

## Navigating crosscurrents

Joseph Wu, CFA – Toronto

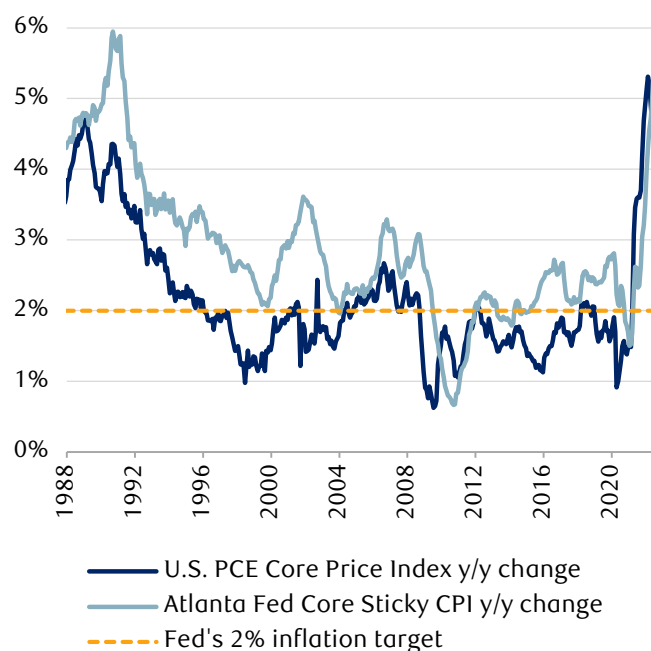
Volatility has returned to financial markets amid renewed uncertainty regarding the path of monetary policy, inflation, and the economy. We evaluate the macro headwinds and tailwinds, and discuss implications for portfolio positioning.

### What kind of inflation peak?

Inflation remains arguably the most important factor shaping the macro backdrop, because how it evolves will directly influence the pace of monetary policy tightening and, in turn, the economy and markets. While inflation in Europe is likely to remain more problematic due to an ongoing energy crisis with no resolution in sight, recent inflation data for the U.S. and other major economies that suggest price pressures may be cresting represent an auspicious development. Encouragingly, lower commodity prices, less supply chain congestion, and slowing growth should continue to provide some inflation relief over the coming quarters.

Although we believe price pressures should start to moderate, the speed at which inflation will ease remains highly uncertain; some dynamics suggest it could take considerable time for inflation to reach levels that are palatable for central banks. Focusing on the U.S., a combination of robust wage growth and elevated measures of “sticky” inflation—based on changes in the price of goods and services for which price changes are normally infrequent—signal that underlying core price pressures remain uncomfortably high, as shown in the chart at right. Accordingly, Federal Reserve policymakers recently reiterated their “unconditional” resolve to return

### Inflation remains too high for comfort



Source - RBC Wealth Management, Bloomberg; monthly data through 7/31/22

For perspectives on the week from our regional analysts, please see [pages 4-5](#).

Investment and insurance products offered through RBC Wealth Management are not insured by the FDIC or any other federal government agency, are not deposits or other obligations of, or guaranteed by, a bank or any bank affiliate, and are subject to investment risks, including possible loss of the principal amount invested.

Priced (in USD) as of 9/7/22 market close (unless otherwise stated). Produced: 9/8/22 4:38 pm ET; Disseminated: 9/8/22 4:50 pm ET  
For important disclosures, required non-U.S. analyst disclosures, and authors' contact information, see page 7.

inflation to a two percent target by continuing to raise rates and withdraw liquidity via quantitative tightening at a fairly brisk pace for the foreseeable future.

### Will corporate fundamentals stay resilient?

The world economy has lost substantial momentum this year, sagging under the weight of tighter financial conditions as higher borrowing costs and stubbornly elevated inflation have hampered both consumer demand and business activity. But we think the Fed’s continued interest rate hikes despite GDP downgrades since the beginning of the year have shown it is willing to continue tightening amid growth headwinds, and futures markets expect further rate hikes in coming quarters. Accordingly, we believe risks to the economic outlook remain skewed to the downside (see upper chart at right).

While the number of downward revisions to analysts’ earnings forecasts has ramped up in recent months, consensus EPS projections have held up much better (see lower chart at right) than the deceleration implied by the decline in global manufacturer sentiment and the sizable downgrades to 2022 GDP growth forecasts for major economies. The ongoing global growth slowdown nonetheless suggests corporate earnings are likely to remain vulnerable to negative revisions in the near term.

### Will the U.S. economic expansion endure?

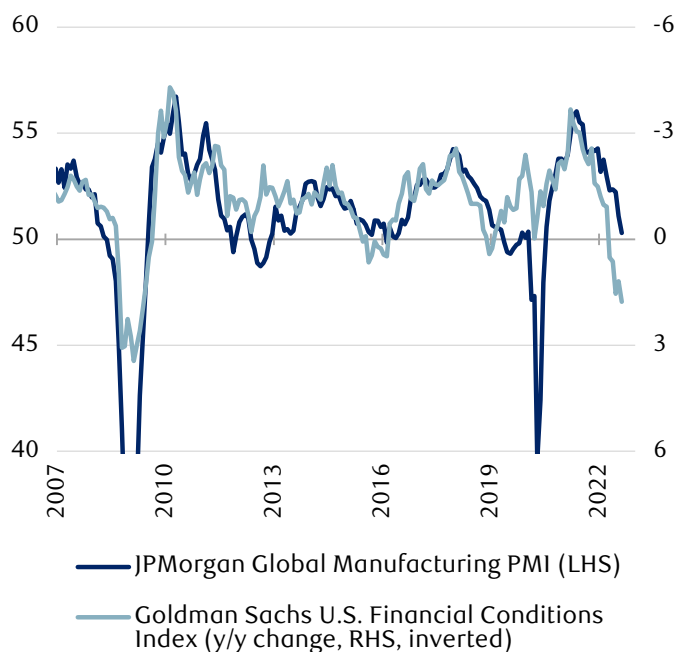
Setting the tone for the rest of the world, the U.S. economy has sharply decelerated this year, prompting worries of an imminent recession. But with households still buttressed by a sizable cushion of savings and the labour market showing strength with ample job openings, the immediate risks appear to be mostly contained and a “soft landing” scenario remains possible, in our view.

Nevertheless, we believe the probability of a U.S. recession will likely continue to build, in part because the Fed’s intention to guide interest rates to a restrictive level would further squeeze financial conditions and curb economic activity. Meanwhile, RBC Global Asset Management’s latest [U.S. Business Cycle Scorecard](#) update indicates the U.S. economy has rapidly matured, with a majority of indicators having recently shifted into late-cycle or end-of-cycle status. The recent deterioration in our [U.S. Recession Scorecard](#), which has seen three out of seven indicators shift to recessionary status since June, corroborates the view that the likelihood of a U.S. economic downturn over the next 12 months is rising.

### Balancing opportunities and risks

Against this backdrop of unusually high macro uncertainty, many global leading indicators are still trending unfavourably, while the Chinese economy is strained by pandemic lockdowns and property market

### Global growth has downshifted as financial conditions tighten

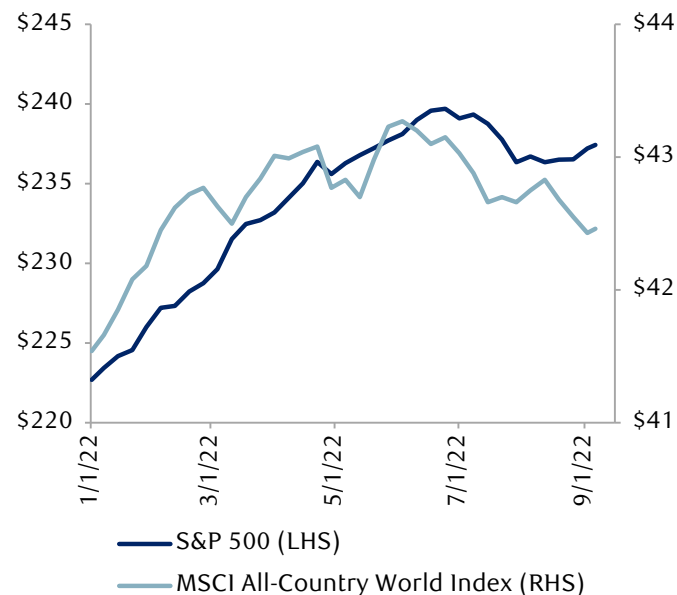


Note: A PMI (Purchasing Managers’ Index) level of 50 demarcates expansion from contraction. For the financial conditions index, a falling line (higher values) implies tightening conditions.

Source - RBC Wealth Management, Bloomberg; monthly data through 8/31/22

### Profit estimates show resilience despite softening economy

Consensus forward 12-month EPS estimates



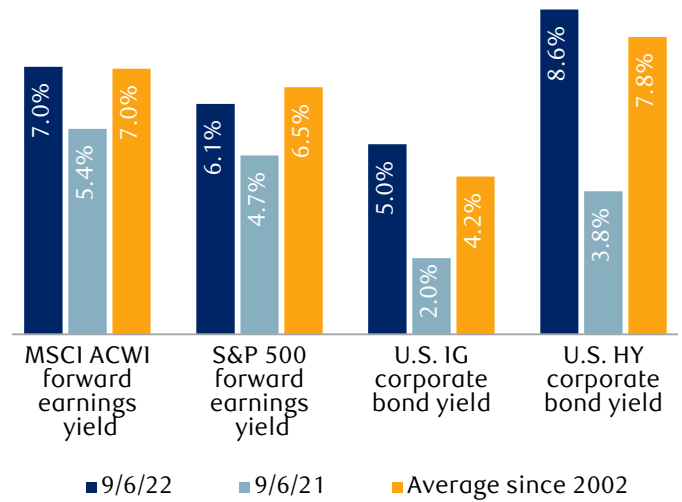
Source - RBC Wealth Management, Bloomberg; weekly data through 9/6/22

woes and U.S. political risk is likely to flare up as the [midterm elections](#) draw closer. We therefore believe investors should maintain a moderately defensive and flexible stance in portfolio positioning, with a focus on relative value opportunities.

For equity markets, we believe earnings delivery will be crucial. In an environment of slower but still positive economic growth, we think earnings could remain resilient over the next 12 months and help provide fundamental support for share prices. In a recessionary environment, however, profits are likely to decline meaningfully. As we laid out in the [August Global Insight](#), the previous 11 U.S. recessions since the 1950s saw S&P 500 earnings fall by an average of 23.6 percent.

Meanwhile, we believe the opportunity set in fixed income markets—where expected returns appear increasingly reasonable thanks to substantially higher bond yields and modestly better compensation for credit risk compared to a year ago—has vastly improved. On a relative basis, the yield advantage that equities commanded over corporate bonds has also sharply diminished over the past year, as the chart at right shows. Moreover, we think the significantly higher starting yields available today can provide more of a cushion to absorb further rises in rates, as well as helping to strengthen the diversification capacity of bonds in relation to equities.

Relative value has moved in favour of fixed income



Note: Earnings yield is the inverse of the forward price-to-earnings ratio. IG = investment-grade; HY = high-yield. Bond yield refers to yield to worst for the Bloomberg U.S. Corporate Index (for investment-grade bonds) and the Bloomberg U.S. Corporate High Yield Index Value (for high-yield bonds).

Source - RBC Wealth Management, Bloomberg; weekly data through 9/6/22

## UNITED STATES

Atul Bhatia, CFA – Minneapolis

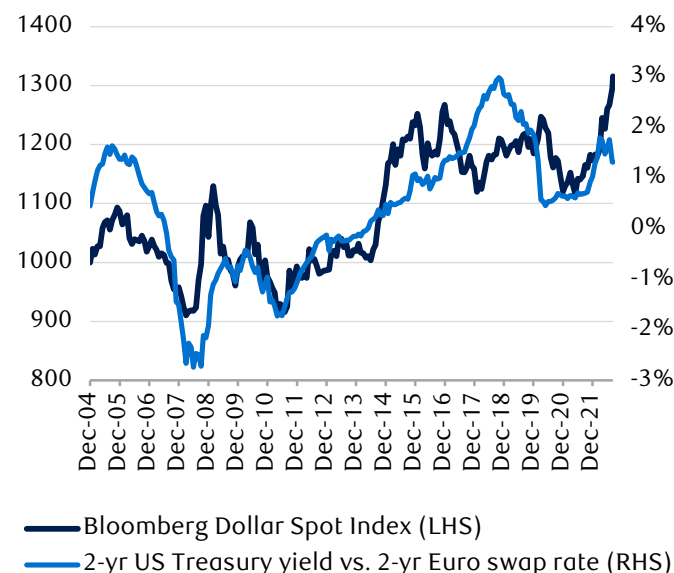
■ **August employment data showed a mixed picture for U.S. labor markets.** Demand for workers was strong, with 315,000 jobs created during the month, but supply grew by an even greater amount, as sidelined workers returned to the labor force. The resulting 0.2% increase in the unemployment rate was the largest since April 2020 and the start of pandemic-related shutdowns in the United States. **Federal Reserve policymakers likely welcomed the data**, as rising unemployment should help contain wage-driven inflation while job creation helps limit the negative growth implications of tighter monetary policy.

■ Treasury yields—which move in the opposite direction of prices—have been volatile to start the month, with a 16 basis point (bps) trading range for 2-year Treasuries and a 19 bps range for 10-year government bonds through Sept. 7. The price swings come as investors react to mixed economic data and the implications for future rate hikes. Another factor likely weighing on Treasuries is the Fed’s quantitative tightening program. **Beginning this month, the Fed will allow its bond portfolio to shrink by up to \$95 billion/month** as some maturing securities are not replaced. This change in central bank policy is a potentially significant drop in demand for government bonds. Overall, we believe volatility is likely to remain elevated, but we do not think 10-year yields will push significantly above 3.5% during the remainder of 2022.

■ **The U.S. dollar continues to rise against global currency counterparts.** The Bloomberg Dollar Index—an annually rebalanced, trade-weighted measure of exchange rates—hit the highest level since calculation

### Recent dollar strength more than just yields

USD gains come despite declining relative rate advantage



Source - RBC Wealth Management, Bloomberg; data through 9/7/22

began in 2004. Prior bouts of dollar strength were associated with an increasing U.S. relative interest rate advantage, but the most recent run-up comes as Treasury yields lag some of their overseas counterparts. **The likely explanation for this month’s push higher by the greenback is the potential for stronger relative U.S. economic growth**, with European prospects constrained by the energy crisis and Asia facing ongoing production shutdowns related to anti-COVID measures.

## CANADA

Sean Killin & Matt Altro – Toronto

■ As September begins and the leaves are soon to fall, **the S&P/TSX Composite Index closed out the summer months from a point of weakness**, down 6.8% from June 1 to Aug. 31. This is a relative underperformance when compared to the S&P 500 Index and the Dow Jones Industrial Average, down 4.3% and down 4.5%, respectively, over the same period. The largest detractor from returns within Canada came from Financials (-8.6%), as weak capital markets activity and banks’ buildup of reserves weigh on earnings. Materials had a drag on the index as well, down 15.9%, but made less of a dent on S&P/TSX performance as the sector represents 11% of the index compared to the 31% weighting of the Financials sector. The S&P/TSX was helped by Industrials (+7.5%), Consumer Discretionary (+2.7%), and Utilities (+1.2%). Looking forward, **we believe the market’s focus will continue to be on the Financials and Energy sectors as the health of the economy and geopolitical tensions continue to weigh on investor sentiment.**

■ With the headline Consumer Price Index at 7.6% in Canada in July, **the inflation fight continues for the Bank of Canada (BoC) as policymakers decided to implement another outsized interest rate hike at the Sept. 7 meeting.** The widely anticipated 75 basis point (bps) hike brings the benchmark overnight interest rate to 3.25%, which is slightly above the 2%–3% range that the BoC believes is the neutral rate of interest. Following this framework, monetary policy has technically moved into restrictive territory in Canada. Subsequently, RBC Wealth Management’s Multi-Asset Strategy team now sees corporate profits being discounted at a higher rate of interest alongside the potential for consensus Canadian economic growth expectations to be revised lower, particularly given the sizeable amount of domestic GDP that is attributed to the interest rate-sensitive Real Estate sector. **Despite the BoC’s persistence in hiking rates so far this cycle, we believe there is still work to be done in tightening monetary policy**, as inflation continues to run above target. As of Sept. 7, overnight index swaps, which represent financial market expectations of the benchmark overnight interest rate, are pricing in at least another 50 bps of hikes this cycle.

## EUROPE

Frédérique Carrier – London

■ **The European Central Bank (ECB) increased the deposit rate from 0% to 0.75%, the largest rate hike since the launch of the euro in 1999.** Hawks on the ECB's Governing Council have been encouraged by the eurozone economy holding up better than widely expected in the face of adversity. With the squeeze from higher energy prices and the central bank intent on lowering growth so as to tame inflation, the region will very likely endure a recession. **RBC Global Asset Management now expects a GDP contraction of 0.5% in 2023,** after its expectation for an above-trend expansion of 2.5% in 2022.

■ **The EU continues to fill its natural gas storage capacity,** which has now reached 82.5% as of Sept. 6 and above the 80% target, in an attempt to mitigate an acute energy crunch this winter. While this is an encouraging sign, it does not eradicate the risk of shortages, in our view. Whether those happen—and if so, their magnitude—will likely depend on how cold the winter is and the extent of declining household energy demand. EU natural gas demand is already down 10% compared to a year ago, but RBC Capital Markets calculates a decline of 25% is necessary in order to avoid energy shortages over the next two winters.

■ **EU energy ministers are preparing to gather at an emergency meeting on Friday, Sept. 9.** They will discuss decoupling electricity prices from gas prices, measures to relieve pressure on energy companies stemming from collateral requirements, and French President Emmanuel Macron's proposal of a new levy on energy companies at the European level. Further cuts to consumption will also be on the table.

■ There have also been **calls for a common fiscal capacity,** a tool similar to that used in response to the COVID-19 pandemic, which included common debt, **to help sectors struggling with the energy crisis.**

## Japan's GDP stronger than expected in Q2

Real GDP annualized q/q growth rate



Source - RBC Wealth Management, Bloomberg; quarterly data since 6/30/17

■ **In the UK, new Prime Minister Liz Truss announced a package to protect households and businesses from high energy prices, with the cost estimated by the Financial Times at £150 billion,** or some 6% of GDP, though the final cost will depend on energy price moves. Financed by higher government borrowing, as opposed to a windfall tax on energy companies, the package should be supportive of the economy, but may lead the Bank of England to raise interest rates further. More details are to be revealed in an emergency mini-budget set for late September. The pound reached a low of 1.14 against the U.S. dollar, a level perilously close to its 1985 low.

## ASIA PACIFIC

Jasmine Duan – Hong Kong

■ **Japan's economy expanded more than initially estimated in Q2.** GDP grew at an annualized rate of 3.5%, beating the Bloomberg consensus estimate of 2.9%. The recovery was helped by steady consumer and business spending as Japan gradually emerged from the winter COVID-19 outbreak. However, this trend could be challenged in the coming months, in our view, as a resurgence of COVID-19 in July saw the reintroduction of curbs.

■ The southwestern Chinese city of Chengdu has maintained strict anti-COVID restrictions and extended a lockdown in most of its downtown areas. Authorities have allowed restrictions in some suburban districts to ease. **Stringent COVID-19 containment measures continue to add pressure to China's economic outlook. Exports in August significantly missed analysts' expectations.** Outbound shipments rose 7.1% y/y, slowing from an 18% gain in July and marking the first slowdown since April when the Shanghai lockdown disrupted supply chains and manufacturing.

■ **The 20th National Congress of the Chinese Communist Party will convene on Oct. 16.** The congress will be closely observed as it will set the country's policy direction for the next five years. **While we don't expect the zero-COVID policy to be lifted immediately after the meeting, we are watching for signs that China is preparing for a reopening,** including: (1) A change in the government's narrative towards COVID-19. Recently, a Chinese health expert expressed that China should aim to loosen COVID-19 containment measures in the future and gradually reduce disruptions to daily life. (2) A reacceleration of the vaccination program. After a strong uptick from March to May, the vaccination rate slowed in recent months. We would need to see the rate pick up again if China is indeed targeting a reopening. (3) The development of more effective domestic COVID-19 drugs. China approved its first homegrown COVID-19 antiviral in July. Before that, it had approved only one oral antiviral, developed by Pfizer, and while that treatment has been highly effective, supplies in China are limited.



# MARKET Scorecard

Data as of September 7, 2022

Equities (local currency)	Level	MTD	YTD	1 yr	2 yr
S&P 500	3,979.87	0.6%	-16.5%	-12.0%	16.1%
Dow Industrials (DJIA)	31,581.28	0.2%	-13.1%	-10.0%	12.3%
Nasdaq	11,791.90	-0.2%	-24.6%	-23.3%	4.2%
Russell 2000	1,832.00	-0.7%	-18.4%	-19.5%	19.3%
S&P/TSX Comp	19,241.44	-0.5%	-9.3%	-7.5%	18.6%
FTSE All-Share	3,976.83	-0.8%	-5.5%	-3.5%	19.6%
STOXX Europe 600	412.01	-0.7%	-15.5%	-12.9%	12.0%
EURO STOXX 50	3,502.09	-0.4%	-18.5%	-17.1%	5.7%
Hang Seng	19,044.30	-4.6%	-18.6%	-27.7%	-22.6%
Shanghai Comp	3,246.29	1.4%	-10.8%	-11.7%	-1.4%
Nikkei 225	27,430.30	-2.4%	-4.7%	-8.3%	18.8%
India Sensex	59,028.91	-0.9%	1.3%	1.3%	53.7%
Singapore Straits Times	3,210.83	-0.3%	2.8%	3.3%	27.9%
Brazil Ibovespa	109,763.77	0.2%	4.7%	-6.9%	8.4%
Mexican Bolsa IPC	46,056.97	2.5%	-13.5%	-11.3%	25.7%
Gov't bonds (bps change)	Yield	MTD	YTD	1 yr	2 yr
U.S. 10-Yr Treasury	3.269%	7.7	175.9	189.6	255.1
Canada 10-Yr	3.146%	2.8	172.0	191.4	255.0
UK 10-Yr	3.034%	23.3	206.3	229.7	278.6
Germany 10-Yr	1.577%	3.6	175.4	189.9	204.0
Fixed income (returns)	Yield	MTD	YTD	1 yr	2 yr
U.S. Aggregate	4.11%	-1.1%	-11.7%	-12.2%	-12.5%
U.S. Investment-Grade Corp	5.01%	-1.5%	-15.5%	-15.8%	-14.1%
U.S. High-Yield Corp	8.56%	-0.4%	-11.6%	-11.1%	-1.8%
Commodities (USD)	Price	MTD	YTD	1 yr	2 yr
Gold (spot \$/oz)	1,718.02	0.4%	-6.1%	-4.3%	-11.2%
Silver (spot \$/oz)	18.46	2.6%	-20.8%	-24.1%	-31.2%
Copper (\$/metric ton)	7,751.00	-1.2%	-20.4%	-16.9%	13.8%
Oil (WTI spot/bbl)	81.94	-8.5%	6.4%	19.9%	106.0%
Oil (Brent spot/bbl)	87.73	-9.1%	12.8%	22.4%	108.8%
Natural Gas (\$/mmBtu)	7.80	-14.6%	109.1%	70.7%	201.3%
Currencies	Rate	MTD	YTD	1 yr	2 yr
U.S. Dollar Index	109.5500	0.8%	14.5%	18.4%	18.2%
CAD/USD	0.7623	0.1%	-3.7%	-3.6%	-0.2%
USD/CAD	1.3119	-0.1%	3.8%	3.7%	0.2%
EUR/USD	1.0006	-0.5%	-12.0%	-15.5%	-15.3%
GBP/USD	1.1536	-0.7%	-14.8%	-16.3%	-12.4%
AUD/USD	0.6767	-1.1%	-6.8%	-8.4%	-7.0%
USD/JPY	143.7800	3.5%	24.9%	30.4%	35.3%
EUR/JPY	143.8700	3.0%	9.9%	10.2%	14.6%
EUR/GBP	0.8674	0.3%	3.1%	1.0%	-3.4%
EUR/CHF	0.9775	-0.5%	-5.8%	-10.2%	-9.7%
USD/SGD	1.4041	0.5%	4.1%	4.3%	2.8%
USD/CNY	6.9656	1.1%	9.6%	7.7%	2.0%
USD/MXN	19.9904	-0.7%	-2.6%	0.2%	-7.5%
USD/BRL	5.2512	1.3%	-5.8%	1.6%	-1.0%

Equity returns do not include dividends, except for the Brazilian Ibovespa. Bond yields in local currencies. Copper Index data and U.S. fixed income returns as of Wednesday's close. 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 0.76 means 1 Canadian dollar will buy 0.76 U.S. dollar. CAD/USD -3.7% return means the Canadian dollar fell 3.7% vs. the U.S. dollar year to date. USD/JPY 143.78 means 1 U.S. dollar will buy 143.78 yen. USD/JPY 24.9% return means the U.S. dollar rose 24.9% vs. the yen year to date.

Source - Bloomberg; data as of 9/7/22 market close

## Authors

### Joseph Wu, CFA – Toronto, Canada

joseph.wu@rbc.com; RBC Dominion Securities Inc.

### Atul Bhatia, CFA – Minneapolis, United States

atul.bhatia@rbc.com; RBC Capital Markets, LLC

### Matt Altro – Toronto, Canada

matt.altro@rbc.com; RBC Dominion Securities Inc.

### Sean Killin – Toronto, Canada

sean.killin@rbc.com; RBC Dominion Securities Inc.

### Frédérique Carrier – London, United Kingdom

frederique.carrier@rbc.com; RBC Europe Limited

### Jasmine Duan – Hong Kong, China

jasmine.duan@rbc.com; RBC Investment Services (Asia) Limited

## Disclosures and Disclaimer

### Analyst Certification

All of the views expressed in this report accurately reflect the personal views of the responsible analyst(s) about any and all of the subject securities or issuers. No part of the compensation of the responsible analyst(s) named herein is, or will be, directly or indirectly, related to the specific recommendations or views expressed by the responsible analyst(s) in this report.

### Important Disclosures

In the U.S., RBC Wealth Management operates as a division of RBC Capital Markets, LLC. In Canada, RBC Wealth Management includes, without limitation, RBC Dominion Securities Inc., which is a foreign affiliate of RBC Capital Markets, LLC. This report has been prepared by RBC Capital Markets, LLC which is an indirect wholly-owned subsidiary of the Royal Bank of Canada and, as such, is a related issuer of Royal Bank of Canada.

### Non-U.S. Analyst Disclosure

One or more research analysts involved in the preparation of this report (i) may not be registered/qualified as research analysts with the NYSE and/or FINRA and (ii) may not be associated persons of the RBC Wealth Management and therefore may not be subject to FINRA Rule 2241 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account.

In the event that this is a compendium report (covers six or more companies), RBC Wealth Management may choose to provide important disclosure information by reference. To access current disclosures, clients should refer to <https://www.rbccm.com/GLDisclosure/PublicWeb/DisclosureLookup.aspx?EntityID=2> to view disclosures regarding RBC Wealth Management and its affiliated firms. Such information is also available upon request to RBC Wealth Management Publishing, 250 Nicollet Mall, Suite 1800, Minneapolis, MN 55401-1931.

## RBC Capital Markets Distribution of Ratings

For the purpose of ratings distributions, regulatory rules require member firms to assign ratings to one of three rating categories – Buy, Hold/Neutral, or Sell – regardless of a firm’s own rating categories. Although RBC Capital Markets’ ratings of Outperform (O), Sector Perform (SP), and Underperform (U) most closely correspond to Buy, Hold/Neutral and Sell, respectively, the meanings are not the same because RBC Capital Markets ratings are determined on a relative basis.

### Distribution of ratings – RBC Capital Markets Equity Research

As of June 30, 2022

Rating	Count	Percent	Investment Banking Services Provided During Past 12 Months	
			Count	Percent
Buy [Outperform]	851	58.41	290	34.08
Hold [Sector Perform]	560	38.44	169	30.18
Sell [Underperform]	46	3.16	6	13.04

### Explanation of RBC Capital Markets Equity Rating System

An analyst’s “sector” is the universe of companies for which the analyst provides research coverage. Accordingly, the rating assigned to a particular stock represents solely the analyst’s view of how that stock will perform over the next 12 months relative to the analyst’s sector average.

**Ratings: Outperform (O):** Expected to materially outperform sector average over 12 months. **Sector Perform (SP):** Returns expected to be in line with sector average over 12 months. **Underperform (U):** Returns expected to be materially below sector average over 12 months. **Restricted (R):** RBC policy precludes certain types of communications, including an investment recommendation, when RBC is acting as an advisor in certain merger or other strategic transactions and in certain other circumstances. **Not Rated (NR):** The rating, price targets and estimates have been removed due to applicable legal, regulatory or policy constraints which may include when RBC Capital Markets is acting in an advisory capacity involving the company.

As of March 31, 2020, RBC Capital Markets discontinued its Top Pick rating. Top Pick rated securities represented an analyst’s best idea in the sector; expected to provide significant absolute returns over 12 months with a favorable risk-reward ratio. Top Pick rated securities have been reassigned to RBC Capital Markets’ Outperform rated securities category, which are securities expected to materially outperform sector average over 12 months.

**Risk Rating:** The **Speculative** risk rating reflects a security’s lower level of financial or operating predictability, illiquid share trading volumes, high balance sheet leverage, or limited operating history that result in a higher expectation of financial and/or stock price volatility.

### Valuation and Risks to Rating and Price Target

When RBC Capital Markets assigns a value to a company in a research report, FINRA Rules and NYSE Rules (as incorporated into the FINRA Rulebook) require that the

basis for the valuation and the impediments to obtaining that valuation be described. Where applicable, this information is included in the text of our research in the sections entitled “Valuation” and “Risks to Rating and Price Target”, respectively.

The analyst(s) responsible for preparing this research report have received (or will receive) compensation that is based upon various factors, including total revenues of RBC Capital Markets, and its affiliates, a portion of which are or have been generated by investment banking activities of RBC Capital Markets and its affiliates.

### Other Disclosures

Prepared with the assistance of our national research sources. RBC Wealth Management prepared this report and takes sole responsibility for its content and distribution. The content may have been based, at least in part, on material provided by our third-party correspondent research services. Our third-party correspondent has given RBC Wealth Management general permission to use its research reports as source materials, but has not reviewed or approved this report, nor has it been informed of its publication. Our third-party correspondent may from time to time have long or short positions in, effect transactions in, and make markets in securities referred to herein. Our third-party correspondent may from time to time perform investment banking or other services for, or solicit investment banking or other business from, any company mentioned in this report.

RBC Wealth Management endeavors to make all reasonable efforts to provide research simultaneously to all eligible clients, having regard to local time zones in overseas jurisdictions. In certain investment advisory accounts, RBC Wealth Management or a designated third party will act as overlay manager for our clients and will initiate transactions in the securities referenced herein for those accounts upon receipt of this report. These transactions may occur before or after your receipt of this report and may have a short-term impact on the market price of the securities in which transactions occur. RBC Wealth Management research is posted to our proprietary Web sites to ensure eligible clients receive coverage initiations and changes in rating, targets, and opinions in a timely manner. Additional distribution may be done by sales personnel via e-mail, fax, or regular mail. Clients may also receive our research via third-party vendors. Please contact your RBC Wealth Management Financial Advisor for more information regarding RBC Wealth Management research.

**Conflicts Disclosure:** RBC Wealth Management is registered with the Securities and Exchange Commission as a broker/dealer and an investment adviser, offering both brokerage and investment advisory services. RBC Wealth Management’s Policy for Managing Conflicts of Interest in Relation to Investment Research is available from us on our website at <https://www.rbccm.com/GLDisclosure/PublicWeb/DisclosureLookup.aspx?EntityID=2>. Conflicts of interests related to our investment advisory business can be found in Part 2A Appendix 1 of the Firm’s Form ADV or the RBC Advisory Programs Disclosure Document. Copies of any of these documents are available upon request through your Financial Advisor. We reserve the right to amend or

supplement this policy, Part 2A Appendix 1 of the Form ADV, or the RBC Advisory Programs Disclosure Document at any time.

The authors are employed by one of the following entities: RBC Wealth Management USA, a division of RBC Capital Markets, LLC, a securities broker-dealer with principal offices located in Minnesota and New York, USA; by RBC Dominion Securities Inc., a securities broker-dealer with principal offices located in Toronto, Canada; by RBC Investment Services (Asia) Limited, a subsidiary of RBC Dominion Securities Inc., a securities broker-dealer with principal offices located in Hong Kong, China; by Royal Bank of Canada, Singapore Branch, a licensed wholesale bank with its principal office located in Singapore; and by RBC Europe Limited, a licensed bank with principal offices located in London, United Kingdom.

### Research Resources

This document is produced by the Global Portfolio Advisory Committee within RBC Wealth Management’s Portfolio Advisory Group. The RBC WM Portfolio Advisory Group provides support related to asset allocation and portfolio construction for the firm’s Investment Advisors / Financial Advisors who are engaged in assembling portfolios incorporating individual marketable securities. The Committee leverages the broad market outlook as developed by the RBC Investment Strategy Committee, providing additional tactical and thematic support utilizing research from the RBC Investment Strategy Committee, RBC Capital Markets, and third-party resources.

### Third-party Disclaimers

The Global Industry Classification Standard (“GICS”) was developed by and is the exclusive property and a service mark of MSCI Inc. (“MSCI”) and Standard & Poor’s Financial Services LLC (“S&P”) and is licensed for use by RBC. Neither MSCI, S&P, nor any other party involved in making or compiling the GICS or any GICS classifications makes any express or implied warranties or representations with respect to such standard or classification (or the results to be obtained by the use thereof), and all such parties hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability and fitness for a particular purpose with respect to any of such standard or classification. Without limiting any of the foregoing, in no event shall MSCI, S&P, any of their affiliates or any third party involved in making or compiling the GICS or any GICS classifications have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.

### Disclaimer

The information contained in this report has been compiled by RBC Wealth Management, a division of RBC Capital Markets, LLC, from sources believed to be reliable, but no representation or warranty, express or implied, is made by Royal Bank of Canada, RBC Wealth Management, its affiliates or any other person as to its accuracy, completeness or correctness. All opinions and estimates contained in this report constitute RBC Wealth Management’s judgment as of the date of this report, are subject to change without notice and are provided in good faith but without legal responsibility. Past performance is not a guide to future performance, future returns are not guaranteed, and a loss of original capital may occur. Every province in Canada, state in the U.S., and most countries throughout the world have their own laws regulating the types of securities and other investment products which may be offered to



their residents, as well as the process for doing so. As a result, the securities discussed in this report may not be eligible for sale in some jurisdictions. This report is not, and under no circumstances should be construed as, a solicitation to act as securities broker or dealer in any jurisdiction by any person or company that is not legally permitted to carry on the business of a securities broker or dealer in that jurisdiction. Nothing in this report constitutes legal, accounting or tax advice or individually tailored investment advice. This material is prepared for general circulation to clients, including clients who are affiliates of Royal Bank of Canada, and does not have regard to the particular circumstances or needs of any specific person who may read it. The investments or services contained in this report may not be suitable for you and it is recommended that you consult an independent investment advisor if you are in doubt about the suitability of such investments or services. To the full extent permitted by law neither Royal Bank of Canada nor any of its affiliates, nor any other person, accepts any liability whatsoever for any direct, indirect or consequential loss arising from, or in connection with, any use of this report or the information contained herein. No matter contained in this document may be reproduced or copied by any means without the prior written consent of Royal Bank of Canada in each instance. Additional information is available upon request.

**To U.S. Residents:** This publication has been approved by RBC Capital Markets, LLC, Member NYSE/FINRA/SIPC, which is a U.S. registered broker-dealer and which accepts responsibility for this report and its dissemination in the United States. RBC Capital Markets, LLC, is an indirect wholly-owned subsidiary of the Royal Bank of Canada and, as such, is a related issuer of Royal Bank of Canada. Any U.S. recipient of this report that is not a registered broker-dealer or a bank acting in a broker or dealer capacity and that wishes further information regarding, or to effect any transaction in, any of the securities discussed in this report, should contact and place orders with RBC Capital Markets, LLC. International investing involves risks not typically associated with U.S. investing, including currency fluctuation, foreign taxation, political instability and different accounting standards.

**To Canadian Residents:** This publication has been approved by RBC Dominion Securities Inc. RBC Dominion Securities Inc.\* and Royal Bank of Canada are separate corporate entities which are affiliated. \* Member-Canadian Investor Protection Fund.

©Registered trademark of Royal Bank of Canada. Used under license. RBC Wealth Management is a registered trademark of Royal Bank of Canada. Used under license.

**RBC Wealth Management (British Isles):** This publication is distributed by RBC Europe Limited and Royal Bank of Canada (Channel Islands) Limited. RBC Europe Limited is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority (FCA registration number: 124543). Registered office: 100 Bishopsgate, London, EC2N 4AA, UK. Royal Bank of Canada (Channel Islands) Limited is regulated by the Jersey Financial Services Commission in the conduct of investment business in Jersey. Registered office: Gaspé House, 66-72 Esplanade, St Helier, Jersey JE2 3QT, Channel Islands.

**To Hong Kong Residents:** This publication is distributed in Hong Kong by Royal Bank of Canada, Hong Kong Branch which is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission ('SFC'), and RBC Investment Services (Asia) Limited, which is regulated by the SFC.

**To Singapore Residents:** This publication is distributed in Singapore by the Royal Bank of Canada, Singapore Branch, a registered entity licensed by the Monetary Authority of Singapore. This material has been prepared for general circulation and does not take into account the objectives, financial situation, or needs of any recipient. You are advised to seek independent advice from a financial adviser before purchasing any product. If you do not obtain independent advice, you should consider whether the product is suitable for you. Past performance is not indicative of future performance. If you have any questions related to this publication, please contact the Royal Bank of Canada, Singapore Branch. Royal Bank of Canada, Singapore Branch accepts responsibility for this report and its dissemination in Singapore.

© 2022 RBC Capital Markets, LLC – Member NYSE/FINRA/SIPC  
© 2022 RBC Dominion Securities Inc. – Member Canadian Investor Protection Fund  
© 2022 RBC Europe Limited  
© 2022 Royal Bank of Canada  
All rights reserved  
RBC1253



Wealth  
Management