relationships between stock price appreciation, corporate profit growth, and economic growth are remarkably stable. Understanding these relationships can put shorter-term market volatility, and even meaningful declines, into perspective.

The chart below traces the path of the S&P 500 Index from the end of 1945 until today. It is plotted annually—that is, there is only one data point per year; one doesn't see all the to-ing and fro-ing that goes on between each Jan. 1 and Dec. 31, rather just the value at each year-end.

While there are plenty of ups and downs, the rising trend of stock prices is clearly evident over the 76-year time span and remarkably consistent over 20-year stretches.

One can easily spot some of the most challenging bear markets—e.g., 1973–1974 where the accompanying recession turned much of industrial America into the "Rust Belt"; the "tech wreck" from 2000 to 2003; and the financial crisis collapse of 2008–2009. But it is surprising how many of the other bear markets over that stretch (there were nine of them), not to mention other momentous and memorable market-shaking events, are hard to see or outright invisible when looked at this way.

S&P 500 Index since 1945



Source - RBC Wealth Management, Bloomberg; annual closing data through 2021

Consider the following:

- The Korean War from mid-1950 to mid-1953, including the entry into the war of the Chinese Red Army.
- The seven-month market-unfriendly stretch in 1962 starting with the Kennedy steel price rollbacks and finishing with the Cuban Missile Crisis.
- The collapse of oil prices and much of the heavily indebted oil and gas sector together with the Latin American debt default/bailout saga that played out through the mid-1980s.
- The 1987 market crash that sent a number of Wall Street firms into insolvency and prevented many investors from getting a good night's sleep for a number of years afterward.
- The savings and loan crisis that festered from the mid-1980s into the 1990s and saw about one-third of these institutions collapse, necessitating a massive government bailout of the industry, which at the time was the largest source of mortgage lending as well as a very significant deposit-taker in the U.S.
- The Mexican government debt bailout of 1995.
- The calamitous emerging market currency crisis that began in mid-1997 and featured some of the steepest weekly declines in share prices ever recorded. It morphed in 1998 into the Russian debt default and the collapse/bailout of Long-Term Capital Management.
- The European sovereign debt crisis, which followed on from the financial crisis and wasn't resolved until 2012.
- The COVID-19 pandemic, which saw share prices plummet by a startling 31 percent in less than six weeks in 2020.

All of these are largely or entirely invisible on this 76-year chart of the S&P 500.

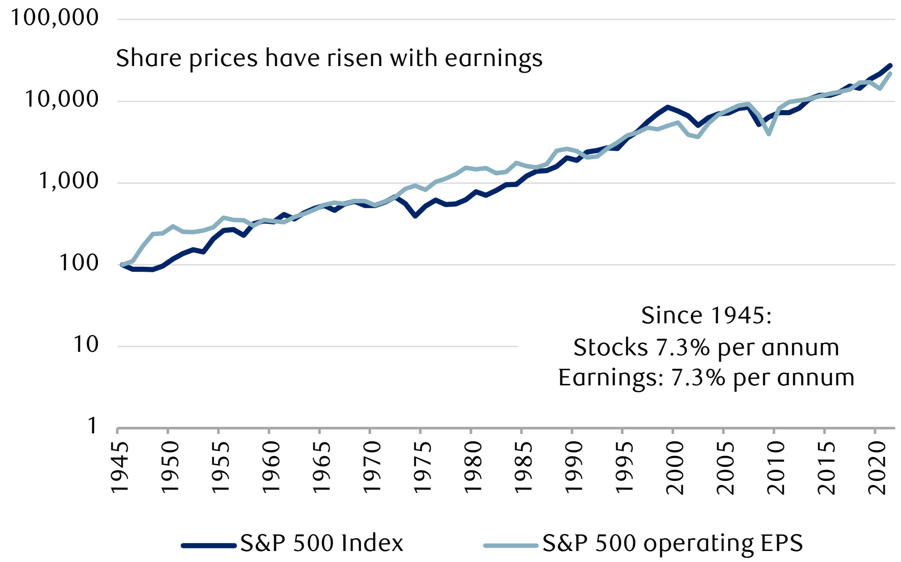
An investor usually only had to be patient for about a year as most market downturns resolved back into uptrends by that time. There were only two instances of back-to-back annual market declines: 1969–1970 and 1973–1974. And there was one three-year decline: 2000–2002. The latter featured a recession in 2001 induced by a credit crunch, the 9/11 attacks followed by the war in Afghanistan in the same year, and the slow-motion collapse into early 2003 of tech sector share prices in the wake of high-profile bankruptcies and accounting scandals. But markets had regained all the ground lost by 2006.

It's no mystery …

The chart on the following page again depicts the S&P 500 plotted annually over the same 76 years but this time with a simultaneous plot of S&P 500 earnings per share. Both are indexed to a starting value of 100 for easy comparison.

As of today the race depicted here is pretty much a dead heat: since 1945 the S&P 500 has appreciated exactly as fast as the earnings per share of

Annual S&P 500 Index and S&P 500 earnings per share since 1945



Source - RBC Wealth Management, Bloomberg; annual closing data through 2021, indexed to 1945 = 100

the index—both at 7.3 percent per annum. (Of course, shareholders did better than that collecting dividends along the way equal to about two percent per annum on top of the appreciation return.)

Earnings and share prices didn’t move in lockstep. Sometimes earnings were growing faster than share prices were appreciating, while at other times it was vice versa. But both were rising on a trend basis. And for the most part, when earnings were rising so were share prices, while earnings declines more often than not were accompanied by falling share prices.

It doesn’t seem a long leap to conclude that if an investor wants to get a handle on where the value of the S&P 500 is headed over the next few years, they should seek out a reliable forecast of what path earnings per share will follow over that period.

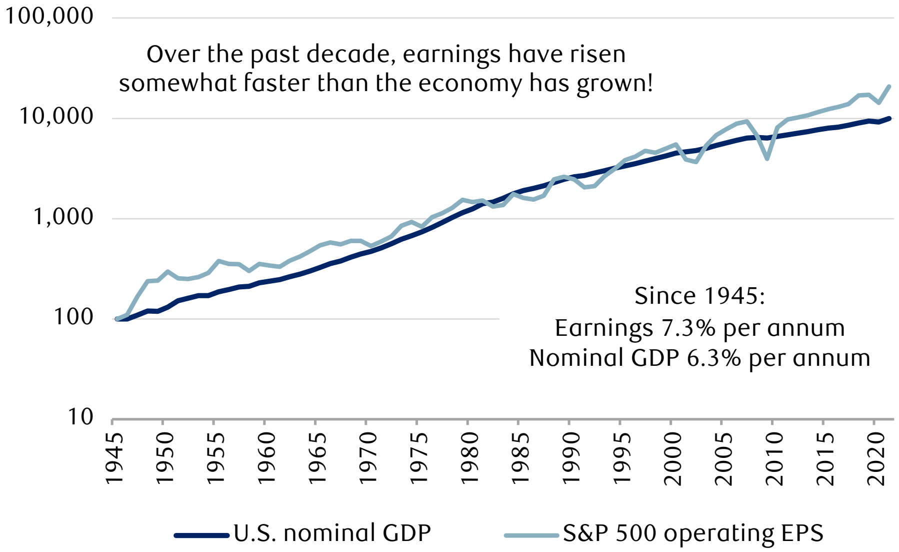
Do earnings rise by magic?

No. They rise at a rate mostly consistent with the growth rate of the economy, a relationship depicted in the chart on the following page, which plots the earnings per share of the S&P 500 at the end of each year alongside the value of U.S. GDP produced in that same year. (This is the so-called “nominal” value, that is, with the effect of consumer price increases left in.)

This GDP plot is incredibly smooth. Despite the fact there were 12 recessions over the interval from 1945 to today, fewer than half show up as no more than faint ripples in this steadily rising line. The rest can’t be seen at all.

While the accompanying earnings per share plot is much bumpier, for the most part it hugs the trend traced out by the economy. However, one can see that a growth gap in favour of earnings over GDP has opened up in the years following the financial crisis. Part of this is explained by the big Trump corporate tax cut in 2017, which boosted average after-tax earnings by an estimated 12 percent.

Annual S&P 500 earnings per share and U.S. nominal GDP since 1945



Source - U.S. Department of Commerce, Bureau of Economic Analysis; annual closing data through 2021, indexed to 1945 = 100

There is at least one additional explanation. In recent years, particularly in the recovery from the pandemic-driven recession, some of the companies accounting for the biggest capitalisation weights in the S&P 500, notably large-cap tech and tech-related, have seen their foreign earnings surge higher. This has boosted index earnings per share but not U.S. GDP to the same degree.

There is debate about whether some of these companies are behaving monopolistically. If they are found to be, then some of these profits may suffer under antitrust enforcement. The EU has indicated it is prepared to take an aggressive stand on this, and the Biden administration appears likely to be more activist as well.

If these are shown not to be monopoly profits then some portion should eventually be competed away. Whether it's by enforcement or competition, it will take some time to see any impact on profitability.

The valuation question

Are stocks, in this case the S&P 500, overvalued? Since the end of 2009, when the worst of the financial crisis had been left behind and the recovery from recession had begun, to the end of last year the S&P 500 appreciated at a rate of 12 percent per annum while the earnings per share of the index grew by a startling 15.5 percent per annum. So if anything, it has been earnings that have been the overachievers here more so than average share prices.

And, as depicted in the chart, over the much longer 76-year postwar era, both earnings and share values have more or less moved along at the same 7.3 percent per annum average pace, well supported by the nominal growth rate of U.S. GDP and augmented by the even faster growth of the global economy outside the U.S. in which many American companies have been active participants.

MONTHLY FOCUS

The market, earnings, and the economy from 10,000 feet

No big value gap has opened between share prices and index earnings as happened in the two years leading up to the peak of the tech bubble. Price-to-earnings (P/E) multiples tell much the same story. At its highs in December, the S&P 500 was trading at 21x the forward 12-month consensus earnings per share estimate. The pullback has brought that down to 18.6x forward earnings of $228. That's only moderately above the 30-year average forward P/E of 17.4x.

Major markets outside the U.S. are even cheaper. Canada's S&P/TSX Composite Index at 14.1x forward earnings estimates is below its historical average of 14.8x and at one of the deepest P/E discounts relative to the U.S. in history. European, UK, and Japanese markets are trading at comparably low or even lower multiples.

For us, valuations do not pose a large risk to investors as things stand. In our view, it would take a serious deterioration in the earnings outlook to push the market into a state of overvalued vulnerability. Such a deterioration would likely show up ahead of time in the leading indicators of recession. Our U.S. recession scorecard is showing no such weakness.

U.S. recession scorecard

	Status		
Indicator	Expansionary	Neutral	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

MONTHLY
Focus

Net zero: What will life be like in 2050?

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The way people live in 2050 will be quite a departure from today, with many dramatic changes brought on by the net-zero world. We examine what net zero really means, what this world could look like, challenges to getting there, and investment implications.

Much in the way that today's hyperconnected society is worlds apart from the pre-internet days of 30 years ago, life in 2050 will probably be very different from what we know today. On one important front—the fight against global warming—most countries will have tried to reach "net zero," a state where the amount of greenhouse gas emissions (GHG) added to the atmosphere is balanced out by that removed.

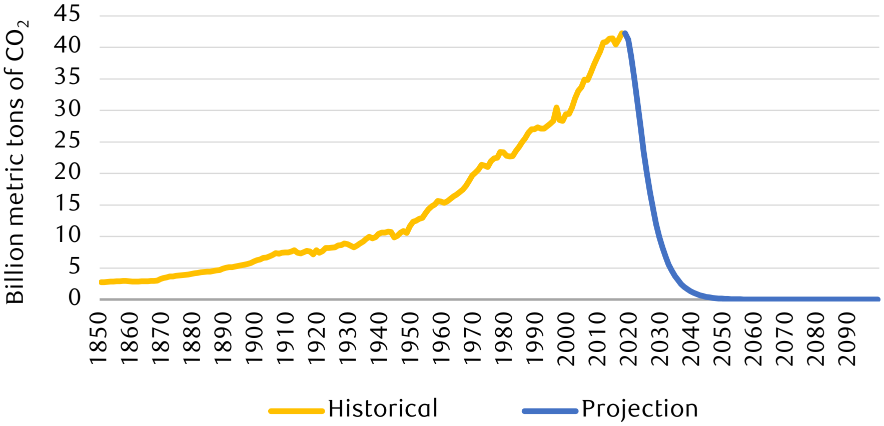
We explore some of the most eye-catching changes our children and grandchildren are likely to experience in key areas of their lives. After assessing the difficulties in achieving net zero, we review some investment implications.

What does net zero really mean?

The term "net zero" carries within it the message that even if all efforts are made to reduce human-produced carbon dioxide and other planet-warming gases, if renewables replace coal and other fossil fuels, and even if green hydrogen is scaled up massively, certain sectors for which these solutions are somewhat impractical, such as aviation or farming, will still produce carbon emissions. Emissions that can't otherwise be avoided will need to be removed from the atmosphere via solutions such as direct air capture of CO_2, or by nature-based solutions, for example, tree planting.

CO_2 reductions needed to achieve net-zero emissions by 2050

This action aims to help cap the rise in the global average temperature below 1.5 degrees Celsius



Note: CO_2 reductions necessary if mitigation had started—with global emissions peaking and quickly reducing—in 2019.

Source - OurWorldinData.org

The extent of global warming is proportional to the amount of carbon dioxide that is added to the atmosphere. Thus, to stabilize climate change, net GHG emissions need to fall to zero, i.e., net zero.

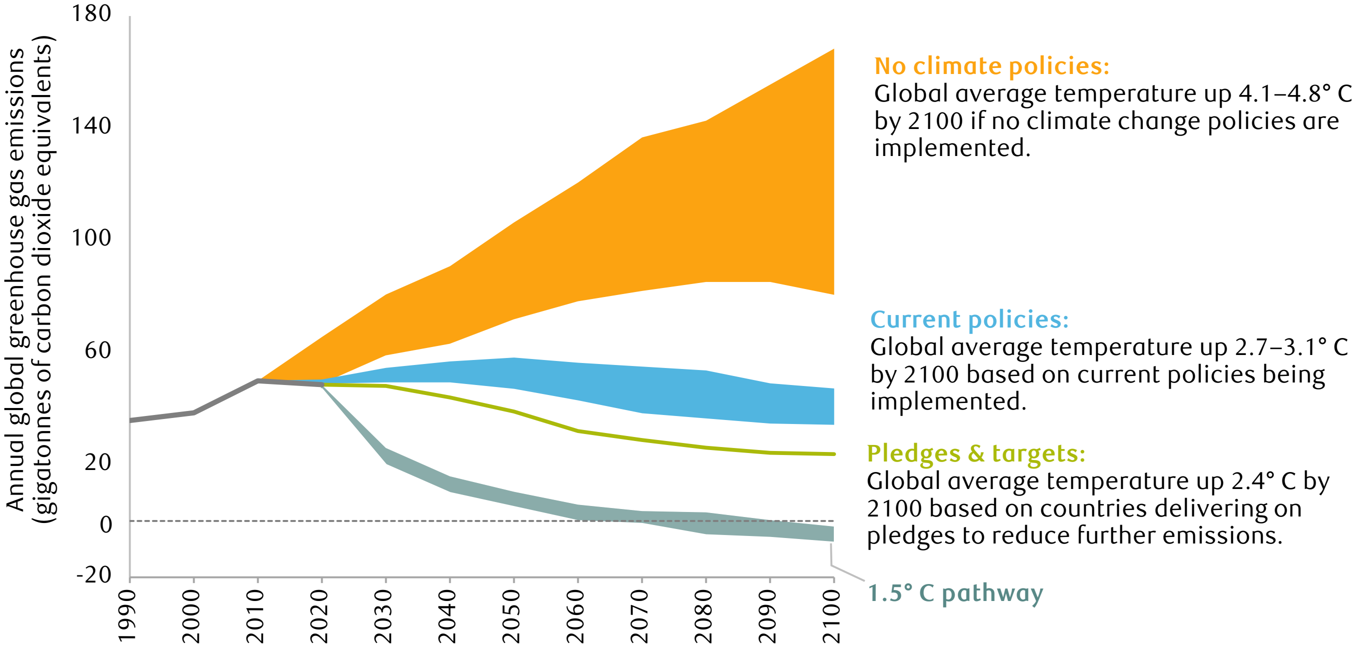
The expression comes from an Intergovernmental Panel on Climate Change (IPCC) report in 2018 that called for capping the warming of the planet to below 1.5 degrees Celsius above the pre-industrial average temperature in an attempt to avoid the worst impacts of climate change, such as (even more) extreme weather and potentially disastrous increases in sea levels.

Achieving this will be no small feat as temperatures today are already one degree Celsius above the pre-industrial level and continue to climb, driven by 51 billion metric tons of GHGs emitted worldwide each year. To achieve the temperature goal, the IPCC estimated that global carbon dioxide emissions must fall by about 45 percent by 2030 and to net zero by 2050.

Many countries and regional blocs, including the U.S., UK, and the European Union (EU), have committed to reach net zero by 2050; China targets 2060. Some nations have made the commitment legally binding. Meanwhile, many businesses have declared their intentions to meet this goal by mid-century.

The future increase in the global average temperature will depend on the reduction in GHG emissions

Global GHG emissions and warming scenarios



Note: 1 gigatonne = 1 billion metric tons. Annual emissions less than zero reflect the removal of greenhouse gases from the atmosphere. Based on national policies and pledges as of May 2021, prior to new pledges made at the UN summit on climate change, COP26, in November 2021. GHG emissions include carbon dioxide, methane, and nitrous oxide.

Source - Climate Action Tracker (Licensed under CC-BY by Hannah Ritchie & Max Roser), OurWorldinData.org, RBC Wealth Management

A net-zero world by mid-century

Our descendants will live in a world that will be a very different place to how it is today, with wholesale changes in their homes, modes of transport, and the landscape that surrounds them.

Decarbonized homes

Homes will likely receive 95 percent of their electricity from wind and solar versus some 40 percent in 2020. Most fossil fuel-powered furnaces and boilers will very likely be replaced by heat pumps.

Heat pumps are devices powered by electricity that extract heat from the air or ground to warm a fluid that is compressed to boost the temperature. In effect, they operate like a refrigerator in reverse.

Though the technology has been in use for some time, there are impediments to scaling it up. Heat pumps are refrigerator-sized, while installation can be costly and disruptive. Still, nearly 20 million households purchased heat pumps in 2019, according to the International Energy Agency (IEA), meeting five percent of global home heating demand. The IEA estimates this share needs to triple by 2030 to meet net-zero goals.

Innovation is needed to reduce the size of the units while offering a cooling option as well as heating.

Policy support will also be needed to speed up adoption of this new technology. In the UK, from 2025, gas-fired boilers will be banned in newly built homes, while the installation of new replacement gas boilers in existing houses will be prohibited by the mid-2030s. To encourage the use of heat pumps, the UK government is offering a number of grants to households.

Homebuilding may also see big changes. Either the key raw materials used today, steel and cement, will be processed differently, or substitutes will have to emerge.

The steel and cement industries are massive CO_2 emitters, each accounting for roughly seven percent of total global emissions, according to the IEA. “Greening” these heavy industries will be important to achieve net zero.

Several emerging technologies, which are close derivatives of well-understood and commercial processes used today, could yield significant emissions reductions in the medium term. In the steel industry, pilot programs are using hydrogen to complement or replace coal in the high-temperature combustion process. Meanwhile, feasibility studies suggest the use of hydrogen could substantially reduce the amount of carbon that is emitted from a cement kiln. At the same time, it appears mixing carbon dioxide with the water used to cure concrete can add usefully to its strength, meaning less cement can be used while simultaneously locking away the carbon in the concrete.

Engineered timber frames for buildings are another innovation that will increasingly be used to replace steel and cement. Cross-laminated timber (CLT) is produced by gluing planks of wood together, layering the grain of the wood at right angles. CLT was first used in a high-rise building in Vancouver in 2017, and other skyscrapers have made use of it since.

Window panes could even be made of wood. Swedish scientists found ways to extract pigments from wood, resulting in a transparent material that can be used much like glass but weighing less and insulating more.

Finally, roofs will increasingly be covered by solar panels or vegetation to provide a natural form of insulation and reduce energy consumption.

Transformed transport

It's widely expected that electric vehicles (EV) will be ubiquitous, but their capabilities will likely be far more efficient than today's models.

For one, an EV that is not in use may feed energy back to the grid via two-way charging points. In this way EVs can act as an aggregated megabattery, helping the grid offset the inevitable vagaries of wind and solar power. After all, cars are idle most of the time and a large amount of battery power is unutilized.

It's also likely that wireless charging technology will dramatically evolve, both with respect to home wireless chargers as well as the possibility of charging an EV battery even as the vehicle is being driven.

While electric trains have been around for decades, diesel engines remain the most pervasive power source and are ripe for replacement. South Korea already operates electric multiple unit trains, and it intends to phase out all of its diesel passenger trains by 2029. French manufacturer Alstom is running a hydrogen-powered passenger train service in Europe, which it expects to roll out more widely over the next several years. Meanwhile, Canadian Pacific Railway has put eight hydrogen-powered freight locomotives into service to assess their viability.

In aviation, electric airplanes are not yet practical due to the huge on-board weight of batteries. Late in 2020, Airbus announced that hydrogen-fueled propulsion systems would be central to a new generation of zero-emissions commercial aircraft. The project is a flagship of the EU's COVID-19 stimulus package that aims to green the bloc's economy. Airbus believes its planes could be ready by 2035, though whether their use becomes commonplace will depend on hydrogen being produced at scale and without a large carbon footprint, challenges in their own right.

Reshaped landscape

The landscape of 2050 will be different beyond simply the further proliferation of wind turbines and solar panels, which have already become prevalent over the years. In cities, more green spaces to lock up CO_2 will be widespread.

With homes receiving the majority of their electricity from wind and solar and a greater amount of electricity generation directed at transport, more transmission infrastructure, including pylons and substations, will be needed to carry energy to homes and factories.

Travelers may see tram-style overhead power cables hovering above a truck lane on the highway—the electric motorway. Trucks emit between 15 percent and 18 percent of CO_2 emissions and German conglomerate Siemens has been at the forefront of an innovative technology to reduce this.

Siemens' first "eHighway" was piloted in Sweden, with diesel hybrid vehicles manufactured by Scania adapted to operate with power from an overhead contact line. A similar system was also tested in Los Angeles. The UK government commissioned a study in 2021 to assess the economic and technical potential of a national rollout of this technology, which offers many advantages beyond cutting emissions and improving air quality. It can eliminate the dependency on battery range performance while increasing utilization rates as it would eliminate idle time during charging.

In addition, given that a massive reduction in the amount of carbon dioxide already in the atmosphere will be necessary, direct air capture (DAC) facilities, which extract CO_2 directly from the air, are likely to be built on the edge of urban areas. These will look like rows of boxes containing fans humming away.

The IPCC suggests that to keep global warming below 1.5 degrees Celsius, around 730 billion metric tons of CO_2 must be taken out of the atmosphere by the end of this century in addition to a significant reduction in emissions. That is equivalent to all the CO_2 emitted by the U.S., the UK, and China since 1750.

DAC removes CO_2 from the atmosphere by forcing air over a chemical that grabs CO_2, then compresses, transfers, and stores it in deep geological formations. Currently, 19 DAC plants are in operation worldwide, capturing 10,000 metric tons of CO_2 per year.

The problem is cost. The largest DAC facility operating today, in Iceland and operated by ClimeWorks, a Swiss firm, can remove 4,000 metric tons of CO_2 from the air per year and store it in mineral form at a cost of $600 to $800 per metric ton. Scaling up the technology can bring the price down. Canada's Carbon Engineering believes its much larger plant with planned capacity of one million metric tons per year, scheduled to open in three years' time in Texas, can operate at a much lower cost, in a range of $90 to $240 per metric ton.

According to Carbon Engineering, DAC technology combined with secure geological storage can deliver permanent and verifiable removal of carbon dioxide from the air, reversing the emissions process, and provide sectors struggling to decarbonize, such as aviation, shipping, and oil and gas, with a potential path to achieve net-zero targets.

To reach net zero by 2050, DAC will need to be scaled up to capture more than 85 million metric tons of CO_2 per year by 2030 and approximately 980 million metric tons per year by 2050, according to the IEA. To put the level of infrastructure in place to realize these goals will require targeted government support including grants and public procurement.

A cheaper option to remove CO_2 is planting trees, and reforestation efforts have increased in recent years. The IPCC suggests that increasing the total area of the world's forests, woodlands, and woody savannahs could store around one-quarter of the atmospheric carbon necessary to limit the rise in the global average temperature below 1.5 degrees Celsius—though this would require adding up to 24 million hectares of forest (roughly the size of the U.S. state of Oregon) every year from now until 2030.

Recent national reforestation efforts are nowhere near that level, despite several countries having announced ambitious plans. But people in 2050 are nevertheless likely to see more woodland areas. Encouragingly, the shift toward plant-based diets may free up to 20 percent of farmland for other uses, according to the UK's Climate Change Committee, a statutory body.

Planting trees may be cost-effective but it may not be the most efficient method to pull CO_2 from the air, given how large reforestation areas have to be in order to make a difference. Moreover, trees can burn in wildfires or be cut down, causing much of the stored carbon to be released. Simply, reforestation cannot reduce emissions on its own.

Some industries set to benefit from the energy transition

A wide range of industries are working toward achieving the greening of the economy

Transformation	Industry
Renewables	• Independent wind farm operators • Wind turbine manufacturers • Utility companies with expertise in renewable power • Solar panel equipment manufacturers • Semiconductor manufacturers • Software • Monitoring systems
Energy storage	• Battery systems operators • Battery manufacturers
Transmission/distribution	• Transmission systems managers • Electric cable manufacturers • Power equipment manufacturers (e.g., substations, transformers) • Electricity distribution companies
Electric vehicles	• Manufacturers and operators of charging infrastructure • Parts manufacturers
Hydrogen	• Industrial gases companies
Heat pumps/eHighways	• Industrial conglomerates
Engineered timber frames	• Building materials companies • Wood products companies

Source - RBC Wealth Management

Can net zero ever be achieved?

Achieving net zero is a huge task with enormous challenges, as we described in a recent article on the green energy transformation.

One of these is the hefty price tag. A 2019 World Bank estimate suggested the necessary global infrastructure investment would cost $90 trillion. Spread over 30 years, this would amount to about 0.2 percent to 0.3 percent of GDP per annum, which is manageable, in our view. Moreover, the same study also estimated that the investment could be recouped four times over.

Certainly, the cost of inaction could very well be higher than the investment needed. Reinsurer Swiss Re recently estimated that the global economy could be seven percent to 10 percent smaller in 2050 than now as a result of the cost of climate change (including the damage from extreme weather), as well as parts of the planet becoming uninhabitable, fueling hunger and migration.

Though the solutions for countries to achieve net zero do exist, or are in early development, many need to be scaled up, a process that is capital intensive and fraught with difficulties. It is an encouraging sign that at the recent UN climate summit, COP26, not only did nations pledge to meet net-zero targets by 2050, but so did more than 5,000 businesses.

That said, just as the uptake of both solar and wind energy over the past two decades was encouraged by policy support, such as tax credits, subsidies, and government-backed loans, the same approach and resolve will be needed to help these technologies become commercialized.

Pragmatism should prevail

For investors, this represents both risks and opportunities. Our view is that investors should maintain a pragmatic approach given the serious gaps between net-zero ambitions and potential outcomes. High-emissions companies that do not adapt are likely to incur difficulties. Those that adapt or develop new technologies, if given support to reach commercialization, will likely find themselves in a position to benefit from this transformation.

GLOBAL

Equity

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Fog of war

On average, the impact on equity markets of disruptive geopolitical events is usually short—measured in days—and the ground lost is regained fairly quickly. However, the deepest and most drawn-out have been those which produced a sustained rise in energy prices. The Russia/Ukraine conflict is going to have a debilitating effect on the developed economies, some more than others. Higher fuel prices can act like consumption taxes, reducing the amount of disposable income available to spend on other goods and services, many having a bigger multiplier effect on overall GDP growth.

This is coming at a time when the U.S. and several other developed economies were in the process of shifting from goods-driven expenditure to services-driven. Work-from-home and the unavailability of dining out, travel, and other services resulted in heavier-than normal-spending on goods, pulling some considerable portion of future demand forward and leaving a weaker outlook for goods producers as spending swings toward the reopened services sector.

Weak manufacturing Purchasing Managers' Indexes, especially for new orders, are likely to be one result. This is sure to provoke debate about whether something worse than a slowdown is in the offing, especially since central bank tightening is likely to be part of the landscape as the year progresses. We don't think there is. But with long-held estimates of above-trend GDP growth for 2022 now in flux as the effects of sanctions on already tight energy markets and inflation are factored in, there will be room for further volatility in equity markets over the coming months, in our view.

Despite this darker outlook, all seven of our leading indicators of U.S. recession continue to indicate no such downturn is in sight. We maintain our modest Overweight in global 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

GLOBAL
Fixed income

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And so it begins

The Federal Reserve, and markets, will face one last inflation test before its widely anticipated policy meeting on Mar. 15–16, with the Consumer Price Index data for February set to be released on Mar. 10. Policymakers are all but certain to begin the process of tightening monetary policy via higher policy rates—the only question seemingly remaining is how quickly they come out of the gate.

Markets and policymakers alike still appear split on whether the Fed's policy rate will need to be raised by 25 basis points (bps) or by 50 bps—something the Fed hasn't done since 2001. Of course, the key to answering that question may lie in the inflation data. Economists have continued to struggle to get a grip on underlying inflation dynamics—both in the U.S. and globally—as forecasts have undershot actual monthly inflation by a historically large margin in recent months. It's not just the high levels of inflation, it's the ongoing uncertainty that has unsettled markets and, in turn, created uncertainty around the Fed's next policy step.

Fixed income views

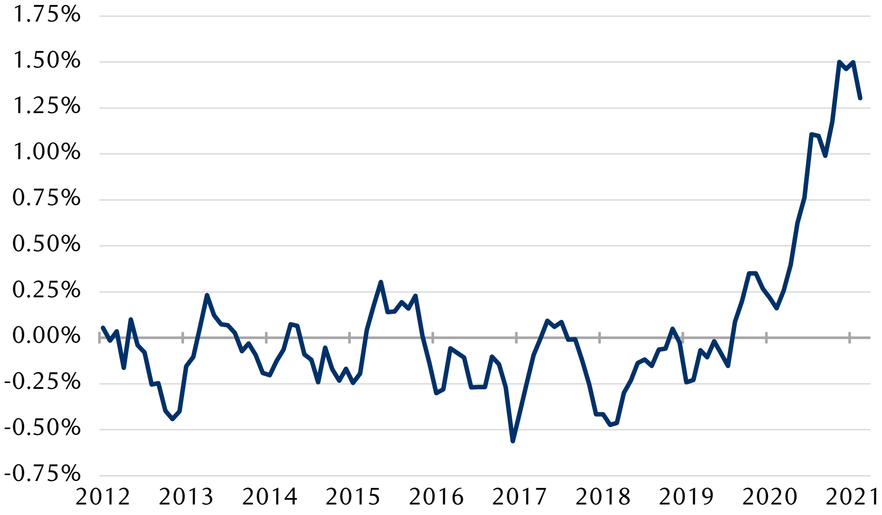
Region	Gov't bonds	Corp. credit	Duration
Global	=	=	5–7 yr
United States	–	=	5–7 yr
Canada	=	=	5–7 yr
Continental Europe	=	=	5–7 yr
United Kingdom	=	=	5–7 yr

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

After reaching 7.5% y/y in January, the Cleveland Fed's inflation forecast model shows that number rising to 7.8% in February—could that be enough to spur the Fed into more aggressive action? As of now, markets have priced a one-in-three chance of a 50 bps hike this month, but our view remains that the Fed will ultimately proceed with a standard 25 bps hike, judging the risks around a bigger move as outweighing any benefit.

Missing the mark: Inflation continues to run well ahead of consensus expectations

Nine-month cumulative deviation between consensus inflation forecasts and the actual data



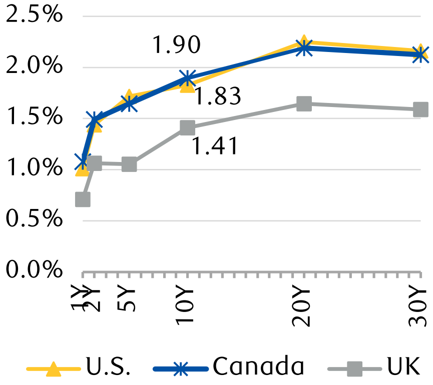
Source - RBC Wealth Management, Bloomberg; data through January 2022

GLOBAL FIXED INCOME

The Bank of Canada raised rates by 0.25% at its March meeting and we expect the Bank of England to do the same at its meeting later this month. The European Central Bank's (ECB) meeting on Mar. 10 could be the most important of all, as the same above-target inflation that has plagued the U.S. has been felt around the globe. Where the ECB was previously presumed to be the last of the major central bank to begin raising rates, in 2023 at the earliest, rate hikes are now on the table, with RBC Capital Markets expecting two rate hikes later this year that would take the -0.50% policy rate to -0.25%.

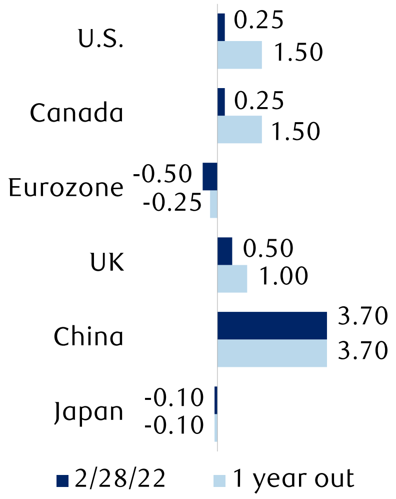
Of course, geopolitical and risk management concerns could easily factor into policymakers' decision-making calculus this month, but it may only cause them to err on the side of caution rather than knock any central bank off its planned policy tightening course.

Sovereign yield curves



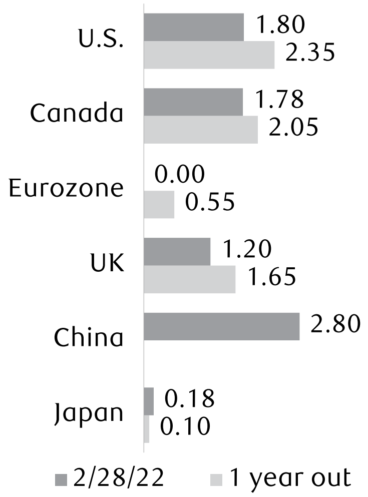
Source - Bloomberg; data through 2/28/22

Central bank rate (%)



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

10-year rate (%)



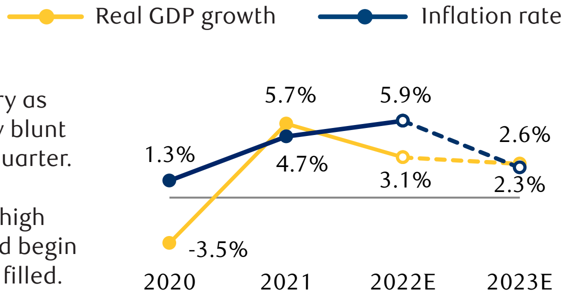
Note: Eurozone utilizes German Bunds.
Source - RBC Investment Strategy Committee, Global Portfolio Advisory Committee, RBC Global Asset Management

KEY

Forecasts

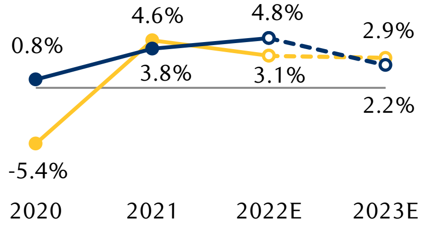
United States: Spending rebounds

Consumer spending bounced back in January as omicron waned, but inventory rundown may blunt the effect of spending gains on GDP in the quarter. Surging inflation will be exacerbated by the Ukraine conflict with a few more months of high numbers to come, but goods inflation should begin to subside as pent-up demand looks mostly filled. Expect better inflation data in H2 and in 2023. First Fed hike coming in March, four more expected this year.



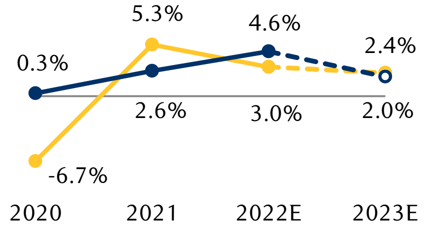
Canada: Rate hikes begin

Q4 GDP grew nicely despite a December stall due to omicron. Growth appears to have resumed in January although closures produced an outsized drop in employment; this looks on the way to being recouped as restrictions ease. Surveys point toward stronger capex after a disappointing 2021. The BoC has delivered its first rate hike as promised and will likely keep pace with the Fed.



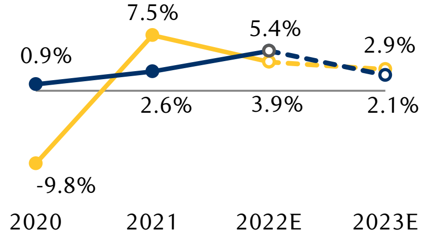
Eurozone: Military spending coming

Q4 was reasonably strong despite weak German results; France and Spain led the way. Supply chain/shipping disruptions look to have eased modestly. Manufacturing and services PMIs both strong. The Russian invasion of Ukraine has raised uncertainty about household spending intentions, and probably put any ECB tightening on hold. Meanwhile, government spending on military readiness looks set to boom.



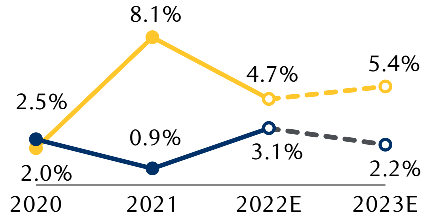
UK: BoE tightening cycle underway

Q4 came in at a satisfactory pace despite the services sector shrinking in December, mostly due to omicron. Government and business services provided the lift. Tourism not yet in recovery. Retail sales improved after a poor December but consumer confidence has worsened further. Construction holding steady, new orders firm but business confidence soft. Inflation at 5.5%. The BoE delivered a second rate hike in February with another expected as soon as March.



China: Moderate growth revival

GDP growth has improved modestly with PMIs mostly in positive territory and new orders up moderately. Supply chain disruptions have eased but not disappeared. Government easing has produced some revival in credit growth, but credit woes in the large property development sector linger in the background. Higher commodity prices hurting profit margins and the consumer. Exports need shipping backlogs cleared. Moderate growth revival expected over the full year.



Japan: Too quiet

Industrial production has sagged again as exports weakened sharply to start the year. Supply chain/shipping disruptions easing somewhat but exports soft. Capex still subdued. Household sector weak as omicron numbers decline, but from very high levels. Retail sales have suffered. An improved vaccine programme holds some hope for a consumer spending revival in 2022. Inflation moribund. The BoJ is expected to stay on hold.

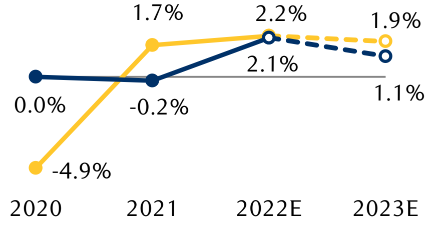


Chart source - RBC Investment Strategy Committee, RBC Capital Markets, Global Portfolio Advisory Committee, RBC Global Asset Management, Bloomberg consensus estimates

MARKET Scorecard

Data as of February 28, 2022

Equities

Global equity markets mostly weakened as Russia's invasion of Ukraine sowed the seeds of global economic uncertainty.

Bond yields

Sovereign bond markets weakened through Feb. 24, but have since rallied after the invasion of Ukraine.

Commodities

Commodity prices rose amid inflation concerns and Russia's incursion into Ukraine driving oil prices much higher.

Currencies

The U.S. dollar rallied against a majority of the world's currency as investors sought less risky assets.

Index (local currency)	Level	1 month	YTD	12 months
S&P 500	4,373.94	-3.1%	-8.2%	14.8%
Dow Industrials (DJIA)	33,892.60	-3.5%	-6.7%	9.6%
Nasdaq	13,751.40	-3.4%	-12.1%	4.2%
Russell 2000	2,048.09	1.0%	-8.8%	-6.9%
S&P/TSX Comp	21,126.36	0.1%	-0.5%	17.0%
FTSE All-Share	4,157.77	-0.8%	-1.2%	12.3%
STOXX Europe 600	453.11	-3.4%	-7.1%	11.9%
EURO STOXX 50	3,924.23	-6.0%	-8.7%	7.9%
Hang Seng	22,713.02	-4.6%	-2.9%	-21.6%
Shanghai Comp	3,462.31	3.0%	-4.9%	-1.3%
Nikkei 225	26,526.82	-1.8%	-7.9%	-8.4%
India Sensex	56,247.28	-3.0%	-3.4%	14.6%
Singapore Straits Times	3,242.24	-0.2%	3.8%	9.9%
Brazil Ibovespa	113,141.90	0.9%	7.9%	2.8%
Mexican Bolsa IPC	53,400.61	4.0%	0.2%	19.8%
Bond yields	**2/28/22**	**1/31/21**	**2/26/21**	**12 mo. chg**
U.S. 2-Yr Tsy	1.432%	1.179%	0.127%	1.31%
U.S. 10-Yr Tsy	1.825%	1.777%	1.405%	0.42%
Canada 2-Yr	1.435%	1.275%	0.298%	1.14%
Canada 10-Yr	1.813%	1.771%	1.355%	0.46%
UK 2-Yr	1.039%	1.045%	0.128%	0.91%
UK 10-Yr	1.410%	1.302%	0.820%	0.59%
Germany 2-Yr	-0.531%	-0.601%	-0.663%	0.13%
Germany 10-Yr	0.135%	-0.185%	-0.260%	0.40%
Commodities (USD)	**Price**	**1 month**	**YTD**	**12 months**
Gold (spot $/oz)	1,908.99	6.2%	4.4%	10.1%
Silver (spot $/oz)	24.45	8.8%	4.9%	-8.3%
Copper ($/metric ton)	9,919.00	3.6%	1.8%	8.5%
Oil (WTI spot/bbl)	95.72	8.6%	24.3%	55.6%
Oil (Brent spot/bbl)	100.99	10.7%	29.8%	52.7%
Natural Gas ($/mmBtu)	4.40	-9.7%	18.0%	58.9%
Agriculture Index	507.46	9.2%	14.0%	27.5%

Currencies	Rate	1 month	YTD	12 months
U.S. Dollar Index	96.7070	0.2%	1.1%	6.4%
CAD/USD	0.7891	0.3%	-0.3%	0.5%
USD/CAD	1.2675	-0.3%	0.3%	-0.5%
EUR/USD	1.1219	-0.1%	-1.3%	-7.1%
GBP/USD	1.3420	-0.2%	-0.8%	-3.7%
AUD/USD	0.7263	2.8%	0.0%	-5.7%
USD/JPY	115.0000	-0.1%	-0.1%	7.9%
EUR/JPY	129.0100	-0.2%	-1.4%	0.3%
EUR/GBP	0.8361	0.1%	-0.6%	-3.6%
EUR/CHF	1.0286	-1.2%	-0.9%	-6.2%
USD/SGD	1.3549	0.3%	0.4%	1.7%
USD/CNY	6.3092	-0.8%	-0.7%	-2.6%
USD/MXN	20.4692	-0.8%	-0.3%	-1.9%
USD/BRL	5.1522	-3.0%	-7.6%	-8.1%

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 0.78 means 1 Canadian dollar will buy 0.78 U.S. dollar. CAD/USD 0.5% return means the Canadian dollar has risen 0.5% vs. the U.S. dollar during the past 12 months. USD/JPY 115.00 means 1 U.S. dollar will buy 115.00 yen. USD/JPY 7.9% return means the U.S. dollar has risen 7.9% vs. the yen during the past 12 months.

Source - RBC Wealth Management, RBC Capital Markets, Bloomberg

Research resources

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Hold [Sector Perform]	557	38.60	180	32.32
Sell [Underperform]	55	3.81	3	5.45

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