July 2018

RBC WEALTH MANAGEMENT

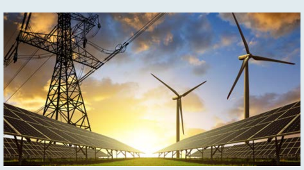
Global Insight

Perspectives from the Global Portfolio Advisory Committee

European equity downgrade: Continental drift

Economic growth that seems to have plateaued and an unwelcome embrace of populism have turned the investment case for European equities more opaque.

Frédérique Carrier | Page 4



For important and required non-U.S. analyst disclosures, see page 24.

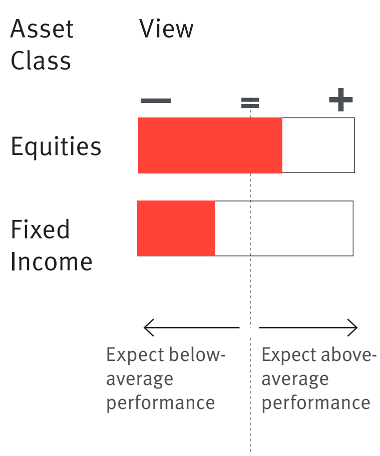
RBC Wealth Management

Table of contents

All values in U.S. dollars and priced as of market close, June 30, 2018, unless otherwise stated.

RBC's investment stance

Global asset views



See "Views explanation" below for details

Source - RBC Wealth Management

Equities

- Equity markets are still grappling with issues that have lingered since the correction began in February, including trade disputes, the flat Treasury yield curve, Chinese deleveraging, and European political uncertainties. While most markets have held up relatively well, China's Shanghai Composite Index slipped into bear market territory in June.
- One thing is apparent: the world's largest economy shows no signs of buckling. Sturdy U.S. economic growth should support global growth and equity prices during this consolidation period. We expect strong corporate earnings to power developed markets higher by year's end. However, their trajectories could be more volatile and shallower than during the double-digit annual return runs of 2016 and 2017. We would maintain a slight Overweight position in global equities.

Fixed income

- Central bankers are paying more attention to trade developments, according to comments from several at last month's European Central Bank Forum on Central Banking. Although these concerns haven't risen to the point where central bankers are including them in their economic outlooks, the bankers noted that escalating trade tensions could negatively impact business confidence and economic growth. For now, these concerns are unlikely to derail current monetary policy plans to gradually dial back stimulus.
- The heightened attention to conditions that arise in the latter part of an economic cycle—rising interest rates, flattening yield curves, and high corporate debt levels—leave many investors overly cautious, in our opinion. Even though we maintain our Underweight to fixed income, investors should not ignore selective opportunities in credit and/or strategic yield curve positioning.

Views explanation

(+/=/–) 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.

Focus article

European equity downgrade: Continental drift

Frédérique Carrier
London, United Kingdom
frederique.carrier@rbc.com

Europe's recovery remains in place but momentum that seems to have plateaued bears watching. And while political risk is no stranger to the region, Italy's embrace of populism is an unwelcome development. With the investment case for European equities more opaque, we think it is prudent to take a step back and lower our stance to Market Weight.

We upgraded European equities to Overweight in May 2017, when economic data was accelerating and surprising on the upside, political risk had waned after the election of centrist Emmanuel Macron as president of France, and valuations were attractive. But the loss of economic growth momentum in early 2018 and the reappearance of political risk have led to our downgrade.

Plateau point

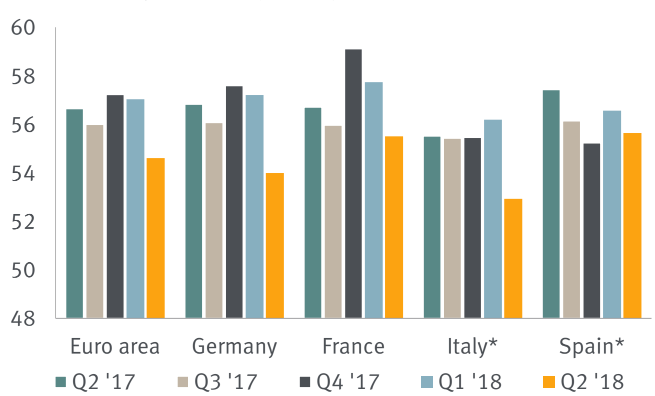
While the European recovery is continuing, leading indicators suggest to us that growth is no longer accelerating and may have plateaued earlier than we expected, while economic surprises are tending to be negative rather than positive. Disappointing data in Q1, such as the composite Purchasing Managers' Index (PMI), a gauge of economic activity, was explained away by most observers by one-off factors including weather, strikes, and the timing of holidays. However, the trend seems to have some legs as euro area industrial production for April came in at -0.9% m/m, slightly weaker than the consensus expectation.

But this is not to say that the economy is weak.

The recovery continues to be supported by the return of capital expenditure, itself underpinned by rising utilisation rates and the availability of credit. Such

Economic momentum wanes but remains healthy

Euro area composite PMI quarterly average



PMIs remain much above the expansionary level of 50.

* Italy and Spain April-May only
Source - Haver Analytics, IHS Markit, RBC Capital Markets

investment is occurring at a time when unemployment is falling and wages are growing modestly, both of which are helping consumers loosen their purse strings. Governments have also adopted a less austere attitude to their finances. RBC Capital Markets expects Q2 growth of 1.2% y/y, a respectable level for the region.

The path of growth and inflation is sound enough for the European Central Bank (ECB) to pursue its plan of withdrawing monetary stimulus. The ECB has indicated that, if conditions permit, it will reduce the monthly pace of asset purchases to €15B from September until the end of December when the quantitative easing (QE) programme will come to an end. It expects to maintain interest rates at current levels until "at least through the summer of 2019," after which it has pencilled in a modest increase in rates.

The Italian job

Political risk is no stranger to the region and headline noise reappeared in June in regards to Germany and Sweden. Yet, in our minds, the key political risk which should preoccupy investors resides in Italy, the eurozone's third-largest economy, given its high indebtedness; still vulnerable banking system; and latent, underlying Euroscepticism.

We believe the recent Italian upheaval also changes the equation for the European investment case.

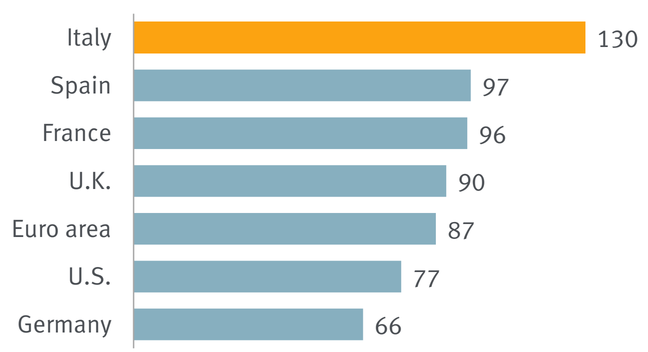
We believe the recent Italian upheaval also changes the equation for the European investment case despite financial markets' seeming complacency about the political risk.

Indeed, markets cheered when non-Eurosceptic Giovanni Tria was recently appointed as minister of economy and finance, overlooking the fact that the populist government aims to raise spending, cut taxes, reduce the retirement age, and roll back some of the pro-growth reforms instituted by the previous government. We think those policies would not only worsen the fiscal deficit, but may also weaken the Italian economy.

According to EU calculations, Italy's structural deficit would swell to 2.0% of GDP in 2019 under those proposals instead of narrowing to 0.8% of GDP, a level the EU estimates would enable Italy to reduce its heavy debt burden and put it on a sustainable path. A 2% deficit is not worrying per se, but it needs to be put in the context of the country's weight within the EU, its high indebtedness, and its still somewhat fragile banking system.

Italy has a heavy debt load

2017 government net debt % GDP



Italy's high indebtedness could swell further by fiscal deficits.

Source - Bloomberg, RBC Wealth Management

Furthermore, while support for the euro in Italy has improved, it is the lowest in the EU at only 59%, compared to 71% in France and 80% in Germany, according to the European Community Barometer survey. Confrontation with Brussels could project the euro membership issue back to the fore. Hence, a wider deficit in this context would raise the vulnerability of the region, in our opinion.

With just under 70% of its sovereign bonds held domestically, including a 20% share bought by the Bank of Italy under the ECB's asset purchase programme, a financial crisis could be sparked by a dispute with the EU about Italy's fiscal situation and/or downgrades from rating agencies should the downgrades persuade investors to offload their Italian financial assets.

It is conceivable, though not our base-case scenario, that a major dispute could raise the spectre of a euro exit. Italy would then have to choose between returning to fiscal prudence and into the fold of the EU, or leave the EU and print its own low-credibility, much-devalued currency.

It is conceivable, though not our base-case scenario, that a major dispute could raise the spectre of a euro exit.

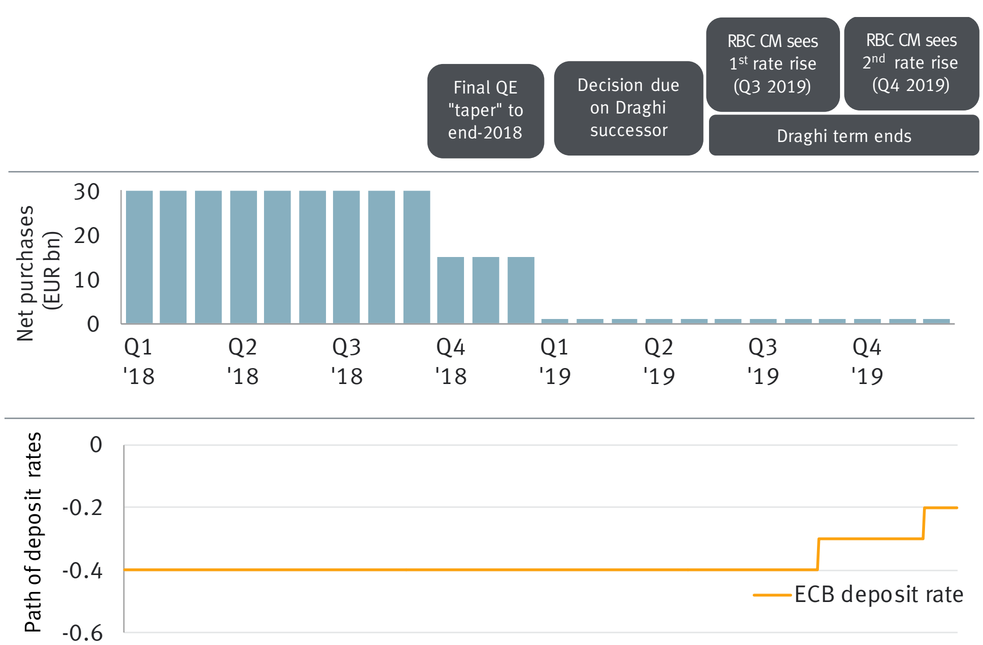
We assign a low probability to a crisis like this occurring, but we think investors are now more likely to stay on the sidelines given this noisier political backdrop, curbing further inflows into European financial assets.

Taking a step back

If the investment case is becoming more opaque with growth having peaked and the return of political risk, why not choose to go to Underweight instead of Market Weight for the region?

We feel a neutral weighting is more appropriate for two reasons. First, economic growth is plateauing, but it is still above average, and the ECB's dovish stance remains supportive. The ECB has recently suggested that its quantitative easing programme will end by year end 2018, but that interest rates will remain at their

RBC Capital Markets' expectations for monetary policy



Source - RBC Capital Markets, RBC Wealth Management; monthly data

We have removed our positive bias toward banks, and would be selective on cyclicals, focusing on Industrials and Technology. We continue to prefer core markets to the periphery.

present level "at least through the summer of 2019" or for as long as necessary to ensure inflation expectations continue to recover. Loose monetary policy is weighing on the euro which has weakened by more than 7% since the beginning of the year, a welcome respite for the economy and exporters in particular. The consensus earnings estimates are for growth of some 11% and 9% for this year and next, respectively, both of which we believe are not only respectable levels, but seem achievable.

Second, valuations are not overly demanding. The European equities market is currently trading on a price-to-earnings ratio of 14.6x and price to book value of 1.7x, both of which are roughly in line with their long-term averages while the wide discount to the U.S. has yet to close.

With the European economy seemingly plateauing, a murkier political outlook, and valuations appearing closer to fair value on some measures, we think it is prudent to downgrade European equities to Market Weight. We have removed our positive bias toward banks, and would be selective on cyclicals, focusing on Industrials and Technology. We continue to prefer core markets to the periphery.

Focus article

Beyond the bottom line: The ESG investing advantage

Kent McClanahan, CFA
Minneapolis, United States
kent.mcclanahan@rbc.com

More companies are realizing that they can strengthen their operations by looking beyond the bottom line. Likewise, by using a different investment lens—one based on Environmental, Social, and Governance criteria—investors can enhance upside potential and buffer against risk.

In the *Johns Manville 2011 Sustainability Report*, legendary investor Warren Buffett wrote, "Today our world is changing faster than ever before—economic, geo-political, and environmental challenges abound. However, taking shortcuts is not the pathway to achieving sustainable competitive advantage, nor is it an avenue toward satisfying customers. In times such as these, a company must invest in the key ingredients of profitability: its people, communities, and the environment."[1]

Socially Responsible Investing (SRI) was born in the 1970s out of opposition from some religious groups to holding investments that did not align with their values, such as companies deriving revenue from alcohol, gambling, pornography, tobacco, or weapons.

Environmental, Social, and Governance (ESG) investing represented a step beyond SRI. Instead of negatively screening out securities that don't fit the mold, it searches for companies that meet predefined criteria within the ESG categories. The approach looks to integrate non-financial factors with traditional financial data. While ESG criteria are often not considered in traditional financial analysis, recent research argues that integrating this data can both enhance the return and buffer against risk in investment portfolios. If a company ignores these factors and, for example, seeks to increase profits at any cost (e.g., abusing employees or significantly polluting the environment), at some point the company—and shareholders—will bear the brunt of reputational damage, fines, sanctions, or potentially criminal charges.

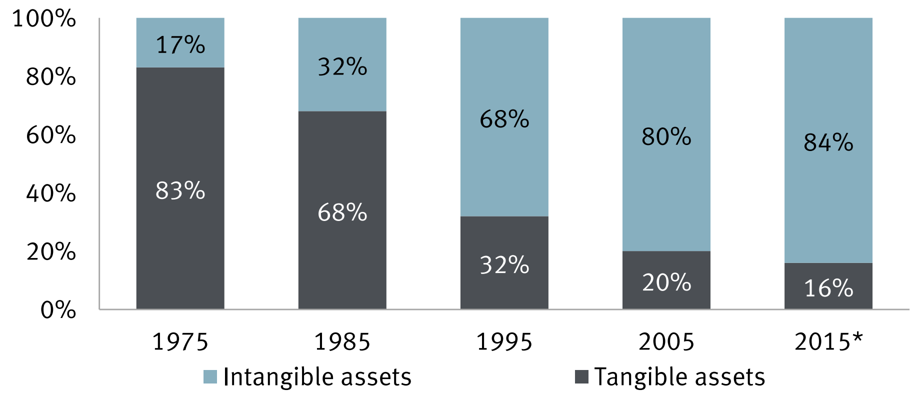
Investing reimagined

Decades ago Benjamin Graham, often known as the father of modern investing and a famously long-term thinker, laid out how most investors evaluate companies in his seminal books, *Security Analysis* and *The Intelligent Investor*. For years, investment analysis has heavily relied on the evaluation of tangible assets and traditional financial data.

However, think tank Ocean Tomo found that tangible data makes up a surprisingly small percentage of the market value of the S&P 500 Index.[2] Rather, the majority

[1] "Johns Manville 2011 Sustainability Report" *JM.com*. Johns Manville, 03/2012. Web.
[2] "Annual Study of Intangible Asset Market Value from Ocean Tomo, LLC." *OceanTomo.com*, Ocean Tomo, LLC. 5 March 2015. Web.

Components of S&P 500 market value



*January 1, 2015
Source - Ocean Tomo, LLC; Intangible Asset Market Value Study, 2018; *http://www.oceantomo.com/intangible-asset-market-value-study/*

of the value for companies within the index is comprised of goodwill, reputation, customer and employee relationships, environmental performance, brand, and other intangible assets.

Investors who consider this data have an advantage over those who do not. We can see the impact that ignoring ESG factors can have on the value of a stock from examples like Transocean after the Macondo oil spill, Volkswagen and the discovery of its fuel efficiency deception, and Experian following its massive data breach. Avoiding these types of controversies can have a significant impact on the performance of an investment portfolio.

What kind of impact can ESG factors have on returns?

Companies can outperform when they have superior ESG characteristics.

This was the topic of a research paper published in 2015 in the *Journal of Sustainable Finance & Investment*. The article pulled data from 2,200 previously published studies dating back to the 1970s that addressed ESG factors and their relation to corporate financial performance. In a meta-study that pooled the findings of these other works, the authors pinpointed that only some 8% of the studies found that ESG factors had a negative impact on stock performance.[3]

This meta-study broadly shows that companies can outperform when they have superior ESG characteristics. But what does this mean when a portfolio is created considering ESG factors in the investment process?

Morningstar published its inaugural *Sustainable Funds Landscape* report in 2018. This was Morningstar's first report that focused on managers who proactively consider ESG in their investment process. They found that, within the U.S., there are now mutual funds in every major asset class that intentionally consider sustainability. Going one step further, Morningstar evaluated the performance of these funds versus its investment universe.

First, Morningstar evaluated short-term, annual performance over the last three years. In 2015–17, managers who considered sustainability in their investment

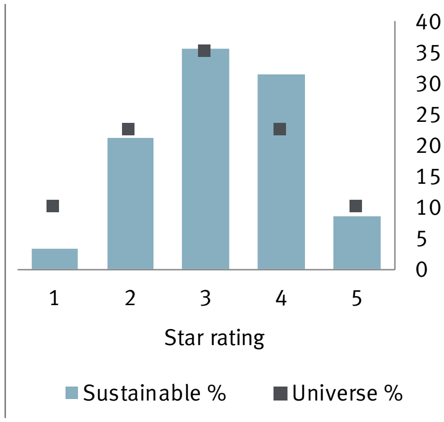
[3] Gunnar Friede, Timo Busch & Alexander Bassen (2015) ESG and financial performance: aggregated evidence from more than 2000 empirical studies, Journal of Sustainable Finance & Investment, 5:4, 210-233, DOI: 10.1080/20430795.2015.1118917.

process outperformed their Morningstar category by 57%, 55%, and 54%, respectively.

Morningstar also evaluated longer-term performance of these same funds. Morningstar assigns a 1–5 star rating based on long-term performance. As of the end of 2017, 40% of the sustainable funds had 4 or 5 stars, while only 24.5% had 1 or 2 stars (the mutual fund universe had 32.5% of funds in the top two categories combined).[4] This research is rather a definitive indication that ESG factors can have a positive impact on performance across multiple asset classes over multiple time frames.

Sustainable funds Morningstar ratings skew positive

Star rating	#
★★★★★	10
★★★★	37
★★★	42
★★	24
★	4



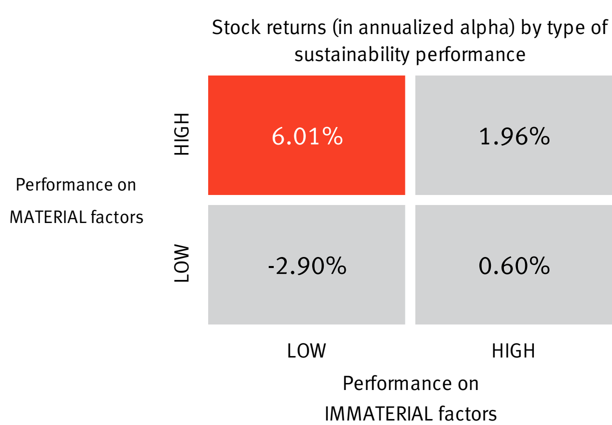
Forty percent of funds with "sustainability" in their process scored in Morningstar's top two categories.

Source - Morningstar Direct; data through 12/31/17
Note: Oldest share classes, n=118

Informational advantage

What makes it possible for companies to outperform their peers when they address ESG factors? The Sustainable Accountings Standards Board, or SASB, is working to answer that question. The SASB was formed with the idea of setting standards for corporate reporting of sustainability (ESG) information and in doing so address the issue of "materiality." The U.S. Supreme Court defines information

Material ESG factors impact performance



When companies focus their attention on the ESG factors that are most important to their business and ignore those that are not important, their potential for outperformance is high.

Source - "The Jury is In: Materiality Matters" Jerome Lavigne-Delville. *sasb.org*. SASB, 03/2017. Web. Accessed 05/2018

[4] John Hale Sustainable Funds U.S. Landscape Report, *Morningstar.com*, Morningstar, January 2018, Web.

as material if there is "a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the 'total mix' of information made available." Greenhouse gas emissions aren't likely to matter too much to a health care company but they are of vital importance to a transportation company, while water usage is a major risk for a health care company but of almost no importance to the same transportation company.

Companies that see changes in the world and business environment as opportunities rather than obstacles should be better positioned to thrive in this changing environment.

The 2015 paper, *Corporate Sustainability: First Evidence on Materiality*, compared the stock returns for firms that scored well on the factors the SASB had identified as material for their sector versus firms that had scored poorly on the same factors. The high-scoring stocks significantly outperformed their lower-scoring peers. What the paper also found, and perhaps surprisingly, was that firms that did well on material issues but poorly on immaterial issues performed even better.[5] This showed that firms that focus on what is important to their industry, rather than wasting time on issues that are not, perform better.

Investing in companies that operate in a way that improves society certainly offers some psychological benefits, but without a strong case for financial benefit, an ESG approach could be a hard sell to most investors. However, study after study has now shown that not only does an ESG approach—when combined with traditional financial analysis—benefit return, it can also decrease risk.

Logically, we think this makes sense as well—companies that cut corners tend to reap the penalty of those practices in the end. Companies that see changes in the world and business environment as opportunities rather than obstacles should be better positioned to thrive in this changing environment, in our view, and investors who look to identify these companies can potentially boost their portfolio's performance.

[5] Mozaffar Khan, George Serafeim, and Aaron Yoon (2015) Corporate Sustainability: First Evidence on Materiality, Harvard Business School

Room to run

The S&P 500, the DOW, Europe's Stoxx, and Japan's TOPIX are all still below their January highs. By contrast, the NASDAQ, Canada's TSX, and the FTSE in the U.K. are all at or have set new highs in recent weeks.

Importantly, U.S. small-cap indexes exceeded their January peaks in June, as did the advance-decline index of market breadth. Small-cap and breadth indexes typically start to move lower on a trend basis months or quarters before the major large-cap indexes set their final highs for the cycle. Instead, they have been powering higher—suggesting more upside to come for the S&P 500 and other large-cap indexes.

And we think there is room to run. The U.S. economy looks to have reaccelerated in Q2 while most other economies are holding their own; earnings estimates remain elevated; and forward price-to-earnings (P/E) multiples are not demanding. Importantly, the factors we monitor closely that have reliably flagged approaching recessions ahead of time are all suggesting that no significant global or U.S. economic downturn is imminent. These include the cost and accessibility of credit, employment conditions, as well as new orders and production levels.

All that said, there have been changes at the margin for some factors which suggest our recommended, modestly above-benchmark exposure to stocks in portfolios should be accompanied by increased vigilance in coming quarters.

Jim Allworth
Vancouver, Canada
jim.allworth@rbc.com

Equity views

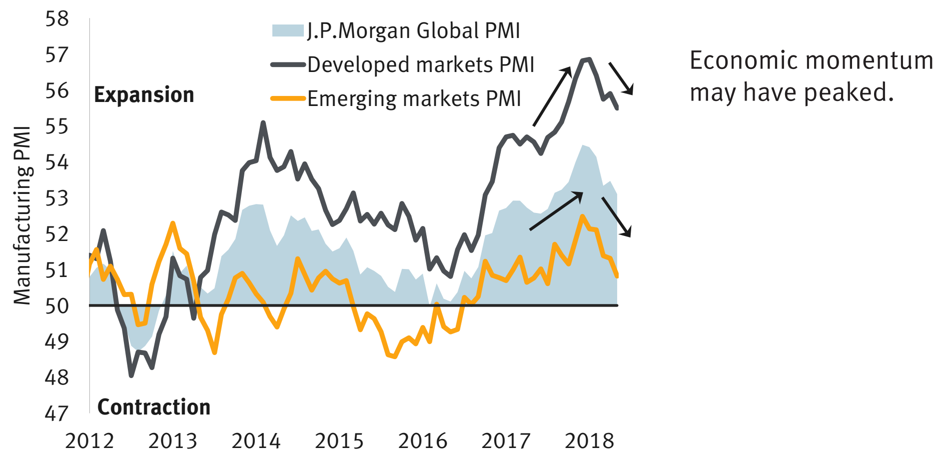
Region	Prior	Current
Global	+	+
United States	=	=
Canada	=	=
Continental Europe	+	↓ =
United Kingdom	=	=
Asia (ex-Japan)	=	=
Japan	=	=

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

Perhaps the most important is the change in tone from the Fed. Communications accompanying its June rate increase indicated the collective view of the Federal Open Market Committee now looks for two further hikes this year (up from one previously) and an additional hike next year over and above the three forecast previously (our forecast remains unchanged at the Fed's previous levels; see the U.S. fixed income comments on page 17.)

The Fed also some dropped some longstanding "lower for longer" language in its communique. This opens the door for the Fed to normalise policy rates somewhat faster than previously indicated—not a dramatic change perhaps, but one that arguably brings closer the tighter credit conditions that historically have produced economic and earnings downturns, as well as more challenging equity markets. That said, this more hawkish tone also gives the Fed something to back away from if growth and inflation come in weaker than expected.

Global manufacturing growth eases



Note: PMI refers to Purchasing Managers' Index for manufacturing sector, a measure for economic activity
Source - Haver Analytics, RBC Global Asset Management

Also worth noting, global Purchasing Managers' Indexes (see chart) have rolled over and are now below recent peak levels. While they remain comfortably in the zone indicating manufacturing volumes continue to expand, they are no longer moving higher. This might be pointing toward a leveling out of earnings estimates, suggesting the rich P/E ratios seen at the January peak might have set a high-water mark for valuations that will be difficult to exceed.

For our part, we expect earnings growth alone will be able to power the indexes high enough to deliver worthwhile all-in returns from stocks. However, we expect their trajectory to be more volatile and shallower than what prevailed in the double-digit annual return runs of 2016 and 2017. We have also downgraded Europe to Market Weight from Overweight (see "European equity downgrade: Continental drift" on page 4). That leaves all regions rated Market Weight.

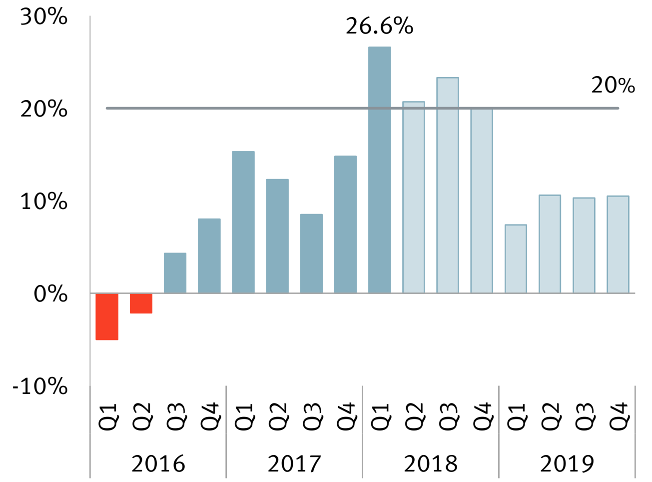
There is, of course, a growing "wall of worry" emanating from several sources: trade disputes; fractious politics in the U.S., U.K., and Europe; the ever-present risk of geopolitical flare-ups; and China concerns. The fate of NAFTA negotiations are front of mind for Canadians (and many Americans), followed closely by a deterioration of trade relations between the U.S. and China and just about everyone else.

Hopes for a quick NAFTA resolution have faded recently as Mexican elections and U.S. midterms begin to factor into timing assumptions. Any deal reached now by the U.S. with NAFTA partners, China, or Europe would have to be successfully shepherded through a contentious election season. Agreements by negotiators on any of these fronts and then approval by politicians could involve a wait that lasts well into next year. And the odds of which outcomes—benign or damaging—are likely to prevail have already swung in both directions more than once.

We expect that to the extent there are negative outcomes from these disputes/negotiations, they will be felt most fully by the global economy

Global equity

S&P 500 quarterly earnings growth rate (y/y)



Q1 ’18 may prove to have been the quarter of peak earnings growth this cycle, but the remainder of 2018 is on track to hold at or above 20% each quarter and 2019 EPS growth remains robust.

Source - RBC Wealth Management, Thomson Reuters; data through 6/29/18

Kelly Bogdanova
San Francisco, United States
kelly.bogdanov@rbc.com

Patrick McAllister, CFA
Toronto, Canada
patrick.mcallister@rbc.com

Frédérique Carrier
London, United Kingdom
frederique.carrier@rbc.com

Jay Roberts, CFA
Hong Kong, China
jay.roberts@rbc.com

and by markets in the next economic downturn when it arrives. So far, neither the economic and credit indicators we watch nor the stock market itself are suggesting such a downturn is looming.

Regional highlights

United States

- The S&P 500 held up well in June and Q2, rising 0.5% and 2.9%, respectively, especially considering the numerous uncertainties, including tit-for-tat tariff disputes between the Trump administration and multiple trading partners.
- The market has been able to withstand the trade onslaught (thus far) because the two factors that tend to have the greatest influence on stock prices over time—economic and earnings growth—remain strong. Q2 GDP has the potential to rise at its fastest clip in almost four years thanks to tax cuts, low unemployment, and improved business and consumer confidence. We anticipate Q2 earnings and revenues will rival the robust growth in the prior quarter.
- The trade disputes have yet to dent consensus economic and earnings estimates, but that could change if the U.S. imposes tariffs on foreign autos and trading partners respond in kind, and if the China dispute becomes protracted. We doubt the Trump administration will let up on its protectionist agenda just yet.
- The market could continue the consolidation process that began in February as it digests the substantial rally of 2017 and works through the tariff and strong dollar headwinds, while also factoring in uncertainties about Fed policy, yield curve flattening, and inflation. While the market has the potential to ultimately break out to new highs, the tariff noise could delay this and cause some bumps over the near term. We continue to recommend a Market Weight position in U.S. equities.

Canada

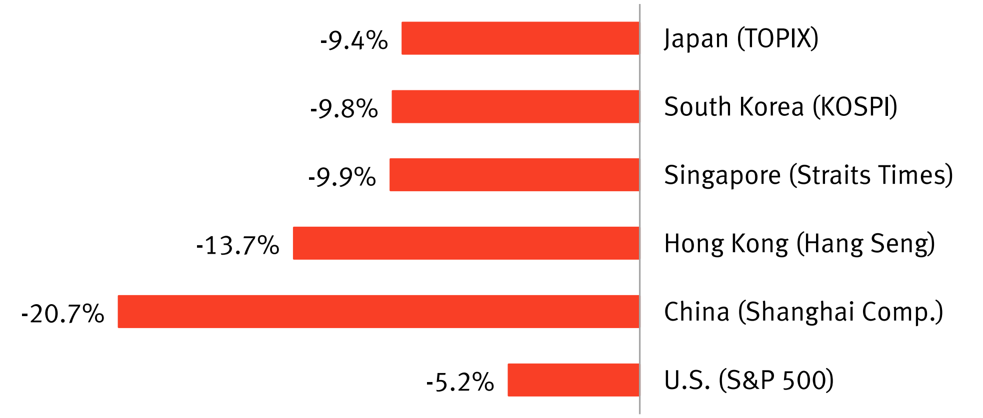
- The S&P/TSX has outperformed the S&P 500 since early March as the resource/commodity complex has helped propel the domestic benchmark. Despite recent outperformance, the Canadian index continues to trade at a wider-than-average discount relative to the U.S. benchmark on a price-to-earnings (P/E) basis. We continue to balance Canada's attractive valuation against domestic-specific challenges and maintain a Market Weight recommendation.

- Household debt remains in focus and is set against a backdrop of higher borrowing rates. The household debt-to-income ratio declined to 168% in Q1, down from a high of 170% in Q3 of last year. This is consistent with the Bank of Canada's assessment that household vulnerabilities are easing but remain elevated.
- We have reduced our recommended Canadian banks allocation to a modest Underweight. Credit losses remain near cycle lows even as higher rates are set to pressure households' debt service ratios and major housing markets are cooling. Banks are presently trading in line with their long-term average valuation. We believe there is limited risk in reducing our position somewhat ahead of any deterioration in the credit cycle.
- President Donald Trump struck a surprisingly confrontational tone in the wake of the G7 Summit when addressing Prime Minister Justin Trudeau and the United States' trade skirmishes with Canada. While NAFTA negotiations seem to have stalled on the auto and sunset provisions, we would note that the president has shown an ability to abruptly change his position. Still, ongoing uncertainty on trade policy remains a headwind to investment in the Canadian economy.
- Canadian readers are now the proud owners of the Trans Mountain pipeline and related expansion project after the CA$4.5B purchase by the Government of Canada. It is unclear if the federal government will face a smoother path through construction of the controversial project. A lack of export capacity for Canadian crude oil remains a headwind to our outlook for Energy stocks.

Continental Europe & U.K.

- We recently upgraded the U.K. to Market Weight. While government infighting continues to make it difficult to visualize post-Brexit Britain, there seems to be more momentum towards aiming for a "softer" Brexit. A clearer picture should emerge in July when Prime Minister Theresa May divulges a long-awaited white paper on the U.K.'s future trading relationship with the EU, and Parliament votes on whether the U.K. should stay in a customs union.
- This uncertainty and its impact on the U.K. economy have tested investors' nerves since the EU referendum two years ago, but with relative equity valuations at unusually attractive levels, investor interest is likely to be piqued anew, as indicated by the raft of high-profile takeovers recently announced.
- We find good value in the U.K. Energy and Financials sectors in particular. Retail and Utilities valuations are also undemanding, in our view, but the background remains challenging with online disruption for the former and regulatory and political pressure for the latter.

Asian equity market returns from 52-week highs



Source - RBC Wealth Management, Bloomberg; data through 6/29/18

- For our perspective on European equities, including the recent downgrade, see the Focus Article "European equity downgrade: Continental drift."

Asia

- The ongoing trade dispute between the U.S. and China, which may impact regional supply chains, had a sizeable negative effect on Asian equities in June. The MSCI AC Asia Pacific index is down 4.5% in 2018.

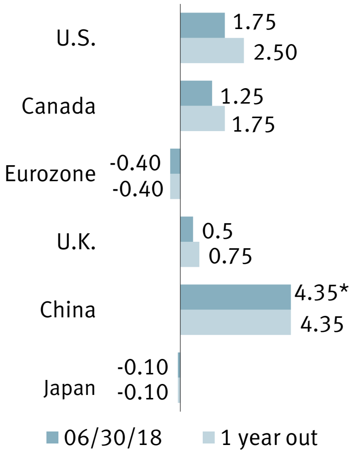
- Mainland China equities are now in a bear market and at a two-year low. The Shanghai Composite is down 20% from its January high and 13.9% year to date. While the trade situation with the U.S. has certainly impacted stocks—performance in June was worse than the negative performance in February when there was a global equity correction—there are other factors at work, too. One is the process of financial deleveraging, or the reduction of riskier debt, that has been unfolding in China. Tighter financial conditions on the mainland are a headwind for equities.

- Should the U.S. continue on its current protectionist trajectory, we anticipate that Asian equities will continue to move lower through the summer. Beyond that, we believe that the background of good global growth and robust earnings growth in the region should be supportive.

- We continue to prefer Japanese equities among the major Asian markets based on attractive valuations, improved earnings prospects, and solid economic data.

Trade storms in a tea cup, or more?

Central bank rate (%)



*1-yr base lending rate for working capital, PBoC
Source - RBC Investment Strategy Committee, RBC Capital Markets, Global Portfolio Advisory Committee, RBC Global Asset Management

Craig Bishop
Minneapolis, United States
craig.bishop@rbc.com

Tom Garretson, CFA
Minneapolis, United States
tom.garretson@rbc.com

Christopher Girdler, CFA
Toronto, Canada
christopher.girdler@rbc.com

Alastair Whitfield
London, United Kingdom
alastair.whitfield@rbc.com

Four of the world's top central bankers—Jerome Powell of the U.S. Federal Reserve, Mario Draghi of the European Central Bank, Haruhiko Kuroda of the Bank of Japan, and Philip Lowe of the Reserve Bank of Australia—appeared together on a panel at the ECB Forum on Central Banking in June. These central bankers set monetary policy for more than a third of the world's economy and by and large their issues are very similar—stubbornly low inflation, low levels of economic growth, and gradual removal of policy stimulus.

New to the conversation, however, are growing concerns over escalating trade tensions and their potential impact on business confidence and hence economic growth. Powell suggested that trade policy changes to date haven't filtered into the Fed's economic outlook, but noted rising concerns that were echoed by others on the panel. Draghi noted his own fears over an erosion of business and consumer confidence.

The Bank of England's Mark Carney and Bank of Canada's Stephen Poloz weren't on the panel, perhaps due to pending meetings for their respective banks; the Bank of Canada meets July 11. While each have their own regional issues, based upon recent comments Carney and Poloz would likely concur with the trade concerns of the ECB Forum panel.

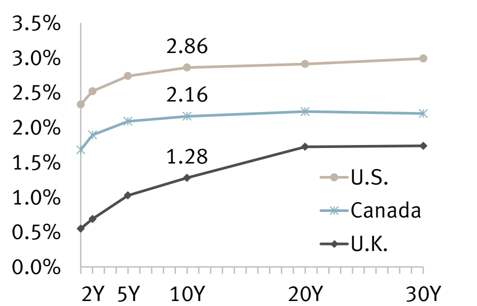
For now, the global expansion is likely safe, in our view. But even as U.S. administration officials dismiss central bankers' concerns, these same bankers are aware that the day could come when they are faced with a trade war that could place them in the position of making policy decisions to either support growth (by lowering rates) or to head off higher inflation (by hiking rates). In coming months, however, investors are likely to be challenged by increased market volatility.

Fixed income views

Region	Gov't Bonds	Corp. Credit	Duration
Global	–	+	5–7 yr
United States	–	+	7–10 yr
Canada	=	=	3–5 yr
Continental Europe	=	+	5–7 yr
United Kingdom	–	=	5–7 yr

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

Sovereign yield curves



Source - Bloomberg

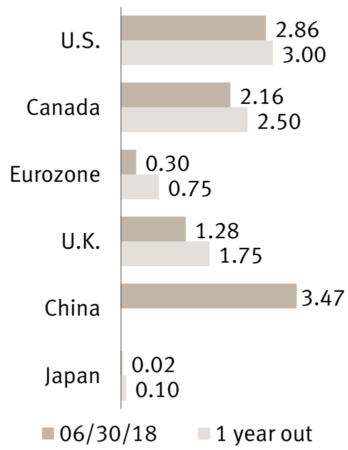
Regional highlights

United States

- The Federal Reserve raised short-term rates to a range of 1.75%–2.00% in June, as expected, and now

Global fixed income

10-year rate (%)



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

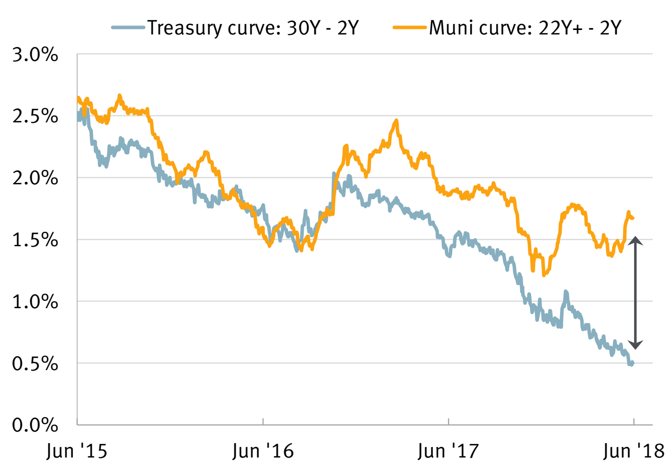
foresees two more increases this year, rather than one more as previously expected. However, the yield curve has flattened precipitously since the most recent Fed meeting, with falling 10-year Treasury yields leading the spread between 2- and 10-year yields down to just 0.33%. While the Fed remains firmly on the rate hike warpath, the market appears to be telling it to tread carefully. Largely due to a flat yield curve, we continue to expect just one more rate hike this year.

- Do increasing credit spreads, or yield compensation in excess of Treasury yield for credit risk, signal growing corporate distress? Investment-grade corporate bond spreads have been on the rise since February, and at 1.24% over Treasuries, have touched their highest levels since late 2016. We don't think the rising spreads are a sign of distress in this case, but rather a function of increasing issuance as corporate acquisition activity picks up. Credit spreads in the riskiest corners of credit markets—those with bottom-rung credit ratings of CCC—have actually tightened to Treasuries, a sign of economic confidence.
- While much of the recent commentary has centered on flattening Treasury yield curves, the municipal curve has actually been steepening. Moving from the short end of the muni curve to the long end nets investors an incremental yield gain of 1.50%, the highest since March, compared to just 0.67% for the same extension on the Treasury curve. Yields on short munis have actually moved lower on reduced supply and excess demand since May, creating an opening for investors to swap into longer maturities.

Canada

- Government of Canada (GoC) bonds outperformed in June as yields decreased for the second month in a row and the yield differential between GoC and U.S. Treasury equivalents moved to the widest levels in years. Trade policy uncertainty appears to be weighing on longer-dated GoC yields, causing a further flattening of the curve. We continue to believe a slow and gradual approach by the Bank of Canada, combined with persistent core inflation, leaves longer-dated yields vulnerable to moves higher. Our focus remains

Muni curve steepens relative to treasury curve



Steeper muni curve opens up opportunity for investors to extend muni bond maturities.

Source - RBC Wealth Management, Bloomberg on short to intermediate maturities where we feel there is better compensation for interest rate risk.

- Canadian credit spreads have remained relatively tight this year compared to other markets, including the U.S., creating a good opportunity to upgrade credit quality in our view. We believe the growing number of BBB-rated securities in the Canadian corporate index over the past five years represents a potential vulnerability for the next downgrade cycle. Investors can find highly rated 3–6 year bonds that offer 2.5%–3% yields trading below par.
- Preferred share performance has been flat over the month as a lack of supply and no material changes in credit spreads have helped support the market against lower GoC yields. We remain constructive on preferred shares but continue to recommend investors take an actively managed approach.

Continental Europe & U.K.

Europe

- The ECB surprised the market at its last meeting with an unexpectedly dovish forward guidance around the future path of interest rates. ECB President Mario Draghi gave a cautious view of the economic outlook and now expects rates to remain unchanged “at least through” summer 2019. Markets, which had been pricing in the first rate hike in June 2019 before the ECB meeting, have now pushed back their expectation for a rate increase towards September 2019.
- Despite the cautious economic outlook, the ECB did announce plans to taper its asset purchase programme, with monthly purchases to be reduced to €15B per month from October 2018 before being terminated at the end of the year. Given that markets had anticipated this announcement at either the June or July meeting, the more dovish rhetoric came as a surprise as it points to a longer period of accommodative monetary policy and negative interest rates for the euro area. This is supportive for credit and we see potential for a pullback in spreads from the recent widening so long as political risks, particularly in Italy, remain subdued.

U.K.

- Since the Bank of England remained on hold in June, expectations around the next increase in interest rates now focus on Q3, with the probability of an August hike currently at 60%. The overhang of Brexit negotiations is likely to continue to weigh on the U.K. economy with unfavourable risk/reward implications for U.K. rates. We continue to suggest a selective approach to credit and prefer to look at more geographically diverse companies that are less exposed to the near-term headwinds currently buffeting the U.K.

Early vs. late economic cycles

Commodity forecasts

	2018E	2019E
Oil (WTI $/bbl)	67.77	75.91
Natural Gas ($/mmBtu)	3.00	2.85
Gold ($/oz)	1,307	1,300
Copper ($/lb)	3.24	3.25
Corn ($/bu)	3.91	4.06
Wheat ($/bu)	4.90	5.00

Source - RBC Capital Markets forecasts (oil, natural gas, gold, and copper), Bloomberg consensus forecasts (corn and wheat)

Entering the second half of the year, we believe the question on everyone's mind is how much gas is left in the tank of the global economy? Central banks' tightening monetary policies and the ECB's plan to unwind its bond purchasing program lead us to believe that we're in the late stages of the current economic cycle. We believe it's useful to consider the performance of commodities early and late in economic cycles.

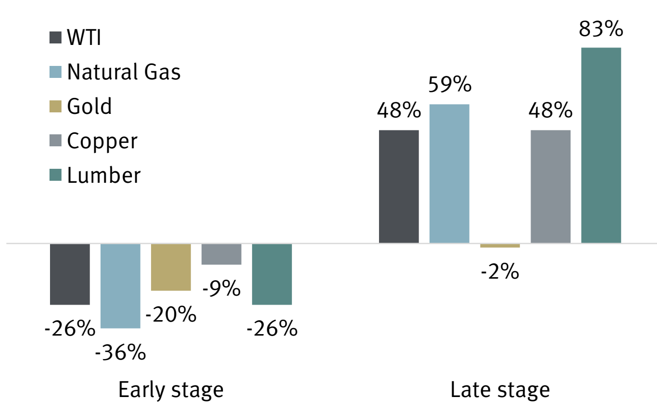
During the initial recovery phase, commodity producers are usually facing a weak pricing environment brought on by a combination of: 1) excess capacity, as expansion undertaken at the previous peak comes online; and 2) high levels of inventory built up as demand weakened in the economic downturn. Facing uneconomic prices, producers eventually right-size production and mothball new projects.

Late in the cycle, the situation is reversed. Producers with no new capacity coming online and lean inventories encounter stronger demand from a growing economy. Commodity prices rebound until the arrival of new capacity and the prospect of an economic downturn usher in a new period of price weakness. The exhibit below shows how commodity prices fell and rebounded as the current economic cycle progressed.

Four out of five commodities in RBC Capital Markets' coverage have shown positive performance during this late-cycle phase (Q2 2016–Q2 2018), in contrast to the early-cycle phase (Q2 2013–Q2 2015) when prices were down 23% on average. So far, prices have rebounded by an average of 47%. It is also important to note that investments in underlying operators may not perfectly track changes in spot prices of commodities, as execution risk, leverage, and potential hedges are other factors to take into account.

Overall, we believe the late-cycle phase has further to run with the next global economic downturn not expected before late 2019 or early 2020, but investors should be cautious in their exposure to commodities. We recommend focusing on companies with higher degrees of earnings and cash flow visibility, a history of sound capital allocation, and cleaner balance sheets. Another option is specialized commodity funds.

Early vs. late stage commodity performance



Commodities tend to outperform in late economic cycles.

Source - RBC Capital Markets, Bloomberg; data as of 6/14/18

Richard Tan
Toronto, Canada
richard.tan@rbc.com

Currencies

Currency forecasts

Currency pair	Current rate	Forecast Jun 2019	Change*
Major currencies			
USD Index	94.47	91.89	-3%
CAD/USD	0.76	0.79	4%
USD/CAD	1.31	1.26	-4%
EUR/USD	1.16	1.22	5%
GBP/USD	1.32	1.31	-1%
USD/CHF	0.99	1.02	3%
USD/JPY	110.76	115.00	4%
AUD/USD	0.74	0.73	-1%
NZD/USD	0.67	0.69	3%
EUR/JPY	129.36	140.00	8%
EUR/GBP	0.88	0.93	6%
EUR/CHF	1.15	1.24	7%
Emerging currencies			
USD/CNY	6.62	7.20	9%
USD/INR	68.47	69.00	1%
USD/SGD	1.36	1.37	1%

* Defined as the implied appreciation or depreciation of the first currency in the pair quote.
Examples of how to interpret data found in the Market Scorecard.
Source - RBC Capital Markets, Bloomberg

U.S. dollar: Fed revives the rally – Signals for a more aggressive near-term rate path by the Federal Reserve revived the dollar upswing. The growth thrust from tax cuts alongside building price pressures and a labour market growing increasingly tight suggest further hikes in 2018, which should support an upward dollar trend through year end, in our view. Escalation of trade tensions with China and an attendant flight to safety could further reinforce the trend.

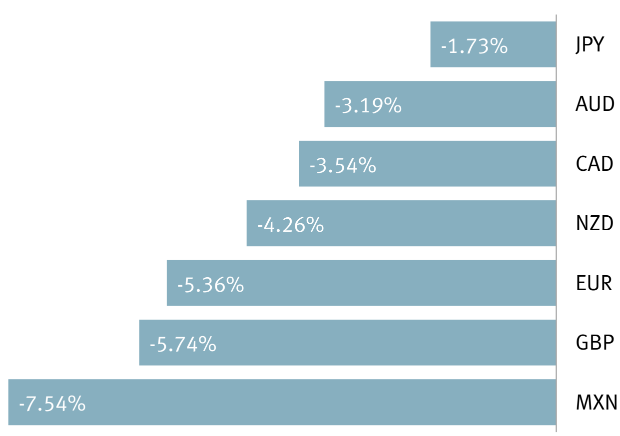
Euro: Caution warranted – A wave of political turmoil and a surprisingly cautious European Central Bank (ECB) accelerated a selloff in the euro in June. Lingering political risks are likely to keep pressure on the currency in 2018. Barring a renewed flare-up of euro exit talks around Italy, the winding down of the ECB bond purchasing program by year end should position for a rate increase by Q3 2019, in our opinion, eventually supporting the euro trending higher against the U.S. dollar by year-end 2019.

British pound: Brexit bruises – The U.K. economy ground to a halt to start 2018, ostensibly positioning against a forthcoming rate hike by the Bank of England. Sterling came under greater pressure as a result, falling to a seven-month low against the U.S. dollar in June. With the BoE attributing the slump to harsh weather, renewed market optimism for a rate hike may support sterling; however, this is likely to be tempered by continued uncertainty around the Brexit outcome.

Canadian dollar: Trade woes – Trade fears, volatile commodity prices, and scope for more aggressive U.S. policy tightening contributed to the Canadian dollar tumbling to a 12-month low against the U.S. dollar in June. In the absence of material trade dislocations between the U.S. and Canada, an economy running beyond capacity and inflation trending above 2% bode well for rate hikes later this year, which in turn, should keep the currency range-bound against a backdrop of rising rates in the U.S.

Japanese yen: A bumpy ride – Rising hedging costs on the back of higher U.S. rates could see Japanese investors take on foreign currency exposure, with a subsequent easing in demand for the yen. This, alongside continued U.S. dollar strength, underpins our neutral view on the currency pair, barring an escalation of global trade tensions which could see investors flee to the safety of the yen.

% change against the U.S. dollar over past 60 days



U.S. dollar strength since mid-April has been broad based.

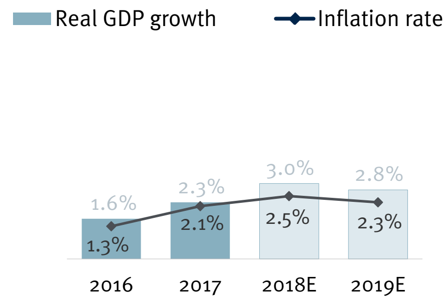
Source -Bloomberg, RBC Wealth Management; data through 6/21/18

Laura Cooper
London, United Kingdom
laura.cooper@rbc.com

Key forecasts

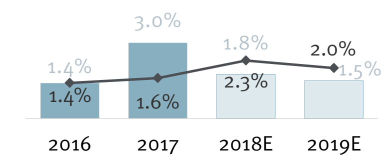
United States — Spending led growth

- Retail sales up 0.9% m/m, raising Q2 GDP estimates over 4%. Robust hiring continues despite shortage of qualified labor. Unemployment rate lowest since 2000 with 6.5 million open jobs. Housing mixed with higher rates and low supply weighing on selling activity, but wage growth helping affordability. Headline CPI up on gasoline prices, core rose to 2.2% on increasing home rents. Consumer, business sentiment sliding amid trade disputes, although both near cycle highs.



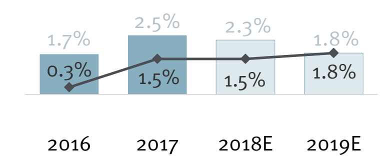
Canada — Trade uncertainty a headwind

- Trade uncertainty weighing on economic activity. GDP flat m/m after a stronger prior month due to mining, oil, and gas activity. Other data points to a moderation in growth, but wage growth remains a positive at 3.9% y/y. Of note, Core CPI decreased to 1.9% in May, while April retail sales retreated 1.2% m/m. The latter is somewhat unsurprising as consumer credit growth is decelerating while the BoC raises interest rates.



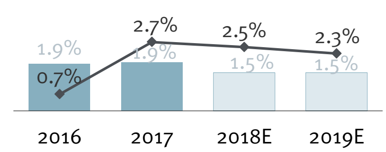
Eurozone — Italian uncertainty

- Area PMIs retreating from robust levels that began the year. Q1 GDP in at 2.5% q/q. Retail sales accelerated to 1.7% y/y pace from 0.8%. Italian debt market turmoil has subsided, although risk premium elevated with a new budget and possible downgrade. ECB policy exceptionally accommodative although signaling gradual shift away from stimulus; however, Italian uncertainty complicates the move.



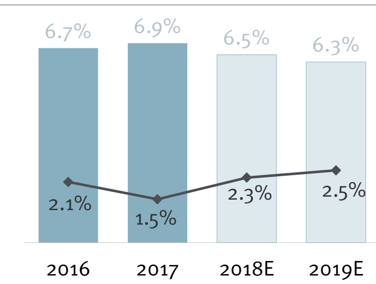
United Kingdom — Rebound ahead?

- Industrial production dipped 0.8%, continuing a soft start to the year. Inflation steady at 2.4% y/y, but real wages slipped to 2.8% y/y from 2.9%. Bank of England held rates at 0.5%, markets see a 68% chance of August hike as policymakers expect a Q2 rebound in growth, and look to stay ahead of a tight labor market with unemployment at 4.2%.



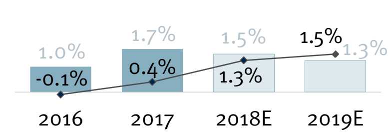
China — Uncertain times

- Trade disputes muddy the growth outlook, following decelerations in industrial output, fixed-asset investment, and retail sales in May. Uncertainty prompted the People's Bank of China to unexpectedly keep its repo rate unchanged rather than an expected hike. It cut the required reserve ratio in order to free capital for banks to boost credit availability amid slowing growth.



Japan — Tough inflation target

- Q1 GDP revised lower on weaker inventory build, though business investment was revised to a 0.3% q/q increase from a 0.1% q/q drop. Bank of Japan held rates at -0.1%, with core inflation well below target at 0.7% y/y as yen appreciation has pressured import prices, but policymakers expect a Q2 rebound and are eyeing some form of monetary normalization.



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

Market scorecard

Index (local currency)	Level	1 month	YTD	12 month
S&P 500	2,718.37	0.5%	1.7%	12.2%
Dow Industrials (DJIA)	24,271.41	-0.6%	-1.8%	13.7%
NASDAQ	7,510.30	0.9%	8.8%	22.3%
Russell 2000	1,643.07	0.6%	7.0%	16.1%
S&P/TSX Comp	16,277.73	1.3%	0.4%	7.2%
FTSE All-Share	4,202.25	-0.5%	-0.5%	5.0%
STOXX Europe 600	379.93	-0.8%	-2.4%	0.1%
EURO STOXX 50	3,395.60	-0.3%	-3.1%	-1.3%
Hang Seng	28,955.11	-5.0%	-3.2%	12.4%
Shanghai Comp	2,847.42	-8.0%	-13.9%	-10.8%
Nikkei 225	22,304.51	0.5%	-2.0%	11.3%
India Sensex	35,423.48	0.3%	4.0%	14.6%
Singapore Straits Times	3,268.70	-4.7%	-3.9%	1.3%
Brazil Ibovespa	72,762.51	-5.2%	-4.8%	15.7%
Mexican Bolsa IPC	47,663.20	6.7%	-3.4%	-4.4%
Bond yields	**6/29/18**	**5/31/18**	**6/30/17**	**12 mo. Chg**
US 2-Yr Tsy	2.528%	2.427%	1.382%	1.15%
US 10-Yr Tsy	2.860%	2.859%	2.304%	0.56%
Canada 2-Yr	1.914%	1.918%	1.103%	0.81%
Canada 10-Yr	2.168%	2.244%	1.762%	0.41%
UK 2-Yr	0.724%	0.610%	0.358%	0.37%
UK 10-Yr	1.278%	1.230%	1.257%	0.02%
Germany 2-Yr	-0.665%	-0.656%	-0.572%	-0.09%
Germany 10-Yr	0.302%	0.341%	0.466%	-0.16%
Commodities (USD)	**Price**	**1 month**	**YTD**	**12 month**
Gold (spot $/oz)	1,253.16	-3.5%	-3.8%	0.9%
Silver (spot $/oz)	16.12	-1.9%	-4.9%	-3.1%
Copper ($/metric ton)	6,625.00	-3.2%	-8.1%	11.8%
Uranium ($/lb)	22.70	0.7%	-5.0%	10.7%
Oil (WTI spot/bbl)	74.15	10.6%	22.7%	61.1%
Oil (Brent spot/bbl)	79.44	2.4%	18.8%	65.8%
Natural Gas ($/mmBtu)	2.92	-0.9%	-1.0%	-3.7%
Agriculture Index	285.73	-8.4%	1.3%	-4.0%
Currencies	**Rate**	**1 month**	**YTD**	**12 month**
US Dollar Index	94.4700	0.5%	2.5%	-1.2%
CAD/USD	0.7614	-1.3%	-4.3%	-1.3%
USD/CAD	1.3133	1.4%	4.5%	1.3%
EUR/USD	1.1684	-0.1%	-2.7%	2.3%
GBP/USD	1.3207	-0.7%	-2.3%	1.4%
AUD/USD	0.7405	-2.2%	-5.2%	-3.7%
USD/JPY	110.7600	1.8%	-1.7%	-1.5%
EUR/JPY	129.3600	1.7%	-4.4%	0.7%
EUR/GBP	0.8847	0.6%	-0.4%	0.9%
EUR/CHF	1.1570	0.4%	-1.1%	5.7%
USD/SGD	1.3624	1.9%	2.0%	-1.0%
USD/CNY	6.6210	3.3%	1.8%	-2.4%
USD/MXN	19.9078	0.0%	1.3%	9.9%
USD/BRL	3.8765	4.1%	17.2%	17.2%

Chinese stocks fell into bear market territory on worries of slowing growth.

Canadian bonds rallied on softer inflation data and safe-haven demand amidst trade uncertainty.

Crude surged to multiyear highs as the U.S. pushed allies to halt imports of Iranian oil.

The dollar added to its 2018 rally with the Fed projecting two more rate hikes.

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 0.76 means 1 Canadian dollar will buy 0.76 U.S. dollar. CAD/USD -1.3% return means the Canadian dollar has fallen 1.3% vs. the U.S. dollar during the past 12 months. USD/JPY 110.76 means 1 U.S. dollar will buy 110.76 yen. USD/JPY -1.5% return means the U.S. dollar has fallen 1.5% vs. the yen during the past 12 months.

Source - RBC Wealth Management, RBC Capital Markets, Bloomberg; data through 6/30/18.

Research resources

This document is produced by the Global Portfolio Advisory Committee within RBC Wealth Management's Portfolio Advisory Group. The RBC Wealth Management 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.

Global Portfolio Advisory Committee members:

Jim Allworth – Co-chair; Investment Strategist, RBC Dominion Securities Inc.

Kelly Bogdanova – Co-chair; Portfolio Analyst, RBC Wealth Management Portfolio Advisory Group – U.S. Equities, RBC Capital Markets, LLC

Frédérique Carrier – Co-chair; Managing Director, Head of Investment Strategies, Royal Bank of Canada Investment Management (U.K.) Limited

Mark Bayko, CFA – Head, Portfolio Management, RBC Dominion Securities Inc.

Craig Bishop – Lead Strategist, U.S. Fixed Income Strategies Group, RBC Wealth Management Portfolio Advisory Group, RBC Capital Markets, LLC

Laura Cooper – Head of FX Solutions and Strategy, Royal Bank of Canada Investment Management (U.K.) Limited

Janet Engels – Head of Portfolio Advisory Group U.S., RBC Wealth Management, RBC Capital Markets, LLC

Tom Garretson, CFA – Fixed Income Portfolio Strategist, RBC Wealth Management Portfolio Advisory Group, RBC Capital Markets, LLC

Christopher Girdler, CFA – Fixed Income Portfolio Advisor, RBC Wealth Management Portfolio Advisory Group, RBC Dominion Securities Inc.

Patrick McAllister, CFA – Canadian Equities Portfolio Advisor, RBC Wealth Management Portfolio Advisory Group – Equities, RBC Dominion Securities Inc.

Jay Roberts, CFA – Head of Investment Solutions & Products, RBC Wealth Management Hong Kong, RBC Dominion Securities Inc.

Alan Robinson – Portfolio Analyst, RBC Wealth Management Portfolio Advisory Group – U.S. Equities, RBC Capital Markets, LLC

Alastair Whitfield – Head of Fixed Income - British Isles, Royal Bank of Canada Investment Management (U.K.) Limited

The RBC Investment Strategy Committee (RISC) consists of senior investment professionals drawn from individual, client-focused business units within RBC, including the Portfolio Advisory Group. The RISC builds a broad global investment outlook and develops specific guidelines that can be used to manage portfolios. The RISC is chaired by Daniel Chornous, CFA, Chief Investment Officer of RBC Global Asset Management Inc.

Additional Global Insight authors:

Kent McClanahan, CFA – Senior Analyst, Global Manager Research, RBC Capital Markets, LLC

Richard Tan – Canadian Equities Associate Portfolio Advisor, RBC Wealth Management Portfolio Advisory Group – Equities, RBC Dominion Securities Inc.

Required disclosures

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: Jim Allworth, Mark Bayko, Christopher Girdler, Patrick McAllister, Jay Roberts, and Richard Tan, employees of RBC Wealth Management USA's foreign affiliate RBC Dominion Securities Inc.; and Frédérique Carrier, Laura Cooper, and Alastair Whitfield, employees of RBC Wealth Management USA's foreign affiliate Royal Bank of Canada Investment Management (U.K.) Limited; 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.

References to a Recommended List in the recommendation history chart may include one or more recommended lists or model portfolios maintained by RBC Wealth Management or one of its affiliates. RBC Wealth Management recommended lists include the Guided Portfolio: Prime Income (RL 6), the Guided Portfolio: Dividend Growth (RL 8), the Guided Portfolio: ADR (RL 10), the Guided Portfolio: All Cap Growth (RL 12), and former lists called the Guided Portfolio: Large Cap (RL 7), the Guided Portfolio: Midcap 111 (RL 9), and the Guided Portfolio: Global Equity (U.S.) (RL 11). RBC Capital Markets recommended lists include the Strategy Focus List and the Fundamental Equity Weightings (FEW) portfolios. The abbreviation 'RL On' means the date a security was placed on a Recommended List. The abbreviation 'RL Off' means the date a security was removed from a Recommended List.

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, LLC ratings of Top Pick/Outperform, Sector Perform, and Underperform 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 June 30, 2018

			Investment Banking Services Provided During Past 12 Months	
Rating	Count	Percent	Count	Percent
Buy [Top Pick & Outperform]	854	53.61	262	30.68
Hold [Sector Perform]	665	41.75	142	21.35
Sell [Underperform]	74	4.65	6	8.11

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.

Ratings: Top Pick (TP): Represents analyst's best idea in the sector; expected to provide significant absolute total return over 12 months with a favorable risk-reward ratio. **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 received 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 the member companies 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 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 Web site 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 II of the Firm's Form ADV or the Investment Advisor Group 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 II of the ADV, or 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; and by Royal Bank of Canada Investment Management (U.K.) Limited, an investment management company with principal offices located in London, United Kingdom.

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 or consequential loss arising from 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 consent of Royal Bank of Canada. 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. 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 Royal Bank of Canada Investment Management (U.K.) Limited and RBC Investment Solutions (CI) Limited. Royal Bank of Canada Investment Management (U.K.) Limited is authorised and regulated by the Financial Conduct Authority (Reference number: 146504). Registered office: Riverbank House, 2 Swan Lane , London, EC4R 3BF, 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. Financial Services provided to Australia: Financial services may be provided in Australia in accordance with applicable law. Financial services provided by the Royal Bank of Canada, Hong Kong Branch are provided pursuant to the Royal Bank of Canada's Australian Financial Services Licence ('AFSL') (No. 246521).

To Singapore Residents: This publication is distributed in Singapore by the Royal Bank of Canada, Singapore Branch, a registered entity granted offshore bank licence 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.

RBC1524