RBC Dominion Securities Inc.

Wealth Management
Dominion Securities

Portfolio Advisory Group | November 2017

Fraser Kochan, CPA, CA, CIM
Vice President, Associate Portfolio Manager
fraser.kochan@rbc.com
306-773-7245

Erin Mullin
Associate
erin.mullin@rbc.com
306-770-2540

Dorene Bymoen
Associate
dorene.bymoen@rbc.com
306-770-2541

137 1st Ave NE
Swift Current, SK S9H 2B1

www.fraserkochan.ca
1 800 667-2466

What moved the markets

US tax reform and the change in leadership at the Federal Reserve dominated the headlines in November. These stories played out against a backdrop of rising equity markets and flattening North American yield curves. Senate Republicans led a debate throughout the month over their proposed tax reform, finally getting a bill to the Senate at the end of the month.

Meanwhile President Trump ended the uncertainty around Federal Reserve Chair Janet Yellen's successor by nominating Jerome Powell for the role. North of the border, the Bank of Canada continued to reiterate its cautious stance towards policy tightening in their data dependent mode and their Financial System Review touched on a few potential areas of vulnerability. Elsewhere, Britain's messy divorce from the European Union got a hint of clarity as the negotiators reportedly settled on a £50bn bill to be paid to Brussels. Both the UK and European governments have yet to approve the reported terms before moving further to negotiate new trade deals between the mainland and the isles.

Equity markets comments

Equity markets were positive in North America, with the S&P 500 outperforming the S&P/TSX composite by 2.6%. The S&P/TSX moved up 0.5%, mostly driven by the 18.3% gain in the Healthcare sector. However, the Industrials sector slightly offset these gains by falling -1.4%.

In the U.S., the S&P 500 closed up 3.1%, with all sectors ending the month in positive territory. The Telecommunications sector led the U.S. markets with a strong 6% rally followed by Consumer Staples up 5.7%. The Materials sector lagged behind moving up by 1%.

All indices and figures priced in local currency as at November 30, 2017 (unless otherwise stated). For important disclosures, see page 10.

Continued on page 2

Number crunching

Equity indices*	Month	YTD*
S&P/TSX Composite Index TR	0.5%	7.8%
Dow Jones Industrial Average TR	4.2%	25.7%
S&P 500 Index TR	3.1%	20.5%
NASDAQ Composite Index TR	2.3%	29.0%
MSCI EAFE TR (USD)	1.1%	23.6%
MSCI World TR (USD)	2.2%	21.4%

S&P/TSX sector performance*	Month	YTD*
S&P/TSX Financials TR	0.4%	12.6%
S&P/TSX Energy TR	-0.1%	-8.1%
S&P/TSX Materials TR	-0.4%	3.8%
S&P/TSX Industrials TR	-1.4%	17.0%
S&P/TSX Consumer Discretionary TR	1.7%	23.4%
S&P/TSX Telecom Services TR	2.4%	16.1%
S&P/TSX Information Technology TR	0.2%	16.4%
S&P/TSX Consumer Staples TR	3.8%	7.7%
S&P/TSX Utilities TR	0.3%	11.8%
S&P/TSX Healthcare TR	18.3%	8.1%

* All returns are on a Total Return basis. All indices are in local currency unless otherwise noted. Source: Bloomberg

Fixed income specific developments

The Government of Canada yield curve flattened as the market continues to price in some rate hikes from the BoC in 2018 which helped short-term yields hold steady, while longer-term yields drifted lower in sympathy with global yields. The yield differential between the 2-year and the 30-year Government of Canada bonds narrowed by over 10 basis points in November.

The Bank of Canada released its semi-annual Financial System Review, highlighting key vulnerabilities to financial stability in Canada. The high level of household debt and housing market imbalances were identified as the main risks the central bank is monitoring. Nevertheless, Bank of Canada Governor Stephen Poloz also sought to dampen concerns by emphasizing that the financial system continues to be resilient, citing stronger growth and job creation as positive signs.

Canada's current account deficit widened by $3.8 billion in the third quarter to $19.3 billion, with the deficit moving back to the widest level since the first quarter of 2015. A lack of export growth was a key contributor as the goods deficit rose $3.6 billion to $8.9 billion over the third quarter, the third consecutive increase of the goods deficit and the second highest deficit on record. Offsetting the current account deficit was foreign direct investment in the financial account as strong and continued investment in Canadian bonds led the inflows into the economy.

The US Treasury yield curve also flattened in November as investors priced-in the Fed continuing to increase short term interest rates. The move higher in 2-year yields has not been matched with a corresponding move higher in longer term yields. Given that the current 30-year yield is near the Fed's longer-term guidance on where the Fed Funds rate is expected to stabilize, this flattening could reflect the fact that rate hikes are now expected to occur sooner than previously anticipated, but longer-term expectations remain anchored.

The minutes from the Federal Open Market Committee's November meeting were released, drawing the focus on the Fed 'dots' for direction on the central bank's return to policy normalization in 2018. The minutes showed that the FOMC members remain upbeat about growth prospects, but sustained levels of low inflation, emerging fears of asset price bubbles, financial instability and the potential impact of the proposed tax cuts are sources of policy uncertainty. While the Fed partially assigns the run-up in asset prices to the low neutral rate of interest, the higher prices married with subdued volatility have several

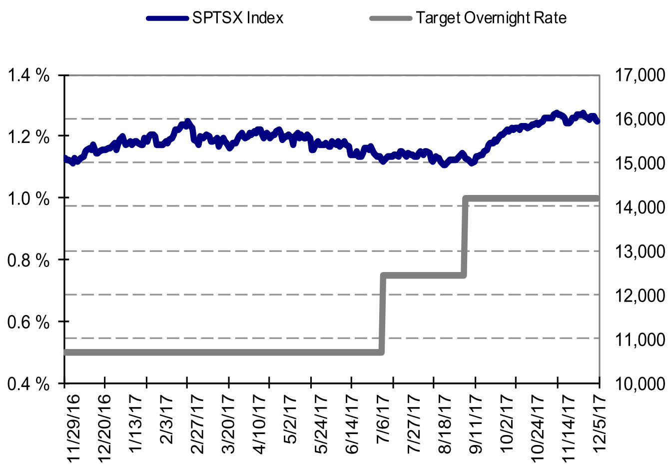
Currencies (in Canadian dollars)	Exchange	Month	YTD*
US Dollar	1.2897	0.1%	-4.0%
Euro	1.5352	2.3%	8.6%
British Pound	1.7443	1.9%	5.2%
Japanese Yen	0.0115	1.0%	-0.2%

Currencies (one Canadian dollar)	Exchange	Month	YTD*
US Dollar	0.7754	-0.1%	4.2%
Euro	0.6514	-2.2%	-7.9%
British Pound	0.5733	-1.8%	-4.9%
Japanese Yen	87.2620	-1.0%	0.3%

Commodities (US$)	Spot price	Month	YTD*
Crude Oil (WTI per barrel)	$57.40	5.6%	6.9%
Natural Gas (per million btu)	$3.03	4.5%	-18.8%
Gold (per ounce)	$1,274.94	0.3%	10.6%
Silver (per ounce)	$16.44	-1.7%	3.3%
Copper (per pound)	$3.05	-1.2%	21.9%
Nickel (per pound)	$5.01	-9.8%	10.9%
Aluminum (per pound)	$0.92	-5.0%	19.4%
Zinc (per pound)	$1.43	-3.3%	22.5%

*All returns are on a Total Return basis All indices are in local currency unless otherwise noted.

S&P/TSX Index – target overnight rate, LTM



Source: RBC Wealth Management, Bloomberg

members of the FOMC beginning to express concern about a buildup of financial imbalances.

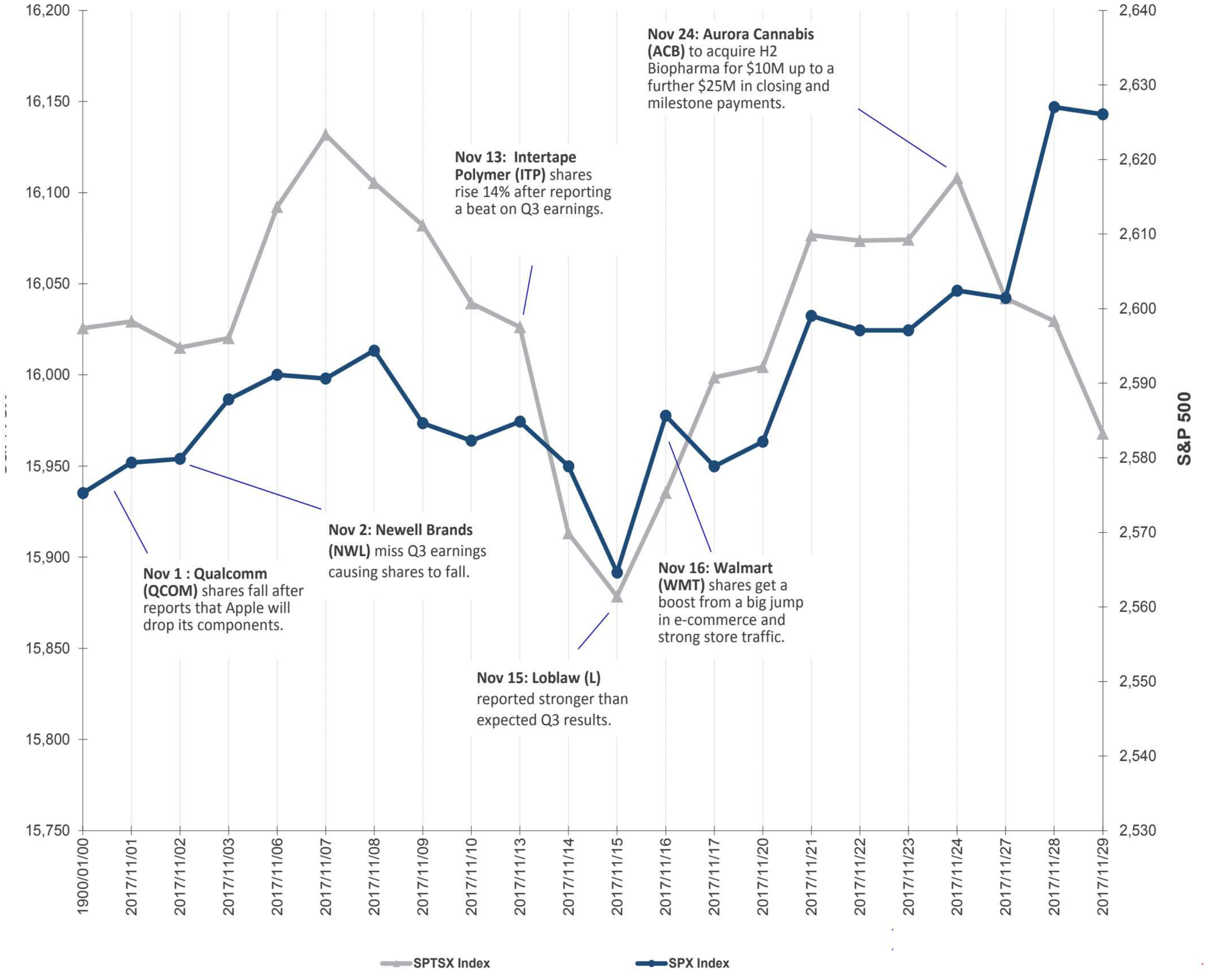
United States President Donald Trump finally put an end to the rumors around his pick to replace Janet Yellen as the next Fed Chair. President Trump nominated Jerome Powell for the role. In his testimony to the Senate Banking Committee, Powell called for the continuation of the Fed's current policies while the current Chair Janet Yellen made what was likely her last appearance before the Joint Economic Committee of Congress, painting an upbeat view of the economy with growth achieving an annual rate of above 3% for two consecutive quarters for the first time in three years.

In Europe, the Bank of England increased its overnight lending rate by 25 basis points for the first time in a decade. Despite softening economic growth and uncertainty connected to Brexit, the inflation level reaching a five-year high of 3% in September, putting pressure on the central bank to bring the benchmark rate to 0.5%. The Bank later reported the results of its latest stress test, showing that the UK's biggest banks have the ability to keep lending through a disorderly Brexit, an improvement over the last year where 2 of the major 7 institutions failed the test. In a quarterly supervisory update, the European Central Bank warned British banks that some of the proposed relocation plans submitted did not fully meet its expectations as they involved setting up shell operations in the single bloc of nations while the operations would remain in third countries such as the UK or the US. ECB's Governing Council did not have a meeting scheduled in November but officials reiterated the central bank's cautious stance towards the tapering of its asset purchase program, reassuring markets that the process would continue to be gradual.

In Asia, China announced plans to reduce foreign ownership restrictions on financial institutions with the goal of eventually eliminating ownership caps over several years and putting an end to the current limitations of foreign institutions only being able to access the Chinese financial services industry through joint ventures.

North American equity highlights

November 2017

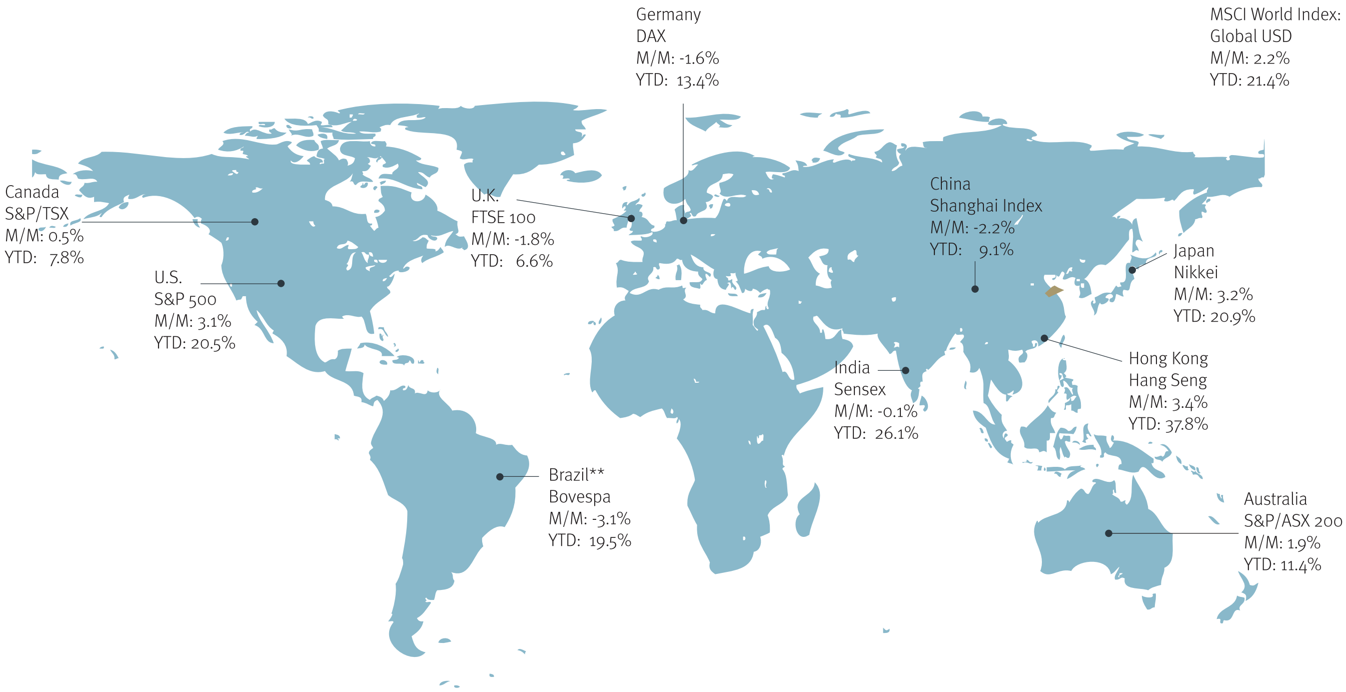


Source: Bloomberg

World markets

November month-over-month and year-to-date performance

November was a mixed month for global indices with most markets closing in positive territory. In the Americas, the S&P 500 and S&P/TSX rose by 3.1% and 0.5%, respectively while the Brazil Bovespa declined -3.1%. In Europe, Germany' DAX fell -1.6% lower along with the U.K.'s FTSE sliding down -1.8%. In Asia, China's Shanghai Index and Hong Kong's Hang Seng closed the month down -2.2% and up 3.4% respectively, while India's Sensex moved down ten basis points. Japan's Nikkei moved higher by 3.2% and Australia's S&P/ASX 200 climbed 1.9%. Overall, the MSCI World Index increased by 21.4% YTD.



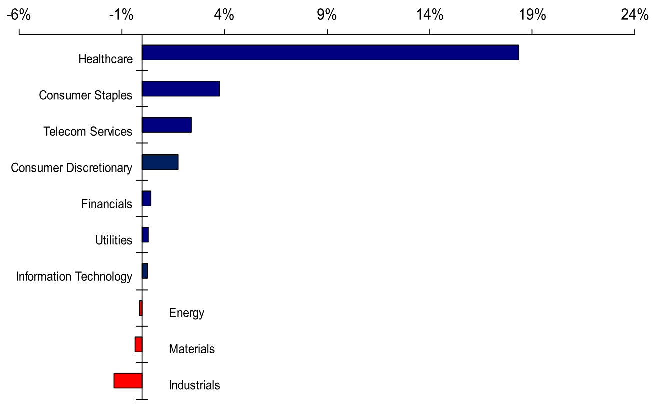
All returns are on a total return basis unless otherwise noted. All returns calculated in local currency except for MSCI World
** These indices are calcuated on a price return basis

Source: Bloomberg, RBC Wealth Management, 11/30/17

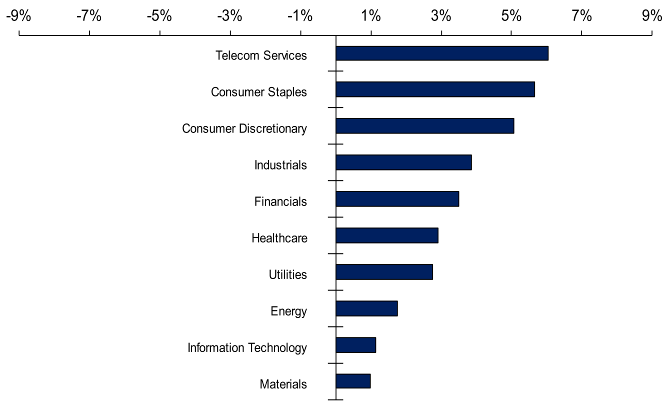
Canadian & U.S. equities

November 2017

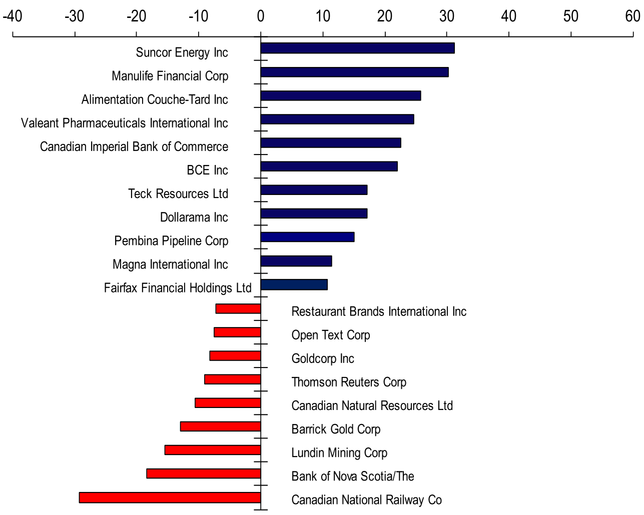
S&P/TSX composite sector movement



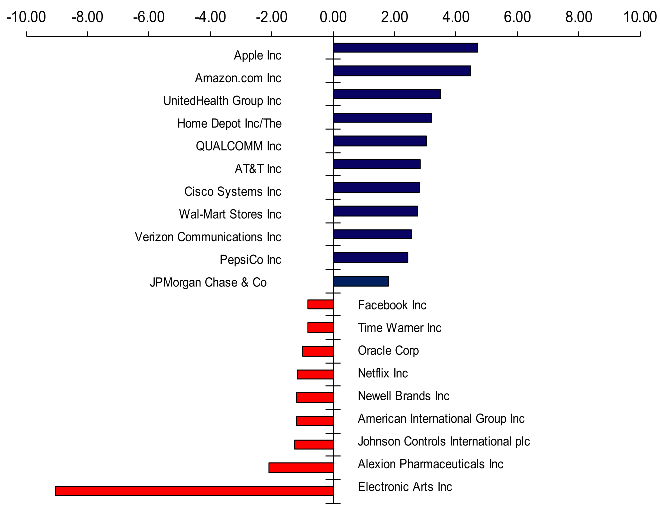
S&P 500 sector movement



Top 10 S&P/TSX contributors/decliners by index points



Top 10 S&P 500 contributors/decliners by index points



Source: Bloomberg

Canadian and U.S. economic data

November 2017

Release Date	Economic Indicators: Canada	Period	Consensus	Actual	Prior
10/31/2017	Gross Domestic Product (y-o-y, SA)	Aug	3.60%	3.50%	3.90%
	Labour market				
11/03/2017	Net Change in Employment (000, SA)	Oct	15.0k	35.3k	10.0k
11/03/2017	Participation Rate (SA)	Oct	--	65.70%	65.60%
11/03/2017	Unemployment Rate (SA)	Oct	6.20%	6.30%	6.20%
	Housing market				
11/08/2017	Housing Starts (000, SAAR)	Oct	211.0k	222.8k	219.3k
11/09/2017	New Housing Price Index (y-o-y)	Sep	3.80%	3.80%	3.80%
11/15/2017	Existing Home Sales (m-o-m)	Oct	--	0.90%	2.10%
11/15/2017	Teranet/National Bank HPI (m-o-m)	Oct	--	-1.00%	-0.80%
	Consumer & manufacturing				
11/23/2017	Retail Sales (m-o-m, SA)	Sep	1.00%	0.10%	-0.10%
11/23/2017	Retail Sales Less Autos (m-o-m, SA)	Sep	1.00%	0.30%	-0.40%
11/16/2017	Manufacturing Sales (m-o-m, SA)	Sep	-0.50%	0.50%	1.40%
	Trade				
11/03/2017	Merchandise Trade (billion, SA)	Sep	-3.00b	-3.18b	-3.00b
	Prices				
11/17/2017	Consumer Price Index (m-o-m)	Oct	0.10%	0.10%	0.20%
11/17/2017	Consumer Price Index (y-o-y)	Oct	1.40%	1.40%	1.60%
10/31/2017	Industrial Product Price (m-o-m)	Sep	0.20%	-0.30%	0.40%
10/31/2017	Raw Materials Price Index (m-o-m)	Sep	0.30%	-0.10%	0.90%
	Other indicators				
11/21/2017	Wholesale Sales (m-o-m, SA)	Sep	0.60%	-1.20%	0.40%
11/06/2017	Ivey Purchasing Managers Index (SA)	Oct	--	63.8	59.6
11/08/2017	Building Permits (m-o-m, SA)	Sep	1%	4%	-5%

Release date	Economic indicators: U.S.	Period	Consensus	Actual	Prior
11/29/2017	GDP (q-o-q, SAAR)	3Q S	3.20%	3.30%	3.00%
11/29/2017	GDP Price Index (q-o-q, SAAR)	3Q S	2.20%	2.10%	2.20%
11/29/2017	Core PCE (q-o-q, SAAR)	3Q S	1.30%	1.40%	1.30%
	Labour market				
11/03/2017	Change in Nonfarm Payrolls (000, SA)	Oct	313k	261k	18k
11/03/2017	Unemployment Rate (SA)	Oct	4.20%	4.10%	4.20%
	Housing market				
11/17/2017	Building Permits (000, SAAR)	Oct	1250k	1297k	1225k
11/17/2017	Housing Starts (000, SAAR)	Oct	1190k	1290k	1135k
11/27/2017	New Home Sales (000, SAAR)	Oct	628k	685k	645k
11/21/2017	Existing Home Sales (million, SAAR)	Oct	5.40m	5.48m	5.37m
11/16/2017	NAHB Housing Market Index (SA)	Nov	67	70	68
11/01/2017	Construction Spending (m-o-m, SA)	Sep	-0.20%	0.30%	0.50%
	Consumer & manufacturing				
11/15/2017	Advance Retail Sales (m-o-m, SA)	Oct	0.00%	0.20%	1.90%
11/15/2017	Retail Sales Less Autos (m-o-m, SA)	Oct	0.20%	0.10%	1.20%
10/31/2017	Consumer Confidence (SA)	Oct	121.5	125.9	120.6
11/10/2017	U. of Michigan Confidence	Nov P	100.8	97.8	100.7
11/29/2017	Personal Consumption (q-o-q, SAAR)	3Q S	2.50%	2.30%	2.40%
11/03/2017	Durable Goods Orders (m-o-m, SA)	Sep F	2.00%	2.00%	2.40%
11/03/2017	Factory Orders (m-o-m, SA)	Sep	1.20%	1.40%	1.20%
	Trade				
11/16/2017	Import Price Index (m-o-m)	Oct	0.40%	0.20%	0.80%
11/16/2017	Import Price Index (y-o-y)	Oct	2.50%	2.50%	2.70%
11/03/2017	Trade Balance (billion, SA)	Sep	-$43.2b	-$43.5b	-$44.3b
	Prices				
11/15/2017	Consumer Price Index (m-o-m, SA)	Oct	0.10%	0.10%	0.50%
11/15/2017	Consumer Price Index (y-o-y)	Oct	2.00%	2.00%	2.20%
11/15/2017	CPI Core Index (SA)	Oct	253.25	253.43	252.86
11/30/2017	PCE Deflator (y-o-y, SA)	Oct	1.50%	1.60%	1.70%
	Other Indicators				
11/01/2017	ISM Manufacturing Index (SA)	Oct	59.5	58.7	60.8
10/31/2017	Chicago Purchasing Manager Index	Oct	60.0	66.2	65.2
11/16/2017	Philadelphia Fed Index	Nov	24.6	22.7	27.9
11/20/2017	Leading Indicators (m-o-m)	Oct	0.80%	1.20%	0.10%
11/15/2017	Business Inventories (m-o-m, SA)	Sep	0.00%	0.00%	0.60%

Source: Bloomberg
SA = Seasonally Adjusted; SAAR = Seasonally Adjusted Annual Rate; m-o-m = Month-over-month % change;
q-o-q = Quarter-over-quarter % change; y-o-y = Year-over-year % change.

Notable Canadian dividend activity – November 2017

Increases				
Company	$ Change		Ex-Date	% Change
Sun Life Financial	Prior: $0.4350	New: $0.4550	November 28, 2017	4.60%
Genworth MI Canada Inc.	Prior: $0.4400	New: $0.4700	November 14, 2017	6.82%
Enbridge	Prior: $0.6100	New: $0.6710	February 14, 2018	10.00%

Source: Bloomberg

In all jurisdictions where RBC Capital Markets conducts business, we do not offer investment advice on Royal Bank of Canada. Certain regulations prohibit member firms from soliciting orders and offering investment advice or opinions on their own stock. References to Royal Bank are for informational purposes only and not intended as a direct or implied recommendation for investing in Royal Bank and all related securities.

Research resources

This document is produced by the Portfolio Advisory Group within RBC Wealth Management. The RBC Wealth Management Portfolio Advisory Group provides support related to asset allocation and portfolio construction for the firm's investment advisors / financial advisors who are engaged in assembling portfolios incorporating individual marketable securities.

Required disclosures

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

Important Disclosures

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

Non-U.S. Analyst Disclosure: Jim Allworth, Mark Bayko, Alicia Buckiewicz, Christopher Girdler, Patrick McAllister, and Jay Roberts, employees of RBC Wealth Management USA's foreign affiliate RBC Dominion Securities Inc.; and Frédérique Carrier, Jack Lodge, and Alastair Whitfield, employees of RBC Wealth Management USA's foreign affiliate Royal Bank of Canada Investment Management (U.K.) Limited; contributed to the preparation of this publication. These individuals are not registered with or qualified as research analysts with the U.S. Financial Industry Regulatory Authority ("FINRA") and, since they are not associated persons of RBC Wealth Management, they may not be subject to FINRA Rule 2241 governing communications with subject companies, the making of public appearances, and the trading of securities in accounts held by research analysts.

In the event that this is a compendium report (covers six or more companies), RBC Wealth Management may choose to provide important disclosure information by reference. To access current disclosures, clients should refer to 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), 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 September 30, 2017

			Investment Banking Services Provided During Past 12 Months	
Rating	Count	Percent	Count	Percent
Buy [Top Pick & Outperform]	859	52.92	294	34.23
Hold [Sector Perform]	660	40.67	154	23.33
Sell [Underperform]	104	6.41	7	6.73

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.

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 perfo rmance is not a guide to future performance, future returns are not guaranteed, and a loss of original capital may occur. Every province in Canada, state in the U.S., and most countries throughout the world have their own laws regulating the types of securities and other investment products which may be offered to their residents, as well as the process for doing so. As a result, the securities discussed in this report may not be eligible for sale in some jurisdictions. This report is not, and under no circumstances should be construed as, a solicitation to act as securities broker or dealer in any jurisdiction by any person or company that is not legally permitted to carry on the business of a securities broker or dealer in that jurisdiction. Nothing in this report constitutes legal, accounting or tax advice or individually tailored investment advice. This material is prepared for general circulation to clients, including clients who are affiliates of Royal Bank of Canada, and does not have regard to the particular circumstances or needs of any specific person who may read it. The investments or services contained in this report may not be suitable for you and it is recommended that you consult an independent investment advisor if you are in doubt about the suitability of such investments or services. To the full extent permitted by law neither Royal Bank of Canada nor any of its affiliates, nor any other person, accepts any liability whatsoever for any direct or consequential loss arising from any use of this report or the information contained herein. No matter contained in this document may be reproduced or copied by any means without the prior consent of Royal Bank of Canada. In the U.S., RBC Wealth Management operates as a division of RBC Capital Markets, LLC. In Canada, RBC Wealth Management includes, without limitation, RBC Dominion Securities Inc., which is a foreign affiliate of RBC Capital Markets, LLC. This report has been prepared by RBC Capital Markets, LLC. Additional information is available upon request.

To U.S. Residents: This publication has been approved by RBC Capital Markets, LLC, Member NYSE/FINRA/SIPC, which is a U.S. registered broker-dealer and which accepts responsibility for this report and its dissemination in the United States. RBC Capital Markets, LLC, is an indirect wholly-owned subsidiary of the Royal Bank of Canada and, as such, is a related issuer of Royal Bank of Canada. Any U.S. recipient of this report that is not a registered broker-dealer or a bank acting in a broker or dealer capacity and that wishes further information regarding, or to effect any transaction in, any of the securities discussed in this report, should contact and place orders with RBC Capital Markets, LLC. International investing involves risks not typically associated with U.S. investing, including currency fluctuation, foreign taxation, political instability and different accounting standards.

To Canadian Residents: This publication has been approved by RBC Dominion Securities Inc. RBC Dominion Securities Inc.* and Royal Bank of Canada are separate corporate entities which are affiliated. *Member-Canadian Investor Protection Fund. ®Registered trademark of Royal Bank of Canada. Used under license. RBC Wealth Management is a registered trademark of Royal Bank of Canada. Used under license.

RBC Wealth Management (British Isles): This publication is distributed by Royal Bank of Canada Investment Management (U.K.) Limited and RBC Investment Solutions (CI) Limited. Royal Bank of Canada Investment Management (U.K.) Limited is authorised and regulated by the Financial Conduct Authority (Reference number: 146504). Registered office: Riverbank House, 2 Swan Lane , London, EC4R 3BF, UK. RBC Investment Solutions (CI) Limited is regulated by the Jersey Financial Services Commission in the conduct of investment business in Jersey. Registered office: Gaspé House, 66-72 Esplanade, St Helier, Jersey JE2 3QT, Channel Islands, registered company number 119162.

To Hong Kong Residents: This publication is distributed in Hong Kong by Royal Bank of Canada, Hong Kong Branch which is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission ('SFC'), and RBC Investment Services (Asia) Limited, which is regulated by the SFC. Financial Services provided to Australia: Financial services may be provided in Australia in accordance with applicable law. Financial services provided by the Royal Bank of Canada, Hong Kong Branch are provided pursuant to the Royal Bank of Canada's Australian Financial Services Licence ('AFSL') (No. 246521).

To Singapore Residents: This publication is distributed in Singapore by the Royal Bank of Canada, Singapore Branch, a registered entity granted offshore bank licence by the Monetary Authority of Singapore. This material has been prepared for general circulation and does not take into account the objectives, financial situation, or needs of any recipient. You are advised to seek independent advice from a financial adviser before purchasing any product. If you do not obtain independent advice, you should consider whether the product is suitable for you. Past performance is not indicative of future performance. If you have any questions related to this publication, please contact the Royal Bank of Canada, Singapore Branch. Royal Bank of Canada, Singapore Branch accepts responsibility for this report and its dissemination in Singapore.

RBC1253