Insight





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economic downturn

Produced: May 2, 2023 1:42 pm ET; Disseminated: May 2, 2023 2:45 pm ET

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GLOBAL Insight

May 2023

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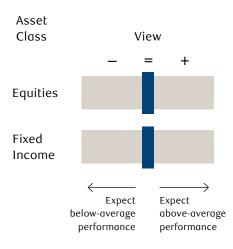
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RBC'S INVESTMENT Stance

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

- Most of the world's equity markets extended their year-to-date gains in April. This may seem surprising for several reasons. Among them, the recent banking woes in the U.S. and Europe will likely result in a further tightening of lending standards, crimping growth. Second, U.S. debt ceiling negotiations are off to a poor start and the possibility of a legislative "accident" that results in a default is higher than it has been historically. Markets may not be adequately factoring in these and other risks. That the Q1 U.S. earnings season has been "better than feared" so far offers little compensating comfort, in our view.
- With elevated valuations levels in the U.S., and most stock markets close to their all-time highs, we maintain our Market Weight recommendation for a global portfolio but increasingly favour defensive stocks. Asia still offers good value, in our view.

Fixed income

- Fixed income market volatility has subsided to levels seen prior to the collapse of U.S. regional banks, but it remains historically elevated. The average yield on the Bloomberg Global Aggregate Bond Index is 3.6%, below its 2022 high of 4.0%, the high-water mark for global bond yields since 2008. Though central banks largely remain hawkish, we continue to believe rate hike cycles for many major global central banks will come to an end in H1 2023 with the Federal Reserve the next to pause rate hikes following its May meeting. As a result, sovereign yields—at least further out on the yield curve—likely have already peaked, leading us to continue to lock in yields where possible.
- We remain Market Weight U.S. fixed income, with yields near multi-year highs. We hold a positive outlook for bank-issued preferred shares following recent selling pressures. We remain positive on U.S. high-yield corporate debt despite growing recession risks for the U.S. economy as we believe current yields compensate investors adequately for those risks. We also maintain a positive outlook for U.S. government debt on attractive yields and downside protection should a recession materialize later in the year.
- We maintain our Market Weight in global fixed income, with a Market Weight allocation to credit.

MONTHLY Focus



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The rocky road for debt ceiling negotiations

As the U.S. runs out of ways to pay its bills, raising the debt ceiling is a necessary, but difficult, task. We look at why negotiations will likely be contentious and delve into some possible scenarios for the weeks ahead.

- Without legislation to raise the nation's borrowing limit, the U.S. will likely be forced into a debt default, conceivably as early as next month
- The politics and negotiations of raising the debt ceiling are complicated, and we walk through a few scenarios and their possible market implications.
- While we do not see the U.S. defaulting this year, we think the
 political and economic backdrop to this negotiation is one of the
 most challenging we've seen, and we question how many more
 cycles can pass before the U.S. is forced to use legal loopholes to
 pay its debts.

In <u>prior commentary</u>, we held out a slender hope for a possible deescalation in debt ceiling negotiations that would allow the U.S. to sidestep default concerns and a bruising political process. Not surprisingly, that hope is fading with hardening and contradictory stances from House Speaker Kevin McCarthy and President Joe Biden.

Adding to the tension is updated tax receipts data. The mid-April cash haul from personal income tax payments was lower than expected, and the Treasury Department now estimates that the U.S. will default in early June, weeks before corporate quarterly tax payments are due. Following the update, President Biden invited Congressional Republican leaders to the White House to discuss the situation, but as yet there has been no Republican response. We believe a permanent solution by June 1 is very unlikely, but we would not be surprised if the parties were able to reach a stopgap measure that lasted until mid-June. The influx of corporate tax cash would likely push back the deadline to raise the ceiling, frequently referred to as the X-day, until late July and allow a more realistic timeline for a final deal.

Markets have begun to be impacted by the lack of progress. The cost to insure against a near-term U.S. default has spiked, with investors now paying a 1.77% premium for 1-year credit default swap protection. The previous record—which was less than half of current levels—was set during the 2011 debt ceiling negotiations.

We still see no realistic possibility 2023 will be the year the U.S. defaults on its obligations, but we cannot rule out a damaging process with negative implications for short-term and long-term economic growth. Below, we lay out some of the scenarios we're considering and the key indicators we are

MONTHLY FOCUS

The rocky road for debt ceiling negotiations

looking at as the debt ceiling discussion heats up in Washington and on Wall Street.

What comes next?

We group the likely outcomes based on when the ceiling is raised relative to the X-date. The closer we get to default, the worse the outcome, we believe, from the perspective of market and economic performance over the next 12 months. We appreciate the risks of the U.S.'s fiscal trajectory and believe budgetary changes need to occur, but we think adding a new layer of default risk only adds to the fiscal challenge.

Narrow path to early raise

The best outcomes would involve an early debt ceiling raise or suspension, potentially coupled with a fiscal adjustment or the establishment of a bipartisan commission on bringing tax receipts and spending levels closer together. Any raise that takes place more than two weeks before the estimated drop-dead date should be considered a good outcome, in our view. We think this outcome is still possible, but unlikely and becoming more difficult as the political parties ramp up rhetoric.

The catalyst for an early raise would be House Republicans prioritizing likely future national electoral success. There are multiple signs the economy is weakening, and a relatively clean debt ceiling raise would limit the likely blame attached to Republicans for any recession. If the ceiling raise is contentious, there is a possibility voters will blame economic problems on legislative intransigence.

Arguing against this outcome is the House Republican caucus, which elected McCarthy on the condition that he use the debt ceiling fight to secure their budget priorities. Even if the clean raise would play well with swing voters at the national level, it would likely be viewed negatively by a meaningful percentage of Republican primary voters. Any House supporters of a clean raise would likely face significant primary challenges.

Even if there are sufficient votes in the House for a debt ceiling bill that would pass the Senate, it's unclear if a floor vote could be held. It's unlikely, in our view, that any House Speaker proposing an early vote could keep the role long enough to move legislation forward, and the procedures to force a vote without the Speaker's approval are likely too slow-moving to be practical.

We would expect a meaningful, but likely short-lived, positive market response if the ceiling were raised in a relatively non-contentious manner.

Base case is bad, but could be worse

Bad outcomes are the base case. For us, this is any debt ceiling raise that takes place within the two weeks of the drop-dead date, although we imagine the actual raise will occur within days, and potentially hours, of the cutoff. We view this as a repeat of the 2011 debt ceiling raise, with last-minute brinkmanship, hasty budget changes, and no fundamental improvement to the U.S. fiscal or political situation. In short, business as usual.

MONTHLY FOCUS

The rocky road for debt ceiling negotiations

There are a few variants to this scenario. One would be the House voting down a bill that is presented as the "last chance" to pass the ceiling. If this occurs, we anticipate a repeat of the first TARP (Troubled Asset Recovery Program) vote during the Global Financial Crisis, where Congress initially rejected the bill, the market sold off meaningfully, and then Congress hastily passed the program.

There are also potential procedural hurdles getting debt-ceiling legislation to a vote. Under the current House rules, any member can bring a priority motion to remove the Speaker. This would require the House to suspend other business—such as a debt-ceiling bill—and vote on whether to keep the Speaker in his position. With the Republicans enjoying a relatively small majority in the House, even a handful of holdouts from the majority party could lead to an empty Speaker's chair. This would effectively paralyze the House, in our view, keeping it from considering any legislation, including debt ceiling raises.

We believe there would be sufficient bipartisan support to seat a Speaker long enough to pass the debt ceiling bill, although a last-minute objection would increase the likelihood of a short delay in payments that could constitute a so-called "technical default." Like the failed vote, we see procedural uncertainties likely sparking large, but short-lived, market selloffs.

More generally, we see a last-minute ceiling raise as likely to cause higher volatility and a potentially large drawdown in risk assets. Such a reaction may, in fact, be necessary to provide political cover to Congress to raise the ceiling. We anticipate a relatively fast recovery, but we are not convinced markets will return to the pre-drawdown level.

Longer term, we see a contentious process as a negative for economic growth. One reason is simple math: budget contractions would lower the fiscal impulse, or the government's contribution to GDP. Even though savings would likely prove ephemeral, the impact on 2024 growth could be meaningful. Another driver would be higher borrowing costs for the government and private investors, as default concerns push Treasury yields higher than they otherwise would be. The risk of higher borrowing costs would be heightened, in our view, if the U.S. sovereign credit rating were cut below AAA, the highest category. One agency already took away AAA status from the U.S. after the 2011 debt ceiling fight and a similar move by another agency could lead to forced selling by some investors. Finally, we also see a risk that the House will decide to elect a new Speaker, a process that will likely prove difficult to resolve and could lead to an extended period of legislative inactivity.

Non-legislative "solutions"

As mentioned, we do not think the U.S. will default this year. We believe a realistic worst-case scenario for this summer would be if the U.S. is forced to use a non-legislative action to avoid default.

One such maneuver would be minting a trillion-dollar coin—a solution based on collectible coin legislation that just happens to contain broad language authorizing the Treasury Secretary to mint any denomination platinum coin, which could theoretically be used to fund the government.

MONTHLY FOCUS

The rocky road for debt ceiling negotiations

Another (slightly less peculiar) method would be to exchange existing Treasury bonds for ultra-high coupon bonds. The debt ceiling is calculated on the face value of debt, so it would be possible to reduce the counted debt by reclassifying some principal repayment as interest. There have also been proposals to ignore the debt ceiling, relying on the public debt clause in the 14th Amendment to the U.S. Constitution as justification.

These are all, obviously, no way to run a railroad, and we think the use of any of these vehicles would likely cause a meaningful repricing in risk assets, driven by loss of investor confidence and the implications of additional political dysfunction.

We do not see this as a likely outcome, but we do not think it is impossible. One way would be if the House finds itself without a Speaker. Another would be if there is a political calculation that the best achievable electoral outcome for the House majority would be the Biden administration taking unilateral actions to end-run the debt ceiling.

Not now doesn't mean never

Even though we do not see the first U.S. default occurring this year, we acknowledge that on the current trajectory we are likely only a few negotiation cycles away from the U.S. being forced to rely on legal loopholes or commemorative coins to maintain performance on its debt. We appreciate the view that U.S. fiscal policy is unsustainable, but we believe that it is contrary to the national interest to create uncertainty around the country's willingness to repay its obligations.

GLOBAL Equity



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Approach with caution

After nine months of drawn-out correction and consolidation following the all-time highs of late 2021, most equity markets bottomed in October 2022 and have been gaining ground, albeit unevenly, ever since.

This advance has confounded many market watchers, given the litany of what would normally be considered market-unfriendly developments:

- The Fed has raised interest rates by a full 2% (200 basis points) since October. Over the same interval, the European Central Bank has pushed its deposit rate up by 225 basis points.
- Three significant U.S. banks have failed and been taken over by regulators, while multinational giant Credit Suisse was supported by Swiss government intervention and then sold to rival UBS.
- Geopolitical conditions can hardly be described as benign, with the Ukraine-Russia conflict seemingly no closer to resolution, China/U.S./Taiwan issues still simmering ominously, North Korean provocations unsettling the region, and Sudan in tragic turmoil.
- U.S. debt ceiling negotiations are off to a poor start, and the possibility of a legislative "accident" that results in a default is higher than it has been historically.

Meanwhile, economic and earnings fundamentals have leant only modest support. U.S. GDP growth is still positive but has slowed to a crawl, up by just 1.1% annualised in Q1. Following a similar pattern, S&P 500 earnings per share have declined sequentially for three quarters running, and are now below their level of 12 months ago. Estimates for 2023 have fallen from \$251 per share this time last year all the way to \$218 today, and we expect further erosion over the remainder of the year.

Equity views

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

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

Recently, estimates for 2024 earnings also have begun to be pulled lower.

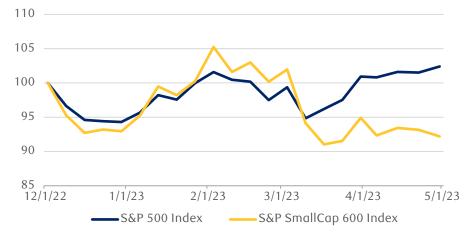
Despite all of the above, major equity markets have shown remarkable resilience. All are well above their October lows. The STOXX Europe 600 and the UK's FTSE All-Share averages have both recently set new all-time highs. Japan's TOPIX is at a new cycle high. In North America, the S&P 500, Dow Jones Industrial Average, and Canada's TSX are still well short of new high ground but heading in the right direction, supported by some measures of market breadth (advance-decline lines) that have been outperforming.

This leg up for the stock market could have weeks or months still to run, in our view. We can't rule out the possibility of the S&P 500 getting all the way back to its old high. However, there are plenty of reasons to approach this advance with caution and some skepticism. In particular, we think it falls short of qualifying for the start of a new bull market.

The advance so far has lacked dynamic upside energy. It has mostly been a show of one or two steps forward and one step back on gradually diminishing volume. Bull markets usually kick off with several successive months of very strong price gains on expanding volume. Importantly, from a historical standpoint, small-cap stocks are noticeably absent. The S&P

GLOBAL EQUITY

Small caps have left the party



Source - FactSet

SmallCap 600 Index has dramatically underperformed and is flirting with its October lows, while the large-cap S&P 500 is up by 20% over the same interval. If this were a new bull market, experience would lead us to expect small caps to be leading the charge.

Even within the large-cap S&P 500, an ever-diminishing number of mega-cap leaders appear to be providing most of the index upside. The unweighted version of the index (which counts each stock's contribution equally, regardless of market capitalisation) has been significantly underperforming the more closely followed capitalisation-weighted index.

A phase where the market is advancing but leadership is narrowing and small caps are trending lower is typical of the topbuilding process that precedes the arrival of a bear market, or at least a more challenging period for all stocks. Whatever upside may be

left for this market, we expect the summer months to present investors with a more difficult risk-reward outlook for the year ahead.

U.S. recessions have always been associated with bear markets—not just for U.S. equities, but usually for all developed-economy stock markets. We think a U.S recession is likely to get underway sometime in the second half of this year (see our U.S. Recession Scorecard). A bearish trend in stock prices would normally establish itself before the economic downturn got underway.

For now, and as we have said for some months, "we recommend a global balanced portfolio be Market Weight equities ... with a focus on quality, resilient balance sheets, sustainable dividends, and business models that are not intensely sensitive to the economic cycle." But the more time passes, and the higher indexes climb, the more defensive positioning may be called for in coming months.

Fixed income



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Is this the end?

In the U.S., we think the Federal Reserve is all but certain to raise rates by another 25 basis points at its May 2-3 meeting to a 5.00%-5.25% target range, matching the highest levels achieved since the 2004–2006 rate hike cycle. We believe the only real point of focus for markets at this meeting will be whether policymakers choose to slam the door shut on further rate hikes or to leave it slightly ajar. We continue to think the May rate hike will ultimately prove to be the last. But with uncertainty around the path of inflation and the economic fallout from bank stress highly elevated, policymakers may decide to leave themselves some wiggle room. RBC Capital Markets still anticipates the Fed will cut rates to a 4.50%-4.75% target range by the end of 2023.

The Bank of England (BoE) was thrown another curve ball as March inflation data came in at a higher-than-expected 10.1% on an annual basis. But, as in the U.S., that is only likely to mean a one-and-done rate hike to 4.50% before a pause that leaves rates there for the balance of 2023. Food prices—largely beyond the reach of monetary policy—have been

Fixed income views

Region	Gov't bonds	Corp. credit	Duration
Global	=	=	5–7 yr
United States	+	=	3–7 yr
Canada	=	+	5–7 yr
Continental Europe	-	=	3–5 yr
United Kingdom	=	=	3–7 yr

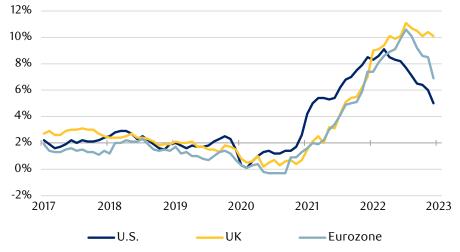
+ Overweight; = Market Weight; — Underweight Source - RBC Wealth Management

the primary driver of inflationary pressures of late, leaving the BoE in a precarious position. Regardless, RBC Capital Markets is looking for inflation to quickly return to an annual rate of 2.1% by the end of the year, supporting a pause in rate hikes.

While the Fed and BoE are potentially set to take a break, the European Central Bank may extend its rate hike cycle into the fall with rates rising to 3.75% from 3.00% currently. Dissipation of inflationary pressures in Europe has been notable, but in the middle of the pack. Policymakers

Progress on inflation varies as central banks line up final rate hikes

Monthly average year-over-year change in regional consumer price indexes



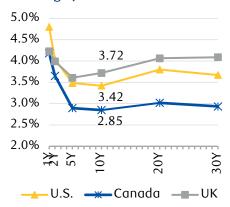
Source - RBC Wealth Management, Bloomberg

GLOBAL FIXED INCOME

are keeping a close eye on wage pressures, which remain at risk of stalling progress on inflation.

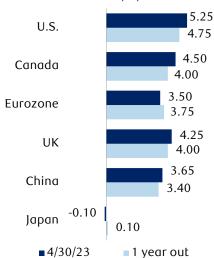
Global yields have recovered in recent weeks following the March global market turmoil. But for the U.S. and Canada, where recession risks remain elevated, we see sovereign yields trending lower into yearend and believe investors should focus on putting money to work. We see yields largely holding steady at current levels in the UK and Europe.

Sovereign yield curves



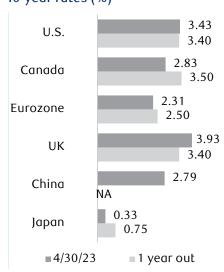
Source - Bloomberg; data through 4/30/23

Central bank rates (%)



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

10-year rates (%)



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

u.s. recession Scorecard

Sliding toward an economic downturn

Our Recession Scorecard, whose seven constituents were giving the U.S. economy a unanimous greentinted thumbs up just 11 months ago, has been progressively sliding toward a more negative reddish hue. Three of our seven leading indicators of U.S. recession—two of them with perfect forecasting track records—continue to signal an economic downturn is on the way, and accordingly are in the recessionary red category on the Scorecard. Now two further indicators—monthly unemployment claims and the federal funds rate relative to the growth rate of the economy-look to be headed toward giving negative signals. We have shifted both from green to a cautionary yellow.

A sixth indicator, the unemployment rate, has meandered near a multidecade low for the past 12 months, but even a modest bump up to 4% over the next couple of months is all that would be required to turn that trend higher. Such a trend shift has typically happened just as, or only a few months before, past recessions have gotten underway.

The remaining indicator—the free cash flow generated by non-financial businesses—is still well within

expansionary territory but is moving (slowly) in the wrong direction.

The indicators that have flipped to recessionary status so far point toward a recession getting underway by late Q2 or early Q3 2023, in our view. It is worth remembering that the official start date of any recession may not be announced until many months or quarters after the fact.

Yield curve (10-year to 1-year Treasuries)

The 1-year Treasury yield rose above the 10-year yield decisively last July, and the negative gap has widened over the past nine months. The history of this indicator suggests the U.S. economy will be in recession by summer 2023.

This so-called "inversion of the yield curve" has been the most reliable harbinger of a U.S. recession for many decades, occurring on average about a year before the economic downturn begins.

The 1-year Treasury yield rising above the 10-year yield is indicative of the arrival of tighter credit conditions. Adding weight to the "tight money" message coming from the yield curve,

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		✓	

U.S. RECESSION SCORECARD

the Fed's most recent Senior Loan Officer Survey (released in January) revealed that a growing majority of U.S. banks have continued to raise lending standards on almost every category of business and consumer loan, extending a trend that began about a year ago. The bank turmoil of recent weeks has likely added to the upward pressure on lending standards. The next survey should be published in early May, and we expect it to show a continuation of the tightening trend.

The last survey also disclosed that a majority of banks are reporting reduced demand for commercial and industrial loans, as well as for credit card and car loans, presumably in response to the much higher interest rates that now prevail.

ISM New Orders minus Inventories

The difference between the New Orders and Inventories sub-indexes of the ISM Purchasing Managers' Index has turned negative near the start of most U.S. recessions. But it has also registered occasional false positives—signaling a recession was imminent when none subsequently arrived. Moreover, this indicator only relates to activity in the manufacturing sector (some 15% of the U.S. economy) and is derived from a survey rather than hard data. Therefore, we view this as a corroborative indicator—one to pay attention to if other longer-term indicators are implying a recession is on the way. It has been negative since May 2022, from which point it has steadily worsened. This measure has never before reached its current depth without a recession eventually following.

Conference Board Leading Economic Index

Historically, this series has given reliable early warnings of recession. When the index has fallen below where it was a year earlier, a

recession has always followed—usually two to three quarters later.

This indicator turned decisively negative in Q3 2022, shifting it to the red column on our Scorecard. The latest reading, in March, indicated a further deepening of its negative message. It strongly suggests a U.S. recession will be underway sometime in Q2 or Q3 2023.

Unemployment claims

This series has just undergone a revision of earlier data to account for some distortions introduced by the pandemic. The monthly low for this cycle, previously thought to have been registered last March, now appears to have occurred in September. The cycle low for claims has typically been registered about 12 months before the start of the next recession. So, if no lower reading is posted in the coming months, its history would suggest a recession could get underway this fall.

Claims have recently bumped up well above that September low, suggesting the smoothed trend may indeed be reversing from downwards to upwards. The fact that both temporary employment and job openings are falling on a year-over-year basis adds to our conviction that the tide is turning for unemployment claims. While we wait either for that shift to be confirmed or for claims to once again subside, this ambiguity warrants shifting the signal to no better than yellow.

Unemployment rate

The unemployment rate set a new five-decade low of 3.4% in January, but it has ticked back up to 3.6%. In our view, a move above 4.0% would signal a recession is on the way. Once that signal is given, on average, it has been eight to nine months from the lowest monthly reading until a recession gets underway—although there have been several instances when the time gap was only two to three months.

U.S. RECESSION SCORECARD

Free cash flow of non-financial business

This gives an indication of the ability of such businesses, in aggregate, to internally fund any capital spending they want or need to do. Whenever it falls below where it was a year earlier, a decline in corporate capital spending has typically followed, as has a recession. This number dipped slightly in Q4 2022 but remained elevated, and still appears some way from giving a negative signal. The Q1 reading won't be released until early lune.

Fed funds rate vs. nominal GDP growth

Every recession in the past 70 years has been preceded by the federal funds rate rising above the six-month annualized run rate of nominal GDP. (Nominal GDP is GDP not adjusted for inflation.) That run rate has been declining since peaking in Q2 2021. By Q4 2022, it was down to 7.2% but still well above the funds rate, which at the time had risen to 4%. Now the fed funds rate is up to 5.25% and the

recently released Q1 GDP data shows the six-month run rate of nominal GDP growth slowing to just 5.9%. We expect nominal GDP to slow further, and by Q2 or Q3 of this year will likely fall below 5%, meeting that historical precondition of recession.

Given that the gap between the fed funds rate and the economic growth rate has narrowed to such a degree, and our view that a negative crossing point likely will be reached within the next few months, we are shifting this indicator from green to yellow.

Weighing up the current positioning of all seven indicators, and projecting their likely paths over the next couple of quarters, continues to point to a growing probability the U.S. will enter a recession sometime late in the first half or in Q3 of 2023, in our view. However, absent some notable weakness in the employment data in the coming months, the start date could easily move out later into the second half of the year.

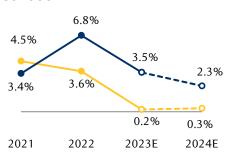
Forecasts



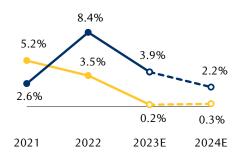




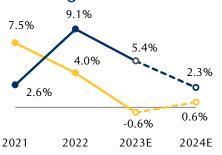
Canada



Eurozone



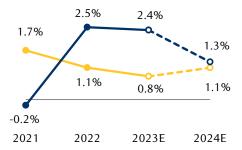
United Kingdom







Japan



Real GDP growth

── Inflation rate

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

Market Scorecard

Data as of April 30, 2023

Equities

U.S. stock indexes were mixed, with the S&P 500 and Dow Industrials gaining ground while the Nasdaq was unchanged for the month.

Bond yields

Canadian and U.S. bonds yields drifted lower while UK yields advanced month over month.

Commodities

Month-over-month commodity prices were mixed, with gold and silver rising while copper, oil (Brent), natural gas, and agriculture prices declined. Natural gas continues to face the most pressure, with prices down 46.1% year to date.

Currencies

The U.S. dollar lost almost 1.0% in April, but still gained ground against the CAD and JPY.

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 0.73 means 1 Canadian dollar will buy 0.73 U.S. dollar. CAD/USD -5.1% return means the Canadian dollar has fallen 5.1% vs. the U.S. dollar during the past 12 months. USD/JPY 136.30 means 1 U.S. dollar will buy 136.30 yen. USD/JPY 5.1% return means the U.S. dollar has risen 5.1% vs. the yen during the past 12 months.

Source - RBC Wealth Management, RBC Capital Markets, Bloomberg; data through 4/30/23

Index (local currency)	Level	1 month	YTD	12 month
S&P 500	4,169.48	1.5%	8.6%	0.9%
Dow Industrials (DJIA)	34,098.16	2.5%	2.9%	3.4%
Nasdaq	12,226.58	0.0%	16.8%	-0.9%
Russell 2000	1,768.99	-1.9%	0.4%	-5.1%
S&P/TSX Comp	20,636.54	2.7%	6.5%	-0.6%
FTSE All-Share	4,283.83	3.0%	5.1%	2.4%
STOXX Europe 600	466.64	1.9%	9.8%	3.6%
EURO STOXX 50	4,359.31	1.0%	14.9%	14.6%
Hang Seng	19,894.57	-2.5%	0.6%	-5.7%
Shanghai Comp	3,323.28	1.5%	7.6%	9.1%
Nikkei 225	28,856.44	2.9%	10.6%	7.5%
India Sensex	61,112.44	3.6%	0.4%	7.1%
Singapore Straits Times	3,270.51	0.4%	0.6%	-2.6%
Brazil Ibovespa	104,431.63	2.5%	-4.8%	-3.2%
Mexican Bolsa IPC	55,121.22	2.3%	13.7%	7.2%
Bond yields	4/30/23	3/31/23	4/30/22	12 mo. chg
U.S. 2-Yr Tsy	4.006%	4.025%	2.715%	1.29%
U.S. 10-Yr Tsy	3.422%	3.468%	2.934%	0.49%
Canada 2-Yr	3.656%	3.737%	2.624%	1.03%
Canada 10-Yr	2.841%	2.897%	2.866%	-0.03%
UK 2-Yr	3.785%	3.444%	1.591%	2.19%
UK 10-Yr	3.719%	3.490%	1.905%	1.81%
Germany 2-Yr	2.691%	2.683%	0.261%	2.43%
Germany 10-Yr	2.313%	2.292%	0.938%	1.38%
Germany 10-Yr Commodities (USD)	2.313% Price	2.292% 1 month	0.938% YTD	1.38% 12 month
·				
Commodities (USD)	Price	1 month	YTD	12 month
Commodities (USD) Gold (spot \$/oz)	Price 1,990.00	1 month 1.1%	YTD 9.1%	12 month 4.9%
Commodities (USD) Gold (spot \$/oz) Silver (spot \$/oz)	Price 1,990.00 25.05	1 month 1.1% 4.0%	9.1% 4.6%	12 month 4.9% 10.0%
Commodities (USD) Gold (spot \$/oz) Silver (spot \$/oz) Copper (\$/metric ton)	Price 1,990.00 25.05 8,577.00	1 month 1.1% 4.0% -4.7%	9.1% 4.6% 2.5%	12 month 4.9% 10.0% -12.2%
Commodities (USD) Gold (spot \$/oz) Silver (spot \$/oz) Copper (\$/metric ton) Oil (WTI spot/bbl)	Price 1,990.00 25.05 8,577.00 76.78	1 month 1.1% 4.0% -4.7% 1.5%	9.1% 4.6% 2.5% -4.3%	12 month 4.9% 10.0% -12.2% -26.7%
Commodities (USD) Gold (spot \$/oz) Silver (spot \$/oz) Copper (\$/metric ton) Oil (WTI spot/bbl) Oil (Brent spot/bbl)	Price 1,990.00 25.05 8,577.00 76.78 79.54	1 month 1.1% 4.0% -4.7% 1.5% -0.3%	9.1% 4.6% 2.5% -4.3%	12 month 4.9% 10.0% -12.2% -26.7% -27.3%
Commodities (USD) Gold (spot \$/oz) Silver (spot \$/oz) Copper (\$/metric ton) Oil (WTI spot/bbl) Oil (Brent spot/bbl) Natural Gas (\$/mmBtu)	Price 1,990.00 25.05 8,577.00 76.78 79.54 2.41	1 month 1.1% 4.0% -4.7% 1.5% -0.3% 8.8%	9.1% 4.6% 2.5% -4.3% -7.4%	12 month 4.9% 10.0% -12.2% -26.7% -27.3% -66.7%
Commodities (USD) Gold (spot \$/oz) Silver (spot \$/oz) Copper (\$/metric ton) Oil (WTI spot/bbl) Oil (Brent spot/bbl) Natural Gas (\$/mmBtu) Agriculture Index	Price 1,990.00 25.05 8,577.00 76.78 79.54 2.41 436.07	1 month 1.1% 4.0% -4.7% 1.5% -0.3% 8.8% -5.2%	9.1% 4.6% 2.5% -4.3% -7.4% -46.1%	12 month 4.9% 10.0% -12.2% -26.7% -27.3% -66.7% -23.7%
Commodities (USD) Gold (spot \$/oz) Silver (spot \$/oz) Copper (\$/metric ton) Oil (WTI spot/bbl) Oil (Brent spot/bbl) Natural Gas (\$/mmBtu) Agriculture Index Currencies	Price 1,990.00 25.05 8,577.00 76.78 79.54 2.41 436.07 Rate	1 month 1.1% 4.0% -4.7% 1.5% -0.3% 8.8% -5.2% 1 month	9.1% 4.6% 2.5% -4.3% -7.4% -46.1% -7.3%	12 month 4.9% 10.0% -12.2% -26.7% -27.3% -66.7% -23.7% 12 month
Commodities (USD) Gold (spot \$/oz) Silver (spot \$/oz) Copper (\$/metric ton) Oil (WTI spot/bbl) Oil (Brent spot/bbl) Natural Gas (\$/mmBtu) Agriculture Index Currencies U.S. Dollar Index	Price 1,990.00 25.05 8,577.00 76.78 79.54 2.41 436.07 Rate 101.6590	1 month 1.1% 4.0% -4.7% 1.5% -0.3% 8.8% -5.2% 1 month -0.8%	9.1% 4.6% 2.5% -4.3% -7.4% -46.1% -7.3% YTD -1.8%	12 month 4.9% 10.0% -12.2% -26.7% -27.3% -66.7% -23.7% 12 month -1.3%
Commodities (USD) Gold (spot \$/oz) Silver (spot \$/oz) Copper (\$/metric ton) Oil (WTI spot/bbl) Oil (Brent spot/bbl) Natural Gas (\$/mmBtu) Agriculture Index Currencies U.S. Dollar Index CAD/USD	Price 1,990.00 25.05 8,577.00 76.78 79.54 2.41 436.07 Rate 101.6590 0.7379	1 month 1.1% 4.0% -4.7% 1.5% -0.3% 8.8% -5.2% 1 month -0.8% -0.3%	9.1% 4.6% 2.5% -4.3% -7.4% -46.1% -7.3% YTD -1.8% 0.0%	12 month 4.9% 10.0% -12.2% -26.7% -27.3% -66.7% -23.7% 12 month -1.3% -5.1%
Commodities (USD) Gold (spot \$/oz) Silver (spot \$/oz) Copper (\$/metric ton) Oil (WTI spot/bbl) Oil (Brent spot/bbl) Natural Gas (\$/mmBtu) Agriculture Index Currencies U.S. Dollar Index CAD/USD USD/CAD	Price 1,990.00 25.05 8,577.00 76.78 79.54 2.41 436.07 Rate 101.6590 0.7379 1.3552	1 month 1.1% 4.0% -4.7% 1.5% -0.3% 8.8% -5.2% 1 month -0.8% -0.3% 0.3%	9.1% 4.6% 2.5% -4.3% -7.4% -46.1% -7.3% YTD -1.8% 0.0%	12 month 4.9% 10.0% -12.2% -26.7% -27.3% -66.7% -23.7% 12 month -1.3% -5.1% 5.5%
Commodities (USD) Gold (spot \$/oz) Silver (spot \$/oz) Copper (\$/metric ton) Oil (WTI spot/bbl) Oil (Brent spot/bbl) Natural Gas (\$/mmBtu) Agriculture Index Currencies U.S. Dollar Index CAD/USD USD/CAD EUR/USD	Price 1,990.00 25.05 8,577.00 76.78 79.54 2.41 436.07 Rate 101.6590 0.7379 1.3552 1.1019	1 month 1.1% 4.0% -4.7% 1.5% -0.3% 8.8% -5.2% 1 month -0.8% -0.3% 0.3% 1.7%	YTD 9.1% 4.6% 2.5% -4.3% -7.4% -46.1% -7.3% YTD -1.8% 0.0% 0.0% 2.9%	12 month 4.9% 10.0% -12.2% -26.7% -27.3% -66.7% -23.7% 12 month -1.3% -5.1% 5.5% 4.5%
Commodities (USD) Gold (spot \$/oz) Silver (spot \$/oz) Copper (\$/metric ton) Oil (WTI spot/bbl) Oil (Brent spot/bbl) Natural Gas (\$/mmBtu) Agriculture Index Currencies U.S. Dollar Index CAD/USD USD/CAD EUR/USD GBP/USD	Price 1,990.00 25.05 8,577.00 76.78 79.54 2.41 436.07 Rate 101.6590 0.7379 1.3552 1.1019 1.2567	1 month 1.1% 4.0% -4.7% 1.5% -0.3% 8.8% -5.2% 1 month -0.8% -0.3% 1.7% 1.9%	9.1% 4.6% 2.5% -4.3% -7.4% -46.1% -7.3% YTD -1.8% 0.0% 0.0% 2.9% 4.0%	12 month 4.9% 10.0% -12.2% -26.7% -27.3% -66.7% -23.7% 12 month -1.3% -5.1% 5.5% 4.5% -0.1%
Commodities (USD) Gold (spot \$/oz) Silver (spot \$/oz) Copper (\$/metric ton) Oil (WTI spot/bbl) Oil (Brent spot/bbl) Natural Gas (\$/mmBtu) Agriculture Index Currencies U.S. Dollar Index CAD/USD USD/CAD EUR/USD GBP/USD AUD/USD	Price 1,990.00 25.05 8,577.00 76.78 79.54 2.41 436.07 Rate 101.6590 0.7379 1.3552 1.1019 1.2567 0.6615	1 month 1.1% 4.0% -4.7% 1.5% -0.3% 8.8% -5.2% 1 month -0.8% -0.3% 0.3% 1.7% 1.9% -1.0%	YTD 9.1% 4.6% 2.5% -4.3% -7.4% -46.1% -7.3% YTD -1.8% 0.0% 0.0% 2.9% 4.0% -2.9%	12 month 4.9% 10.0% -12.2% -26.7% -27.3% -66.7% -23.7% 12 month -1.3% -5.1% 5.5% 4.5% -0.1% -6.3%
Commodities (USD) Gold (spot \$/oz) Silver (spot \$/oz) Copper (\$/metric ton) Oil (WTI spot/bbl) Oil (Brent spot/bbl) Natural Gas (\$/mmBtu) Agriculture Index Currencies U.S. Dollar Index CAD/USD USD/CAD EUR/USD GBP/USD AUD/USD USD/JPY	Price 1,990.00 25.05 8,577.00 76.78 79.54 2.41 436.07 Rate 101.6590 0.7379 1.3552 1.1019 1.2567 0.6615 136.3000	1 month 1.1% 4.0% -4.7% 1.5% -0.3% 8.8% -5.2% 1 month -0.8% -0.3% 1.7% 1.9% -1.0% 2.6%	YTD 9.1% 4.6% 2.5% -4.3% -7.4% -46.1% -7.3% YTD -1.8% 0.0% 0.0% 2.9% 4.0% -2.9% 4.0%	12 month 4.9% 10.0% -12.2% -26.7% -27.3% -66.7% -23.7% 12 month -1.3% -5.1% 5.5% 4.5% -0.1% -6.3% 5.1%
Commodities (USD) Gold (spot \$/oz) Silver (spot \$/oz) Copper (\$/metric ton) Oil (WTI spot/bbl) Oil (Brent spot/bbl) Natural Gas (\$/mmBtu) Agriculture Index Currencies U.S. Dollar Index CAD/USD USD/CAD EUR/USD GBP/USD AUD/USD USD/JPY EUR/JPY	Price 1,990.00 25.05 8,577.00 76.78 79.54 2.41 436.07 Rate 101.6590 0.7379 1.3552 1.1019 1.2567 0.6615 136.3000 150.0700	1 month 1.1% 4.0% -4.7% 1.5% -0.3% 8.8% -5.2% 1 month -0.8% -0.3% 1.7% 1.9% -1.0% 2.6% 4.2%	YTD 9.1% 4.6% 2.5% -4.3% -7.4% -46.1% -7.3% YTD -1.8% 0.0% 0.0% 2.9% 4.0% -2.9% 4.0% 6.9%	12 month 4.9% 10.0% -12.2% -26.7% -27.3% -66.7% -23.7% 12 month -1.3% -5.1% 5.5% 4.5% -0.1% -6.3% 5.1% 9.6%
Commodities (USD) Gold (spot \$/oz) Silver (spot \$/oz) Copper (\$/metric ton) Oil (WTI spot/bbl) Oil (Brent spot/bbl) Natural Gas (\$/mmBtu) Agriculture Index Currencies U.S. Dollar Index CAD/USD USD/CAD EUR/USD GBP/USD AUD/USD USD/JPY EUR/JPY EUR/JPY EUR/GBP	Price 1,990.00 25.05 8,577.00 76.78 79.54 2.41 436.07 Rate 101.6590 0.7379 1.3552 1.1019 1.2567 0.6615 136.3000 150.0700 0.8768	1 month 1.1% 4.0% -4.7% 1.5% -0.3% 8.8% -5.2% 1 month -0.8% -0.3% 0.3% 1.7% 1.9% -1.0% 2.6% 4.2% -0.3%	YTD 9.1% 4.6% 2.5% -4.3% -7.4% -46.1% -7.3% YTD -1.8% 0.0% 0.0% 2.9% 4.0% -2.9% 4.0% 6.9% -1.0%	12 month 4.9% 10.0% -12.2% -26.7% -27.3% -66.7% -23.7% 12 month -1.3% -5.1% 5.5% 4.5% -0.1% -6.3% 5.1% 9.6% 4.5%
Commodities (USD) Gold (spot \$/oz) Silver (spot \$/oz) Copper (\$/metric ton) Oil (WTI spot/bbl) Oil (Brent spot/bbl) Natural Gas (\$/mmBtu) Agriculture Index Currencies U.S. Dollar Index CAD/USD USD/CAD EUR/USD GBP/USD AUD/USD USD/JPY EUR/JPY EUR/JPY EUR/GBP EUR/CHF	Price 1,990.00 25.05 8,577.00 76.78 79.54 2.41 436.07 Rate 101.6590 0.7379 1.3552 1.1019 1.2567 0.6615 136.3000 150.0700 0.8768 0.9854	1 month 1.1% 4.0% -4.7% 1.5% -0.3% 8.8% -5.2% 1 month -0.8% -0.3% 1.7% 1.9% -1.0% 2.6% 4.2% -0.3% -0.7%	YTD 9.1% 4.6% 2.5% -4.3% -7.4% -46.1% -7.3% YTD -1.8% 0.0% 0.0% 2.9% 4.0% -2.9% 4.0% 6.9% -1.0% -0.4%	12 month 4.9% 10.0% -12.2% -26.7% -27.3% -66.7% -23.7% 12 month -1.3% -5.1% 5.5% 4.5% -0.1% -6.3% 5.1% 9.6% 4.5% -4.0%
Commodities (USD) Gold (spot \$/oz) Silver (spot \$/oz) Copper (\$/metric ton) Oil (WTI spot/bbl) Oil (Brent spot/bbl) Natural Gas (\$/mmBtu) Agriculture Index Currencies U.S. Dollar Index CAD/USD USD/CAD EUR/USD GBP/USD AUD/USD USD/JPY EUR/JPY EUR/GBP EUR/CHF USD/SGD	Price 1,990.00 25.05 8,577.00 76.78 79.54 2.41 436.07 Rate 101.6590 0.7379 1.3552 1.1019 1.2567 0.6615 136.3000 150.0700 0.8768 0.9854 1.3344	1 month 1.1% 4.0% -4.7% 1.5% -0.3% 8.8% -5.2% 1 month -0.8% -0.3% 1.7% 1.9% -1.0% 2.6% 4.2% -0.3% -0.7% 0.3%	YTD 9.1% 4.6% 2.5% -4.3% -7.4% -46.1% -7.3% YTD -1.8% 0.0% 0.0% 2.9% 4.0% -2.9% 4.0% 6.9% -1.0% -0.4%	12 month 4.9% 10.0% -12.2% -26.7% -27.3% -66.7% -23.7% 12 month -1.3% -5.1% 5.5% 4.5% -0.1% -6.3% 5.1% 9.6% 4.5% -4.0% -3.5%

Research resources

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Distribution of ratings – RBC Capital Markets Equity Research

As of March 31, 2023

			Investment Banking Services Provided During Past 12 Months		
Rating	Count	Percent	Count	Percent	
Buy [Outperform]	824	56.05	236	28.64	
Hold [Sector Perform]	591	40.20	132	22.34	
Sell [Underperform]	55	3.74	4	7.27	

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