

Global Insight

Weekly



A closer look

Growth vs. value: Trading places?

Kelly Bogdanova – San Francisco

Is the recent action in the Tech sector a sign of a sea change underway for U.S. equities and the start of a shift from growth to value? While it's premature to call a change in leadership, we explore why U.S. value stocks could be emerging, and why a key driver of that segment, Financials, looks attractive.

The global equity correction is persisting. U.S. protectionist policies and the potential responses of trading partners are still weighing on markets, but other factors have cropped up in recent sessions, particularly the weakness in Technology stocks.

As soon as it looks like new sector leaders could be emerging, the situation changes and becomes muddled again—typical behavior during correction periods. This back-and-forth action, much of which is being driven by the U.S. market, reinforces our view that investors should remain patient as global equities work through the volatility.

In the meantime, it's not too soon to contemplate the possibility that a shift could take place away from growth stocks toward value stocks.

Tech's troubles

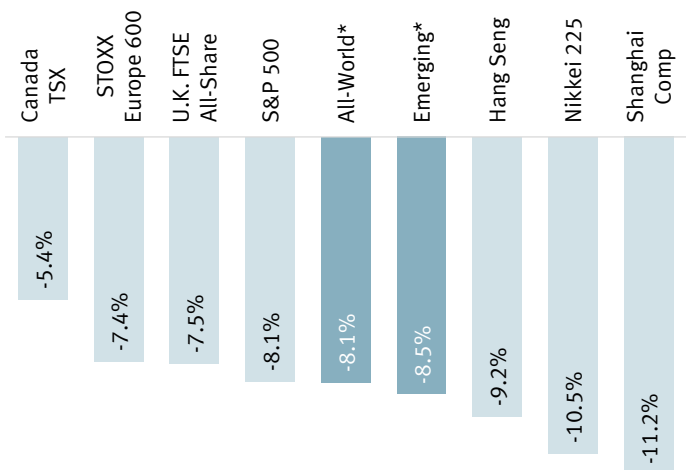
The global Tech sector has outperformed broad benchmarks since the correction began in January, but has lagged in the past couple weeks.

The trade spat between the U.S. and China has raised tariff uncertainties for semiconductor, hardware, and consumer tech companies. In our view, these industries are vulnerable if U.S./China trade dialogues break down and additional tit-for-tat tariff threats are announced.

The pedestrian death in the U.S. caused by Uber's experimental self-driving car also hit semiconductor stocks, particularly those leveraged toward artificial intelligence technologies in self-driving cars. These had been some of the hottest stocks of the past couple years.

The equity correction is a global phenomenon

Performance of major equity indexes since the January 26 all-time high



* The All-World and Emerging data are both FTSE indexes
Source - RBC Wealth Management, Bloomberg; data from the all-time high in global and S&P 500 indexes from 1/26/18 through 3/29/18

Market pulse

- 3 Dow Theory hasn't broken down amid the correction
- 3 Canada's telecom regulator hands down wireless decisions
- 4 Exposure of U.K./EU sectors to U.S. trade barriers

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

Priced (in USD) as of 3/29/18 market close, EST (unless otherwise stated).

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



Wealth Management

Potential heightened regulatory oversight following Facebook's data privacy snafus raised concerns about how business models and revenue streams of social media and internet search firms could be impacted.

For the first time during this bull market cycle, widely embraced secular growth themes are under scrutiny. While we think the long-term innovation prospects remain bright for the Tech sector, these headwinds could linger over the near term.

Turn signal?

Amid the Tech weakness, there is a bigger issue to contemplate: Might the recent sector moves be signaling a shift from growth to value stocks?

Since the global financial crisis ended in 2009, growth has outperformed value for much of that time on a global basis, including in the U.S.

Given the trends so far during this correction and drivers of these style groups, RBC Capital Markets believes a shift toward value could unfold in the U.S. We think it is more difficult to make that call on a global basis because the moves in value stocks have been less pronounced in global indexes this cycle.

In the U.S., value tends to outperform growth when the 10-year Treasury yield rises, inflation expectations move up, and GDP growth strengthens, according to RBC Capital Markets' research. Conversely, when economic growth is harder to come by, like it was in prior years, growth stocks are favored because investors are willing to "pay up" for them. Value also tends to outperform growth during the latter stage of a bull market cycle.

There have been two periods of U.S. value leadership during this bull market; perhaps there is another one in store (see upper chart).

Favorable fairway for Financials

Just as the Tech sector is a major part of the growth segment, the Financials sector is a heavyweight in the value category. We continue to believe Financials, and specifically bank stocks, have the potential to perform well in 2018.

Historically, the Financials sector has been positively correlated with changes in inflation expectations. It also tends to outperform when Treasury yields rise, and should benefit from additional Federal Reserve rate hikes as long as economic growth stays intact.

Bank stocks are still reasonably valued compared to the broader market and versus the historical average based on our assessment of multiple valuation measures, including price-to-book (see lower chart). Earnings growth and revisions have been strong lately, and the loan growth

Might value stocks take the lead soon?

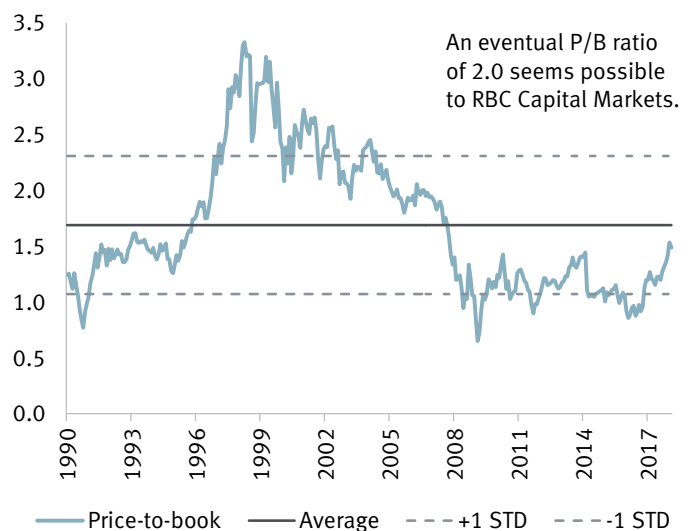
Performance of U.S. Russell 1000 Value Index vs. Growth Index (ratio of large-cap value divided by growth)



Source - RBC Wealth Management, Bloomberg; data through 3/28/18

U.S. banks still below the historical average valuation

S&P 500 Banks Index price-to-book (P/B) ratio



Source - RBC Wealth Management, Bloomberg; monthly data through 3/28/18

outlook is bright, according to RBC Capital Markets' bank analysts. The Financials sector is among the biggest beneficiaries of corporate tax cuts. Furthermore, the bank regulatory environment is improving, especially for small and medium-sized firms.

While we believe it's too soon to make a definitive call that U.S. value will reign over growth, this trend could emerge in coming months. Regardless, we continue to view the value category's main constituent, Financials, as attractive.



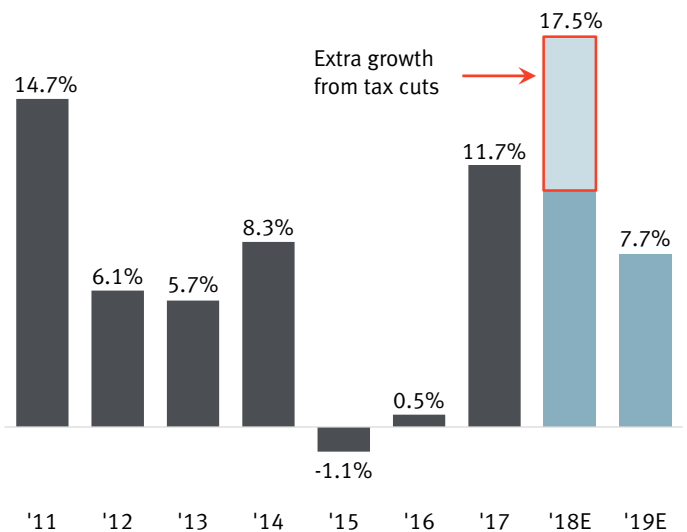
United States

Kelly Bogdanova – San Francisco

- **The S&P 500 finished Q1 down 1.2%**, ending a nine-quarter winning streak. Technology and Consumer Discretionary were the only positive sectors, while Telecom, Consumer Staples, and Energy underperformed the most. **The 10-year Treasury yield jumped 33 basis points** for the quarter, closing near 2.74%, well below the January peak of 2.95%. The move higher in yields initially sparked the equity selloff, although other factors came into play as the quarter progressed.
- **So far, transportation stocks**, often a key bellwether segment of the equity market, **have held together reasonably well during the correction**. In Q1, the Dow Jones Transportation Average moderately outperformed the Dow Industrials. In March, the performance gap widened, as the Transports inched up 0.1% whereas the Dow dropped 3.7%. The Transportation Average is much further above its previous low than the Dow is. **Investors and traders who adhere to the Dow Theory**, which asserts the predictive power of the Transports, **view these as positive signs for the broader market**. The Transports did not confirm the Dow's March weakness and did not flash a "sell" signal for the broader market.
- But that doesn't mean the market is out of the woods. RBC Capital Markets, LLC Technical Strategist Bob Dickey wrote, **"It's important to keep in mind that the volatility will probably remain high in both directions** for some time until the markets finally reach some kind of equilibrium, which could still take a few months. **We still think there is the potential for more downside risk** and would not be drawn into reacting to any single trading session in either direction."
- **Q4 2017 GDP growth was unexpectedly revised higher** to an annualized rate of 2.9% q/q from the previous reading of 2.5% and above the 2.7% consensus forecast. **Stronger-than-expected household spending and a more modest drag from inventories** helped push GDP up. Before-tax nationwide corporate profits (includes public and non-public companies of all sizes) came in much lower than the prior quarter. Perhaps some companies delayed recognizing profits due to the far more favorable tax rates that came into effect in Q1 2018. **There were healthy corporate trends beneath the surface**. Revenue growth has caught up with GDP growth and seems positioned to outpace it in coming quarters, according to RBC Capital Markets, LLC Chief U.S. Economist Tom Porcelli. He believes profitability will remain healthy, as strong revenue growth combined with tax cuts should enable companies

The U.S. earnings outlook is sturdy

S&P 500 y/y earnings growth: Actual in gray; RBC estimates in blue



Source - RBC Capital Markets U.S. Equity Strategy (estimates in blue), Thomson Reuters I/B/E/S (actual earnings in gray); data through 3/27/18

to absorb any wage increases without sacrificing the bottom line. **RBC Capital Markets expects S&P 500 profits to surge 17.5% this year** with the help of tax cuts (see chart).



Canada

Richard Tan & Christopher Girdler, CFA – Toronto

- The Canadian Radio-television and Telecommunications Commission (CRTC) **upheld its original decision to restrict mobile WiFi operators from gaining access to incumbent wireless networks at regulated rates**. However, the CRTC is initiating a process through which it **hopes to ensure data-only plans will become more affordable** for Canadians. National wireless operators will be required to file proposals by April 23, 2018. RBC Capital Markets believes the **impact to national operators will be manageable** but could introduce a degree of repricing in the market, which could induce pressure on revenue growth.
- **As OPEC continues its attempt to curb the supply of oil**, there are some early indications that **there could be a shift in its objective**. For the past 15 months, it has been the oil bloc's objective to return inventories to their five-year average. Recent OPEC deliberations **considered the seven-year average as its new benchmark**, which could extend production cuts. RBC Capital Markets believes OPEC remains unwavering in its goal to balance the market

and prevent a scenario where U.S. production could overwhelm the demand from global participants.

- **Government of Canada (GoC) bond yields were dragged lower** during the week as trade policy uncertainty persisted and there was a lack of economic data to provide support. **Longer-dated yields fell more than short-dated** and caused a further flattening of the GoC yield curve, a theme that has been consistent throughout March. **January GDP was released** late in the holiday-shortened trading week but offered no support, as **economic growth fell 0.1% over the month**, driven by lower contributions from the Real Estate and Energy sectors. December's GDP growth figure was revised 0.1% higher to 0.2%, but that did little to change the direction for yields.



Europe

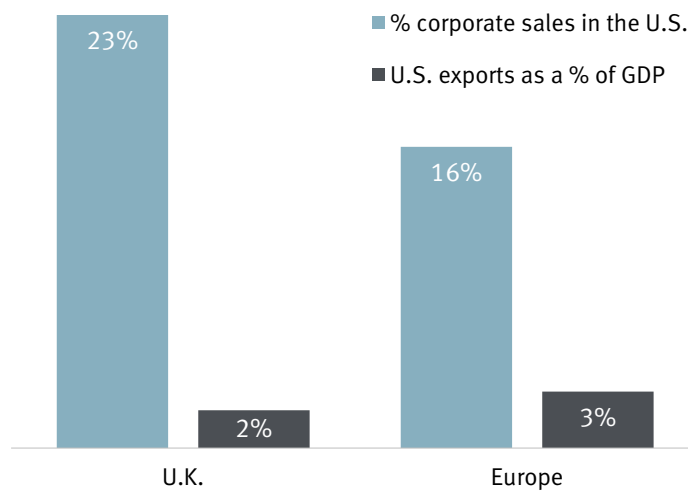
Frédérique Carrier – London

- **Though fears of escalating protectionism may have abated somewhat, concerns linger.** We have looked at both the U.K. and the EU to gauge which areas of their corporate sectors may be most, or least, exposed to trade barriers being erected by the U.S.
- The U.K.'s corporate sector derives just under a quarter of its revenues from the U.S. Most of this, however, is thanks to plants and facilities that produce goods to be sold in the U.S. market, rather than through exports. Indeed, U.S. exports as a percentage of U.K. GDP is a relatively low 2%. As such, **the U.K. corporate sector would not seem particularly exposed to the protectionist threat.** The sectors deriving the highest percentage of revenues from the U.S. are pharmaceuticals (at just over 40%), closely followed by capital goods, Energy, and consumer services.
- **For the eurozone, the corporate sector derives a little less from the U.S.,** just over 15% of revenues, though U.S.

exports are a marginally more important to the economy, representing 3% of eurozone GDP. In Europe, the **health care equipment sector** derives by far the **largest portion of revenues** from the U.S., with almost half of its sales arising there.

- At the other end of the spectrum, **sectors inherently domestically focused should emerge unscathed** from the protectionist trend. The U.K. sector least exposed to the U.S., with less than 5% of sales derived from the U.S., is Telecom. In the eurozone, it is Utilities.
- In both the U.K. and Europe, **banks have minimal exposure to the U.S.**, at around 10% of revenues. If protectionism starts to impact local economic growth, not our base-case scenario, banks would suffer too as they are intrinsically linked to their domestic economies.

The U.S. is an important market to the U.K. corporate sector though not necessarily through exports



Source - OECD, RBC Wealth Management, our national research correspondent; 2016 data



MARKET SCORECARD

Data as of March 29, 2018

Equities (local currency)	Level	MTD	YTD	1 yr	2 yr
S&P 500	2,640.87	-2.7%	-1.2%	11.8%	28.5%
Dow Industrials (DJIA)	24,103.11	-3.7%	-2.5%	16.7%	36.7%
NASDAQ	7,063.45	-2.9%	2.3%	19.8%	45.7%
Russell 2000	1,529.43	1.1%	-0.4%	11.5%	37.9%
S&P/TSX Comp	15,367.29	-0.5%	-5.2%	-1.9%	14.5%
FTSE All-Share	3,894.17	-2.2%	-7.8%	-2.9%	16.0%
STOXX Europe 600	370.87	-2.3%	-4.7%	-2.0%	10.1%
EURO STOXX 50	3,361.50	-2.3%	-4.1%	-3.3%	11.9%
Hang Seng	30,093.38	-2.4%	0.6%	23.4%	47.8%
Shanghai Comp	3,160.53	-3.0%	-4.4%	-2.5%	8.2%
Nikkei 225	21,159.08	-4.1%	-7.1%	10.1%	23.7%
India Sensex	32,968.68	-3.6%	-3.2%	11.6%	32.4%
Singapore Straits Times	3,427.97	-2.6%	0.7%	7.6%	21.6%
Brazil Ibovespa	85,365.56	0.0%	11.7%	30.3%	66.9%
Mexican Bolsa IPC	46,124.85	-2.8%	-6.5%	-5.9%	0.5%
Commodities (USD)	Price	MTD	YTD	1 yr	2 yr
Gold (spot \$/oz)	1,324.97	0.5%	1.7%	5.7%	6.7%
Silver (spot \$/oz)	16.35	-0.4%	-3.5%	-10.4%	6.4%
Copper (\$/metric ton)	6,633.50	-3.8%	-8.0%	12.7%	34.9%
Oil (WTI spot/bbl)	64.94	5.4%	7.5%	31.2%	69.6%
Oil (Brent spot/bbl)	70.27	6.8%	5.1%	34.1%	79.5%
Natural Gas (\$/mmBtu)	2.74	2.6%	-7.3%	-13.8%	43.8%

Govt bonds (bps chg)	Yield	MTD	YTD	1 yr	2 yr
U.S. 10-Yr Tsy	2.739%	-12.2	33.4	36.2	93.5
Canada 10-Yr	2.091%	-14.4	4.6	49.8	91.2
U.K. 10-Yr	1.350%	-15.1	16.0	20.0	-6.1
Germany 10-Yr	0.497%	-15.9	7.0	15.3	36.0
Fixed Income (returns)	Yield	MTD	YTD	1 yr	2 yr
U.S. Aggregate	3.14%	0.4%	-1.7%	1.0%	1.6%
U.S. Invest Grade Corp	3.79%	-0.1%	-2.6%	2.3%	6.0%
U.S. High Yield Corp	6.20%	-0.7%	-0.9%	4.1%	21.6%
Currencies	Rate	MTD	YTD	1 yr	2 yr
U.S. Dollar Index	90.0860	-0.6%	-2.2%	-9.9%	-5.3%
CAD/USD	0.7758	-0.4%	-2.5%	3.4%	1.4%
USD/CAD	1.2890	0.5%	2.5%	-3.3%	-1.4%
EUR/USD	1.2301	0.9%	2.5%	14.3%	8.9%
GBP/USD	1.4024	1.9%	3.8%	12.8%	-2.5%
AUD/USD	0.7676	-1.1%	-1.7%	0.1%	0.6%
USD/JPY	106.4400	-0.2%	-5.5%	-4.1%	-5.6%
EUR/JPY	130.9100	0.6%	-3.2%	9.5%	2.9%
EUR/GBP	0.8771	-1.0%	-1.2%	1.3%	11.7%
EUR/CHF	1.1766	2.2%	0.5%	9.7%	7.8%
USD/SGD	1.3115	-1.0%	-1.8%	-5.9%	-3.2%
USD/CNY	6.2898	-0.7%	-3.3%	-8.7%	-3.3%
USD/MXN	18.1840	-3.5%	-7.5%	-2.8%	4.8%
USD/BRL	3.3036	1.7%	-0.3%	5.9%	-9.2%

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 8:36 pm GMT 3/29/18.

Examples of how to interpret currency data: CAD/USD 0.77 means 1 Canadian dollar will buy 0.77 U.S. dollar. CAD/USD -2.5% return means the Canadian dollar fell 2.5% vs. the U.S. dollar year to date. USD/JPY 106.44 means 1 U.S. dollar will buy 106.44 yen. USD/JPY -5.5% return means the U.S. dollar fell 5.5% vs. the yen year to date.

Authors

Kelly Bogdanova – San Francisco, United States

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

Richard Tan – Toronto, Canada

richard.tan@rbc.com; RBC Dominion Securities Inc.

Christopher Girdler, CFA – Toronto, Canada

christopher.girdler@rbc.com; RBC Dominion Securities Inc.

Frédérique Carrier – London, United Kingdom

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

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: Richard Tan and Christopher Girdler, employees of RBC Wealth Management USA's foreign affiliate RBC Dominion Securities Inc.; and Frédérique Carrier, an employee 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).

Rating	Count	Percent	Investment Banking Services Provided During Past 12 Months	
			Count	Percent
Buy [Top Pick & Outperform]	868	52.42	281	32.37
Hold [Sector Perform]	683	41.24	155	22.69
Sell [Underperform]	105	6.34	8	7.62

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. **Restricted (R):** RBC policy precludes certain types of communications, including an investment recommendation, when RBC is acting as an advisor in certain merger or other strategic transactions and in certain other circumstances. **Not Rated (NR):** The rating, price targets and estimates have been removed due to applicable legal, regulatory or policy constraints which may include when RBC Capital Markets is acting in an advisory capacity involving the company.

Risk Rating:

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 2018 - Member NYSE/FINRA/SIPC

© RBC Dominion Securities Inc. 2018 - Member Canadian Investor Protection Fund

© RBC Europe Limited 2018

© Royal Bank of Canada 2018

All rights reserved

RBC1253