GLOBAL
Insight

Wealth Management

Perspectives from the Global Portfolio Advisory Committee | November 2021

Putting a price on carbon emissions

Looking at the steps being taken to encourage carbon emission reductions.

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GLOBAL

Insight

November 2021

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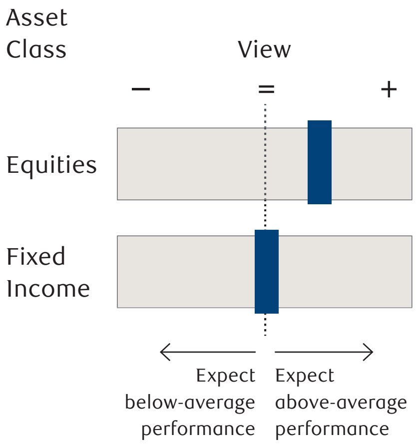

(+/=/–) represents the Global Portfolio Advisory Committee's (GPAC) view over a 12-month investment time horizon.

+ 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

- The equity market is confronted with multiple headwinds: persistent COVID-19-related distortions on supply chains, energy prices, inflation, and the labor market. But you wouldn't know it by the behavior of developed market equity indexes, which have crept back up to new highs following a modest pullback over the late summer.
- While major indexes seem vulnerable to additional volatility due to economic/political headwinds, the fact there has been no noticeable weakness in leading indicators of recession means the bull market is likely to remain intact for some time yet, in our view. Importantly, household fundamentals are strong, the cost and accessibility of credit remains highly supportive, and earnings growth should persist, albeit at a slower pace. Even if the Fed begins hiking interest rates in late 2022, the year leading up to the first Fed rate hike and the year following have typically been good periods for the stock market. We would continue to moderately Overweight equities.

FIXED INCOME

- Central bank rate hike fears have thrown fixed income markets for a loop as traders now see many major global central banks needing to raise policy rates earlier, and to a greater extent, than previously expected, largely due to more-persistent inflationary pressures. The net result has been a sharp rise in short-term bond yields, and a notable decline in long-term yields—driving yield curves sharply flatter, a sign that rate hikes could choke off growth and inflation expectations, and perhaps the economic recovery.
- We still favor shorter maturities in government debt as we think markets have gone too far in repricing rate hike expectations, and that central banks may push back against the market's timeline, which could relieve some pressure and allow longer-term bond yields to resume a steady move higher. In credit markets, valuations remain historically rich, but with few credit risks on the horizon, we still expect credit to outperform government debt, absent a policy misstep from central banks.
- We maintain our Market Weight in global fixed income, but continue to reduce interest rate risk, especially after the recent drop in long-term bond yields. We maintain a Market Weight allocation to corporate credit, but favor adding income via preferred shares and leveraged loans.

MONTHLY
Focus

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Putting a price on carbon emissions

Increasingly, countries are making the pricing of carbon emissions mandatory, either by enforcing cap-and-trade rules or by imposing a carbon tax. But with the pace of government regulatory support varying dramatically from country to country, many companies are also trying to offset their emissions voluntarily, in response to the growing cohort of environmentally conscious consumers and the increasing influence of environmental, social, and governance (ESG) funds. How should investors take this new business expense into account?

For investors, it means this additional cost of doing business from emitting carbon, should be taken into account. We explore how mandatory carbon pricing is implemented, either through cap-and-trade regulations or taxes, and explore some popular voluntary carbon offsets.

Focus at COP26

The 26th U.N. Climate Change Conference (COP26), to be held in Glasgow, Scotland, starting Oct. 31, is widely regarded as the most important climate conference since the 2015 Paris conference, which gave rise to the Paris Agreement. Ratified by close to 200 nations, the Paris Agreement's goal is to keep mean global warming well below 2 degrees Celsius (3.6 degrees Fahrenheit). To achieve this, signatory countries will need to decrease emissions by close to 50 percent over the next decade—an enormous challenge. A main focus of COP26 will be carbon emissions pricing.

Putting a price on carbon emissions makes polluting energy sources expensive and provides an incentive for emitters to reduce them. The concept is based on the increased recognition that the cost of emitting carbon dioxide (CO_2) should be factored into the cost of production by emitting companies, much like a chemical company that dumps harmful residues in a river or landfill, causing health problems for people who live nearby, should be accountable.

Mandatory pricing of carbon emissions

An important feature of the mandatory carbon pricing is that carbon emissions must not only be priced but also become increasingly costly over time. Some countries are making pricing carbon mandatory either through cap-and-trade regulations or through carbon taxes, while some, such as Canada, use both.

MONTHLY FOCUS

Putting a price on carbon emissions

Increasing momentum for cap and trade

Cap and trade refers to legally binding regulations that ***cap*** total emissions and allow companies to ***trade*** their allocations.

Cap and trade is not a new approach, having been used to tackle environmental problems in the past. Putting a price on sulphur dioxide (SO_2) emissions, introduced under the Clean Air Act, is largely credited with helping to solve the acid rain issue in the 1990s.

Cap and trade has grown in importance, albeit slowly. There are more than 60 cap-and-trade programmes in operation across four continents in jurisdictions making up 54 percent of global GDP and covering 16 percent of global greenhouse gas emissions, up from less than five percent 10 years ago according to the International Carbon Action Partnership.

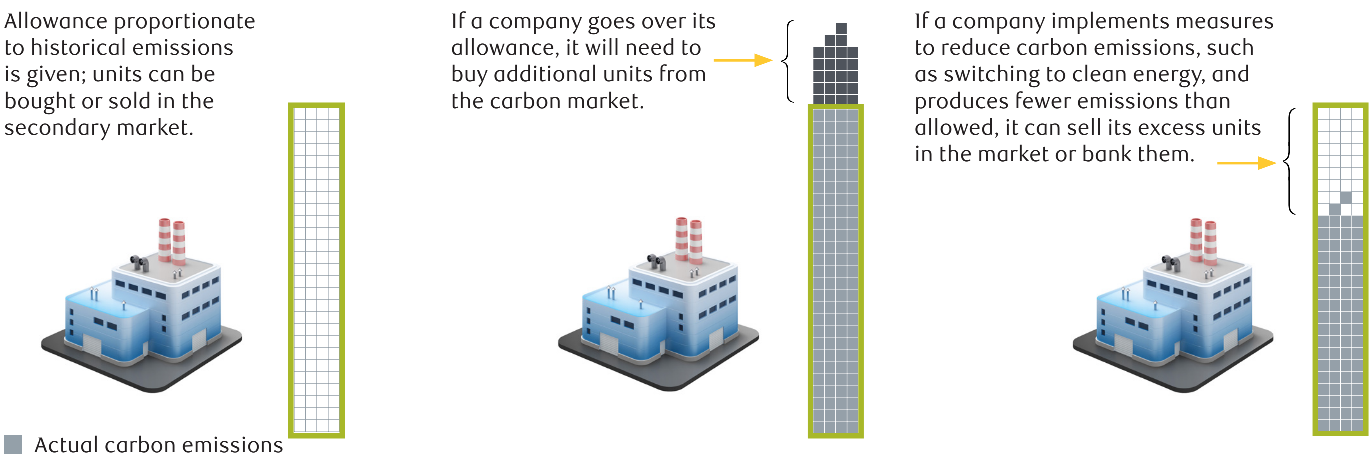
The most developed programmes are regional. The EU's Emissions Trading System (EU ETS) established in 2005 remains the most liquid. Beyond this, a number of countries, provinces, states, and cities operate a cap-and-trade programme.

The U.S. is home to the Western Climate Initiative (to which Quebec is also a signatory) and the Regional Greenhouse Gas Initiative for 11 East Coast states, while the UK stopped participating in the EU's scheme by launching its own programme. Promisingly, in July 2021, China launched a nationwide programme focused on the thermal power industry, which accounts for 40 percent of the nation's emissions. China is responsible for over 25 percent of global emissions, compared to 11 percent for the U.S. and 6.4 percent for the EU 27 (excluding the UK), according to Rhodium Group.

With the U.S. returning to the Paris Agreement and China establishing its own emissions trading programme, most observers see a growing momentum for cap and trade as an effective mechanism to drive a meaningful reduction in carbon emissions.

How cap and trade works

Cap and trade has been used successfully in the past to reduce emissions



Source - RBC Wealth Management

MONTHLY FOCUS

Putting a price on carbon emissions

How does cap and trade work?

By assigning a price to a damaging activity, cap-and-trade rules provide companies a financial incentive to reduce emissions by themselves.

All cap-and-trade programmes set emissions limits compatible with their nation's CO_2 reduction targets and calculated by governments and policymakers. Typically, these limits, or caps, decrease gradually over time towards a predetermined reduction goal.

Carbon allowances or units totalling up to this maximum are then allocated or auctioned to companies in high-emission sectors, such as power generation, oil and gas refining, steel making, and chemical manufacturing. Each allowance permits the emission of one tonne of CO_2. Inclusion of these high emitters in the cap-and-trade scheme is mandatory and regulated.

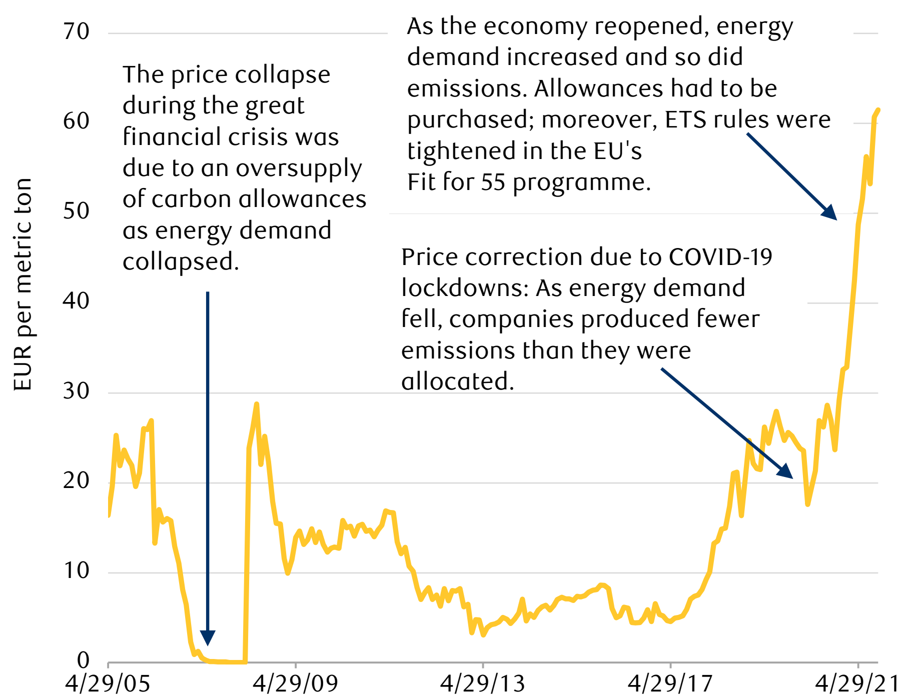
The allowances are tradable commodities. They can be bought and sold in the secondary markets, where banks and trading companies provide liquidity. This sets the market price for carbon.

If a company generates emissions over what it has been allowed, it needs to buy more carbon units from the market, thus incurring a cost. But if the company generates less than its allowance, it can sell any excess units in the market to a company that hasn't successfully reduced emissions. Alternatively, it can hold its unused allowances for future use.

The price of carbon is determined by supply and demand. Supply of units is set by regulators to decrease annually, leaving the price of carbon to rise

Carbon prices are volatile

EU Emissions Trading System CO_2 emissions monthly price per metric ton



Note: Fit for 55 is the EU's legislation package which supports its commitment to reduce net greenhouse gas emissions by at least 55% by 2030.
Source - RBC Wealth Management, Bloomberg; monthly data through September 2021

or fall depending on whether firms produce emissions above or below their allowances.

Prices for carbon emissions differ across all the various cap-and-trade programmes worldwide. The price of carbon emissions within the European plan reached €65 per metric tonne in September 2021. By contrast, the price of a similar amount within the California/Quebec cap-and-trade programme was less than $28 at the same time. The difference occurs because each programme covers different industries and is designed to meet different carbon emission reduction goals, etc.

RBC Capital Markets expects carbon prices will rise over time, pointing out that as the cap declines, the market supply of allowances should get tighter. The International Monetary Fund is of the opinion that prices must rise significantly to stimulate alternative or low-emission options. It estimates that at global level, a price of $75 per ton or more is needed by 2030 to restrict global warming to below the Paris Agreement's well below 2°C (3.6°F) threshold.

Proponents of cap and trade point out that it gives companies flexibility by allowing them to hold allowances into future compliance periods. As a result, reducing carbon emissions can become a multiyear decision. Cap and trade also tends to be viewed more positively by consumers/voters than carbon taxes.

Some countries with high carbon prices are considering putting a charge on the carbon content of imports from regions without similar schemes. To this end, the EU in particular is pondering a carbon border adjustment mechanism.

Carbon taxes

Carbon taxes are another way to implement a fee on CO_2 emissions. Governments set a price per tonne of carbon emissions high enough to provide an incentive to switch to clean energy technology such as wind, solar, or other non-carbon-emitting power sources. Moreover, the tax usually goes up over time. In Canada, the carbon tax is set at CA$40 per

Comparison of two cap-and-trade programmes

The programmes have different parameters

	European Union Emissions Trading System	Western Climate Initiative (California/Quebec cap and trade)
Key feature	Largest (90 percent of global trading value) and most liquid	One of the largest multi-sectoral emissions trading schemes; Quebec linked with California in 2014
Start year and initial goal	Began in 2005 with reduction target of 20 percent below 1990 levels by 2020	Began in 2013 with reduction target of returning to 1990 emission levels by 2020
Now aiming for	43 percent reduction from 2005 levels by 2030	40 percent below 1990 levels by 2030
Coverage	11,000 installations representing approximately 43 percent of emissions	Emitters over 25,000 tonnes CO_2e/year; represents roughly 85 percent of California's CO_2e emissions
Sectors/Industries	Power generation, mining and steel, pulp and paper, cement, glass, aviation; with proposal to extend the scheme to shipping, road transport, and heating fuels as part of the EU Fit for 55 package	Electricity generation, large industrial, fuel supply

Note: CO_2e stands for CO_2-equivalent
Source - RBC Capital Markets

tonne of CO_2 equivalent for 2021. The government recently updated its federal carbon pricing benchmark, setting a minimum carbon price of CA$65 per tonne in 2023, rising to CA$170 per tonne by 2030.

A carbon tax differs from a cap-and-trade scheme in that a tax provides a high level of certainty about future prices—as those are set by the government in advance—but not about emissions. Cap and trade, by contrast, provides visibility about future emissions—as decreasing limits are set—though the price is left to market forces.

Taxes can be more equitable to the extent that they can be applied to all CO_2 emitters, either industrials or individuals, through a fuel tax as opposed to cap and trade, which assigns a cost only to industrial CO_2 emitters.

Unsurprisingly, taxes are not popular with the electorate. President Joe Biden's proposal of a carbon tax was vehemently opposed, causing him to opt for a payment scheme for emission reductions. In the UK, fuel taxes have not been changed since 2011. Furthermore, taxes can be watered down, making them a less-effective tool. In 1992, a carbon tax was discussed by the Clinton administration but was watered down to a negligible tax on gasoline.

Cap and trade and carbon taxes need not be mutually exclusive. RBC Capital Markets, LLC Director of Commodity Markets Anthony D'Agostino points out that Canada, for instance, has both mandatory policy instruments in place: British Columbia imposes a carbon tax, Quebec has a cap-and-trade programme, while Alberta has implemented a hybrid system that combines a tax with a cap for large industrial emitters.

Voluntary carbon offsets

Regardless of government mandated-schemes, an increasing number of companies wish to reduce their carbon footprint or accelerate the process of achieving net zero emissions. RBC Capital Markets estimates that over 20 percent of global corporates are targeting net zero emissions by 2050 or sooner.

Their motivation varies: management might be climate-conscious, or want their company's shares to be appealing to ESG funds whose importance is growing and could represent as much as 60 percent of mutual fund assets by 2025 according to PricewaterhouseCoopers.

Management may also want their company's products to be appealing to consumers who are increasingly demanding greener product solutions. Green consumer preferences are well entrenched in Europe. A 2020 study by IBM and the National Retail Federation found that nearly 70 percent of consumers in the U.S. and Canada think it is important that a brand be eco-friendly.

Companies that are not in a cap-and-trade jurisdiction and wish to reduce their carbon footprint or accelerate the process of achieving net zero emissions can buy carbon offsets. They are certificates that represent one metric ton of CO_2 equivalent that is either prevented from being emitted into the atmosphere or removed from the atmosphere as the result of energy efficiency projects such as reforestation or production of renewable energy. By using carbon offsets, a company can balance out its carbon footprint. Carbon offsets are also available to individuals: most airlines offer the opportunity to travelers to offset the carbon footprint of their flight.

Reforestation is a common offset, as trees absorb CO_2, they grow and store it, and makes up half the voluntary market. Other offsets include wind and solar farm projects that replace coal-fired power plants, thus preventing CO2 emissions, providing energy efficiency improvements.

McKinsey, a consulting firm, points out that though the voluntary carbon credit market is currently experiencing significant growth, it is still relatively small. It estimates that it could be worth some $50B by 2030 as demand grows.

Critics claim many of these projects are ineffective, and do not reduce emissions as they claim to. Reforestation projects, for example, are often undertaken in faraway locations, where land is cheap, and if left unmonitored, may not be successful.

As a result, offsets are cheap compared to the price of carbon on cap-and-trade schemes, at a lowly $3 per tonne. Still, Easyjet, a UK low-cost airline group, which carried close to 100 million passengers before COVID-19, spent £25m or six percent of pre-tax profits to offset the carbon emissions from the fuel used on all its flights on behalf of its passengers.

Others point out that carbon offsets are less efficient at tackling climate change. Companies, they suggest, should focus on actively reducing emissions, not merely offsetting them. RBC Europe Limited Energy Analyst Al Stanton thinks that to slow down and ultimately reverse climate change, technologies and solutions that actively ***remove*** CO_2 directly from the atmosphere need to be deployed.

Peering into the future

Whether a country has a legally binding cap-and-trade programme in place or not, more and more companies are incorporating a cost to emitting CO_2 as a way to measure their climate change risk and to put their businesses in a better position to manage the transition to a lower carbon business model. A McKinsey study highlights that 'some companies are setting an internal charge on the amount of carbon dioxide emitted from assets and investment projects so they can see how, where, and when their emissions could affect their profitability and investment choices. Meanwhile, some U.S. financial services companies are using internal carbon pricing to identify low-carbon, high-return investment opportunities.

Of the 2,600 companies that report their emissions to the Carbon Disclosure Project, 23 percent were found to be using an internal carbon charge, and another 22 percent plan to do so over the next two years.

French company Danone (Evian bottled water and Dannon yogurt), publicly reports its carbon-adjusted earnings per share, which has grown faster than its regular EPS because of the company's reduced carbon intensity.

MONTHLY FOCUS

Putting a price on carbon emissions

U.S. companies using an internal carbon price, including Microsoft and Mars, say it helps them to drive low-carbon investment, energy efficiency, and seize low carbon opportunities.

Broad investment implications

Politicians of all factions are under increasing pressure to introduce green regulations. In 2020, the Grantham Research Institute at the London School of Economics counted close to 2,000 pieces of climate legislation across the world, of which two thirds were enacted since 2010. The Securities and Exchange Commission may not adopt Europe's strict Sustainable Finance Disclosure Regulations, but it may choose to include relevant climate disclosure in its regulation.

Whether a company is bound by a mandatory cap-and-trade regulation, subject to a carbon tax, or whether it uses carbon offsets, more and more companies will incorporate the price of carbon into decisions about the way they operate and invest for the future.

RBC Global Asset Management's Head of Global Equities, Habib Subjally, observes that, in his experience, companies that understand how they may be exposed to or affected by climate change and have planned to deal with or take advantage of that exposure (or with other ESG issues) are usually better managed in most other respects and are superior creators of long-term value for their shareholders.

We suggest there are two useful paths for investors. They could seek to manage risk by developing an understanding of how individual companies in a portfolio may be exposed to carbon pricing or climate change in general. It should be possible through stock selection and diversification to manage the associated risks down to acceptable levels.

Investors could also seek out opportunity. In almost every sector of the equity market, companies that develop solutions to reduce carbon emissions or in some other way enable other businesses or consumers to mitigate this issue there are likely to emerge.

GLOBAL
Equity

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The not-so-spooky season

Equity investors approached the months of September and October with seasonal trepidation, aware that corrections and even more serious market weakness have often played out in early fall. For much of September, that caution appeared well warranted: after posting a new high on Sept. 3, the S&P 500 ground lower into early October and was down almost 6% at its lowest ebb. At one point, investor confidence levels reached multi-month lows, with bears outnumbering bulls by almost two to one.

There were a couple of volatile trading sessions where sellers tried to take control, but ultimately those attempts failed. By the end of October, the S&P 500 and most of the broad averages in the developed economies had resumed setting new highs. The laggard UK market has been the exception once again; not only has the FTSE All-Share Index not recovered its pre-pandemic peak, it remains below its all-time high set in 2018.

Although most indexes are tracing an upward path, there remains a yawning value gap between the tech-heavy S&P 500 at 21x estimated 2022 earnings and all the rest, most of which are trading in the mid-teens on a price-to-forward-earnings basis.

It's worth noting that the so-called advance/decline line for the S&P 500—a measure of market breadth that gives a useful indication of whether or not the majority of stocks are moving in the same direction as the index—has also posted a new high. Usually, in a market on its last legs and about to sink into bear territory, the advance/decline line would have already given up the ghost three to six months earlier. No such sign of an impending reversal of the major trend is yet in sight.

Equity views

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

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

Nor has there been any notable weakness in the leading indicators of recession that we follow, despite headlines that have chronicled a bumpy ride for GDP as the developed world tries to make it into the post-COVID-19 economy. Importantly, the cost and accessibility of credit remain highly supportive.

However, we believe higher interest rates inevitably lie ahead. The Bank of England may be first out of the gate, with RBC Capital Markets now expecting a first UK rate hike in December. Meanwhile, the U.S. Federal Reserve and the Bank of Canada both appear to be plotting a route toward gradual tightening, with their first rate hikes likely in the second half of 2022. That said, it has always been a long way from the start of tightening to a point where conditions are tight enough to make a recession inevitable. And, as we pointed out in our *2021 Midyear Outlook*, both the year leading up to the first Fed rate hike and the year following it have typically been good ones for equities, as the central bank struggles to catch up to an overheating economy.

We would remain moderately Overweight equities in a global balanced portfolio.

GLOBAL

Fixed income

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Don’t crowd the exit

The past two months have seemingly marked a sea change in the expectations for central bank policy response to inflationary pressures that have only proved more persistent, and amplified by rising energy costs, with markets pulling forward rate hike projections for many of the world’s major developed market central banks.

RBC Capital Markets now sees the Bank of England beginning to raise its policy rate by the end of the year, nearly six months earlier than previously expected. In the U.S., the market is now priced for the Fed to deliver two 25 basis point rate hikes by the end of 2022, up from no rate hikes next year just a few months ago. RBC Capital Markets also looks for the Bank of Canada to follow suit with two rate hikes next year. To be sure, the European Central Bank remains on easy street, but the future of its asset purchase program will remain under the market’s microscope in coming months.

But as central banks edge toward the policy support exits, it may be getting a little crowded with an increasing number of central banks signaling a potential need to rein in support, and that’s being manifested in the form of significantly flatter sovereign yield curves—which could be highlighting increased policy error risks, in our view.

Near-term bond yields, inside of five years, have moved sharply higher as a result of increased rate hike expectations, while the long end of yield curves at 30-year maturities, which are more correlated with growth and inflation expectations, are relatively unchanged, if not even slightly lower.

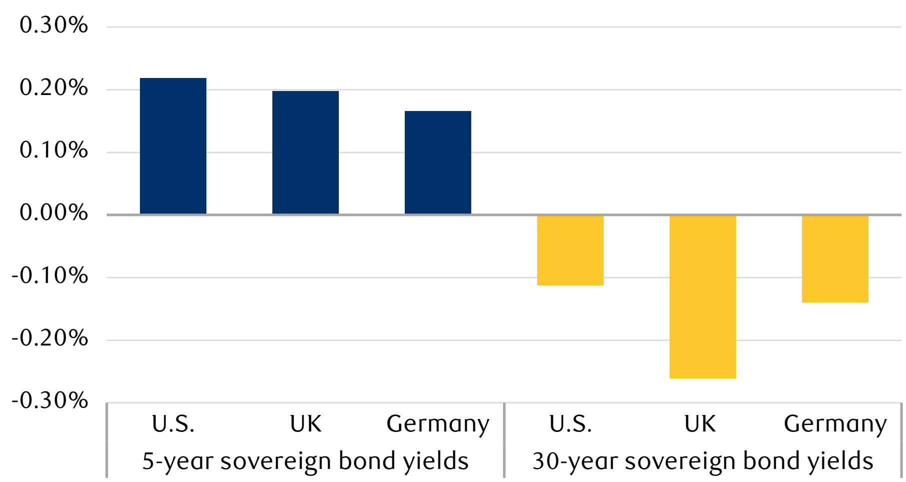
And the market’s signal to us is clear: inflation isn’t the threat, the potential central bank policy response to

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

Rising central bank rate hike expectations drive flatter yield curves in October



Source - RBC Wealth Management, Bloomberg; data through 10/29/21

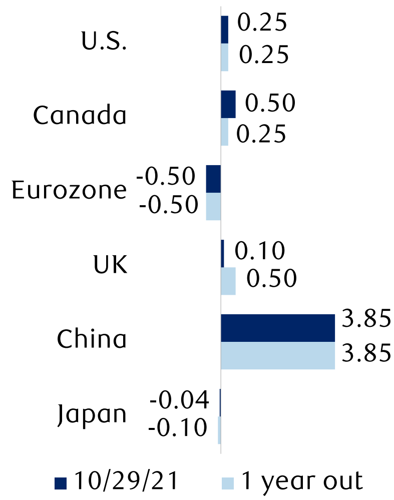
GLOBAL FIXED INCOME

inflation is. If long-term inflationary pressures were a real concern, we would expect longer-term yields to at least keep pace with the rise in short-term yields.

For example, in the U.S. the current yield difference between 5-year and 30-year Treasury yields is now just 0.75%, down from a peak of over 1.60% earlier this year. The last time this measure of the yield curve was so flat was in 2017, when the Fed had already raised rates four times to a fed funds rate of 1.25%.

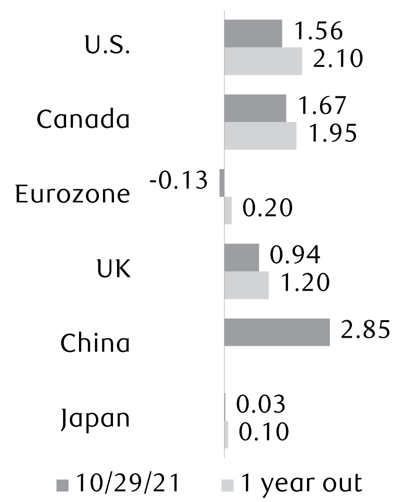
In our view, the market has likely priced in too much central bank tightening for the time being which, if unwound modestly, should be reflected in slightly steeper yield curves. But we remain focused on the state of global sovereign yield curves and the signals they are sending about the stance of monetary policy, and about the economic growth outlook, as flat yield curves suggest there is little margin for error.

Central bank rate (%)



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

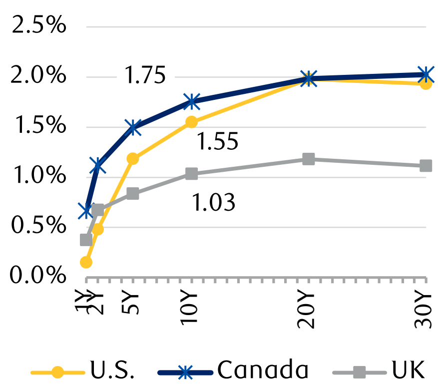
10-year rate (%)



Note: Eurozone utilizes German Bunds.

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

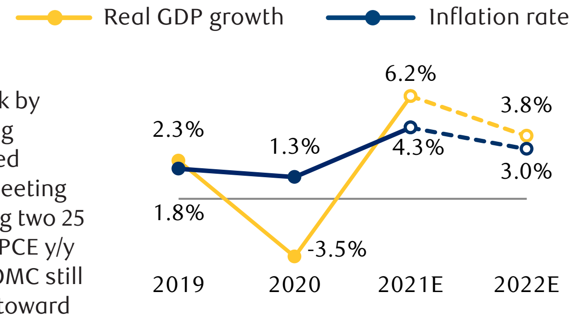
Sovereign yield curves



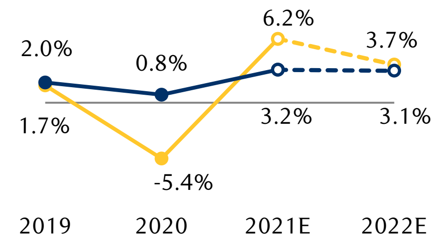
Source - Bloomberg; data through 10/31/21

KEY
Forecasts

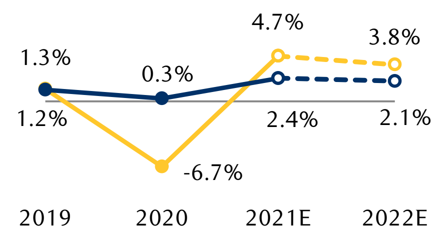
United States: Inflation woes
Q2 GDP about as expected at +2%, held back by delta-variant closures, supply chain/shipping disruptions. Q4 spending pick-up evident. Fed tapering plans expected at the November meeting with a start before year's end. Market pricing two 25 bps rate hikes by the end of next year. Core PCE y/y reached a 30-year high in August, but the FOMC still expects inflation to gradually subside back toward the 2% target as supply chain bottlenecks and hiring woes dissipate into 2022.



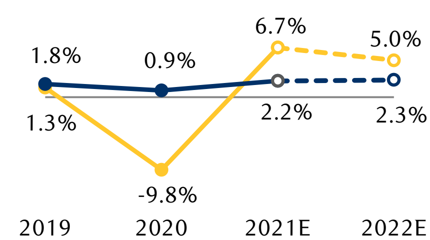
Canada: BoC ends quantitative easing (QE)
August GDP rebounded after a July swoon. Fuller opening in central Canada bodes well for Q4. CPI, at 4.4% in September, has exceeded the BoC's target range of 1%–3% for six straight months, driven mostly by food and shelter; BoC maintains its view that price increases will prove temporary. The BoC ended its QE program and pulled forward potential future rate hikes to mid-2022, anticipating the ground lost to COVID-19 will be fully regained by Q1.



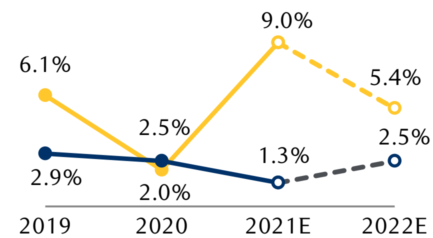
Eurozone: Inflation reaches 13-year high
Q3 GDP surged on widespread reopening, but Inflation hit 4.1% in September, the highest level in decades. Shortages and supply chain/shipping disruptions are hitting new factory orders and the employment outlook. Q4 GDP likely weaker. ECB steadfast in its view that inflation will peak later this year before slowing in 2022, and will keep buying bonds at least until March. No rate hikes in sight.



UK: BoE accelerating tightening cycle?
Despite a stronger PMI reading from the services sector, second-half GDP looks to be softening as headwinds of fuel shortages and global supply chain/shipping disruptions take a toll. Comments by BoE Governor Andrew Bailey have led investors to price in rate increases of 115 bps by end of 2022, the most aggressive tightening of any central bank; impact could be greater if the BoE curtails reinvestment in bonds held under QE.



China: Third-quarter GDP struggles
GDP growth has slowed in response to increased delta-variant outbreaks, power shortages, and regulatory tightening. Industrial production and new orders dramatically slowed in September, and business confidence fell. Supply shocks and shipping delays are additional headwinds. Credit woes in the large property development sector have been brought about by government tightening policies, which so far have not been rolled back.



Japan: Vaccine success holds promise
Capex has continued to weaken. Export orders and shipments remain under pressure from global supply chain/shipping disruptions. Domestic spending hurt by post-Olympic COVID-19-related restrictions, although the sharp drop in new daily caseloads in response to an improved vaccine program holds some hope for a consumer spending revival and better GDP prospect for 2022.The BoJ is expected to stay on hold.

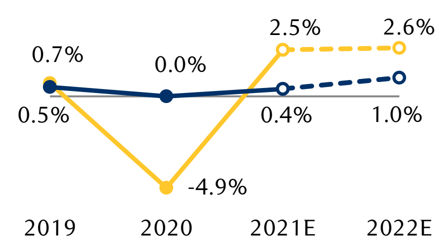


Chart source - RBC Investment Strategy Committee, RBC Capital Markets, Global Portfolio Advisory Committee, RBC Global Asset Management, Bloomberg consensus estimates

MARKET Scorecard

Data as of October 31, 2021

Equities

With the exception of the Hang Seng and Brazil Ibovespa, equity markets have been broadly positive this year, with a majority of indexes posting double-digit gains YTD.

Bond yields

Global sovereign debt yields, with the exception of the German Bund and UK 10-year, marched higher amid strong equity markets and rising inflation expectations.

Commodities

Oil benchmark futures hit multiyear highs amid robust demand coupled with supply chain constraints that have limited supply.

Currencies

The Canadian dollar has been the best-performing major currency this year, and strengthened further against the U.S. dollar after the Bank of Canada signaled rate hikes may be coming sooner than expected.

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 0.80 means 1 Canadian dollar will buy 0.80 U.S. dollar. CAD/USD 7.5% return means the Canadian dollar has risen 7.5% vs. the U.S. dollar during the past 12 months. USD/JPY 113.95 means 1 U.S. dollar will buy 113.95 yen. USD/JPY 8.9% return means the U.S. dollar has risen 8.9% vs. the yen during the past 12 months.

Source - RBC Wealth Management, RBC Capital Markets, Bloomberg; data through 10/31/21

Index (local currency)	Level	1 month	YTD	12 month
S&P 500	4,605.38	6.9%	22.6%	40.8%
Dow Industrials (DJIA)	35,819.56	5.8%	17.0%	35.2%
Nasdaq	15,498.39	7.3%	20.3%	42.0%
Russell 2000	2,297.19	4.2%	16.3%	49.3%
S&P/TSX Comp	21,037.07	4.8%	20.7%	35.0%
FTSE All-Share	4,129.16	1.7%	12.4%	31.0%
STOXX Europe 600	475.51	4.6%	19.2%	38.9%
EURO STOXX 50	4,250.56	5.0%	19.6%	43.7%
Hang Seng	25,377.24	3.3%	-6.8%	5.3%
Shanghai Comp	3,547.34	-0.6%	2.1%	10.0%
Nikkei 225	28,892.69	-1.9%	5.3%	25.7%
India Sensex	59,306.93	0.3%	24.2%	49.7%
Singapore Straits Times	3,198.17	3.6%	12.5%	31.9%
Brazil Ibovespa	103,500.70	-6.7%	-13.0%	10.2%
Mexican Bolsa IPC	51,309.84	-0.1%	16.4%	38.7%
Bond yields	**10/31/21**	**9/30/21**	**10/31/20**	**12 mo. chg**
U.S. 2-Yr Tsy	0.497%	0.276%	0.153%	0.34%
U.S. 10-Yr Tsy	1.552%	1.487%	0.874%	0.68%
Canada 2-Yr	1.094%	0.530%	0.262%	0.83%
Canada 10-Yr	1.723%	1.509%	0.663%	1.06%
UK 2-Yr	0.710%	0.410%	-0.032%	0.74%
UK 10-Yr	1.034%	1.022%	0.262%	0.77%
Germany 2-Yr	-0.585%	-0.601%	-0.794%	0.21%
Germany 10-Yr	-0.106%	-0.185%	-0.627%	0.52%
Commodities (USD)	**Price**	**1 month**	**YTD**	**12 month**
Gold (spot $/oz)	1,783.38	1.5%	-6.1%	-5.1%
Silver (spot $/oz)	23.90	7.8%	-9.5%	1.0%
Copper ($/metric ton)	9,808.50	9.7%	26.6%	46.2%
Oil (WTI spot/bbl)	83.57	11.4%	72.2%	133.5%
Oil (Brent spot/bbl)	84.38	7.5%	62.9%	125.3%
Natural Gas ($/mmBtu)	5.43	-7.5%	113.7%	61.8%
Agriculture Index	432.23	3.7%	17.6%	36.8%
Currencies	**Rate**	**1 month**	**YTD**	**12 month**
U.S. Dollar Index	94.1230	-0.1%	4.7%	0.1%
CAD/USD	0.8073	2.4%	2.8%	7.5%
USD/CAD	1.2388	-2.3%	-2.6%	-7.0%
EUR/USD	1.1558	-0.2%	-5.4%	-0.8%
GBP/USD	1.3682	1.5%	0.1%	5.7%
AUD/USD	0.7518	4.0%	-2.3%	7.0%
USD/JPY	113.9500	2.4%	10.4%	8.9%
EUR/JPY	131.7700	2.2%	4.4%	8.1%
EUR/GBP	0.8446	-1.7%	-5.5%	-6.1%
EUR/CHF	1.0584	-1.9%	-2.1%	-0.9%
USD/SGD	1.3488	-0.7%	2.0%	-1.3%
USD/CNY	6.4056	-0.6%	-1.9%	-4.3%
USD/MXN	20.5633	-0.4%	3.3%	-2.9%
USD/BRL	5.6364	3.6%	8.4%	-1.9%

Research resources

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