GLOBAL Insight WEEKLY

Wealth Management

Perspectives from the Global Portfolio Advisory Committee

January 14, 2021

More income ahead for fixed income markets?

Thomas Garretson, CFA – Minneapolis

Fixed income investors will largely have to play defense this year as bond markets try to work their way through to a more normal yield environment. And while the outlook is a challenging one for investors, borrowers still have time to take advantage of record-low mortgage rates.

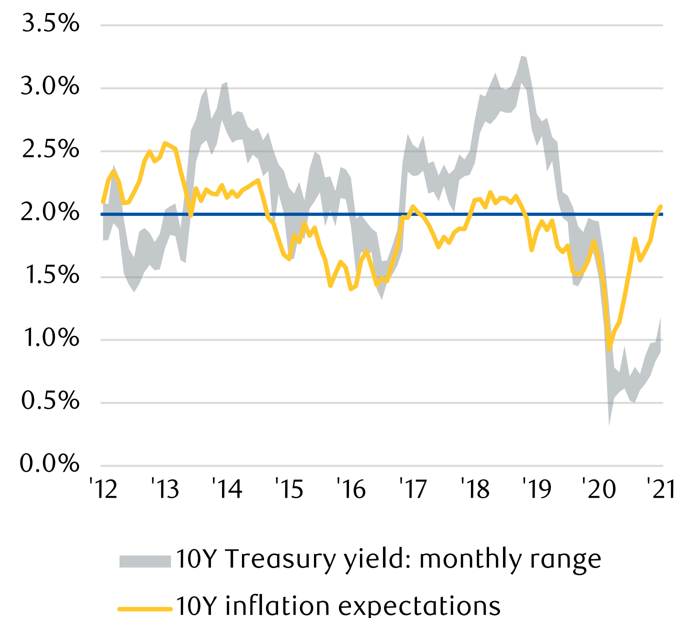
Markets have largely looked through impeachment proceedings this week as they have little bearing on near-term policy, while President-elect Joe Biden appears set to propose a $2 trillion pandemic aid package, more than double most expectations, also helping markets look past some mixed economic data this week, including a spike in jobless claims.

As a result, the benchmark 10-year Treasury yield finally cracked the one percent level for the first time since last March in the aftermath of the U.S. Senate runoff elections in Georgia, as a unified government and prospects for further fiscal aid have boosted the growth and inflation outlook, with the latter receiving intensified focus of late.

As the chart at right shows, market-based inflation expectations have recovered sharply from the pandemic lows, even slightly exceeding the Fed's two percent average inflation target. But this is simply in line with more normal levels, and there are few indications the market is seeing runaway inflation anywhere in the pipeline.

But that may be put to the test in the coming months. Due to simple math, inflation in Q2 this year will likely surge above two percent when compared to Q2 of 2020, but that's only because the base will be so low following price

Inflation expectations have normalized as Treasury yields march higher



Note: Blue line indicates Fed's 2% average inflation target
Source - RBC Wealth Management, Bloomberg; data range: Jan. 2012–Jan. 2021

For perspectives on the week from our regional analysts, please see pages 3–4.

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 1/14/21 market close, ET (unless otherwise stated). Produced: Jan. 14, 2021 4:30 pm ET; Disseminated: Jan. 14, 2021 5:00 pm ET
For important disclosures, required non-U.S. analyst disclosures, and authors' contact information, see page 6.

declines during the onset of the pandemic. Importantly, this won't be any cause for the Fed to dial back its accommodative policy. As Fed Chair Jerome Powell stated on Jan. 14, the "public will need to see two percent inflation for some time." Sustained inflation is simply reflective of a healthy economy operating at capacity with full employment. With elevated unemployment levels and a full economic recovery still years away, we believe the Fed will very likely maintain its current policy stance.

Upgrading the yield outlook

Where previously we saw the 10-year Treasury yield rising to 1.25 percent this year on a gradual recovery, we now see scope for it to rise to 1.50 percent, with perhaps even a slight bias to the upside from there following the Senate runoffs. To be sure, not markedly higher, but higher still.

Yet higher yields typically translate to poor bond returns as prices fall when yields rise. The question then is whether prices fall to such an extent that they wipe out the coupons earned over the course of the year. The breakeven yield levels by Dec. 31, 2021, or the level above which yields would have to rise for returns to turn negative, for major U.S. sectors this year are:

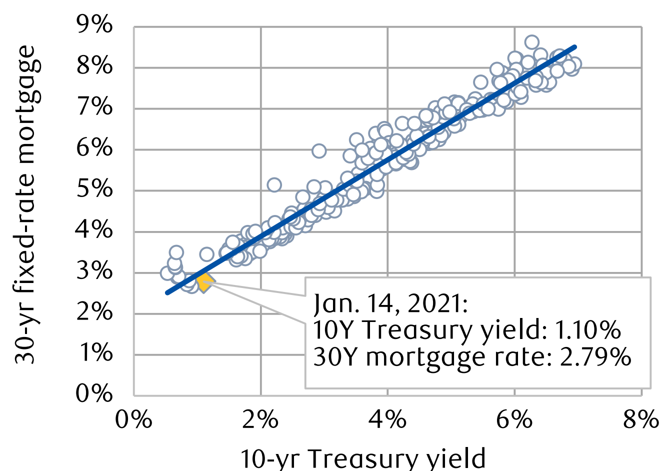
- **10-year Treasury:** From a current yield of 1.10 percent, the breakeven yield is just 1.22 percent. After delivering total returns of eight percent in 2020, 2021 could easily be a rare down year for the Treasury market.
- **Investment-grade corporate bonds:** The average yield on the Bloomberg Barclays US Corporate Bond Index is just 1.85 percent; the breakeven yield this year is only 2.13 percent. Again, after delivering returns of nearly 10 percent last year, the margin is slim, suggesting that returns could turn negative this year.
- **High-yield corporate bonds:** The average yield on the Bloomberg Barclays US Corporate High Yield Index is 4.25 percent, but the breakeven yield level has a fair amount of cushion at 5.5 percent. Absent a downturn in the economy, we don't see yields rising that far, so high-yield corporates should end the year with positive total returns.

Is the bottom in for U.S. mortgage rates?

While the outlook is a challenging one for investors, the flip-side is that it's a great one for borrowers, in our view. Record-low mortgage rates, and subsequent refinancing, remain one of the best ways for the Fed, via policy rates, to put money directly into the pockets of consumers.

Since peaking near five percent in late 2018, U.S. 30-year mortgage rates have been in a steady state of decline. But since last April that decline has gathered pace, setting fresh record lows nearly every week along the way, culminating with an all-time low of just 2.65 percent on Jan. 7, based on data back to 1971. Perhaps some reading

U.S. mortgage rates are highly correlated with 10-year Treasury yields



Source - RBC Wealth Management, Bloomberg, Freddie Mac Mortgage Market Survey; data range: Jan. 1996 to Jan. 2021

this will remember the days of double-digit mortgage rates from the 1980s. But fear not, those days are over.

As the chart above shows, gauging the outlook for mortgage rates is actually quite simple as they are highly correlated with Treasury yields; simply take the 10-year Treasury yield and tack on 1.75 percent, which is the average spread over the past 25 years. So if we are right and the 10-year Treasury yield moves toward 1.50 percent over the course of 2021, we would expect that U.S. mortgage rates would rise to a range of roughly three percent to 3.25 percent. Higher sure, but still historically low, and should ultimately mean that housing activity continues to be a positive contributor to the ongoing economic recovery, while we would recommend that those who would benefit from refinancing move to do so at current rates.

Play defense, with some offense

Following strong total returns for many fixed income sectors in 2020, the outlook for 2021 may appear somewhat bleak, but we think a little pain along the way toward a more normal yield environment would undoubtedly be a welcome tradeoff for most investors.

While 2021 will largely be a year of taking what the market gives you, we would continue to shy modestly away from interest-rate sensitive sectors like Treasuries and investment-grade corporate bonds and would keep exposure to high-yield corporate bonds and preferred shares in line with individual risk tolerances. Treasury Inflation-Protected Securities (TIPS) are often sought out by investors when inflation fears rise, but, in our view, they remain relatively unattractive when market-based expectations are above two percent, as they are now, and they will still be exposed to higher Treasury yields, meaning that returns could still be negative even if inflation rises.

UNITED STATES

Ben Graham, CFA – Minneapolis

- **U.S. equities are generally holding steady this week, with small caps leading the way higher.** Each of the major large-cap indexes—the S&P 500, Dow Jones Industrial Average, and Nasdaq—have moved less than 0.8% lower from last week's levels. However, the small-cap Russell 2000 has climbed 3.0% this week. **Small-cap gains have resulted in consistent outperformance for nearly four straight months** after the September lows. Since the start of 2020, small caps are actually ahead of large caps by a score of 26.6% to 18.1%. This comes despite the sharper losses seen through the March lows when small caps sold off by 41.9% peak-to-trough during the early days of the pandemic.
- Outside of small caps, **early 2021 leadership is evident in other economically-sensitive areas of the equity market**. The S&P 500 is led by Energy's 17.5% January 2021 gain, followed by Financials and Materials each gaining more than 5.5%. Sector laggards thus far in 2021 include Communication Services, Consumer Staples, and Real Estate, with each sector declining more than 2%. Technology stocks have declined 1.2%.
- **A closely watched earnings season kicks off this week** as companies will deliver Q4 results and many provide initial 2021 forecasts. Financials are always the first group to report, and the season got off to an ominous start with asset management industry-leading BlackRock seeing its shares decline 4.6% despite delivering record results and beating expectations across the board. There will be more clarity to this trend in coming weeks, but **given the elevated valuations present in the market today, a period of stocks moving lower despite strong earnings is not outside the realm of possibility**, in our view. This trend bears monitoring and will evolve quickly as more data points will be readily available after JPMorgan Chase, Wells Fargo, and Citi report on Friday, Jan. 15.
- **Initial jobless claims were surprisingly higher than anticipated at 965,000.** Consensus expectations were looking for 812,000 initial claims and the largest increases came from Louisiana, Kansas, and Texas. The four-week moving average also climbed this week as the reading hit 834,000, an increase of 18,000.

Small caps have recovered all of their pandemic-driven losses

Relative performance of Russell 2000 to S&P 500 since January 2020

Note: Indexed to 100; falling lines represent large-cap outperformance, rising lines represent small-cap outperformance
Source - RBC Wealth Management, FactSet; data as of 11:20 am ET 1/14/21

CANADA

Sayada Nabi & Arete Zafiriou – Toronto

- **Canadian housing price growth accelerated in 2020**. The Real Property Solutions (RPS) House Price Index was up 8.5% vs. 1.8% in 2019 and 2.2% in 2018. RBC Economics expects this pace to continue through 2021 before slowing to a more moderate 3.9% rate in 2022. The upward price momentum can be attributed to a lack of supply, according to RBC Economics, as home-for-sale inventories are at historical lows. The number of active listings in November 2020 was between 50% and 61% lower than the 10-year average in Ontario, Quebec, and most of Atlantic Canada. Active listings in Western Canada were 13%–29% lower than average. Along with scarce housing supply, historically low interest rates and changing housing needs amid work-from-home orders boosted home resales to 552,300 units last year, surpassing the previous record of 539,100 in 2016. Factoring in high household savings and strengthening consumer confidence, RBC Economics expects even stronger resales of 588,300 units this year.
- **The Bank of Canada's fourth-quarter Business Outlook Survey hit a more optimistic tone** amid strength in global demand and vaccine news. The rise in global demand improved the outlook for exporting firms, and the natural resources sector is benefitting from rising oil prices. While some sectors are optimistic about 2021, a third of the businesses surveyed do not expect sales to return to pre-pandemic levels by the end of the year. According to RBC Economics, that third is concentrated among the "high contact" services industry. As the survey was conducted ahead of intensifying virus spread and containment measures, RBC Economics anticipates the gap between conditions in the services sector and the rest of the economy will continue to widen. While early 2021 looks cloudy, RBC Economics expects conditions for the services industry to improve in the second half of the year if the vaccine rollout goes as planned.

EUROPE

Frédérique Carrier & Thomas McGarrity, CFA – London

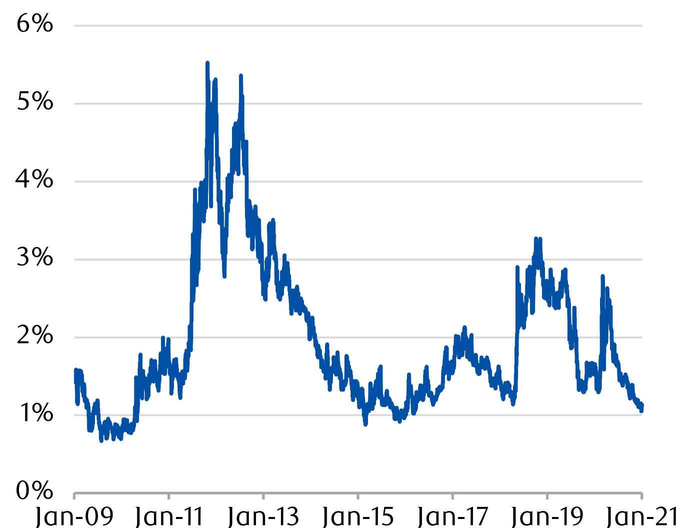
- **Italy seems engulfed in another political crisis as Prime Minister Giuseppe Conte's government unravelled**, with a small coalition partner walking away over a disagreement on the disbursement of EU rescue money. Markets do not seem to believe, and it is also our view, that this poses a risk to the integrity of the EU: the premium of Italian bond yields over those of German Bunds has barely moved. **This risk looks to be contained** for two reasons.

- Firstly, Conte may retain power by reshuffling his cabinet and inviting other centrist parties into a new coalition in order to regain a majority as there is **broad consensus in Italy that snap elections should be avoided** in the midst of the COVID-19 crisis. He has the support of the fiercely pro-EU Italian President Sergio Mattarella in this matter. Secondly, the UK's painful Brexit experience has made **EU scepticism a less appealing and less popular ideology on the continent**.

- **The German Federal Statistical office estimates national GDP contracted by 5% y/y in 2020**. This is the worst performance since the financial crisis in 2009 when it shrank by 5.7%. RBC Capital Markets projects GDP in France, Italy, and Spain contracted by 9.2%, 8.8%, and 11.4%, respectively. Germany fared better last year thanks to its strong and Asia-focused manufacturing sector and its comparatively better handling of the COVID-19 crisis. Germany generated a fiscal deficit of 4.8% of GDP in 2020, its largest public deficit since 1995.

- **Technology has been the best-performing sector within the STOXX Europe 600 Index over the past five trading days**, up almost 5% versus the index's rise of 0.9%, **driven by semiconductor and semiconductor equipment stocks**. These were boosted on the read-across from strong earnings reports from bellwether Asian peers TSMC and Samsung Electronics' memory unit, as well as Micron Technology, the biggest U.S. manufacturer of memory chips, issuing stronger-than-expected sales forecasts for the upcoming quarter, citing positive industry trends around growing demand related to artificial intelligence, cloud computing, and 5G.

Spread between Italian and German bond yields remains subdued



Note: Spread between Italian Govt 10-yr & German 10-yr yields
Source - RBC Wealth Management, Bloomberg; data range: 1/4/09–1/14/21

ASIA PACIFIC

Jasmine Duan – Hong Kong & Nicholas Gwee, CFA – Singapore

- Asia-Pacific equity markets traded higher during the week, with the **MSCI Asia Pacific Index posting consecutive fresh highs**. The rally was led by Indonesia and Japan.

- **Japan's Nikkei 225 Index rose to its highest level in 30 years despite soaring domestic COVID-19 cases**, which has led Prime Minister Yoshihide Suga to declare a **state of emergency in several prefectures**. Economists broadly believe the state of emergency is unlikely to take a major toll on the economy as restrictions are targeted only at dining and entertainment outlets in the affected areas, and will only last a month. We think **the political stakes are high for Suga, whose approval rating is falling** at a time when the end of the term for the current government is nearing. An extension of the state of emergency could have negative ramifications for the administration. Meanwhile, according to a report by the Nihon Keizai Shimbun, **the Bank of Japan is considering lowering its economic forecast** for the current fiscal year ending in March (current estimates: -5.5% in FY2020, +3.6% in FY2021), as consumption takes a hit from restriction measures, and that it may revise up its growth forecast for the following year.

- **Alibaba (BABA US), Tencent (700 HK), and Baidu (BIDU US) will no longer be added to the U.S. Pentagon's blacklist**, according to The Wall Street Journal. The Chinese tech companies had been among a dozen firms the Defense Department had considered including on a list of entities it believes support Beijing's military, intelligence, and security services. While nine other Chinese companies will be added, prompting a ban on American investment, the trio are now excluded after Treasury Secretary Steven Mnuchin intervened.

MARKET
Scorecard

Data as of January 14, 2021

Equities (local currency)	Level	MTD	YTD	1 yr	2 yr
S&P 500	3,795.54	1.1%	1.1%	15.6%	47.0%
Dow Industrials (DJIA)	30,991.52	1.3%	1.3%	7.1%	29.6%
Nasdaq	13,112.64	1.7%	1.7%	41.7%	89.9%
Russell 2000	2,155.35	9.1%	9.1%	28.6%	50.4%
S&P/TSX Comp	17,958.09	3.0%	3.0%	3.5%	19.9%
FTSE All-Share	3,839.42	4.5%	4.5%	-9.2%	2.0%
STOXX Europe 600	412.00	3.3%	3.3%	-1.8%	18.6%
EURO STOXX 50	3,641.37	2.5%	2.5%	-3.5%	19.2%
Hang Seng	28,496.86	4.6%	4.6%	-1.3%	8.4%
Shanghai Comp	3,565.91	2.7%	2.7%	14.8%	40.6%
Nikkei 225	28,698.26	4.6%	4.6%	19.5%	41.0%
India Sensex	49,584.16	3.8%	3.8%	18.2%	38.3%
Singapore Straits Times	3,000.00	5.5%	5.5%	-8.3%	-5.5%
Brazil Ibovespa	123,480.50	3.8%	3.8%	5.0%	30.7%
Mexican Bolsa IPC	46,070.91	4.5%	4.5%	2.9%	6.2%
Gov't bonds (bps change)	**Yield**	**MTD**	**YTD**	**1 yr**	**2 yr**
U.S. 10-Yr Treasury	1.128%	21.4	21.4	-68.3	-157.5
Canada 10-Yr	0.856%	17.9	17.9	-73.0	-110.8
UK 10-Yr	0.291%	9.4	9.4	-42.9	-100.6
Germany 10-Yr	-0.550%	1.9	1.9	-37.9	-78.1
Fixed income (returns)	**Yield**	**MTD**	**YTD**	**1 yr**	**2 yr**
U.S. Aggregate	1.20%	-0.7%	-0.7%	6.2%	19.0%
U.S. Investment-Grade Corp	1.85%	-1.1%	-1.1%	8.1%	25.6%
U.S. High-Yield Corp	4.25%	0.1%	0.1%	6.6%	17.6%
Commodities (USD)	**Price**	**MTD**	**YTD**	**1 yr**	**2 yr**
Gold (spot $/oz)	1,848.17	-2.6%	-2.6%	19.5%	43.1%
Silver (spot $/oz)	25.57	-3.2%	-3.2%	43.6%	63.4%
Copper ($/metric ton)	7,994.50	3.2%	3.2%	27.5%	36.3%
Oil (WTI spot/bbl)	53.57	10.4%	10.4%	-8.0%	6.1%
Oil (Brent spot/bbl)	56.35	8.8%	8.8%	-12.6%	-4.5%
Natural Gas ($/mmBtu)	2.67	5.0%	5.0%	21.9%	-25.7%
Currencies	**Rate**	**MTD**	**YTD**	**1 yr**	**2 yr**
U.S. Dollar Index	90.2000	0.3%	0.3%	-7.4%	-5.7%
CAD/USD	0.7912	0.8%	0.8%	3.3%	5.1%
USD/CAD	1.2639	-0.7%	-0.7%	-3.2%	-4.9%
EUR/USD	1.2160	-0.5%	-0.5%	9.3%	6.0%
GBP/USD	1.3688	0.1%	0.1%	5.1%	6.4%
AUD/USD	0.7786	1.2%	1.2%	12.8%	8.2%
USD/JPY	103.7700	0.5%	0.5%	-5.7%	-4.1%
EUR/JPY	126.1800	0.0%	0.0%	3.1%	1.7%
EUR/GBP	0.8883	-0.6%	-0.6%	3.9%	-0.4%
EUR/CHF	1.0793	-0.2%	-0.2%	0.3%	-4.1%
USD/SGD	1.3241	0.2%	0.2%	-1.7%	-2.2%
USD/CNY	6.4745	-0.8%	-0.8%	-6.0%	-4.3%
USD/MXN	19.6952	-1.1%	-1.1%	4.9%	3.8%
USD/BRL	5.2056	0.1%	0.1%	37.8%	40.8%

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 0.79 means 1 Canadian dollar will buy 0.79 U.S. dollar. CAD/USD 0.8% return means the Canadian dollar rose 0.8% vs. the U.S. dollar year to date. USD/JPY 103.77 means 1 U.S. dollar will buy 103.77 yen. USD/JPY 0.5% return means the U.S. dollar rose 0.5% vs. the yen year to date.

Source - Bloomberg; data as of 4:35 pm ET 1/14/21.

Authors

Thomas Garretson, CFA – Minneapolis, United States
tom.garretson@rbc.com; RBC Capital Markets, LLC

Ben Graham, CFA – Minneapolis, United States
benjamin.graham@rbc.com; RBC Capital Markets, LLC

Sayada Nabi – Toronto, Canada
sayada.nabi@rbc.com; RBC Dominion Securities Inc.

Arete Zafiriou – Toronto, Canada
arete.zafiriou@rbc.com; RBC Dominion Securities Inc.

Frédérique Carrier – London, United Kingdom
frederique.carrier@rbc.com; RBC Europe Limited

Thomas McGarrity, CFA – London, United Kingdom
thomas.mcgarrity@rbc.com; RBC Europe Limited

Jasmine Duan – Hong Kong, China
jasmine.duan@rbc.com; RBC Investment Services (Asia) Limited

Nicholas Gwee, CFA – Singapore
nicholas.gwee@rbc.com; Royal Bank of Canada, Singapore Branch

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: Sayada Nabi and Arete Zafiriou, employees of RBC Wealth Management USA's foreign affiliate RBC Dominion Securities Inc.; Frédérique Carrier and Thomas McGarrity, employees of RBC Wealth Management USA's foreign affiliate RBC Europe Limited; Jasmine Duan, an employee of RBC Investment Services (Asia) Limited; and Nicholas Gwee, an employee of Royal Bank of Canada, Singapore Branch contributed to the preparation of this publication. These individuals are not registered with or qualified as research analysts with the U.S. Financial Industry Regulatory Authority ("FINRA") and, since they are not associated persons of RBC Wealth Management, they may not be subject to FINRA Rule 2241 governing communications with subject companies, the making of public appearances, and the trading of securities in accounts held by research analysts.

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, 60 South Sixth St, Minneapolis, MN 55402.

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 our ratings are determined on a relative basis.

Distribution of ratings – RBC Capital Markets, LLC Equity Research
As of December 31, 2020

			Investment Banking Services Provided During Past 12 Months	
Rating	Count	Percent	Count	Percent
Buy [Outperform]	828	54.83	299	36.11
Hold [Sector Perform]	615	40.73	166	26.99
Sell [Underperform]	67	4.44	12	17.91

Explanation of RBC Capital Markets, LLC 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.

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 our Outperform rated securities category, which are securities expected to materially outperform sector average over 12 months.

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.
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 Wealth Management 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, LLC, and its affiliates, a portion of which are or have been generated by investment banking activities of RBC Capital Markets, LLC 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.

References herein to "LIBOR", "LIBO Rate", "L" or other LIBOR abbreviations means the London interbank offered rate as administered by ICE Benchmark Administration (or any other person that takes over the administration of such rate).

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 RBC Investment Solutions (CI) 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. RBC Investment Solutions (CI) 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, registered company number 119162.

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.

© 2021 RBC Capital Markets, LLC – Member NYSE/FINRA/SIPC
© 2021 RBC Dominion Securities Inc. – Member Canadian Investor Protection Fund
© 2021 RBC Europe Limited
© 2021 Royal Bank of Canada
All rights reserved
RBC1253

Wealth Management