

For important and required non-U.S. analyst disclosures, see page 7. All values in U.S. dollars and priced as of May 31, 2017, market close, unless otherwise noted.





Christopher Girdler
Toronto, Canada
christopher.girdler@rbc.com

- Gradual "sea change" approaching for global monetary policy and interest rates
- Time to assess risks taken on during the long search for yield

Major central banks have been running intensely accommodative monetary policies since the financial crisis began. Excluding the Federal Reserve, for the most part they still are, but to us it appears the period of peak monetary policy stimulus could soon be behind us. We foresee a long unwinding process during which time government and corporate bond yields could gradually increase. In our opinion, it's time for investors to do a quality check on their portfolios to make sure they haven't inadvertently increased risk in search of higher yields. We believe corporate credit still offers selective yield opportunities, but with stretched valuations now is the time to upgrade portfolio quality.

Monetary stimulus is passing its peak



Source - RBC Global Asset Management

Opportunities as interest rates rise

As central banks gradually move toward a more balanced policy stance, government bond yields are likely to rise at a similarly deliberate pace, reflecting improved growth prospects and receding risks of deflation.

When bond yields go up, bond prices fall. Faced with this, conventional wisdom would say an investor should remain in cash and very short maturities, waiting until higher rates have arrived before re-investing. However, in this case that means accepting a very low coupon return perhaps for several years. For the buyand-hold investor, in our view, this is a heavier cost than the current circumstances would justify.

Investors holding bonds to maturity will naturally see the path of returns altered by interest rate changes, but their overall return, set when they bought the bond (the yield to maturity) will remain in place. Over the life of the bond, assuming the issuer remains solvent, the investor will continue to receive regular interest payments as well as principal at maturity. Rising interest rates could actually improve the buy-and-hold investors' realised returns thanks to the reinvestment of coupon and any principal repayments at progressively higher interest rates.

Too much of a good thing?

Massively accommodative monetary policy across most major developed economies since the financial crisis has pushed government bond yields down to exceptionally low levels. Investors looking to maintain the level of income in portfolios have increasingly chosen to assume additional risks in search of better yields. Typically that has pushed them towards corporate bonds where the risk of default is higher than for governments and liquidity much lower, especially during periods of market stress.

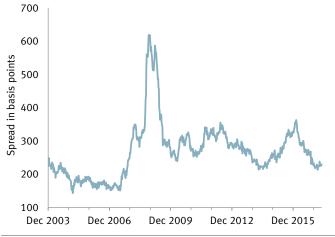
Corporate credit has provided solid returns with limited volatility over the past three years

	Annual equivalent return (%)	Volatility of returns (%)
US Treasury Total Return Index	2.38%	4.49%
US Corporate Total Return Index	3.90%	5.40%
US High Yield Total Return Index	4.57%	5.23%
Furnament Transpurs Total Datum Index	4.049/	4.760/
European Treasury Total Return Index	4.04%	4.76%
European Corporate Total Return Index	3.43%	2.59%
European High Yield Total Return Index	4.99%	4.54%

Corporate credit has recently demonstrated a superior risk-return profile compared to Government bonds.

Source - RBC Wealth Management, Bloomberg

Moody's BBB Corporate Bond spread



Corporate credit spreads (BBB-rated) have narrowed to the tightest levels in a number of years.

Source - RBC Wealth Management, Bloomberg; data through 5/19/17

In addition to providing reliable income, the fixed income component of a portfolio is supposed to act as a countervailing force when the equity component is under pressure.

As business conditions have improved over the past several years, this appetite for corporate credit has grown steadily. During last year's episode of ultra-low, even negative, government bond yields, this preference for corporate credit became so pronounced that the differential (spread) between the yield on corporate bonds and government bonds narrowed to the tightest level in a number of years.

But we now ask ourselves, was this spread compression justified? Credit fundamentals for both investment-grade and high-yield borrowers, as measured by financial leverage, have worsened at the same time as compensation for assuming credit risk has fallen. It's true the current interest rate environment keeps borrowing costs for corporate issuers at an affordable level, but the large pile of debt that has made its way onto most balance sheets over the past several years—to fund expansion plans or large share buy-back programs—could prove a headwind to corporate bonds as interest rates rise.

Correlation risk: Out of sight, out of mind

The correlation of different financial assets is a topic usually discussed at portfolio construction but is often forgotten thereafter.

In addition to providing reliable income, the fixed income component of a portfolio is supposed to act as a countervailing force when the equity component is under pressure. Government bonds and high-grade corporates usually do just that. When the economy heads into recession, earnings and share prices fall. Funds looking for a safe haven often flow into high-grade bonds pushing bond prices higher, taking some of the sting out of equity losses and giving the investor the financial and psychological staying power to hang in through the downturn.

But the worse the credit characteristics of a particular bond or preferred, the less it acts like a high-grade bond during periods of economic duress and the more it behaves like a stock. As the multi-decade search for yield has pushed investors toward lower-quality credits, it has simultaneously exposed portfolios to more equity-like volatility than intended. So far there has been no discernable cost to investors: they have enjoyed higher incomes than government bonds would have provided, and spreads are pretty well as low as they have been in the past seven years.

Counting on that continuing indefinitely seems to us to be an unreasonable assumption.

Corporate bonds, especially high-yield, display positive correlation to equity markets

	Correlations** vs. Equities*
U.S. Treasury market	-0.37
U.S. corporate bonds	-0.27
U.S. high-yield bonds	0.48
European Treasury market	0.01
European corporate bonds	0.08
European high-yield bonds	0.69

Corporate bonds, especially high-yield, display positive correlation to equity markets

^{*} For U.S. equities, we use the S&P 500 Index and for Europe we use the STOXX Europe 600 Index. ** Correlations are calculated using daily returns over three years. Source - RBC Wealth Management, Bloomberg

... the recent strength in credit markets provides an opportune time to lock in wellearned gains ... It would be prudent at this point, when yields and spreads are both so low, to assess portfolios to ensure investors are being fully compensated for taking the risks that are present as well as making sure fixed income holdings offer appropriate portfolio diversification.

While we feel that select corporate bonds still offer worthwhile yield advantages and that spreads have the capacity to remain at current levels or tighten in some cases, the recent strength in credit markets provides an opportune time to lock in well-earned gains and reduce exposure to positions more susceptible to suffering in a bond market pullback. Reinvesting proceeds into higher-quality bonds would have the natural benefit of increasing credit quality of the total portfolio as well as improving its liquidity profile.

Research resources

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

Global Portfolio Advisory Committee members:

Jim Allworth - Co-chair; Investment Strategist, RBC Dominion Securities Inc.

Kelly Bogdanov – Co-chair; Portfolio Analyst, RBC Wealth Management Portfolio Advisory Group – Equities, RBC Capital Markets, LLC

Frédérique Carrier – Co-chair; Managing Director, Head of Investment Strategies, Royal Bank of Canada Investment Management (U.K.) Limited

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

Mark Bayko, CFA - Head, Multi-Asset Portfolios & Practice Management, RBC Dominion Securities Inc.

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

Jean-François Dion, CFA - Head, Equity Portfolio Management, RBC Dominion Securities Inc.

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

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

Tom Garretson, CFA – Fixed Income Portfolio Advisor, RBC Wealth Management Portfolio Advisory Group, RBC Capital Markets, LLC

Christopher Girdler, CFA – Fixed Income Portfolio Advisor, RBC Wealth Management Portfolio Advisory Group, RBC Dominion Securities Inc.

Jack Lodge - Associate, Structured Solutions team, Royal Bank of Canada Investment Management (U.K.) Limited

Patrick McAllister, CFA – Canadian Equities Portfolio Advisor, RBC Wealth Management Portfolio Advisory Group – Equities, RBC Dominion Securities Inc.

Jay Roberts – Head of Investment Solutions & Products, RBC Wealth Management Hong Kong, RBC Dominion Securities Inc.

Alan Robinson – Portfolio Analyst, RBC Wealth Management Portfolio Advisory Group – Equities, RBC Capital Markets, LLC

The RBC Investment Strategy Committee (RISC) consists of senior investment professionals drawn from individual, client-focused business units within RBC, including the Portfolio Advisory Group. The RISC builds a broad global investment outlook and develops specific guidelines that can be used to manage portfolios. The RISC is chaired by Daniel Chornous, CFA, Chief Investment Officer of RBC Global Asset Management Inc.

Required disclosures

Analyst Certification

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

Important Disclosures

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

Non-U.S. Analyst Disclosure: Mark Allen, Jim Allworth, Mark Bayko, Jean-François Dion, Christopher Girdler, Patrick McAllister, and Jay Roberts, employees of RBC Wealth Management USA's foreign affiliate RBC Dominion Securities Inc.; and Frédérique Carrier, Hakan Enoksson, and Jack Lodge, 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), 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 - RBC Capital Markets, LLC Equity Research						
As of March 31, 2017						
	Investment Banking Services					
			Provided During	Provided During Past 12 Months		
Rating	Count	Percent	Count	Percent		
Buy [Top Pick & Outperform]	843	51.94	285	33.81		
Hold [Sector Perform]	679	41.84	149	21.94		
Sell [Underperform]	101	6.22	8	7.92		

Distribution of Ratings

For the purpose of ratings distributions, regulatory rules require member firms to assign ratings to one of three rating categories - Buy, Hold/Neutral, or Sell - regardless of a firm's own rating categories. Although RBC Capital Markets, LLC ratings of Top Pick (TP)/Outperform (O), Sector Perform (SP)

and Underperform (U) most closely correspond to Buy, Hold/Neutral and Sell, respectively, the meanings are not the same because our ratings are determined on a relative basis (as described below).

Explanation of RBC Capital Markets, LLC Equity Rating System

An analyst's "sector" is the universe of companies for which the analyst provides research coverage. Accordingly, the rating assigned to a particular stock represents solely the analyst's view of how that stock will perform over the next 12 months relative to the analyst's sector average. Although RBC Capital Markets, LLC ratings of Top Pick (TP)/Outperform (O), Sector Perform (SP), and Underperform (U) most closely correspond to Buy, Hold/Neutral and Sell, respectively, the meanings are not the same because our ratings are determined on a relative basis (as described below).

Ratings: Top Pick (TP): Represents analyst's best idea in the sector; expected to provide significant absolute total return over 12 months with a favorable risk-reward ratio. Outperform (0): 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'), RBC Investment Services (Asia) Limited and RBC Investment Management (Asia) Limited, both entities are 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.

© 2017 RBC Capital Markets, LLC - Member NYSE/FINRA/SIPC
© 2017 RBC Dominion Securities Inc. - Member Canadian Investor Protection Fund
© 2017 RBC Europe Limited
© 2017 Royal Bank of Canada

All rights reserved