

Global Insight

Weekly



A closer look

Take small steps

Kelly Bogdanov – San Francisco

As we look for equity opportunities amid a backdrop of sputtering earnings growth and somewhat unappealing valuations, we're reminded that some big things can come in small packages.

More than seven years into the rally and with S&P 500 earnings growth stalled, one of the main challenges is that there aren't many pockets of value in the U.S. market.

The S&P 500 trades at above-average price-to-earnings (P/E) ratios: 18.7x trailing earnings and 17.1x forward estimates based on Thomson Reuters I/B/E/S data.

Some of the uber-defensive sectors with attractive dividend yields—Utilities and Consumer Staples—are at lofty P/E levels, and a number of other sectors have above-average multiples. Financials are cheap but they are, as the old saying goes, “cheap for a reason” due to ultralow interest rates.

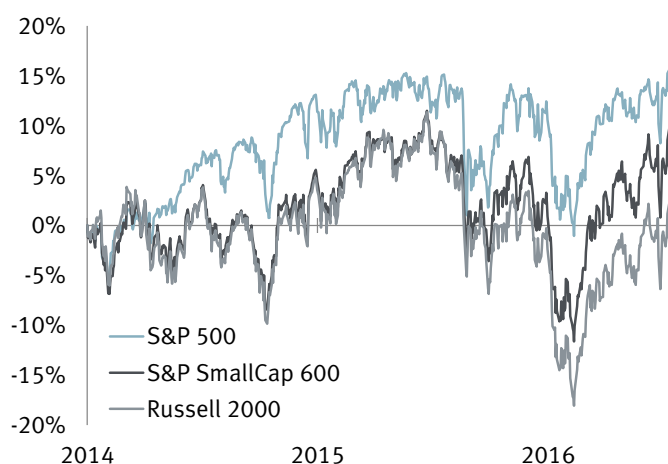
But there is an area of the market that we believe offers relative value and attractive attributes compared to other segments—small-cap stocks.

Small world

Small-cap momentum has been quietly building. The S&P SmallCap 600 Index came within a whisker of reaching a new all-time high during the week. Small-cap benchmarks have outperformed their large-cap cousins since the February low, and the S&P SmallCap 600 is leading the S&P 500 by 330 basis points (3.3%) year to date.

From our vantage point, the challenging global economic environment is better suited for small caps as their earnings are more domestically oriented. While the U.S. economy is certainly not growing like gangbusters, it is stronger than other major developed economies. Small caps are less vulnerable to slumps in global industrial production and dollar strength, both of which could persist or intensify.

U.S. large- vs. small-cap equity performance



Source - RBC Wealth Management, Bloomberg; data through 7/21/16

Market pulse

- 3 What the optimism toward the U.S. stock market tells us
- 3 Better earnings down the track for Canadian rails?
- 4 Eurozone economy taking Brexit in stride
- 4 Cooling effect on China's booming housing market

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

Priced (in USD) as of 7/22/16 market close, EST (unless otherwise stated).

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



Wealth
Management

As a group, small-cap balance sheets seem sturdy. Cash ratios are higher and net debt ratios are lower than midcaps and large caps. For example, the median cash-to-assets ratio for the Russell 2000 is roughly 13.5%, almost double the S&P 500 (ex-Financials). Net debt-to-capital is about 26% for the Russell 2000 compared to almost 41% for the S&P 500 (ex-Financials).

Growth prospects are also more attractive. For the next 12 months, earnings are projected to climb 11.7% y/y for the S&P SmallCap 600 versus 8.0% for the S&P 500, according to consensus estimates. While revenue growth forecasts are fairly close at 4.8% and 4.3%, respectively, we believe small caps have room to surprise to the upside.

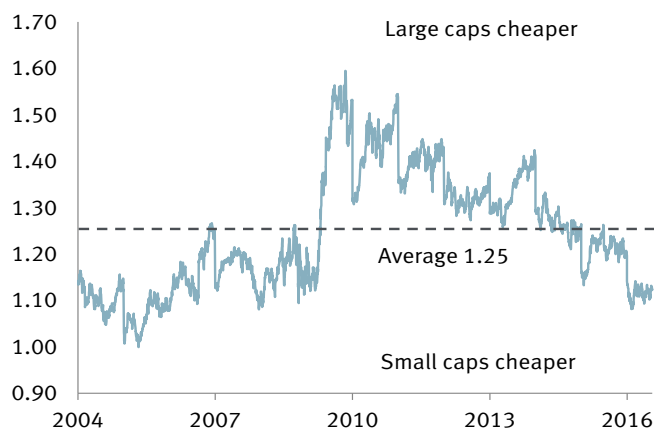
On a relative basis, small caps are trading at the lower end of the long-term P/E range versus large caps, and are just off their lowest level since the economic recovery began in March 2009 (see chart). A majority of small-cap industries are more attractively valued than their large-cap peers with energy, retailing, transportation, software, and biotech as standouts.

Small-cap valuations also score well based on robust proprietary multifactor models that not only include P/E ratios, but also incorporate price-to-book, price-to-sales, and free cash flow yields.

In our view, there is enough fundamental support from stronger earnings prospects and better relative valuations to warrant a position in U.S. small caps for investors with growth-oriented portfolios and above-average risk tolerances. We would use any market weakness to add small-cap exposure.

Small caps attractively valued vs. large caps

Ratio of S&P SmallCap 600 to S&P 500 price-to-earnings (SML/SPX PEs)



Source - RBC Wealth Management, Bloomberg; 12-mo. forward data through 7/20/16



What's moving markets

Carry on

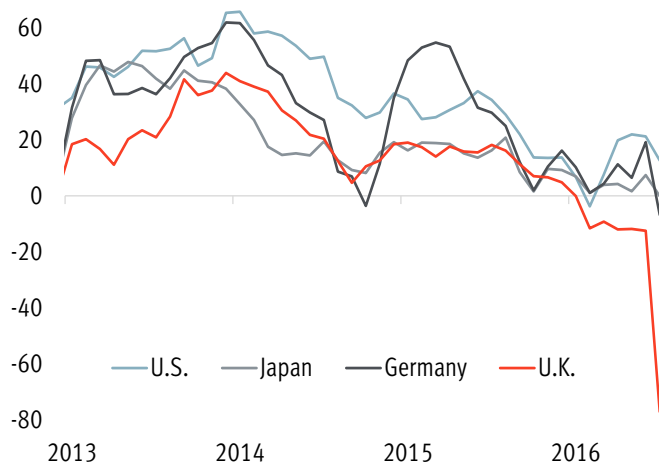
The global equity market has largely pushed Brexit off to the side, as Continental Europe is the only region in negative territory since the vote occurred. But there are still signs of ripple effects elsewhere:

- Sentiment about future economic growth has plunged in the U.K., retreated in Germany, and pulled back slightly in the U.S. and Japan since the Brexit vote (see chart).
- The greenback's advance has yet to stall. The U.S. Dollar Index has risen for four straight weeks by a total of 4.1%—a sizeable, swift move for the world's reserve currency.
- WTI and Brent crude oil have retreated 11.6% and 10.2%, respectively, as the dollar has advanced and because of high U.S. inventories and global growth jitters.
- Sovereign bond yields in most markets remain below where they were when the U.K. decided to leave the EU.

Should investors heed these signals? We think equity markets and the sentiment readings have it right—Brexit is mainly an issue that will generate headwinds for the U.K. and Continental Europe, and other regions should be able to manage around it. But we are keeping an eye on the dollar. If it continues to trade higher, it could negatively impact earnings revisions trends for U.S.-based multinationals.

Economic attitudes have slipped, especially in the U.K.

ZEW Indexes - Expectations of economic growth



Source - RBC Wealth Management, Bloomberg; data through 7/19/16



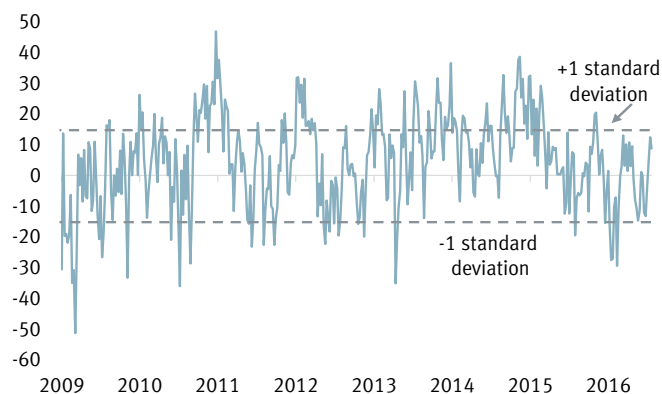
United States

Kelly Bogdanov – San Francisco

- The S&P 500 managed to creep up 0.6% for the week even though the rally began to lose steam. **It seems like the market needs some time to rest.** The S&P 500 has risen 2.9% since the Brexit vote. Health Care, Utilities, and Technology have led and sector performance has broadened with all but Energy trading higher. More impressive, the market has **surged 18.9% since the February low.**
- **One of the knocks against the rally is that investor sentiment has become quite bullish.** Sentiment is typically a contrary indicator—when it's too bullish the market is vulnerable to a correction, and vice versa when it's too bearish. At this stage, **sentiment concerns seem overstated to us.** True, bullish attitudes have increased while bearish views have decreased lately, which has pushed overall sentiment higher. But even with this shift toward optimism, sentiment remains within the “normal” zone (within +/- one standard deviation of the mean). **There are only about 9% more bulls than bears,** which is not so high as to hinder the market, in our view (see chart). It typically takes a bull-bear spread of 30%+ to make us uncomfortable.
- **Better-than-expected Q2 earnings reports and forward guidance** are among the reasons investors have become more optimistic. With 25% of S&P 500 companies having reported so far, 68% have exceeded consensus earnings expectations and 54% have beaten revenue projections, similar to the averages of the past four quarters. The S&P 500 blended earnings growth rate—a combination of companies that have reported so far and estimates for those that have yet to report—is tracking at -3.0% y/y, according to Thomson Reuters I/B/E/S. **Excluding Energy (-79% y/y), earnings growth bumps up to 1.0%.** The coming week should sort out whether these trends hold as 40% of S&P 500 companies are scheduled to report.
- **Key takeaways so far this earnings season:** (1) There have been no dire warnings from U.S.-based multinationals about Brexit's potential impact, but some companies have signaled that **global growth remains challenging,** including industrial giant Honeywell, which lowered its 2016 forecast; (2) **Big banks** have reported **better-than-feared** results with solid loan and deposit growth and subdued net interest margins amid a very difficult interest rate environment; and (3) Select **Tech companies that are transitioning to new technologies** all the while attempting to grow their legacy “old tech” products and services **are making progress,** such as Microsoft and IBM, but others are still struggling, such as Intel.

Equity sentiment is within the typical range

U.S. individual investors bull-bear spread (% of bulls minus % of bears)



Source - RBC Wealth Management, American Association of Individual Investors, Bloomberg; weekly data through 7/21/16



Canada

Patrick McAllister & Diana Di Luca – Toronto

- **The S&P/TSX Composite extended its recent rally** as non-resource sectors advanced.
- The **Canadian banks** are trading at a **price-to-earnings** valuation roughly **in line with the long-term average** but offer historically **attractive dividend yields.** We believe the group remains more **attractive for income-oriented investors** relative to those with a total return mandate.
- **Canadian Pacific Railway** reported **Q2 results** in line with management's prior guidance. Management expressed **confidence in stronger volumes** later this year. Industry-wide demand conditions have been soft in comparison to 2014's record volumes. **A return to volume growth could result in substantial earnings growth** for rail companies as many have significantly reduced their cost base.
- The **Canadian CPI increased 1.5% y/y** in June, **stronger** than the 1.4% expected by economists. **Inflation** was driven by a **rise in passenger vehicle prices** (+5.6% y/y) and **home prices** (+3.5%).
- **Canadian retail sales rose 0.2% m/m** in May, **beating** economists' estimates for flat sales. Sales were driven by a 2.3% increase in gasoline sales, partially offset by a 2% decline in car sales. Year-to-date retail sales have risen 4.9%, the **best start to the year in six years.**
- The **preferred share market** is up roughly 2.5% over the past two weeks and sits at the **highest level since January.** The market has been moving higher as a **lack of new issue supply and narrow credit spreads** have helped **push secondary market prices higher.** Cross-asset class relative value analysis also appears to be driving demand.



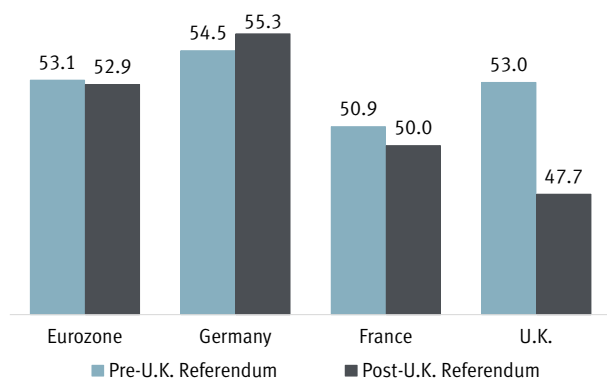
Europe

Frédérique Carrier & Thomas McGarrity – London

- **European equity markets nudged moderately higher** again for the week. The **Technology** sector was the **significant outperformer** following the announcement that U.K. microchip **designer ARM Holdings** is to be **acquired** for £24.3B by Japanese conglomerate **SoftBank**. The deal represents the largest acquisition of a European-listed technology company ever.
- The **first post-Brexit economic data points were released**, with the Markit flash PMI surveys. The **U.K. Composite** indicator, which includes both manufacturing and services sectors, suffered its **biggest fall on record**, plunging to 47.7 in July from 52.4 in June. All headline PMIs fell conclusively below 50, indicating a contraction in output levels. These readings highlight the immediate negative impact the Brexit vote has had on the **U.K. economy**, which is on track to **significantly slow, or even shrink, in Q3**.
- **Eurozone PMIs exceeded economists' expectations**, with the Composite index easing only slightly to 52.9 from 53.1 in June, indicating that the **U.K.'s vote to leave the EU has had little immediate negative impact** so far. While all the eurozone readings remained comfortably above 50, signalling continued expansion, the **European economic recovery remains fragile**, with any shocks threatening the already sluggish levels of growth.
- The **European Central Bank (ECB)** kept its **stimulus program unchanged**. It emphasised it would **wait until more information** is available to assess the economic fallout inflicted by Brexit before deciding the appropriate policy response. A **substantial announcement** from the ECB is **unlikely before September**, in our view.

Despite U.K. referendum, Continental European PMIs are mostly expansionary

Select Composite PMIs



Source - RBC Wealth Management, Bloomberg; data as of 5/31/16 for Pre-U.K. Referendum PMIs and flash data as of 7/22/16 for Post-U.K. Referendum PMIs

- German software giant **SAP** delivered a **very good set of Q2 results**. The performance was driven by strong software license revenue growth, while its **next-generation business suite S/4HANA** continued to see **positive momentum**, adding more than 500 new customers in the quarter.
- **Vodafone**, Europe's biggest telecom company, reported **robust Q1 results** ahead of consensus expectations. The company saw an **improved performance in Europe**, its biggest market, helped by its "more-for-more" pricing strategy in which customers receive higher data allowances and additional features, together with an increase in monthly tariffs.



Asia Pacific

Jay Roberts – Hong Kong

- **Asian equities rallied to a new high for 2016** during the week, led by Japan. Earlier in the year, a number of major equity markets in Asia, including Hong Kong, Singapore, South Korea, and Japan, were trading at particularly low valuations. Despite the rally, **valuations remain undemanding**.
- The **total value of new homes sold in China** in June **rose by 22% y/y**. However, this marked a slowdown over previous months. The value of property sold was RMB1T (\$150B) in the month. The **strong housing market rebound in China**, which has been underway for quite a while, has been helped by various stimulus measures. These have included a series of **interest rate cuts** and a **reduction in down payment requirements** for mortgages from previous high levels.
- The strength in the **housing market in China**, both in terms of the volume of sales as well as prices, has led to some of China's largest cities **reintroducing tightening measures**. Some other cities in China are now following suit. This is beginning to have a **cooling effect on the market**. In June, house prices rose in 55 of 70 major cities, down from 60 in May.
- The **New Zealand dollar fell to a six-week low** after the central bank stated that further **interest rate cuts** may be **needed to boost inflation**. The benchmark lending rate currently stands at 2.25%.
- In a **major corporate deal**, Japan's **SoftBank Group** (9984 JP) will **buy U.K. technology company ARM Holdings** (ARM LN) for £24.3B (\$32B), a 43% premium to ARM's closing share price on July 15. ARM's technology is widely used in smartphones and is breaking ground in the emerging "Internet of Things" category.



MARKET SCORECARD

Data as of July 22, 2016

Equities (local currency)	Level	1 week	MTD	YTD	12 mos
S&P 500	2,175.03	0.6%	3.6%	6.4%	2.9%
Dow Industrials (DJIA)	18,570.85	0.3%	3.6%	6.6%	4.0%
NASDAQ	5,100.16	1.4%	5.3%	1.9%	-1.4%
Russell 2000	1,212.89	0.6%	5.3%	6.8%	-3.6%
S&P/TSX Comp	14,600.66	0.8%	3.8%	12.2%	2.1%
FTSE All-Share	3,643.80	1.0%	3.7%	5.8%	0.1%
STOXX Europe 600	340.33	0.7%	3.2%	-7.0%	-15.0%
German DAX	10,147.46	0.8%	4.8%	-5.5%	-11.9%
Hang Seng	21,964.27	1.4%	5.6%	0.2%	-13.1%
Shanghai Comp	3,012.82	-1.4%	2.8%	-14.9%	-25.2%
Nikkei 225	16,627.25	0.8%	6.7%	-12.6%	-17.1%
India Sensex	27,803.24	-0.1%	3.0%	6.5%	-2.5%
Singapore Straits Times	2,945.35	0.7%	3.7%	2.2%	-12.3%
Brazil Ibovespa	57,002.08	2.6%	10.6%	31.5%	12.0%
Mexican Bolsa IPC	47,537.28	1.8%	3.4%	10.6%	6.4%
Commodities (USD)	Price	1 week	MTD	YTD	12 mos
Gold (spot \$/oz)	1,323.11	-1.1%	0.1%	24.7%	20.9%
Silver (spot \$/oz)	19.63	-3.0%	4.9%	41.6%	32.5%
Copper (\$/metric ton)	4,966.50	1.3%	2.6%	5.5%	-7.0%
Oil (WTI spot/bbl)	43.49	-5.4%	-10.0%	17.4%	-11.0%
Oil (Brent spot/bbl)	45.71	-4.0%	-8.0%	22.6%	-18.6%
Natural Gas (\$/mmBtu)	2.78	0.8%	-5.0%	18.8%	-4.1%
Agriculture Index	292.93	-2.7%	-5.6%	3.3%	-2.3%

Govt bonds (bps chg)	Yield	1 week	MTD	YTD	12 mos
U.S. 2-Yr Tsy	0.703%	3.5	12.1	-34.5	-0.4
U.S. 10-Yr Tsy	1.565%	1.4	9.5	-70.5	-75.9
Canada 2-Yr	0.567%	0.0	4.9	8.6	13.3
Canada 10-Yr	1.097%	1.4	3.6	-29.7	-44.6
U.K. 2-Yr	0.131%	-3.5	3.2	-52.0	-51.7
U.K. 10-Yr	0.798%	-3.6	-6.9	-116.2	-123.2
Germany 2-Yr	-0.612%	4.0	4.9	-26.7	-38.6
Germany 10-Yr	-0.030%	-3.6	10.0	-65.9	-77.7

Currencies	Rate	1 week	MTD	YTD	12 mos
U.S. Dollar Index	97.39	0.8%	1.3%	-1.3%	-0.2%
CAD/USD	0.76	-1.3%	-1.6%	5.3%	-0.8%
USD/CAD	1.31	1.3%	1.7%	-5.0%	0.8%
EUR/USD	1.10	-0.6%	-1.2%	1.0%	0.4%
GBP/USD	1.31	-0.7%	-1.6%	-11.1%	-16.1%
AUD/USD	0.75	-1.5%	0.2%	2.5%	1.2%
USD/CHF	0.99	0.5%	1.2%	-1.5%	2.9%
USD/JPY	106.17	1.2%	2.9%	-11.7%	-14.4%
EUR/JPY	116.51	0.7%	1.7%	-10.8%	-14.0%
EUR/GBP	0.84	0.2%	0.4%	13.7%	19.7%
EUR/CHF	1.08	-0.2%	0.0%	-0.4%	3.3%
USD/SGD	1.36	0.8%	0.9%	-4.2%	-0.5%
USD/CNY	6.68	-0.2%	0.5%	2.9%	7.6%
USD/BRL	3.26	-0.7%	1.4%	-17.8%	1.1%

Source - Bloomberg. Note: Equity returns do not include dividends, except for the German DAX. Bond yields in local currencies. Copper and Agriculture Index data as of Thursday'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 8:35 pm GMT 7/22/16.

Examples of how to interpret currency data: CAD/USD 0.76 means 1 Canadian dollar will buy 0.76 U.S. dollar. CAD/USD 5.3% return means the Canadian dollar rose 5.3% vs. the U.S. dollar year to date. USD/JPY 106.17 means 1 U.S. dollar will buy 106.17 yen. USD/JPY -11.7% return means the U.S. dollar fell 11.7% vs the yen year to date.



UPCOMING EVENTS

200 S&P 500 companies are scheduled to report earnings during the week of July 24.

Sun, Jul 24	Tue, Jul 26 cont.	Thu, Jul 28 cont.	Fri, Jul 29 cont.
Japan Trade Balance	U.S. New-Home Sales (560K)	Japan Industrial Prod. (0.5% m/m)	Eurozone CPI and GDP
Japan Exports and Imports	Wed, Jul 27	Eurozone Consumer Confidence	U.S. Q2 GDP (2.6% q/q ann.)
Mon, Jul 25	U.K. GDP (0.5% q/q, 2.1% y/y)	Germany Unemployment	U.S. GDP Revisions
Germany IFO Expectations	U.K. Services Index (0.1% m/m)	Germany CPI	U.S. Personal Consump. (4.1% q/q)
Tue, Jul 26	U.S. Durable Goods (-1.1% m/m)	U.K. Housing Price Index (0.1% m/m)	U.S. Core PCE
China Industrial Profits	U.S. Pending-Home Sales (1.1% m/m)	U.K. Consumer Confidence (-7)	U.S. Univ. of Mich. Sentiment (90.2)
U.S. Markit Composite PMI	Fed Meeting	Fri, Jul 29	Canada May GDP (-0.5% m/m)
U.S. Markit Services PMI	Thu, Jul 28	BoJ Meeting	Thu, Aug 4
U.S. Consumer Confidence (95.5)	Japan CPI (-0.4% y/y, 0.5% core)	Eurozone Unemployment	BoE 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 – Toronto, Canada

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

Diana Di Luca – Toronto, Canada

diana.diluca@rbc.com; RBC Dominion Securities Inc.

Frédérique Carrier – London, United Kingdom

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

Thomas McGarrity, CFA – London, United Kingdom

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

Jay Roberts – Hong Kong, China

jay.roberts@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: Diana Di Luca, Patrick McAllister, and Jay Roberts, 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 (UK) 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), and the Guided Portfolio: ADR (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

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, 2016				
Rating	Count	Percent	Investment Banking Services Provided During Past 12 Months	
			Count	Percent
Buy [Top Pick & Outperform]	878	50.51	246	28.02
Hold [Sector Perform]	741	42.64	129	17.41
Sell [Underperform]	119	6.85	10	8.40

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.rbcm.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.

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. 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: Le Gallais Chambers, 54 Bath Street, St Helier, Jersey JE4 8YD, registered company number 119162.

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), the registered entity 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. © RBC Capital Markets, LLC 2016 - Member NYSE/FINRA/SIPC © RBC Dominion Securities Inc. 2016 - Member CIPF © RBC Europe Limited 2016 © Royal Bank of Canada 2016 All rights reserved