

Global Insight

Weekly



A closer look

NAFTA: Rhetoric vs. Reality

Kelly Bogdanov – San Francisco; Patrick McAllister – Toronto

The opening salvo in the NAFTA talks has brought with it predictable heated rhetoric and has unveiled a few sticking points between the U.S., Canada, and Mexico. We provide our take on the key provisions and broader trade goals.

It's no wonder aggressive U.S. rhetoric kicked off the first round of North American Free Trade Agreement (NAFTA) renegotiations. "It should be conceded that the U.S. is actually right in asserting that it is currently getting the raw end of the trade deal," said Eric Lascelles, chief economist at RBC Global Asset Management Inc. His data shows that U.S. companies tend to pay higher tariffs when conducting business in foreign markets than foreign firms do in the U.S. (see chart).

But trade is a delicate issue. Incentivizing or pushing trading partners to lower barriers is one thing; imposing new tariffs is another. The latter usually doesn't end well—especially between major trading partners.

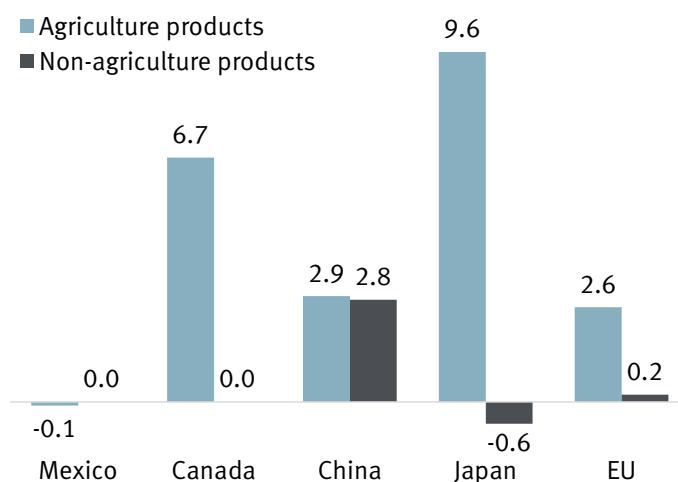
Sticking points

So far, global financial and currency markets are taking the NAFTA renegotiations in stride. Despite tough U.S. rhetoric, fears of tearing up the agreement have diminished considerably since the presidential campaign. There are, however, some sticking points to the renegotiations as the U.S. seeks changes to key NAFTA provisions:

Dispute settlement – The U.S. proposes to completely revamp the process so that disputes would be brought to domestic courts of the country that is being accused of violating a trade provision rather than to bi-lateral panels within NAFTA, which is the current structure. For example, if a Canadian or Mexican company/industry has a dispute with the U.S., it would be settled in U.S. courts rather than by a NAFTA panel. The Trump administration argues the current panel structure infringes on U.S. sovereignty. Canada strongly opposes this, as it believes it would be disadvantaged in U.S. courts and would increase legal expenses for Canadian businesses. Mexico is also opposed. Under NAFTA's current dispute settlement

U.S. pays higher tariffs than most major trading partners

Tariff rate differential between U.S. and partner countries (%)



Note: Data is the difference between tariff rates the U.S. pays on its exports to partner countries and rates partner countries pay on exports to the U.S.
Source - RBC Global Asset Management, WTO/ITC/UNCTAD *World Tariff Profiles 2016*

Market pulse

- 3 A look at the ups and downs of retail in the U.S.
- 3 The challenges facing Canada's grocery market
- 4 Consolidation phase for Europe's equity markets
- 4 China's internet heavyweights keep on rolling

Click [here](#) for authors' contact information.

Priced (in USD) as of 8/17/17 market close, EST (unless otherwise stated).

For important disclosures and required non-U.S. analyst disclosures, see [page 6](#).



Wealth
Management

structure, five-member arbitration panels are made up of representatives from both sides of a dispute. It is worth noting that the overwhelming majority of the rulings made by these bilateral panels have been unanimous.

Adopting a court-based dispute mechanism rather than using panels has long been a contentious issue for Canada in trade negotiations with the U.S. Indeed, Canada walked out of the Canada-U.S. trade talks in 1987 for a time on this very point. Canada recently threatened to withdraw from NAFTA talks if the U.S. continues to insist that the dispute-settlement panel provision be abolished. Should Canada feel compelled to follow through on that threat, it could prompt a bellicose reaction from a U.S. president that had previously threatened to unilaterally withdraw from the trade pact.

Safeguard exclusions – Canada and Mexico are currently excluded from American trade law provisions that allow the U.S. to impose tariffs or quotas to assist domestic industries that are seriously injured by foreign trade practices. The U.S. proposes to eliminate the exemption for Canada and Mexico. This change, combined with court-based dispute settlement panels, could open up a Pandora’s Box of tariffs under the guise of safeguard exclusions, anti-dumping, and countervailing duties. Loss of safeguard exclusions for NAFTA partners could preserve the threat of trade tariffs and seemingly runs counter to the spirit of a free trade agreement. By our assessment, tariffs usually have negative consequences for both sides (see lower exhibit).

Rules of origin – The U.S. wants to decrease foreign content of freely-tradeable goods within the NAFTA zone, and it wants to increase the level of content produced in America. This issue has particular implications for an increasingly integrated North American automotive supply chain and is understandably meeting resistance from both Mexico and Canada.

In this highly interconnected world—even more so since NAFTA was adopted 23 years ago—multiple countries are regularly involved in supplying parts, producing goods, and in various stages of product assembly. Parts move back and forth throughout the process with re-importing and re-exporting, within and outside of the NAFTA zone, until the product is finished. It’s an elaborate, yet efficient web that brings products to consumers at low costs.

Striking a balance

The Trump administration has seemingly made reducing the NAFTA trade deficit the headline issue. On this measure, the NAFTA dispute is mainly about the trade deficit with Mexico, as the U.S. runs a trade surplus with Canada. Moreover, the concept of trade balance does not necessarily take into account the total value of trade and its coincident impact on economic growth in evaluating the merits of a trade pact. Not to mention, trade deficits are a reality when you have the world’s reserve currency.

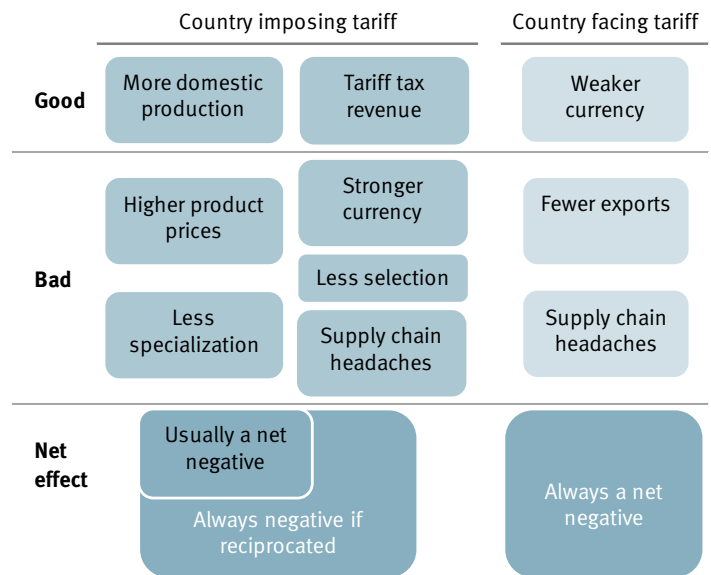
U.S. trade deficit with China tops the list

U.S. trade balance (% of total)



Source - RBC Global Asset Management, U.S. Census Bureau, Haver Analytics; cumulative 12-month trade balance to Q1 2017; China data is truncated so as not to distort the rest of the chart

What happens when tariffs are imposed?



Source - RBC Global Asset Management, RBC Wealth Management

With a general election in Mexico and U.S. congressional midterms looming in 2018, an aggressive timeline has been set to conclude the renegotiation of NAFTA with U.S. Commerce Secretary Wilbur Ross preferring to conclude talks by January. That compressed timeline could moderate the scope of renegotiation on the aforementioned sticking points, sharpen the focus on modernization and easy wins, and limit wholesale changes. However, given the complex nature of the negotiations and the U.S. trade representative’s assertion that he will not be bound by an artificial deadline, NAFTA talks and the associated headlines may drag on into 2018.



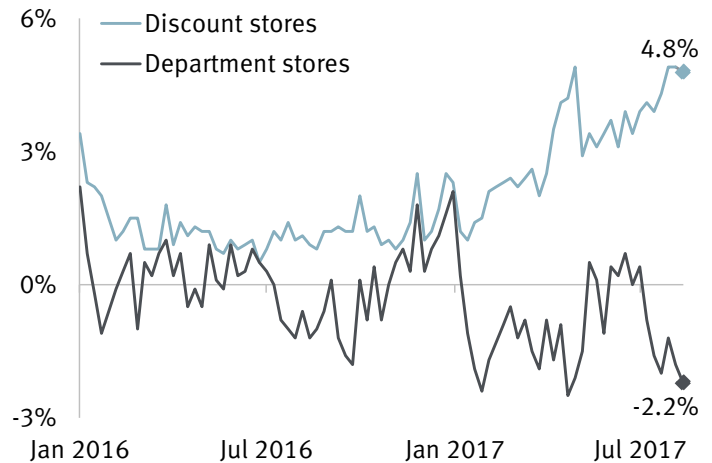
United States

Kelly Bogdanov – San Francisco

- As U.S./North Korea rhetoric calmed down, **the market turned back to basics** and focused on economic data and earnings reports. At first, the market mainly overlooked the controversy surrounding the president's Charlottesville comments and the breakdown of his business advisory councils. But as these developments and the larger political fallout were contemplated more by market participants, the S&P 500 declined 1.5% on Thursday.
- **Retail sales**, including the portion that feeds into GDP data, **rose more than expected in July**. This prompted the Atlanta Fed to raise its Q3 GDP tracking estimate to 3.85%. While that estimate will likely change and could even get dialed back as more data rolls in, it's an indication Q3 GDP could exceed economists' 2.1% consensus forecast.
- The retail sector's slew of earnings reports was in the spotlight. **Target, TJX, and Urban Outfitters** (Anthropologie and Free People brands) reported **better-than-expected quarters**. Target posted 32% y/y growth in digital sales, significantly higher than the consensus estimate. The TJX beat was helped by a 7% y/y rise in sales at its HomeGoods division, which benefitted from a boost in foot traffic by millennials. TJX is one of the few retailers with an aggressive plan to build new brick-and-mortar stores. This comes at a time when the **U.S. retail industry as a whole has an overabundance of stores compared to other developed nations**—said differently, the U.S. is “overstored.” Urban's beat came from a combination of improved fashion offerings and low expectations following prior misses. **Many other retailers are still struggling**, including Macy's, J.C. Penney, Dick's Sporting Goods, and Advance Auto Parts.
- The retail industry is particularly challenged by pricing competition and heightened pricing transparency of the internet. **Competition from behemoth online retailer Amazon and digital sales strategies in general continue to be key themes** on many retailers' conference calls. For example, even though Home Depot reported a strong quarter and provided constructive forward guidance, the stock traded down as analysts peppered the management team with questions about online competition. From our vantage point, concerns about Amazon are unlikely to lift anytime soon. But over coming quarters, we should be able to better discern which traditional retailers can compete effectively online.

Not all retail sales are created equal

Johnson Redbook same-store-sales, y/y



Source - RBC Wealth Management, Bloomberg, Johnson Redbook; weekly data through 8/12/17



Canada

Patrick McAllister & Farazeh Mahboob – Toronto

- As discussed earlier in this report, **the first round of NAFTA renegotiations is underway** between Canada, the U.S., and Mexico. In light of this, RBC Capital Markets has addressed the potential adjustments that could be made to the current limit for duty-exempt purchases outside of Canada. The U.S. negotiating position is to have **Canada's limit increased to \$800** from \$20. RBC Capital Markets believes a compromise of \$200 is possible with risk to the upside seemingly more likely than a lower limit. A higher duty-exempt limit **could have significant implications** for brick-and-mortar retailers and their landlords.
- **Competitive conditions in the domestic grocery market remain intense** at a time when the industry is confronting **multiple challenges**. Recent strength in the Canadian dollar could prolong the current period of food price deflation and the corresponding headwind to top-line growth. On the cost side of the equation, grocers are investing in e-commerce initiatives while facing **significant wage inflation** from proposals to increase the minimum wage in Ontario and Alberta. While we value the defensive ballast high-quality grocery positions offer a portfolio, we would **caution against overweight allocations** in light of these challenges.
- **The S&P/TSX Composite has tended to move higher** with sharp rallies in the Canadian dollar, yet the **latest rally** in the loonie has proven to be an exception, per RBC Capital Markets' analysis. Furthermore, **oil prices have also typically risen in tandem with periods of appreciation**

in the CAD; however, this **has not materialized** with the latest rally, which has been fueled by a change in tone at the Bank of Canada, higher interest rates, and previously bearish CAD investor positioning. As such, we would caution that past cycles may provide limited insight into the future path of the S&P/TSX.



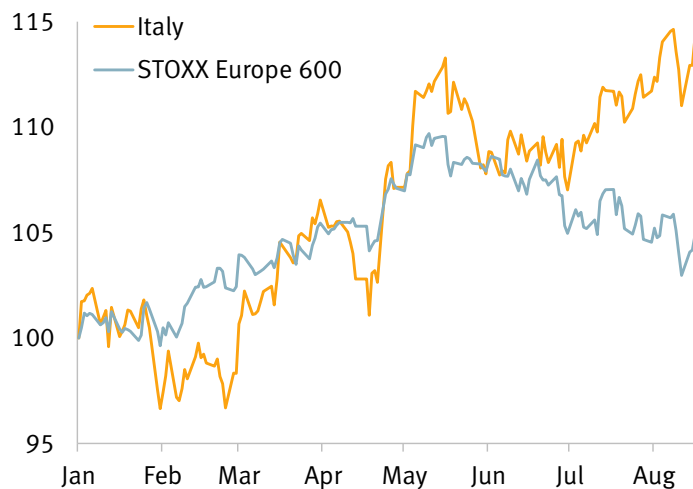
Europe

Frédérique Carrier & Thomas McGarrity – London

- With the reporting season now all but over, news flow is diminishing as the traditional August holidays are nearing in Europe. **Equity markets are in a consolidation phase**, though the Italian FTSE MIB Index is very close to an 18-month high, benefitting from the rerating of the country's banks. **Macroeconomic data** released both in the U.K. and Europe merely **reiterated recent trends**.
- In the U.K., **headline CPI was unchanged at 2.6% y/y**, in line with both the Bank of England's and RBC Capital Markets' forecasts. **Unemployment fell to 4.4% y/y** for the three months to June, the **lowest level since 1975**. The dwindling slack in the labour markets is an important consideration for the Monetary Policy Committee. It is not yet leading to inflationary pressures with the **average weekly earnings growth** continuing to hover at around 2.1% y/y for the three months to June. This suggests to us that real earnings are down 0.5%, so the **squeeze on earnings has not abated**. With RBC Capital Markets' expectations that CPI will pick up to 3.1% y/y later this year, the squeeze on real income is **likely to continue**, unless nominal pay starts to surge.

Italy avoids European pullback on the rerating of its banks

Year-to-date returns, indexed to 100



Source - RBC Wealth Management, Bloomberg; data through 8/17/17

- When commenting on its solid results in the H1 2017, U.K. insurer **Prudential** also announced that M&G, its U.K. asset management division, and Prudential's U.K. & Europe life assurance businesses, are being merged together, in another sign that the **U.K. asset management industry is being reconfigured**, as the wave of consolidation that has swept the asset management industry in the U.K. continues. Many observers commented that this could be a precursor for an eventual sale or spin-off (*Financial Times* August 10, 2017), a move which has been widely mooted since the financial crisis. However, Mike Wells, Prudential chief executive, would not comment on whether the decision to merge the two businesses was the first step on the road to a break-up.



Asia Pacific

Yufei Yang – Hong Kong

- Following strong second-quarter growth, **China's economy softened in July and missed expectations** due to exports and a housing slowdown. **Industrial output and fixed-asset investment grew at a slower pace** than in June. Retail sales expanded 10.4% y/y, but were lower than Bloomberg's 10.8% projection and the 11.0% in June.
- **The top two China internet giants reported better-than-expected results. Tencent Holdings** (700 HK) posted quarterly earnings that surpassed even the highest estimate on Bloomberg. **Sales rose 59%** to 56.6 billion yuan (\$8.4B), and **net income surged 70%** compared to one year ago. Online games remained the largest contributor, accounting for 42% of total revenue. Driven by its hit game *Honor of Kings*, **mobile game revenue was up 54% y/y**, surpassing PC games for the first time. Launched in 2015, *Honor of Kings* has over 200 million registered users and 70 million daily active users. **Advertisements and other revenue** (including payments and cloud) **surprised on the upside**, increasing 55% and 177%, respectively.
- China's largest e-commerce firm **Alibaba** (BABA) also delivered strong growth. **Revenue rose 56%** to \$7.4B, and **net income was up 67%**. Its core **e-commerce business grew 58%** in the last quarter, making up 86% of total revenue. Active buyers on its platform reached 466 million. Cloud business was another growth engine. Sales jumped 96% with paying customers exceeding one million for the first time. In June, Alibaba raised its expectations for full year revenue growth to 45%–49%. Alibaba and Tencent have gained 82% and 74% this year, respectively, outpacing their global peers.
- **Japan's economy grew for a sixth straight quarter**. GDP was up 4% in the three months ended June 30. Exports accelerated to 13.4% in July, compared with a 9.7% gain in June. Imports jumped again, a sign that domestic demand is recovering.



MARKET SCORECARD

Data as of August 17, 2017

Equities (local currency)	Level	MTD	YTD	1 yr	2 yr
S&P 500	2,430.01	-1.6%	8.5%	11.4%	15.6%
Dow Industrials (DJIA)	21,750.73	-0.6%	10.1%	17.1%	24.0%
NASDAQ	6,221.92	-2.0%	15.6%	19.0%	22.2%
Russell 2000	1,358.94	-4.6%	0.1%	10.7%	10.9%
S&P/TSX Comp	15,033.64	-0.7%	-1.7%	2.3%	5.5%
FTSE All-Share	4,052.37	0.2%	4.6%	8.6%	13.0%
STOXX Europe 600	376.87	-0.3%	4.3%	10.7%	-2.7%
EURO STOXX 50	3,461.97	0.4%	5.2%	16.2%	-1.0%
Hang Seng	27,344.22	0.1%	24.3%	19.9%	14.8%
Shanghai Comp	3,268.43	-0.1%	5.3%	5.1%	-18.2%
Nikkei 225	19,702.63	-1.1%	3.1%	17.7%	-4.5%
India Sensex	31,795.46	-2.2%	19.4%	13.5%	14.1%
Singapore Straits Times	3,268.88	-1.8%	13.5%	15.0%	6.6%
Brazil Ibovespa	67,976.80	3.1%	12.9%	14.6%	44.0%
Mexican Bolsa IPC	50,994.18	0.0%	11.7%	5.7%	16.0%

Commodities (USD)	Price	MTD	YTD	1 yr	2 yr
Gold (spot \$/oz)	1,288.03	1.5%	11.8%	-4.5%	15.2%
Silver (spot \$/oz)	17.03	1.2%	7.0%	-13.5%	11.1%
Copper (\$/metric ton)	6,496.50	2.5%	17.6%	36.5%	27.2%
Oil (WTI spot/bbl)	47.09	-6.1%	-12.3%	0.6%	12.5%
Oil (Brent spot/bbl)	50.90	-3.3%	-10.4%	2.1%	4.4%
Natural Gas (\$/mmBtu)	2.92	4.5%	-21.6%	11.5%	7.0%

Govt bonds (bps chg)	Yield	MTD	YTD	1 yr	2 yr
U.S. 10-Yr Tsy	2.184%	-11.1	-26.1	63.4	1.6
Canada 10-Yr	1.848%	-20.9	12.7	79.4	47.6
U.K. 10-Yr	1.087%	-14.3	-15.2	52.4	-73.0
Germany 10-Yr	0.426%	-11.7	21.8	47.6	-20.1

Fixed Income (returns)	Yield	MTD	YTD	1 yr	2 yr
U.S. Aggregate	2.48%	0.4%	3.1%	0.1%	5.6%
U.S. Invest Grade Corp	3.14%	0.1%	4.7%	1.8%	10.5%
U.S. High Yield Corp	5.72%	-0.5%	5.6%	8.6%	17.5%

Currencies	Rate	MTD	YTD	1 yr	2 yr
U.S. Dollar Index	93.7280	0.9%	-8.3%	-1.0%	-3.2%
CAD/USD	0.7890	-1.5%	6.0%	1.3%	3.2%
USD/CAD	1.2674	1.6%	-5.7%	-1.3%	-3.1%
EUR/USD	1.1720	-1.0%	11.4%	3.8%	5.8%
GBP/USD	1.2869	-2.6%	4.3%	-1.3%	-17.4%
AUD/USD	0.7883	-1.5%	9.4%	3.0%	6.9%
USD/JPY	109.5700	-0.6%	-6.3%	9.3%	-11.9%
EUR/JPY	128.4200	-1.6%	4.4%	13.4%	-6.8%
EUR/GBP	0.9107	1.6%	6.7%	5.2%	28.1%
EUR/CHF	1.1286	-1.4%	5.3%	3.9%	4.1%
USD/SGD	1.3665	0.8%	-5.6%	1.8%	-2.9%
USD/CNY	6.6755	-0.8%	-3.9%	0.6%	4.4%
USD/MXN	17.8474	0.3%	-13.9%	-1.6%	8.6%
USD/BRL	3.1755	1.6%	-2.4%	-1.0%	-8.8%

Source - Bloomberg. Note: Equity returns do not include dividends, except for the German DAX and Brazilian Ibovespa. Bond yields in local currencies. Copper Index data and U.S. fixed income returns as of Wednesday's close. Dollar Index measures USD vs. six major currencies. Currency rates reflect market convention (CAD/USD is the exception). Currency returns quoted in terms of the first currency in each pairing. Data as of 8:38 pm GMT 8/17/17.

Examples of how to interpret currency data: CAD/USD 0.78 means 1 Canadian dollar will buy 0.78 U.S. dollar. CAD/USD 6.0% return means the Canadian dollar rose 6.0% vs. the U.S. dollar year to date. USD/JPY 109.57 means 1 U.S. dollar will buy 109.57 yen. USD/JPY -6.3% return means the U.S. dollar fell 6.3% vs. the yen year to date.



UPCOMING EVENTS

Fri, Aug 18	Tue, Aug 22, cont.	Wed, Aug 23, cont.	Thu, Aug 24 – Sat, Aug 26
U.S. Univ. of Michigan Sentiment (94.0)	Germany ZEW Surveys	Germany Markit Serv./Comp. PMI	Jackson Hole Central Bank Symposium
Canada CPI (1.2% y/y)	U.S. FHFA House Price Index	U.S. Markit Manufacturing PMI	Wed, Aug 30
Sun, Aug 20	Canada Retail Sales	U.S. Markit Serv./Comp. PMI	U.S. Q2 GDP Revision (2.4% q/q annl'zd)
U.K. Rightmove House Prices	Wed, Aug 23	U.S. New Home Sales (0.4% m/m)	U.S. ADP Employment Change
Mon, Aug 21	Japan Nikkei Manufacturing PMI	Thu, Aug 24	U.S. Core PCE
U.S. Chicago Fed National Activity	Eurozone Markit Manufacturing PMI	Japan CPI	Wed, Sep 6
Tue, Aug 22	Eurozone Markit Serv./Comp. PMI	U.K. Q2 GDP	BoC Meeting
China Conf. Board July Lead. Eco. Index	Eurozone Consumer Confidence	U.K. Index of Services	Thu, Sep 7
Eurozone ZEW Surveys	Germany Markit Manufacturing PMI	U.S. Existing-Home Sales (0.6% m/m)	ECB Meeting

The dates reflect North American time zones. All data reflect Bloomberg consensus forecasts where available.

Authors

Kelly Bogdanov – San Francisco, United States

kelly.bogdanov@rbc.com; RBC Capital Markets, LLC

Patrick McAllister, CFA – Toronto, Canada

patrick.mcallister@rbc.com; RBC Dominion Securities Inc.

Farazeh Mahboob – Toronto, Canada

farazeh.mahboob@rbc.com; RBC Dominion Securities Inc.

Frédérique Carrier – London, United Kingdom

frederique.carrier@rbc.com; Royal Bank of Canada Investment Management (U.K.) Ltd.

Thomas McGarrity, CFA – London, United Kingdom

thomas.mcgarritty@rbc.com; Royal Bank of Canada Investment Management (U.K.) Ltd.

Yufei Yang – Hong Kong, China

yufei.yang@rbc.com; RBC Dominion Securities Inc.

Disclosures and Disclaimer

Analyst Certification

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

Important Disclosures

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

Non-U.S. Analyst Disclosure: Farazeh Mahboob, Patrick McAllister, and Yufei Yang, employees of RBC Wealth Management USA's foreign affiliate RBC Dominion Securities Inc.; and Frédérique Carrier and Thomas McGarrity, 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 <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), the Guided Portfolio: ADR (RL 10), and 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 (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).

Distribution of Ratings - RBC Capital Markets, LLC Equity Research
As of June 30, 2017

Rating	Count	Percent	Investment Banking Services Provided During Past 12 Months	
			Count	Percent
Buy [Top Pick & Outperform]	826	52.01	293	35.47
Hold [Sector Perform]	657	41.37	144	21.92
Sell [Underperform]	105	6.61	7	6.67

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 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 <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.

Research Resources

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

Third-party disclaimers

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

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

Disclaimer

The information contained in this report has been compiled by RBC Wealth Management, a division of RBC Capital Markets, LLC, from sources believed to be reliable, but no representation or warranty, express or implied, is made by Royal Bank of Canada, RBC Wealth Management, its affiliates or any other person as to its accuracy, completeness or correctness. All opinions and estimates contained in this report constitute RBC Wealth Management's judgment as of the date of this report, are subject to change without notice and are provided in good faith but without legal responsibility. Past performance is not a guide

to future performance, future returns are not guaranteed, and a loss of original capital may occur. Every province in Canada, state in the U.S., and most countries throughout the world have their own laws regulating the types of securities and other investment products which may be offered to their residents, as well as the process for doing so. As a result, the securities discussed in this report may not be eligible for sale in some jurisdictions. This report is not, and under no circumstances should be construed as, a solicitation to act as securities broker or dealer in any jurisdiction by any person or company that is not legally permitted to carry on the business of a securities broker or dealer in that jurisdiction. Nothing in this report constitutes legal, accounting or tax advice or individually tailored investment advice. This material is prepared for general circulation to clients, including clients who are affiliates of Royal Bank of Canada, and does not have regard to the particular circumstances or needs of any specific person who may read it. The investments or services contained in this report may not be suitable for you and it is recommended that you consult an independent investment advisor if you are in doubt about the suitability of such investments or services. To the full extent permitted by law neither Royal Bank of Canada nor any of its affiliates, nor any other person, accepts any liability whatsoever for any direct 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. 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.

© RBC Capital Markets, LLC 2017 - Member NYSE/FINRA/SIPC

© RBC Dominion Securities Inc. 2017 - Member Canadian Investor Protection Fund

© RBC Europe Limited 2017

© Royal Bank of Canada 2017

All rights reserved

RBC1253