

Global Insight

Perspectives from the Global Portfolio Advisory Committee

Housing health check

We take the pulse of the Canadian housing market and explain why it appears to be in a stable condition.


Robert Hogue | Page 4



Video
June edition highlights



Focus article
Water management:
The bridge to growth



Global equity
Credit where credit is due



Global fixed income
Crude developments

For important and required non-U.S. analyst disclosures, see page 20.



**Wealth
Management**

Table of contents

4 Housing health check

When looking at Canada's housing market, it's important to look beyond Toronto and Vancouver. We inspect the foundation of the overall market and believe its condition remains sturdy.

7 Water management: The bridge to growth

Water is much more than a single investment theme. Development has been carried along by water, and investors should consider how water management's undercurrents affect sustainable economic growth.

10 Global equity: Credit where credit is due

Volatility in credit markets has been pushing price-to-earnings ratios up and down, with share values mirroring these moves. Investors should expect more uneven equity returns ahead as long as credit market volatility remains high.

13 Global fixed income: Crude developments

The crude oil rally has been greeted with a sigh of relief from markets and it holds significant repercussions for major central banks as they assess their policy moves. But other lingering uncertainties will likely keep central bankers on a cautious path in the near term.

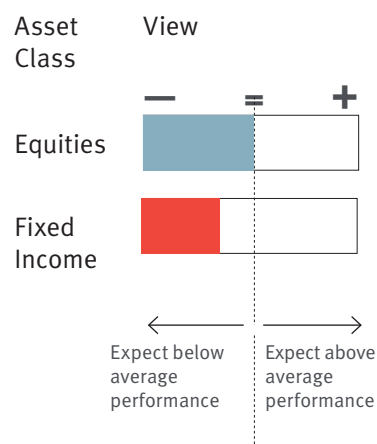
Inside the markets

- 3 RBC's investment stance
- 10 Global equity
- 13 Global fixed income
- 15 Commodities
- 16 Currencies
- 17 Key forecasts
- 18 Market scorecard

All values in U.S. dollars and priced as of market close, May 31, 2016, unless otherwise stated.

RBC's investment stance

Global asset views



See “Views explanation” below
for details

Source - RBC Wealth Management

Equities

- Most equity markets rose in May as crude oil bounced further, North American economic momentum improved, and the European recovery deepened. We recommend maintaining a full commitment to equities at the long-term targeted allocation level, as we anticipate worthwhile returns on a 12-month basis, albeit amid volatility.
- The worst has passed for corporate earnings, in our view. Losses for the Energy sector—a significant drag on earnings for more than one year—should diminish in the next two quarters and the sector could begin to grow profits again in Q4. This should lift overall earnings notably for energy-intensive markets, such as Canada, and even boost earnings moderately for markets with a low share of energy exposure, such as the U.S. and Europe.

Fixed Income

- Federal Reserve officials made a concerted effort to change the market's perception about the timing of forthcoming rate hikes—and they succeeded. They signaled the next rate hike could occur this summer rather than later in the year as the market had been expecting. In our view, lingering global uncertainties could cause the Fed to forgo raising rates at the June meeting, pushing the decision to July at the earliest.
- Investment-grade and high-yield credit spreads have tightened following the rebound in crude oil. We recommend being more selective about adding credit market exposure, although the European Central Bank's corporate bond-buying program should support the European credit market over the near term.

Views explanation

(+ / = / -) represents the Global Portfolio Advisory Committee's (GPAC) view over a 12-month investment time horizon.

+ Positive implies the potential for better-than-average performance for the asset class or for the region relative to other asset classes or regions.

= In-line implies the potential for average performance for the asset class or for the region relative to other asset classes or regions.

— Negative implies the potential for below-average performance for the asset class or for the region relative to other asset classes or regions.

Housing health check



Robert Hogue
Toronto, Canada
robert.hogue@rbc.com

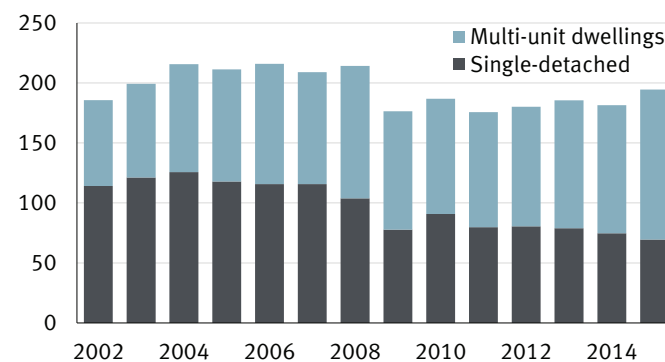
While certain aspects of Canada's housing market bear watching, calls from some corners for a hard landing seem overdone. The country's housing market is diverse and defined by more than just Toronto and Vancouver. RBC Economics' senior economist surveys the landscape and explains why he sees little basis for concerns of a broad-based collapse.

Q. Some commentators seem to think there is a Canadian “housing bubble” that is ripe for collapse. Where does RBC Economics stand in the “hard versus soft landing” debate?

A. Talking about a “Canadian” housing market is an oversimplification that masks varied and unique circumstances across regional markets. Worries of a bubble are typically directed at Vancouver and Toronto—Canada's hottest markets. For the most part, other markets continue to be in balance and raise little concern. In Vancouver and Toronto, land restrictions—either set by geography or policy—have skewed the supply of new housing over the past many years towards higher-density forms, such as condos, while demand for single-detached homes remains strong in both markets. So we are witnessing the law of demand and supply in action: not enough single-detached homes for sale to satisfy demand leads to escalating prices while plentiful supply of condos leads to more moderate price increases.

Housing completions in Canada

Thousand units



Housing completions have skewed towards higher-density forms in recent years, which has resulted in a lack of supply of single-detached homes in certain urban markets.

Source - CMHC, RBC Economics Research

Does this mean that there isn't any localized bubble in Canada? With single-family home prices running 27% above year-ago levels in Vancouver, it would be imprudent to dismiss the possibility that some buyers in some neighbourhoods are getting carried away. But our point is that from a broad perspective, unless interest rates spike or unemployment surges in Canada, we don't see the basis for a Canada-wide hard landing in the near term.

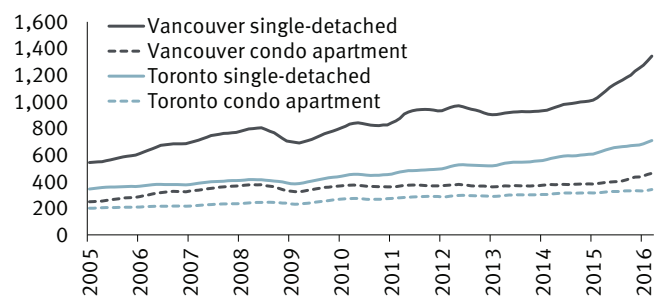
Q. As you point out, escalating prices in the country's most expensive markets—Vancouver and Toronto—have garnered much of the headlines. If I live outside of those markets, would a correction in the Vancouver and/or Toronto market impact me?

A. In our opinion, a 15%–20% correction in housing prices in Vancouver and/or Toronto would pose little risk for other markets across Canada. In fact, policymakers could well view this as a desirable outcome. If we are dealing with some form of collapse (say, 30%–50% decline) then the main risks for markets across Canada lie with the institutional and regulatory responses. Such a scenario could trigger measures that ultimately restrain mortgage credit from coast to coast, and therefore, negatively impact markets that would be sound otherwise.

Q. Some people worry that home ownership has become unrealistic for today's younger generation in light of deteriorating affordability in certain urban markets. Is this a valid concern?

A. The concern in question really is about housing affordability (or rather the lack thereof) in Canada's two highest-priced markets—Vancouver and Toronto. No doubt that the very high bar to become an owner of a single-detached home in Vancouver and Toronto can be a deterrent for some people to move to or stay in either market.

Home prices
CA\$000s



The Vancouver and Toronto markets have experienced robust price appreciation as demand has outstripped supply for single-detached dwellings.

Source - Canadian Real Estate Association, RBC Economics Research; data through 3/31/16

However, we would argue that the risk to a region's economy has more to do with a broader definition of housing affordability that encompasses ownership of other forms of housing as well as rental options. The fact is that, while not exactly cheap, other housing alternatives in both Vancouver and Toronto remain affordable for most. Facing much higher hurdles to own a single-detached home doesn't necessarily mean that the younger generation will skip town. It might just require a change in expectations on their part.

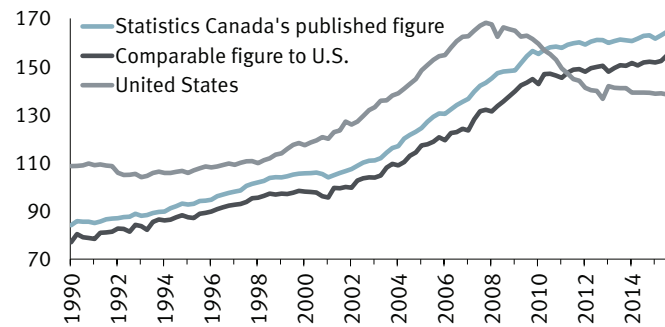
Q. Many comparisons have been made concerning rising household debt levels and home prices here in Canada relative to those in the U.S. in the period leading up to the financial crisis. Can you speak to any relevance you see in that comparison?

A. It is true that the debt-to-income ratio is at a record high in Canada, although when comparing on an apples-to-apples basis it is not quite as high as the U.S.

ratio was at its peak in 2007 just prior to the financial crisis. Moreover, the debt-to-income ratio is not a very useful measure of the health of the household sector because it ignores the effect of interest rates.

Household debt-to-income ratio

Credit market debt as a % of personal disposable income



While debt-to-income is at a record high in Canada, it remains below the comparable U.S. ratio at its peak in 2007.

Source - Statistics Canada, RBC Economics Research

A better measure to look at is the debt-service ratio, which compares the cost of carrying debt (principal and interests) in any given year to income in the same year. This ratio has been quite stable in Canada since 2010 thanks to low and declining interest rates. Despite its shortcomings, the debt-to-income ratio is a gauge of vulnerability for the household sector and therefore cannot be totally ignored. It points to significant risks should adverse conditions similar to those in the U.S. in 2008–09 develop.

Q. Interest rates are a key factor in determining housing affordability. Can you speak to the market's ability to adjust to higher interest rates in the near term?

A. Overnight interest rates in Canada are currently at historical lows and prospects are for only a modest rise in rates starting next year. As rates move higher, we will likely see affordability becoming more challenged. Given the current slow growth, low inflation environment around the globe as well as in Canada, a significant spike in interest rates looks unlikely. A gradual rise in rates would be manageable for housing given the low starting point, the predominance of fixed-rate mortgages, prudence in qualifying mortgage holders, and an expected firm labour market.

Q: The subject of foreign investment in the Canadian housing market has received considerable attention. How do you think about the impact of international investment on housing prices and its potential to act as a destabilizing force?

A. Indeed, this is a topic receiving a lot of attention but for which we have few hard facts. To be sure, there is plenty of anecdotal evidence of buyers coming from abroad in pockets of the Vancouver and, to a lesser extent, Toronto markets. Until we are able to quantify this phenomenon, it is difficult to gauge the extent to which these buyers contribute to price increases. We must keep in mind that both Vancouver and Toronto are economically vibrant migration magnets, and that is a good thing. The rise in home prices resulting from "foreign" capital in-flows cuts both ways: while it may raise the ownership bar for local buyers it also boosts the housing asset value for many current owners.



Rajan Bansi
Toronto, Canada
rajan.bansi@rbc.com

Water management: The bridge to growth

Water. From the secure perch of our 21st century lifestyles it's easy to lose sight of how precious this resource is. As we consider how water touches our lives in immeasurable ways, we also see its impact on investment themes as water management has flowed through development and economic growth throughout history.

Effective water management is of heightened importance given population growth is putting strains on a natural resource whose supply is not increasing. While the world population passed seven billion in 2011, up nearly 40% from the level recorded in 1990, there is as much water on the planet today as there was millions of years ago.

This topic is especially timely given June 2 is RBC Blue Water Day. While investors sometimes struggle to think of water in terms of an investable theme, we believe that assessing the effectiveness of water management will help determine which developing economies will be able to make the leap to developed economy status.

Water's role in America's growth

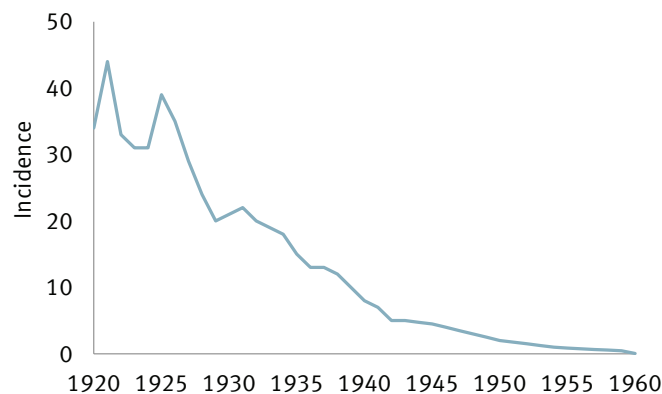
The experience of the United States from the late 19th century through the 1920s illustrates how effective water management allows for an economy to reach its full economic potential.

Many American cities in the 19th century resembled the overcrowded and polluted cities associated with the modern-day developing world. In the late 19th century just 2% of New York City residents had water connections into their homes. The lack of water access contributed to density in cities. The density of New York City at that time was a staggering 143 people per square acre, similar to present day Dhaka, Bangladesh, which is the most congested city in the world. Cities in 19th century America were dangerous places where there was inadequate access to clean fresh water and few reliable ways to dispose of wastewater, the latter making cities a hotbed for the spread of waterborne diseases such as cholera and typhoid.

While America's economic rise in the early 20th century is well documented, the importance of effective water management is underappreciated. Large investments in effective technologies around the turn of the 20th century resulted in a significant drop in the incidence of waterborne diseases in America over the ensuing 30 years. The early 20th century saw the mass proliferation of indoor plumbing, modern sewer systems, and the chlorination of water. The chart at the top of the following page shows the fall in the incidence of cholera and typhoid over this time, which can be directly linked to better water management. Improvements in life expectancy, which are indicative of a healthy and thus productive population, were greater in the first half of the 20th century than in the next 50 years.

Incidence* of Typhoid Fever in the United States

1920–1960



The fall in the incidence of cholera and typhoid can be linked to better water management.

Source - Centers for Disease Control and Prevention; * per 100,000 population

We believe the experience of America is just one example of how an economy only reaches its full potential if effective water management is placed at the core of the economic planning/development process.

Singapore: the ultimate water management success story

Singapore, with its lack of natural resources and local catchments, is an unlikely standard bearer for effective water management. Yet, it is just that. Singapore's per-capita GDP has skyrocketed from approximately \$500 in the 1960s to \$55,000 in 2013 concurrent with a shift in economic policy that has placed effective water management at the center of all planning decisions.

Necessity has been the mother of invention. In the 1960s, the city-state was almost entirely dependent on Malaysia for its water given there is little land to collect or store rainwater in the city itself. The country currently has a diversified approach to water supply through which local catchment water, desalinated water, and reclaimed water represent 50% of total water supply. On the demand side, conservation efforts reduced per-capita water consumption by 9% between 2003 and 2016, with a further reduction of the same magnitude planned by 2030. The result of these water management efforts is that Singapore will be completely water self-sufficient by 2061.

It is impossible to imagine Singapore achieving its current level of economic prosperity without an effective water management strategy. Water management has provided tremendous health and environmental benefits, which in turn have made Singapore attractive for investment and a hub for commercial activity.

India and the challenge of water management

India, long recognized as a developing economy with enormous potential, is currently mired in a deep drought that has exacerbated a pre-existing water crisis. Some of the issues facing India from a water management perspective are reminiscent of those facing America and Singapore in previous eras, with the stakes just as high.

Over 600 million people in India do not have access to a toilet. The human and, thus, economic costs of this are real, evidenced by the fact diarrhea is still the third leading cause of infant mortality in the country. UNICEF has estimated that 88% of childhood deaths due to diarrhea were the result of inadequate sanitation,

Singapore, with its lack of natural resources and local catchments, is an unlikely standard bearer for effective water management. Yet, is it just that.

Bangladesh has experienced a period of impressive economic growth as it prioritized water management.

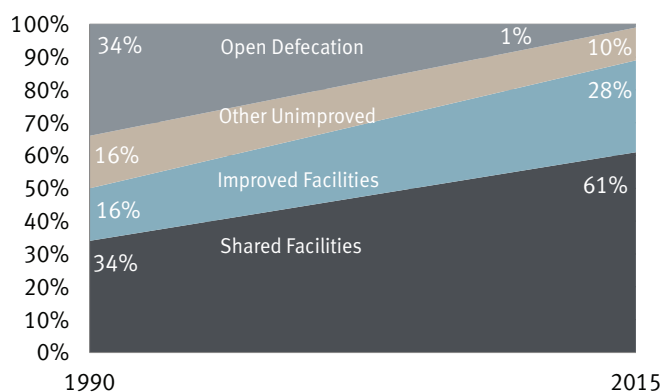
unsafe water supply, and poor personal hygiene. Malnutrition in India is as much a function of poor sanitation as it is access to food.

Bangladesh: beacon of hope for the developing world

Developing countries such as India need look no further than Bangladesh as a source of inspiration.

Bangladesh has managed to reduce the percentage of its population practicing open defecation from 42% in 2003 to just 1% today, making the country one of the great water management success stories of the 21st century. The chart illustrates how Bangladesh has experienced a period of impressive economic growth, as did America and Singapore, as it prioritized water management. By comparison, its neighbor India continues to record open defecation rates north of 30% with little improvement recorded in recent years. Progress was the result of a coordinated effort between governments, international agencies, and NGOs. One such effort that was very successful was in 2003 that focused on education and behavioral change to combat open defecation in part because of the damaging effects on groundwater.

JMP estimated trends of sanitation coverage



Bangladesh has reduced open defecation from 42% of the population in 2003 to just 1% today.

Source - WHO/UNICEF Joint Monitoring Programme (JMP), 2015

The Bangladesh and Singapore experiences should serve as a reminder to policymakers in the developing world that there is a strong interconnection between sustainable growth prospects, a healthy population, and effective water management.

Credit where credit is due

In the long run, share prices appreciate in line with earnings growth. But over a shorter period of time, changes in the price-to-earnings (P/E) ratio can make share values move up and down at a different pace than the change in earnings, and sometimes the ratio and earnings can move in the opposite direction.

Jonathan Golub, RBC Capital Markets, LLC's chief U.S. equity strategist, observes that it's not, as many believe, changes in the expected rate of future earnings growth that pushes the market's P/E ratio up and down. Rather it is changes in the discount rate—that is to say changes in corporate borrowing rates—that drive any changes in the P/E ratio.

The past year was a case in point. The S&P 500 set its most recent all-time high back in May of 2015; the P/E ratio at the time was 18.5x. Moody's Baa bond yields (a good approximation of S&P 500 average credit costs) stood at 4.85%. In the ensuing months, the prospect of coming Fed rate hikes and the impact of collapsing oil prices on the credit condition of the important Energy sector drove Baa yields up by almost 14% to 5.59%. Over the same time span, the S&P 500 P/E ratio fell by 16% to 15.5x.

Since then, a number of factors—a more deliberate Fed, an expansion of quantitative easing from the European Central Bank, and a rally in oil—have combined to bring Baa yields sharply lower to 4.70%. Concurrent with this move the P/E ratio has increased all the way back up to 18x.

Directionally, most major markets followed the same path. However, commodity-heavy markets—Toronto, London, and Sydney—remained well

Equity views

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

Source - RBC Wealth Management

below last year's peaks. Europe too, saw a weak recovery in share prices so far this spring as "Brexit," fractious politics, the migrant crisis, and banking concerns took a toll.

Over the past two quarters, economic growth in most developed countries has been somewhat weaker than expected. This has suppressed corporate earnings growth, an effect exacerbated by the extreme decline in Energy sector results. All these should improve through the remainder of this year and into 2017. But the year-over-year run rate for earnings is forecast to be not much better than mid-single-digit growth.

That growth, together with dividends, will be the likely return delivered by most major markets over the coming 12 months. However, the path followed to that return could prove to be a tortuous one as the potential for volatility in credit markets remains high.

Regional highlights

United States

- The U.S. equity market remains locked in a two-year trading range and may continue to consolidate during the seasonally weak summer period. Long-term investors should

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

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

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

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

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

look for opportunities because we believe the market will resume its advance later this year.

- The Information Technology sector is currently attractive, in our view. It has lagged the broader S&P 500 year to date due to disappointing earnings and forward guidance from a handful of high-profile, mega-cap companies. Tech sector EPS fell 2.0% y/y in Q1. However, excluding the largest company from the data, EPS rose 3.2% y/y. Above-average, long-term growth in cloud computing, cybersecurity, semiconductor companies leveraged to the “internet of things,” as well as select internet companies, should reward investors over time, in our view.
- We also favor the bank group where the price-to-book ratio of 0.96x is inexpensive versus the 1.73x long-term average. The near rock-bottom valuations seem lower than what is justified even when we factor in the sweeping regulatory changes implemented since the financial crisis that are costly and have restricted the scope of a bank's activities. Capital positions of the 20 largest U.S. banks are healthy. We believe that higher levels of loan growth in coming quarters, combined with better net interest margins as the Fed slowly normalizes interest rates, should result in stronger revenue and profit growth for these companies.

Canada

- We are adopting a more constructive view towards Canadian equities and raising our recommended allocation to overweight as we believe conditions are in place for the market to sustain relative outperformance.
- The Bank of Canada has maintained its accommodative stance concurrent with spending initiatives from the federal government that will

likely add approximately 0.5% to economic growth in 2017–18. Canada stands alone as the only G7 country currently employing a combination of monetary and fiscal stimulus.

- We expect a gradual rise in bank credit losses but note that the ability of energy companies to access the equity market more recently should help reduce some risk as firms repair their balance sheets. While bank valuations are not particularly attractive relative to historical averages, a substantial level of short interest and tepid consensus earnings forecasts could set the stage for outperformance should results exceed expectations.
- Improved crude oil fundamentals have supported commodity prices and could lead to material inventory drawdowns in 2017. While the normalization phase will not play out in a linear fashion, we continue to advocate investors hold a base of high-quality producers that should see margins expand as oil price gains outpace cost inflation.

Continental Europe & U.K.

- We are neutral European equities as the economic recovery remains subdued and the European Central Bank's efforts to prop up inflation are inconclusive. Earnings expectations for 2016 have fallen recently, to just 3%, due to sluggish global growth and euro strength, which both hurt exporters. We continue to monitor the elevated political risk in the region given the ascent of anti-EU parties and the migrant crisis. We maintain our bias towards companies exposed to the domestic economy for now and focus on the Consumer Discretionary and Telecom sectors. Health Care is another preferred sector.
- The Telecom sector is benefitting from lower capex requirements and improving demand. This

is rejuvenating cash flows, and dividends are being increased.

- We are constructive on the Health Care sector as valuations have become more compelling relative to other parts of the market. Companies in the sector should receive a tailwind from a strong U.S. dollar, which should also be supportive of financials given a high percentage of dollar-denominated sales.
- We remain underweight U.K. equities. Recent polls have suggested the “Remain” campaign has been gaining ground ahead of this month’s EU membership referendum, but the outcome remains too close to call. We expect domestic-orientated stocks to continue to struggle ahead of the vote.

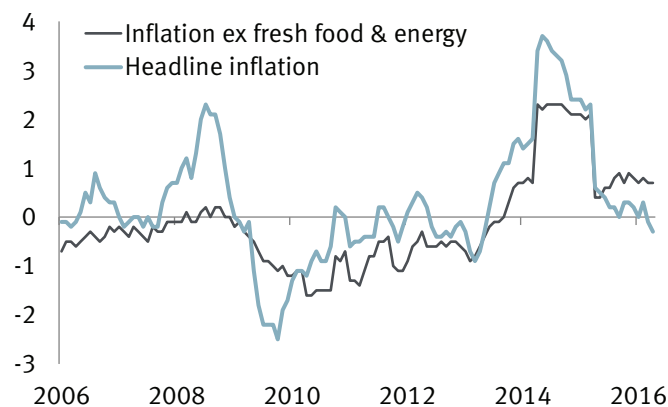
Asia

- Japanese equities have traded in a tight range over the past three months and appear rudderless despite compelling valuations. The TOPIX Index trades at 1.1x book value and 13.1x forecasted earnings, which leaves the Japanese equity market among the most attractively valued global markets. The price/earnings ratio of the TOPIX is less than 80%

of that of global stocks, an unusually low level. Possible catalysts for Japanese equities include a potential supplementary budget to boost fiscal spending and improved inflation data. Sustained levels of higher inflation are a central pillar to a constructive thesis for Japanese stocks. Currently, core inflation is positive but low, impacted especially by the decline in commodity prices. Risks include further appreciation in the yen and a return to deflation.

- Chinese economic data moderated in recent weeks but remains healthier than at the start of the year. Official leading economic indicators for manufacturing and services remain moderately positive. The ongoing improvement in the housing market, seen in prices and sales volume, has spread beyond the largest cities. This, in turn, has become a tailwind for real estate investment, which was weak throughout most of 2014 and 2015. The renminbi and the domestic equity market have been stable. Chinese stocks trading in Hong Kong, or H-shares, offer more-attractive valuations than those trading in the mainland.

Japan consumer price indexes (y/y %)

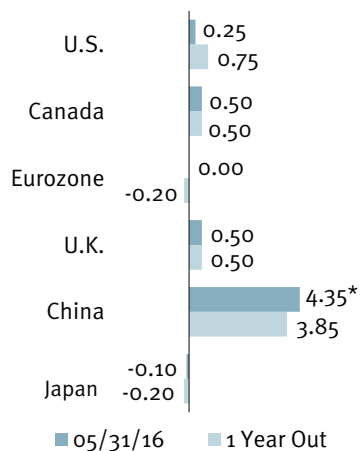


Japan's core inflation rate remains in positive territory.

Source - RBC Wealth Management, Bloomberg; data through 4/30/16

Crude developments

Central bank rate (%)



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

Expectations for an interest rate hike by the Federal Reserve this month rose markedly in May, a shift in expectations that is largely a function of rhetoric from some members of the FOMC. We believe a rate hike this month is not a foregone conclusion given lingering uncertainty about the strength of the global economy and potential reticence on the part of the FOMC to hike interest rates ahead of a referendum vote in the U.K. on June 23. We also do not expect a departure from policy by either the Bank of England or the European Central Bank over the coming months.

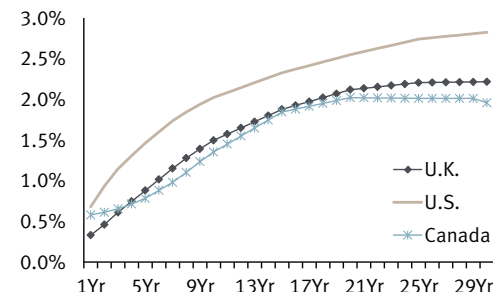
The rebound in crude oil prices from the February 2016 lows has had significant implications for central bankers and investors. The Bank of Canada will likely hold rates steady in the near term, but is now eyeing a pick-up in GDP in third quarter 2016. A series of equity offerings by companies in the Energy sector were welcome developments from the perspective of bondholders as balance sheet leverage declined. But, higher energy prices and increased risk appetite have also meant a significant compression in credit spreads across the investment grade and high-yield corporate market, which means investors must be much more selective than was the case earlier this year.

Regional highlights

United States

- The Fed will once again be the primary focus for investors this month with the decision to raise short-term rates expected to be a much closer-than-expected call than had been previously believed. Fed officials have done some heavy lifting in recent weeks to better prepare markets for a potential move but,

Sovereign yield curves



Source - Bloomberg

in our view, we believe they will ultimately choose to err on the side of caution amid lingering global concerns. The July meeting may prove to be a more-viable option.

- With higher short-term rates potentially on the horizon, we think that fixed-to-float preferred shares will begin to outperform their fixed-rate counterparts as investors are likely to pay up for interest rate protection.
- Can this muni rally continue? We think it can despite yield advantages over Treasuries reaching the lowest levels since early 2013. The market is not only benefitting from strong demand from traditional buyers, but from non-traditional ones as well, with foreign buyers now stepping in amid low global yields. In this environment, we still think investors should extend on the curve to capture available yield.

Canada

- The Bank of Canada (BoC) held the overnight rate at 0.50% on May 25. The accompanying statement struck a balanced tone—Q2 GDP expectations were revised lower due to the Alberta wildfires, but the BoC communicated the expectation

Rajan Bansi
Toronto, Canada
rajan.bansi@rbc.com

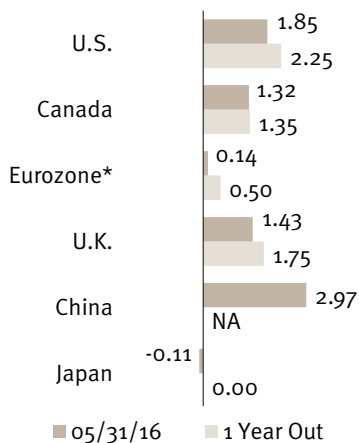
Tom Garretson
Minneapolis, United States
tom.garretson@rbc.com

Alana Awad
Toronto, Canada
alana.awad@rbc.com

Christopher Girdler
London, United Kingdom
christopher.girdler@rbc.com

Global fixed income

10-year rate (%)



*Eurozone utilizes German bunds.
Source - RBC Investment Strategy Committee, RBC Capital Markets, Global Portfolio Advisory Committee

that growth will pick up in Q3. We continue to suggest investors target a four- to five-year duration for their fixed income holdings with a focus on the five- to eight-year part of the yield curve.

- The Canadian dollar has declined over 4% since peaking on May 2. Recent pressure has been the result of a strengthening U.S. dollar, as expectations of a rate hike from the Federal Reserve increase. This has overshadowed any support from stronger oil prices.
- Volatility took a break in May as credit spreads and preferred shares traded within a tight range. For investors who are considering adding to these parts of the market, we recommend waiting for new supply ahead of the summer quiet period.

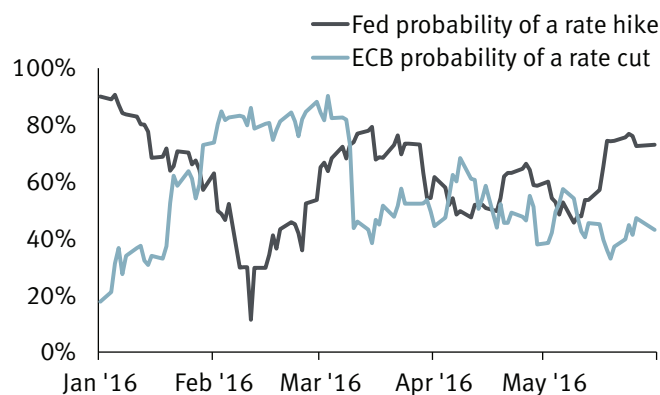
Continental Europe & U.K.

- A disconnect has emerged between market-based expectations for future interest rates and messaging from the European Central Bank (ECB). While

the market is currently positioned for additional rate reductions by the ECB, central bank officials have remained steadfast in their comments that further cuts are not forthcoming. Market volatility that is a function of a potential rate hike by the Fed could make for a bumpy ride in July, but slow growth and a lack of inflation should keep yields anchored.

- We expect the Gilt market to remain in low yield territory although the threat of “Brexit” continues to weigh on issuers and could drive volatility.
- Further details of the ECB’s corporate purchase program were released and ironically resulted in modest selling pressure. As we noted last month, such a breather was to be expected after the spread compression that followed the initial announcement in March. Overall, we continue to believe strong demand from the central bank will drive the general direction of credit spreads for Europe in the near future.

Central bank policy expectations by the end of 2016



The Fed has convinced the U.S. market that further rate hikes are likely this year, while the ECB is facing a market expecting further cuts.

Source - RBC Wealth Management, Bloomberg

Copper: Touch-and-go

Commodity forecasts

	2016E	2017E
Oil (WTI \$/bbl)	41.41	56.78
Natural Gas (\$/mmBtu)	2.18	2.88
Gold (\$/oz)	1,250	1,300
Copper (\$/lb)	2.10	2.25
Corn (\$/bu)	3.74	3.95
Wheat (\$/bu)	4.89	5.05

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

Copper prices have turned higher in 2016 after a multiyear downtrend that took levels from a peak over \$4.50/lb in 2011 to under \$2.00/lb in the first quarter of this year.

Tight market conditions prevailed in the years following the global financial crisis as strong demand growth from China was met with tight supply.

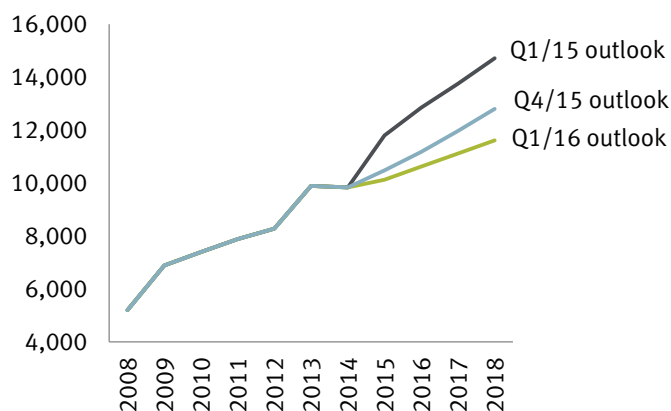
Demand from China represents about 45% of the global market and has been the most important driver of demand growth over the last decade. The copper market moved into a supply surplus in mid-2014, remained there through 2015, and is forecast to stay in surplus through 2018.

Falling demand from China last year stemmed from various factors that included lower sales of white goods (fridges, stoves) and air conditioners, as well as reduced industrial activity and spending on the power grid. The sharp drop in copper prices in the second half of 2015 led to production cuts from high-cost producers amounting to about 700,000 tonnes on an annualized basis (or 3% of global demand), per Wood Mackenzie estimates.

Stimulus measures from the Chinese government have led to higher copper imports in recent months. But there remains a lack of visibility on how sustainable such stimulus will be over a multiyear period. We note that RBC Capital Markets' demand forecasts have declined substantially in recent quarters. Also, new mine production will bring an additional 1.5 million tonnes of supply this year, which will more than offset the announced closures. A further 1.1 million tonnes of supply additions are expected for 2017.

Excess supply has led copper prices in recent quarters to hover around mine cash costs at the upper end of the industry supply spectrum. The most expensive 10% of mines globally have cash costs above \$2.02/lb. Should prices decline into the \$1.50–\$2.00/lb range, we would expect additional production cuts to rebalance the industry, but this is typically a protracted process. With the market in surplus, Chinese stimulus difficult to predict, demand expectations falling, and more supply coming, we believe it is prudent to remain cautious on the outlook for copper.

China copper demand



Forecasts for Chinese copper demand have declined substantially.

Mark Allen
Toronto, Canada
mark.d.allen@rbc.com

Source - RBC Capital Markets, RBC Wealth Management

Currencies

Currency forecasts

Currency pair	Current rate	Forecast Jun-17	Change*
Major currencies			
USD Index	95.89	98.77	3%
CAD/USD	0.76	0.78	2%
USD/CAD	1.31	1.29	-2%
EUR/USD	1.11	1.04	-6%
GBP/USD	1.45	1.55	7%
USD/CHF	0.99	1.10	11%
USD/JPY	110.73	108.00	-2%
AUD/USD	0.76	0.66	-13%
NZD/USD	0.68	0.58	-15%
EUR/JPY	123.25	112.32	-9%
EUR/GBP	0.77	0.67	-13%
EUR/CHF	1.11	1.14	3%
Emerging currencies			
USD/CNY	6.59	7.20	9%
USD/INR	66.33	72.00	9%
USD/SGD	1.38	1.56	13%
USD/PLN	3.94	3.99	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

The minutes of the April FOMC meeting indicated an increased probability of a rate hike(s) from the Federal Reserve during 2016, which, in turn, lifted the dollar. While the actual timing of the next rate hike remains unclear, the Fed seems intent on normalizing interest rates. This messaging, plus a slew of robust U.S. economic data, has helped a move higher in the dollar that we think still has room to go.

Euro

After the recent rally in Q1, the EUR has started to move lower again. Partially helping to fuel this move has been the rally in the dollar (see USD), but the impact of negative interest rates may also be driving the move. With inflation and growth in the region still tepid, the ECB is likely to continue to keep extra monetary stimulus measures in place, and we maintain our bearish outlook for the currency.

British pound

As we move ever closer toward this month's U.K. referendum, there is a clear trend of weaker economic output in the U.K. It is perhaps no surprise, given the reported closeness of the outcome, business activity is suffering as corporations play a "wait-and-see" game. The pound remains highly

volatile, further evidence of the thin and choppy conditions that are likely to persist until the end of the month, at least. We will remain neutral on the pound until after the referendum.

Canadian dollar

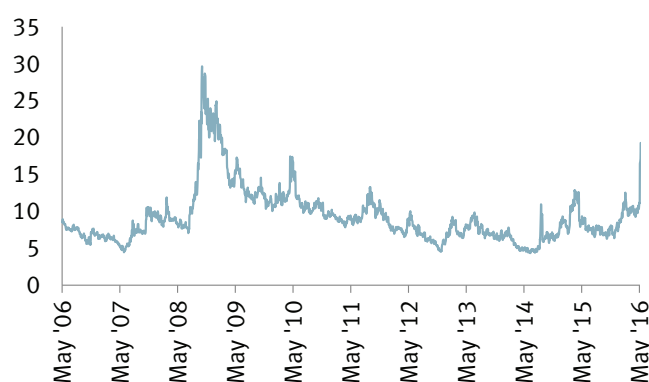
The devastating fires in Alberta will impact Q2 GDP growth, although the effect on the currency should only be transitory. The damage will see a localized fiscal response as opposed to triggering any policy action from the Bank of Canada. Partnered with more risk-averse FX markets, the rally in CAD has been halted, bouncing off of \$1.25 per USD to settle in a range around the \$1.30 level. However, if oil continues to recover as forecast, and if the forest fire damage proves to be temporary, we see very few barriers to further CAD appreciation.

Japanese yen

USD/JPY has rallied nearly 4% from May's low of 105.55. BoJ Governor Haruhiko Kuroda has emphasised a bias against small adjustments to monetary policy and instead wants to gauge the impact of existing measures on the economy over a longer timeframe. Some expectations for imminent monetary stimulus had their hopes dashed when the official communiqué from the G7 leaders meeting in Ise-Shima made specific reference to the need to avoid "competitive devaluation" of currencies.

Short-term sterling volatility reaches multi-year highs

GBP/USD 1-month implied volatility



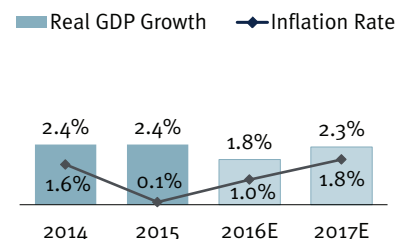
Referendum worries remain at the forefront for sterling.

Paul Bowman
London, United Kingdom
paul.bowman@rbc.com

Source - RBC Wealth Management, Bloomberg

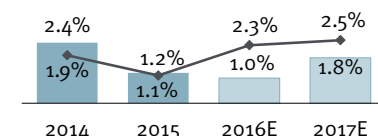
United States — sustained growth

- Q1 GDP growth revised up to 0.8%. Inventory drag largely over. Manufacturing new orders and production expanding at slower pace. Consumer balance sheets, income growth, employment all strong. Spending accelerating in Q2, saving still high. Housing steady, permits rebounding. Capex soft, exports strengthening. Leading indicators, confidence point to sustained, albeit slow, domestic growth.



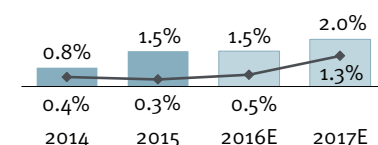
Canada — in transition

- Q1 growth improved to 2.5%. Q2 should extend the positive streak. House construction firm, PMI stronger, business capex (mostly energy) weak. Consumer attitude restrained by resource sector weakness. Mfg. sales ex-petroleum products growing consistently. Ditto for exports including services and tourism all helped by weak loonie. Energy capex plans still falling.



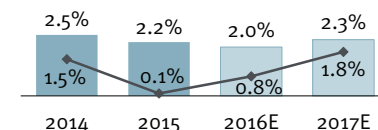
Eurozone — strengthening

- Q1 growth stronger than expected at 2.0% annualized. Spain solid, France very strong at 3.2%. Bank lending standards remain mostly easy, loans to private sector up year over year.
- PMIs softened but still firmly in expansion zone. Q2 growth should equal Q1. Refugee crisis, fractious politics weighing on consumer and business sentiment. Full year GDP growth to hold steady in 2016, improve in 2017.



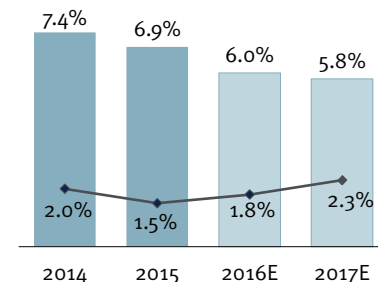
United Kingdom — slower

- Q1 GDP weaker than Q4 at just 1.6% annualized, led by dominant services sector. Construction, industrial sectors subtracted from growth. Employment softer. Household earnings growth now below 2%. PMIs and new orders positive.
- Growth pace sustainable for 2016, but uncertainty around EU membership referendum is weighing on business confidence/spending.



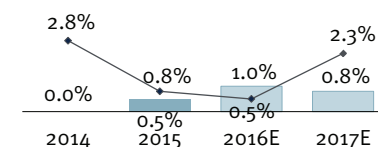
China — slowing

- Q1 slower, year-over-year GDP now at +6.7%, but some pick-up evident in latest month. Domestic loan growth distorted lately by pay-down of U.S. dollar debt. Mfg. official PMI back close to expansion territory, service sector PMI doing somewhat better. Employment, wages, retail sales all growing. Exports, industrial production, manufacturing output made further gains in April.
- Government reduced bank reserve ratio in Feb. for sixth time in 14 months. House prices higher year over year in major centers.



Japan — conflicted, weaker

- GDP growth slipped back in Q4, but finished up on the year. Leading indicators have weakened, manufacturing PMI worst in three years, but new orders better. Corporate earnings solid, but business confidence weak.
- Wages growing slowly, consumer confident, but household spending weak. Low oil prices putting inflation targets in jeopardy. Planned sales tax increase has been put off until 2018.



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

Market scorecard

Index (local currency)	Level	1 Month	YTD	12 Month
S&P 500	2,096.96	1.5%	2.6%	-0.5%
Dow Industrials (DJIA)	17,787.20	0.1%	2.1%	-1.2%
NASDAQ	4,948.06	3.6%	-1.2%	-2.4%
Russell 2000	1,154.79	2.1%	1.7%	-7.4%
S&P/TSX Comp	14,065.78	0.8%	8.1%	-6.3%
FTSE All-Share	3,429.77	0.2%	-0.4%	-9.7%
STOXX Europe 600	347.45	1.7%	-5.0%	-13.1%
German DAX	10,262.74	2.2%	-4.5%	-10.1%
Hang Seng	20,815.09	-1.2%	-5.0%	-24.1%
Shanghai Comp	2,916.62	-0.7%	-17.6%	-36.8%
Nikkei 225	17,234.98	3.4%	-9.5%	-16.2%
India Sensex	26,667.96	4.1%	2.1%	-4.2%
Singapore Straits Times	2,791.06	-1.7%	-3.2%	-17.7%
Brazil Ibovespa	48,471.71	-10.1%	11.8%	-8.1%
Mexican Bolsa IPC	45,459.45	-0.7%	5.8%	1.7%
Bond Yields	5/31/16	4/29/16	5/29/15	12 mo chg
US 2-Yr Tsy	0.877%	0.782%	0.605%	0.27%
US 10-Yr Tsy	1.846%	1.833%	2.121%	-0.28%
Canada 2-Yr	0.614%	0.692%	0.569%	0.05%
Canada 10-Yr	1.319%	1.513%	1.624%	-0.31%
UK 2-Yr	0.432%	0.528%	0.509%	-0.08%
UK 10-Yr	1.429%	1.596%	1.813%	-0.38%
Germany 2-Yr	-0.514%	-0.484%	-0.225%	-0.29%
Germany 10-Yr	0.139%	0.271%	0.487%	-0.35%
Commodities (USD)	Price	1 Month	YTD	12 Month
Gold (spot \$/oz)	1,215.33	-6.0%	14.5%	2.1%
Silver (spot \$/oz)	15.99	-10.4%	15.4%	-4.5%
Copper (\$/metric ton)	4,696.75	-7.3%	-0.2%	-21.8%
Uranium (\$/lb)	29.15	2.3%	-15.3%	-16.7%
Oil (WTI spot/bbl)	49.10	6.9%	32.6%	-18.6%
Oil (Brent spot/bbl)	49.69	3.2%	33.3%	-24.2%
Natural Gas (\$/mmBtu)	2.29	5.1%	-2.1%	-13.4%
Agriculture Index	308.76	1.2%	8.9%	10.1%
Currencies	Rate	1 Month	YTD	12 Month
US Dollar Index	95.89	3.0%	-2.8%	-1.0%
CAD/USD	0.76	-4.1%	5.7%	-4.9%
USD/CAD	1.31	4.3%	-5.4%	5.1%
EUR/USD	1.11	-2.8%	2.5%	1.3%
GBP/USD	1.45	-0.9%	-1.7%	-5.3%
AUD/USD	0.72	-4.9%	-0.7%	-5.4%
USD/CHF	0.99	3.5%	-0.8%	5.7%
USD/JPY	110.73	4.0%	-7.9%	-10.8%
EUR/JPY	123.25	1.1%	-5.7%	-9.6%
EUR/GBP	0.77	-1.9%	4.3%	7.0%
EUR/CHF	1.11	0.8%	1.7%	7.0%
USD/SGD	1.38	2.5%	-2.9%	2.2%
USD/CNY	6.59	1.7%	1.4%	6.3%
USD/BRL	3.61	5.1%	-8.8%	13.6%

Japan led among developed markets as the yen pulled back against the dollar.

U.S. short rates climbed as Fed rate hike expectations were pulled forward.

Declining oil supplies boosted prices for the fourth straight month.

The dollar bounced for the first time in four months on the Fed's hawkish comments.

Equity returns do not include dividends, except for the German DAX. 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 -4.9% return means the Canadian dollar has fallen 4.9% vs. the U.S. dollar during the past 12 months. USD/JPY 110.73 means 1 U.S. dollar will buy 110.73 yen. USD/JPY -10.8% return means the U.S. dollar has fallen 10.8% vs. the yen during the past 12 months.

Source - RBC Wealth Management, RBC Capital Markets, Bloomberg; data through 5/31/16.

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.

Rajan Bansi – Co-chair; Head of Fixed Income Strategies, RBC Wealth Management Portfolio Advisory Group, RBC Dominion Securities Inc.

Mark Allen – Portfolio Advisor, RBC Wealth Management Portfolio Advisory Group, RBC Dominion Securities Inc.

Alana Awad – Fixed Income Portfolio Advisor, RBC Dominion Securities Inc.

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

Kelly Bogdanov – Portfolio Analyst, RBC Wealth Management Portfolio Advisory Group, RBC Capital Markets, LLC

Paul Bowman – Director, Head of Structured Solutions and FX Strategy, Royal Bank of Canada Investment Management (U.K.) Ltd.

Frédérique Carrier – Director, Head of Equities, Royal Bank of Canada Investment Management (U.K.) Ltd.

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

Hakan Enoksson – Head of Fixed Income - British Isles, Royal Bank of Canada Investment Management (U.K.) Ltd.

Tom Garretson – Fixed Income Portfolio Advisor, RBC Capital Markets, LLC

Christopher Girdler – Fixed Income Portfolio Manager/Strategist, Royal Bank of Canada Investment Management (U.K.) Ltd.

Patrick McAllister – Canadian Equities Portfolio Advisor, RBC Dominion Securities Inc.

Jay Roberts – Head of Equity Advisory, Wealth Management Hong Kong, RBC Dominion Securities Inc.

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 RBC Investment Strategy Committee builds a broad global investment outlook and develops specific guidelines that can be used to manage portfolios. RISC is chaired by Daniel Chornous, CFA, Chief Investment Officer of RBC Global Asset Management Inc.

Additional *Global Insight* authors:

Robert Hogue – Senior Economist, Royal Bank of Canada

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: Mark Allen, Jim Allworth, Alana Awad, Rajan Bansil, Patrick McAllister, and Jay Roberts, employees of RBC Wealth Management USA's foreign affiliate RBC Dominion Securities Inc.; and Frédérique Carrier, Hakan Enoksson, Christopher Girdler, Paul Bowman, employees of RBC Wealth Management USA's foreign affiliate Royal Bank of Canada Investment Management (UK) Limited; and Robert Hogue, an employee of Royal Bank of Canada; 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 <http://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), and the Guided Portfolio: ADP (RL 10), 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 - RBC Capital Markets, LLC Equity Research As of March 31, 2016				
Rating	Count	Percent	Investment Banking Services Provided During Past 12 Months	
			Count	Percent
Buy [Top Pick & Outperform]	887	51.78	258	29.09
Hold [Sector Perform]	722	42.15	115	15.93
Sell [Underperform]	104	6.07	8	7.69

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 (TP)/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 (as described below).

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. Although RBC Capital Markets, LLC ratings of Top Pick (TP)/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 (as described below).

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.

Risk Rating: As of March 31, 2013, RBC Capital Markets, LLC suspends its Average and Above Average risk ratings. 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 Price Target Impediments

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 "Price Target Impediment", 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 <http://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.

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

Disclaimer

The information contained in this report has been compiled by RBC Wealth Management, a division of RBC Capital Markets, LLC, from sources believed to be reliable, but no representation or warranty, express or implied, is made by Royal Bank of Canada, RBC Wealth Management, its affiliates or any other person as to its accuracy, completeness or correctness. All opinions and estimates contained in this report constitute RBC Wealth Management's judgment as of the date of this report, are subject to change without notice and are provided in good faith but without legal responsibility. Past performance is not a guide to future performance, future returns are not guaranteed, and a loss of original capital may occur. Every province in Canada, state in the U.S., and most countries throughout the world have their own laws regulating the types of securities and other investment products which may be offered to their residents, as well as the process for doing so. As a result, the securities discussed in this report may not be eligible for sale in some jurisdictions. This report is not, and under no circumstances should be construed as, a solicitation to act as securities broker or dealer in any jurisdiction by any person or company that is not legally permitted to carry on the business of a securities broker or dealer in that jurisdiction. Nothing in this report constitutes legal, accounting or tax advice or individually tailored investment advice. This material is prepared for general circulation to clients, including clients who are affiliates of Royal Bank of Canada, and does not have regard to the particular circumstances or needs of any specific person who may read it. The investments or services contained in this report may not be suitable for you and it is recommended that you consult an independent investment advisor if you are in doubt about the suitability of such investments or services. To the full extent permitted by law neither Royal Bank of Canada

nor any of its affiliates, nor any other person, accepts any liability whatsoever for any direct 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.

To European Residents: Clients of United Kingdom subsidiaries may be entitled to compensation from the UK Financial Services Compensation Scheme if any of these entities cannot meet its obligations. This depends on the type of business and the circumstances of the claim. Most types of investment business are covered for up to a total of £50,000. The Channel Islands subsidiaries are not covered by the UK Financial Services Compensation Scheme; the offices of Royal Bank of Canada (Channel Islands) Limited in Guernsey and Jersey are covered by the respective compensation schemes in these jurisdictions for deposit taking business only.

To Hong Kong Residents: This publication is distributed in Hong Kong by RBC Investment Services (Asia) Limited and RBC Investment Management (Asia) Limited, licensed corporations under the Securities and Futures Ordinance or, by Royal Bank of Canada, Hong Kong Branch, a registered institution under the Securities and Futures Ordinance. This material has been prepared for general circulation and does not take into account the objectives, financial situation, or needs of any recipient. Hong Kong persons wishing to obtain further information on any of the securities mentioned in this publication should contact RBC Investment Services (Asia) Limited, RBC Investment Management (Asia) Limited or Royal Bank of Canada, Hong Kong Branch at 17/Floor, Cheung Kong Center, 2 Queen's Road Central, Hong Kong (telephone number is 2848-1388).

To Singapore Residents: This publication is distributed in Singapore by RBC (Singapore Branch) and RBC (Asia) Limited, registered entities granted offshore bank status 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.

© 2016 RBC Capital Markets, LLC - Member NYSE/FINRA/SIPC

© 2016 RBC Dominion Securities Inc. - Member Canadian Investor Protection Fund

© 2016 RBC Europe Limited

© 2016 Royal Bank of Canada

All rights reserved