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What's driving bonds yields: a look under the hood

Todd Mattina, PhD
Senior Vice President, Chief Economist, Portfolio Manager, Team Co-Lead
Mackenzie Multi-Asset Strategies Team

Jules Boudreau, MA
Economist
Mackenzie Multi-Asset Strategies Team

Highlights

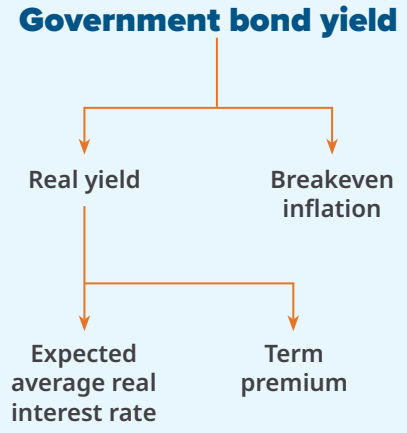
- After surging by 1.4 percentage points in the first four months of the year, 10-year bond yields pulled back slightly in May, with the yield on US Treasuries ending the month at 2.85%.
- The May rally in government bonds was caused by a drop in "breakeven" inflation, a measure of long-term inflation expectations embedded in bond prices. But the uptrend in real interest rates – that is, the bond yield after inflation – remained undeterred.
- April was a particularly challenging month for bonds, not only because yields rose, but because the correlation between bonds and stocks turned positive, leading to higher risk for balanced portfolios. Correlations dipped back below zero in May, as growth overtook inflation as the main macro concern.

This year has been an eventful year for bonds, to say the least. The global bond market has lost 11.1% of its value since the turn of the year, with most of the drop due to rising long-term risk-free rates.[1] Adding to the challenge for investors, bonds have sold off hand in hand with equities for much of this year, reducing the traditional diversification benefit of bonds in balanced portfolios. Both trends reversed in May: government bonds rallied (yields slumped) and bond prices started moving inversely with stock prices again, as the market narrative shifted from inflation scare to growth scare.

To get a better picture of what is behind the recent rally in government bonds, we decompose yields into three underlying components (Figure 1).

1. **Breakeven inflation:** Because bondholders want to be compensated for future inflation, a bond's yield partly reflects expected average inflation over the bond's maturity. The breakeven rate is a useful proxy for the average investors' expected inflation rate during the maturity of the bond.
2. **Expected real short-term rates:** Bond investors also want to be compensated in line with future real interest rates, which will be determined by future central bank policy. If the Federal Reserve is expected to raise rates in the future, a higher yield is typically needed to entice investors to purchase a 10-year Treasury bond.
3. **Term premium:** Finally, bond yields include a term premium, a reward for holding long-term bonds rather than a rolling investment in short-term rates. The term premium is currently negative, meaning bond investors are paying, rather than receiving, a premium for locking up their money in a long-term bond.

Figure 1. A simple decomposition of government bond yields



1 Total return of the Bloomberg Barclays Global Aggregate index from January 1 to May 31, 2022.

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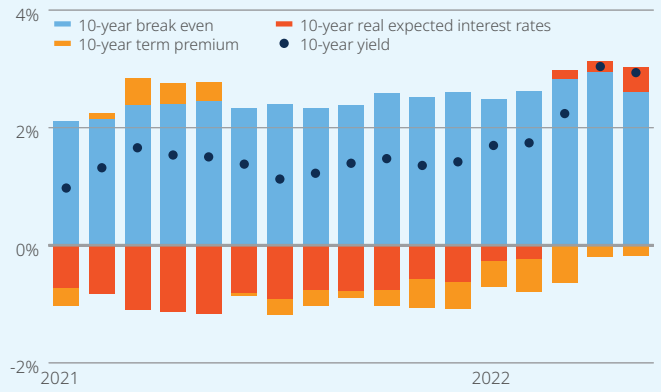
The bond sell-off in 2022 has been driven by all of the above components: higher expected inflation, additional rate hikes by major central banks, and a rising term premium (Figure 2).

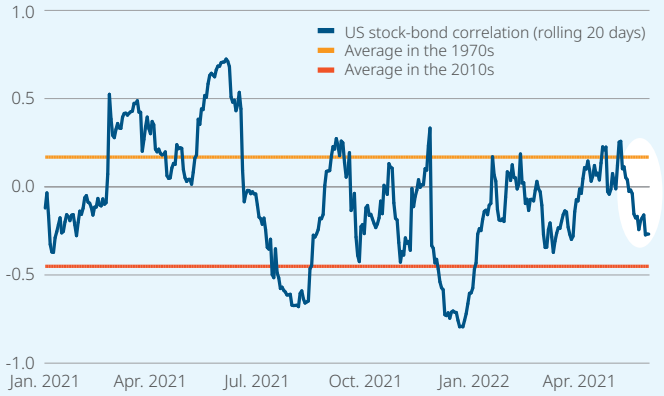
1. Inflation has been stickier than previously expected by markets, and bond prices now imply a 2.7% average inflation rate over the next 10 years, which is above the Fed's 2% target.
2. The Fed's hawkish turn in the last few months sent expected real interest rates higher, further contributing to the sell-off in bonds.
3. The term premium increased, with investors now asking for higher yields to compensate them for taking on duration. In our view, the main reason for this higher reticence to buy bonds is that the correlation between stocks and bonds has risen in 2022. The higher the correlation, the less useful are bonds for multi-asset investors, and the lower the demand for them.

Figure 2. Bond yields have surged in 2022, driven by all three components

The yield pullback in May is explained entirely by lower expected inflation



After spiking in April, the US bond-stock correlation is back below zero



Notes: All data via Bloomberg as of May 31, 2022. The term premium and expected rates are derived following the methodology of Adrian, Crump and Moench (2013). Rolling correlations between US 10-year Treasuries and S&P 500 returns are computed with a window of 20 business days.

Figure 2 also shows that the trend-breaking retreat in yields in May can be fully explained by a moderation of inflation expectations. Term premiums were mostly unchanged, while real expected interest rates kept climbing. Signs of weakness in demand for consumer goods, inventory accumulation at retailers and an uptick in jobless claims suggested that supply might be catching up to demand in the goods sector. But the Fed did not bite, ignoring shaky data on goods consumption and maintaining its signalling of 0.5% hikes in June and July. It learned its lesson last year, when dissecting inflation sector-by-sector caused it to confidently forecast transitory inflation – incorrectly as it turned out!

It's no coincidence that the correlation between bonds and stocks dipped back below zero just as growth overtook inflation as the "concern du jour". Stock-bond correlations tend to be lower (a good thing!) when growth risks dominate inflation risks. US stock-bond correlations were very low in the 2010s, a decade of stable inflation and often-disappointing growth, and high in the inflationary 1970s. Going forward, the stock-bond correlation may not revert to its historically low 2010s average as inflation pressures remain a concern. The demand deficiency and structurally low employment that defined much of the last decade will likely not define the 2020s. In the next decade, a stock-bond correlation around its long-term historical average, somewhere between the extremes of the 2010s and 1970s, is more likely. At that level, government bonds would not dampen the volatility of balanced portfolios quite as effectively as in the 2010s. But they would remain great diversifiers for equity risk in balanced portfolios.

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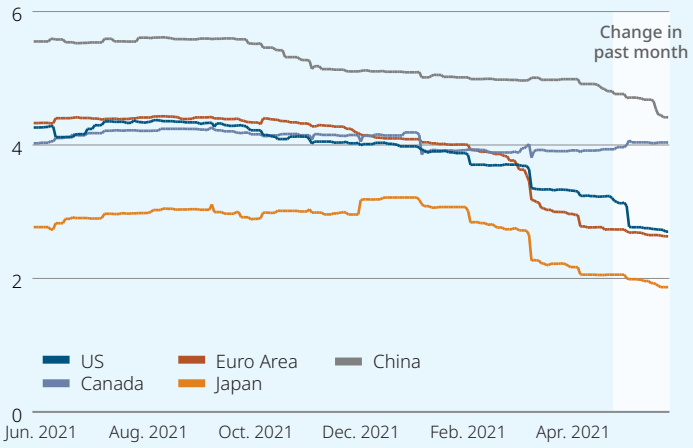
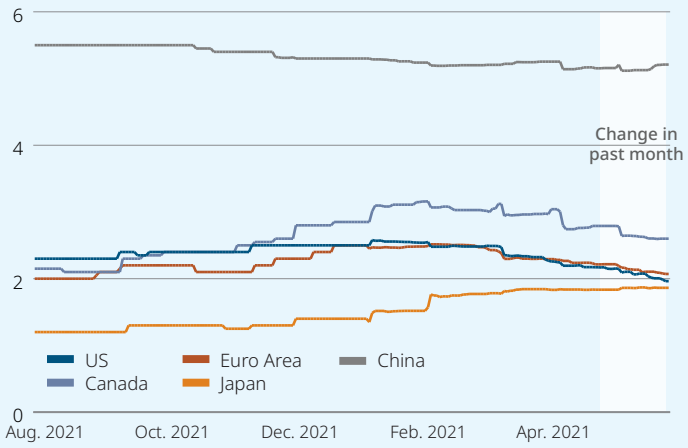
Global macro update

- **US GDP growth** expectations for 2022 dropped in May, as markets partly turned their attention away from worrying about inflation to pondering about the resilience of growth. The tightening of financial conditions that has already occurred in the US has taken a toll on the housing market, with home sales slowing down significantly. Inflation has eroded the purchasing power of poorer households, leading to a softening of demand for some goods. Pessimistic Q1 earnings calls by a few big box retailers highlighted this trend. But overall, US growth remains on solid footing and the Fed has stopped escalating its rhetoric in recent weeks. Forecasters still see a recession in 2022 as unlikely.
- **Canadian GDP** grew 3.1% annualized in Q1, below consensus expectations. Domestic spending grew at a solid 4.7% clip, but net exports were a drag on headline GDP growth. On the domestic front, household consumption was resilient (+3.3%), business investment grew solidly (+8.8%) and residential investment surged (+17.0%). Even if it undershot forecast, this GDP print will not deter the Bank of Canada from marching on with its 50bps/meeting hiking pace. Why? First, consumption was resilient in Q1. Second, residential investment, the GDP component most sensitive to rates, grew by double-digits in a quarter where the Bank of Canada hiked. Third, while the volume of exports contracted (-9.8%), the value of total exports jumped (+18.0%).

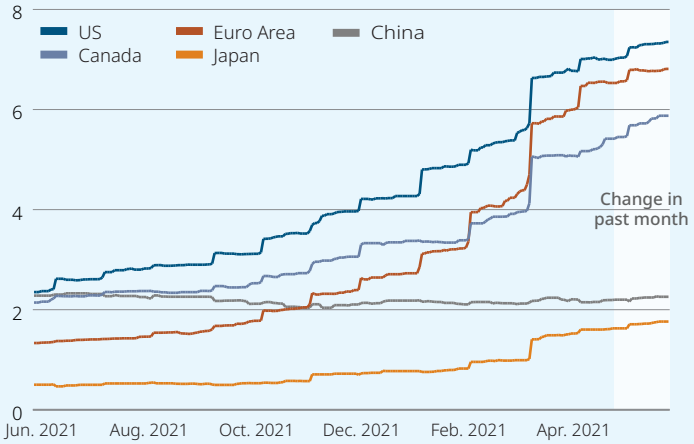
2022 real GDP growth forecast (%, consensus)



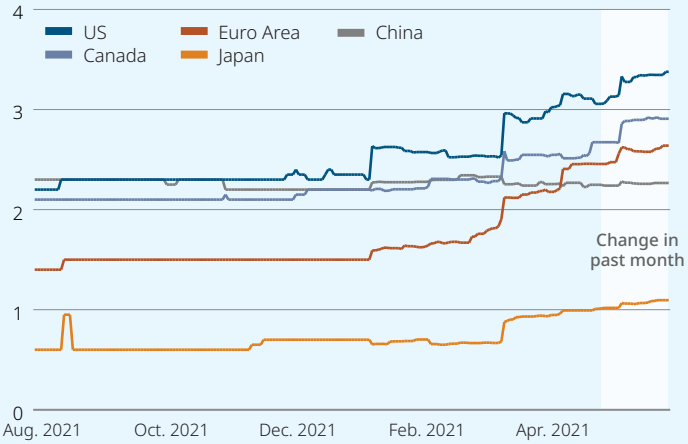
2023 real GDP growth forecast (%, consensus)



2022 inflation forecast (%, consensus)



2023 inflation forecast (%, consensus)



Notes: Average growth and inflation forecasts from Consensus Economics as of May 31, 2022.

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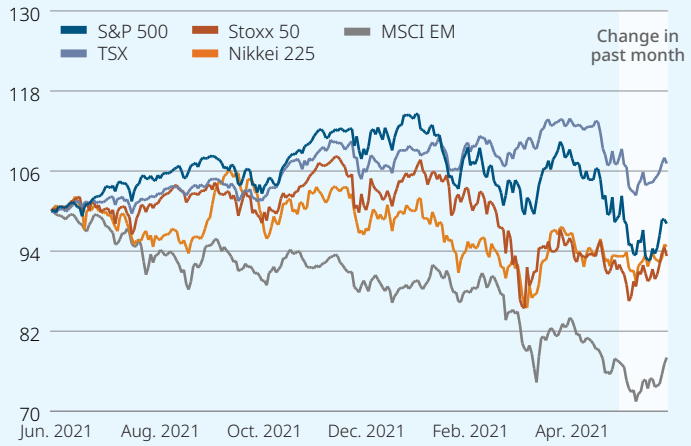
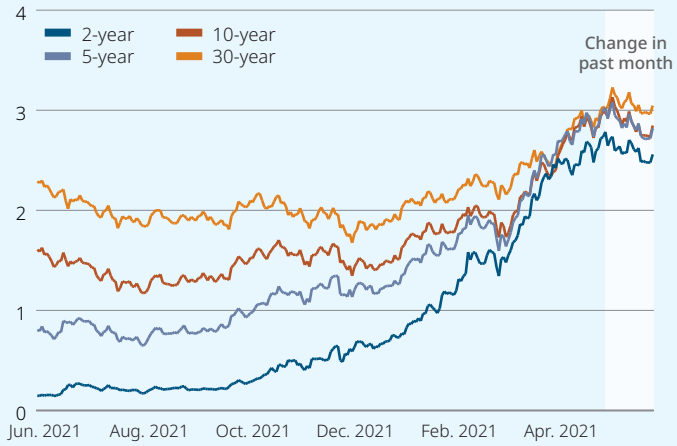
Capital markets update

- **Global equity prices** in May mirrored their pattern from March, selling off in the first half of the month before melting up in the second half. March's rally turned out to be a head fake, with the S&P 500 losing 8.8% in April as tech stocks underperformed. Implied volatility, as measured by the VIX, is much higher in end-May than it was in end-March, suggesting that investors have not let their guard down this time.
- In May, the **US dollar** had its first down month of 2022. The Bloomberg Dollar Index began the month at 103.0, its highest level since 2002, and closed 1.15% lower at 101.8. EM commodity currencies (Brazilian real, South African rand) were the largest beneficiaries of dollar weakness, but alternative funding currencies, like the euro and Japanese yen, also rebounded after months of depreciation vs. the US dollar.
- **Oil prices** kept grinding higher in May, closing the month up 9.8%. Supply remains very tight, with the Organisation of the Petroleum Exporting Countries (OPEC) still resisting the Biden administration's pleas for larger hikes to production quotas. US shale oil extraction capacity is inching up, but the shale industry remains below its pre-pandemic production levels. Plus, as the emerging theme below explains, the ongoing phase-out of restrictions in China will be a tailwind to global oil demand and, probably, prices.

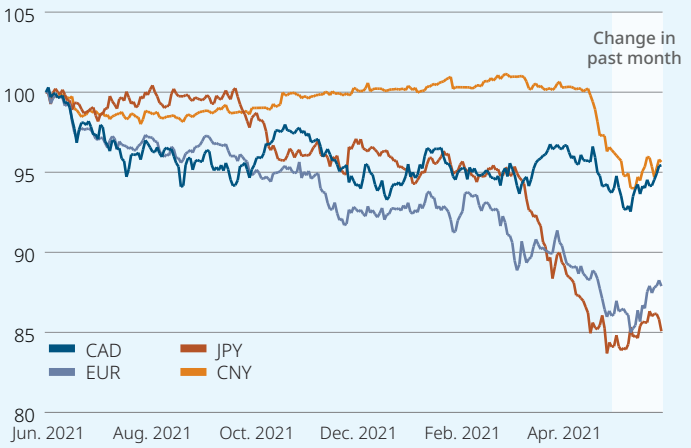
Equity indices (one year ago=100)



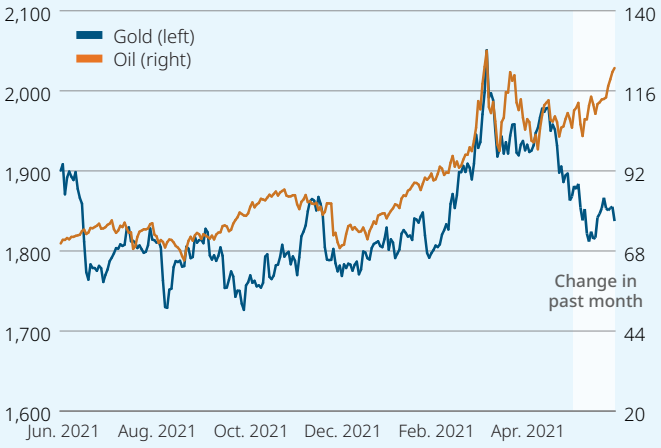
US Treasury yields (%)



Currencies (relative to USD, one year ago=100)



Commodity prices (in USD)



Notes: Financial data from Bloomberg as of May 31, 2022. Total return equity indices are in local currencies, except MSCI EM, which is denominated in USD

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What we'll be watching in June

June 15: Federal Open Market Committee (FOMC) rate decision

- The release of the minutes from the May FOMC meeting confirmed the Fed's intentions of raising rates by 50bps at its June meeting, something Fed officials also telegraphed in various speeches throughout the month.
- Markets are now pricing in exactly 50bps of tightening. It would be extremely surprising to see the Fed deviate from those expectations, unless we get a major upside surprise on the May CPI number, to be released on June 10.

Mid-June: China May credit growth data release

- China's monetary policy operates differently than that of Western central banks. Rather than affecting the economy indirectly by setting interest rates, the People's Bank of China directly influences loans to businesses and local governments to control demand. This is what makes credit data so critical to monitor for investors, and the May datapoint will be a key one.
- In April, the financial system only originated ¥645 billion of new loans, the lowest value in four years. This followed a very robust March (+¥3.1 trillion) but is regardless a worrying sign for a government trying to stimulate.

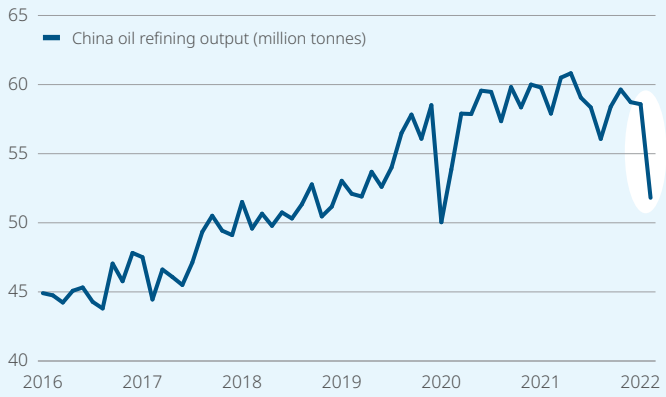
June 22: Canada May CPI release

- Canada's April CPI came in above expectations (0.6% month-on-month, 0.5% expected). After slipping in April, gasoline prices surged in May, up 10% on the month according to Bloomberg's tally. This implies a contribution from energy prices of ~0.5% to CPI month-on-month inflation. If all other prices were flat, overall inflation would still be almost as high as April's.

Emerging theme

- The volume of refined oil coming out of Chinese refineries dropped by 7 million tonnes in April, the second largest drop on record. Refinery output will likely have remained depressed in May, with lockdowns in many cities having tightened further into the month.
- That oil prices have managed to stabilize above US$110 per barrel, with the world's second largest consumer partially locked down, is a testament to the resiliency of oil demand elsewhere and, especially, the tight global supply conditions.
- From a North American point of view, Chinese lockdowns are often portrayed as inflationary. It's true that many goods consumed by Americans and Canadians are produced in China. A disruption to the operations of Chinese factories and transporters effectively constrains the global economy's aggregate supply. But we can't forget that China is also a major contributor to global demand, even if it does consume less than it produces. And trade data shows that the drop in imports triggered by the ongoing lockdowns has exceeded the drop in exports, suggesting a larger hit to demand than supply. This is consistent with the government's policy of shielding industrial production and exports from shocks through exemptions and subsidies. Hence, whether Chinese lockdowns are inflationary or not for the global economy is an open question. But it's clear that for oil in particular, prices would be even higher than they currently are in the absence of China's Covid-zero policy.

Chinese lockdowns are curbing oil demand



Notes: From the IMF's World Economic Outlook, October 2021 and April 2022 editions.

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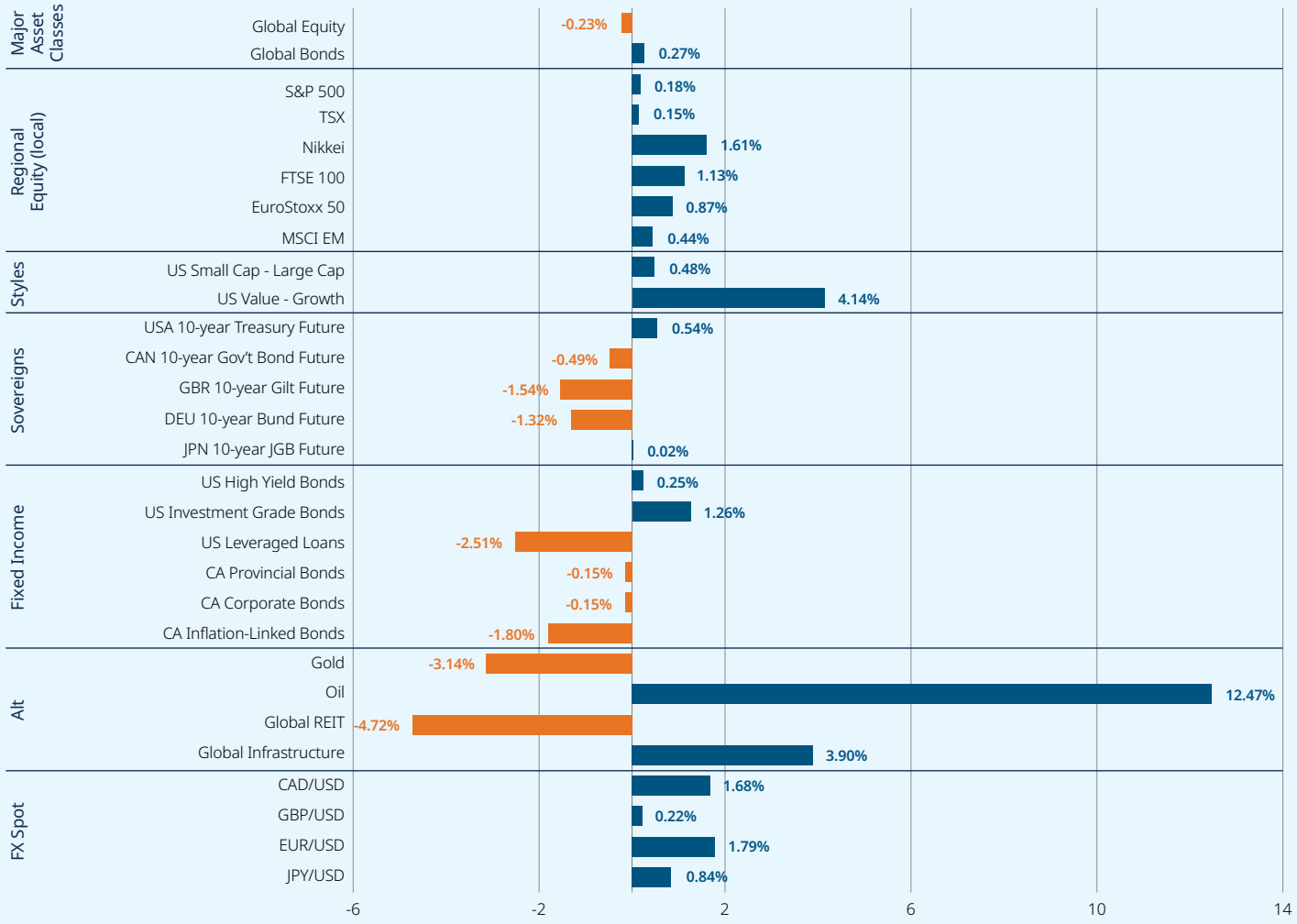
Capital market returns in May



Notes: Market data from Bloomberg as of May 31, 2022. Index returns are for the period: 2022-05-01 to 2022-05-31. In order, the indices are: MSCI World (lcl), BBG Barclays Multiverse, S&P 500 (USD), TSX Composite 60 (CAD), Nikkei 225 (JPY), FTSE 100 (GBP), EuroStoxx 50 (EUR), MSCI EM (lcl), Russell 2000 - Russell 1000, Russell 1000 Value - Russell 1000 Growth, USA 10-year Treasury Future, CAN 10-year Gov't Bond Future, GBR 10-year Gilt Future, DEU 10-year Bund Future, JPN 10-year JGB Future, BAML HY Master II, iBoxx US Liquid IG, Leveraged Loans BBG (USD), Provincial Bonds (FTSE/TMX Universe), BAML Canada Corp, BAML Canada IL, BBG Gold, BBG WTI, REIT (MSCI Local), Infrastructure (MSCI Local), BBG CADUSD, BBG GBPUSD, BBG EURUSD, BBG JPYUSD.

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