RBC Global Asset Management

The Global Investment Outlook

RBC GAM Investment Strategy Committee

FALL 2019

The RBC GAM Investment Strategy Committee

The RBC GAM Investment Strategy Committee consists of senior investment professionals drawn from all areas of RBC GAM. The Committee regularly receives economic and capital markets related input from internal and external sources. Important guidance is provided by the Committee's regional equity advisors (North America, Europe, Asia, Emerging Markets) and from the Global Fixed Income & Currencies sub-committee. From this, the Committee builds a detailed global investment forecast looking one year forward.

The Committee's view includes an assessment of global fiscal and monetary conditions, projected economic growth and inflation, as well as the expected course of interest rates, major currencies, corporate profits and stock prices.

From this global forecast, the RBC GAM Investment Strategy Committee develops specific guidelines that can be used to manage portfolios.

These include:

- the recommended mix of cash, fixed income instruments, and equities
- the recommended global exposure of fixed income and equity portfolios
- the optimal term structure for fixed income investments
- the suggested sector and geographic make-up within equity portfolios
- the preferred exposure to major currencies

Results of the Committee's deliberations are published quarterly in *The Global Investment Outlook*.

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Executive Summary

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Financial markets face an evolving set of macroeconomic headwinds and, against this challenging backdrop, central banks are now offering support through monetary stimulus. Our base case is for continued economic growth, albeit at a slowing pace but we recognize that the downside risks have increased.

Economic growth continues to downshift

Global growth slowed in the past quarter, extending a trend that began at the start of 2018. Manufacturing weakness has been the main cause of the slowdown as services have experienced only a minor deceleration and consumption has held up reasonably well. Other factors hindering economic growth have been the elevated uncertainty from protectionism and Brexit, fading fiscal stimulus and the slowing Chinese economy. Although central banks are attempting to offset some of these negatives by cutting interest rates, we note that the economic boost from each individual rate cut is fairly small. Weighing the positives and negatives, we look for slower growth in 2019 versus 2018, and for a further deceleration in 2020 in both developed and emerging markets. Our forecasts were downgraded modestly from last quarter and they are now in line with the consensus for 2019 and modestly lower for 2020.

Downside risks are mounting, but we should also consider the possibility of upside surprises

On the trade front, several new rounds of U.S.-China tariffs have been announced and there are a number of ways the trade war could unfold. While the U.S. election in 2020 could encourage a resolution, the most likely scenario is that the tariffs announced so far are fully implemented and that the U.S-China relationship does not improve. Such a negative scenario would subtract a cumulative 0.60% to 0.80% from U.S. GDP and 0.75% to 0.95% from Chinese GDP over the next several years. Other downside risks include the deteriorating geopolitical environment, Brexit and various debt hot spots. Offsetting these are the potential for fiscal stimulus and improved productivity growth, which could represent sources of upside for economies.

U.S. business cycle is late and advancing

The economic expansion is mature and is now officially the longest on record. While business cycles don't die of old age, we should recognize that the longer an expansion lasts the more likely it is to stumble. Other signs suggesting that we are in the later stages of the business cycle are an extremely low unemployment rate and yield curves that are inverted. While yield-curve inversions don't by themselves guarantee that a recession is coming, they tend to coincide with an increased risk of an economic downturn six months to two years into the future.

U.S. dollar buoyed in the near term, but we expect a weaker greenback to emerge

Most policymakers today prefer weaker currencies to stimulate their domestic economies and President Trump has been quite vocal in expressing this view for the U.S. dollar. However, tariffs have been relatively more damaging for non-U.S. markets, weakening global currencies and pushing the U.S. dollar higher against Trump's wishes. While trade tensions act to temporarily extend the U.S.

dollar's topping process, we do think the greenback will eventually be weighed down by longer-term factors such as twin deficits and narrowing yield differentials. Over the next 12 months, we expect an environment of higher volatility, where the euro and yen outperform the loonie and pound.

A monetary easing cycle gets underway

Central banks have now pivoted to monetary stimulus in a synchronized fashion, with some having already delivered rate cuts and others hinting at easing measures to come. The U.S. Federal Reserve cut interest rates by 25 basis points in July, China and India have also eased, and the European Central Bank has indicated action is imminent. This monetary stimulus should be seen as supportive for economies and risk assets, but we recognize that the capacity for easing is limited. The futures market suggests that the Fed may cut as many as four more times over the next year, while our own forecast is for three.

Extraordinarily low bond yields stoke valuation concerns

Global sovereign bonds have extended their rally and our valuation models are signaling caution as yields declined to record lows. German bund yields fell below zero across all maturities and the total size of negative-yielding debt across the globe has ballooned to over US$17 trillion. According to our valuation models, yields have fallen through the bottom of their equilibrium channels in all major markets including North America. Even in markets where yields remain positive, real yields (i.e. the nominal yield minus inflation) have fallen below zero indicating that investors are accepting a guaranteed loss in purchasing power should they hold their sovereign fixed-income investments to maturity. Slower economic growth and aging demographics may be depressing real interest rates, but we don't think negative real rates are sustainable indefinitely. The pressure on real rates over time will likely be higher and, for this reason, the possibility of a bond bear market, in which returns are low or even negative as yields rise for many years, cannot be dismissed.

Earnings will be critical to sustaining higher stock prices

Global equities rallied in June and July, but stumbled in August as trade tensions escalated between the U.S. and China. The MSCI Emerging Markets Index underperformed, falling as much as 10% in August and wiping out gains from earlier in the quarter, whereas most other major markets held onto slight advances. Our models suggest that stocks are relatively attractive outside of the U.S. However, we note that the S&P 500 Index is situated slightly above fair value and is at a level that has historically been associated with lower returns and higher levels of volatility. Corporate profit growth is critical to push U.S. stocks higher. In an environment of moderate earnings growth, low interest rates and low inflation, stocks can deliver gains in the mid-single to low-double digits. In a recessionary scenario, however, the damage to profits and investor confidence would send stock prices meaningfully lower.

Dialing back equity overweight, raising cash reserve

The macroeconomic outlook is murky, the business cycle is aging and U.S. equity valuations are not as attractive as they have been at earlier points in the cycle. We have increased our odds of recession to approximately 40% within the next year, high by any standard, but still not our central outcome. We continue to expect stocks to outperform bonds over the longer term and remain overweight equities and underweight fixed income as a result. However, we don't feel that this is the time to be running substantial risk positions. We have trimmed exposure to stocks again this quarter by half a percentage point, moving the proceeds to cash. To reduce our equity weight any further we would have to have a higher conviction that a recession will unfold. For a balanced, global investor, we currently recommend an asset mix of 57.0% equities (strategic neutral position: 55%) and 40% fixed income (strategic neutral position: 43%), with the balance in cash.

Economic & Capital Markets Forecasts

Economic forecast (RBC GAM Investment Strategy Committee)

	United States		Canada		Europe		United Kingdom		Japan		China		Emerging markets*	
	Fall 2019	Change from Summer 2019	Fall 2019	Change from Summer 2019	Fall 2019	Change from Summer 2019	Fall 2019	Change from Summer 2019	Fall 2019	Change from Summer 2019	Fall 2019	Change from Summer 2019	Fall 2019	Change from Summer 2019
Real GDP														
2018A	2.86%		1.88%		1.84%		1.37%		0.78%		6.58%		5.57%	
2019E	2.50%	N/C	1.50%	0.25	1.25%	N/C	1.25%	(0.25)	0.75%	N/C	6.25%	N/C	5.00%	(0.25)
2020E	1.75%	(0.25)	1.75%	0.25	1.25%	N/C	1.25%	(0.25)	0.50%	N/C	6.00%	N/C	5.25%	N/C
CPI														
2018A	1.95%		1.97%		1.55%		2.01%		0.30%		1.93%		2.37%	
2019E	2.00%	N/C	2.00%	N/C	1.25%	(0.25)	2.00%	N/C	0.75%	(0.25)	2.25%	N/C	3.00%	N/C
2020E	2.00%	(0.25)	2.00%	0.25	1.50%	N/C	2.25%	N/C	1.25%	N/C	2.25%	N/C	3.00%	N/C

A = Actual E = Estimate *GDP Weighted Average of China, India, South Korea, Brazil, Mexico and Russia.

Targets (RBC GAM Investment Strategy Committee)

	August 2019	Forecast August 2020	Change from Summer 2019	1-year Total Return estimate* (%)
Currency Markets against USD				
CAD (USD–CAD)	1.33	1.37	N/C	(2.9)
EUR (EUR–USD)	1.10	1.20	N/C	6.8
JPY (USD–JPY)	106.26	98.00	(2.00)	6.4
GBP (GBP–USD)	1.22	1.22	(0.05)	(0.7)
Fixed Income Markets				
U.S. Fed Funds Rate	2.25	1.50	(1.00)	N/A
U.S. 10-Year Bond	1.50	1.75	(0.80)	(0.8)
Canada Overnight Rate	1.75	1.50	(0.25)	N/A
Canada 10-Year Bond	1.16	1.50	(0.25)	(1.9)
Eurozone Deposit Facility Rate	(0.40)	(0.60)	(0.20)	N/A
Germany 10-Year Bund	(0.70)	(0.40)	(0.60)	(3.8)
U.K. Base Rate	0.75	0.50	N/C	N/A
U.K. 10-Year Gilt	0.48	0.50	(0.75)	0.3
Japan Overnight Call Rate	(0.06)	(0.10)	N/C	N/A
Japan 10-Year Bond	(0.27)	(0.20)	(0.30)	(1.0)
Equity Markets				
S&P 500	2926	3050	125	6.2
S&P/TSX Composite	16442	17100	400	7.1
MSCI Europe	128	136	2	10.3
FTSE 100	7207	7600	100	10.4
Nikkei	20704	21900	(750)	8.0
MSCI Emerging Markets	984	1050	(20)	9.7

*Total returns are expressed in local currencies with the exception of MSCI Emerging Markets whose return is expressed in USD.

Recommended Asset Mix

Asset mix – the allocation within portfolios to stocks, bonds and cash – should include both strategic and tactical elements. Strategic asset mix addresses the blend of the major asset classes offering the risk/return tradeoff best suited to an investor's profile. It can be considered to be the benchmark investment plan that anchors a portfolio through many business and investment cycles, independent of a near-term view of the prospects for the economy and related expectations for capital markets. Tactical asset allocation refers to fine tuning around the strategic setting in an effort to add value by taking advantage of shorter term fluctuations in markets.

Every individual has differing return expectations and tolerances for volatility, so there is no "one size fits all" strategic asset mix. Based on a 40-year study of historical returns[1] and the volatility[2] of returns (the range around the average return within which shorter-term results tend to fall), we have developed five broad profiles and assigned a benchmark strategic asset mix for each. These profiles range from very conservative through balanced to aggressive growth. It goes without saying that as investors accept increasing levels of volatility, and therefore greater risk that the actual experience will depart from the longer-term norm, the potential for returns rises. The five profiles presented below may assist investors in selecting a strategic asset mix best aligned to their investment goals.

Each quarter, the RBC GAM Investment Strategy Committee publishes a recommended asset mix based on our current view of the economy and return expectations for the major asset classes. These weights are further divided into recommended exposures to the variety of global fixed income and equity markets. Our recommendation is targeted at the Balanced profile where the benchmark setting is 55% equities, 43% fixed income, 2% cash.

A tactical range of +/- 15% around the benchmark position allows us to raise or lower exposure to specific asset classes with a goal of tilting portfolios toward those markets that offer comparatively attractive near-term prospects.

This tactical recommendation for the Balanced profile can serve as a guide for movement within the ranges allowed for all other profiles.

The value-added of tactical strategies is, of course, dependent on the degree to which the expected scenario unfolds.

Regular reviews of portfolio weights are essential to the ultimate success of an investment plan as they ensure current exposures are aligned with levels of long-term returns and risk tolerances best suited to individual investors.

Anchoring portfolios with a suitable strategic asset mix, and placing boundaries defining the allowed range for tactical positioning, imposes discipline that can limit damage caused by swings in emotion that inevitably accompany both bull and bear markets.

[1]**Average return**: The average total return produced by the asset class over the period 1979 – 2019, based on monthly results.

[2]**Volatility**: The standard deviation of returns. Standard deviation is a statistical measure that indicates the range around the average return within which 2/3 of results will fall into, assuming a normal distribution around the long-term average.

Global Asset Mix

	Benchmark Policy	Past range	Fall 2018	New Year 2019	Spring 2019	Summer 2019	**Fall 2019**
Cash	**2.0%**	1.0% – 16%	2.0%	1.0%	1.0%	2.5%	**3.0%**
Bonds	**43.0%**	25.0% – 54.0%	40.0%	41.0%	41.0%	40.0%	**40.0%**
Stocks	**55.0%**	36.0% – 65.0%	58.0%	58.0%	58.0%	57.5%	**57.0%**

Note: Effective September 1, 2014, we revised our strategic neutral positions within fixed income, lowering the 'neutral' commitment to cash from 5% to 2%, and moving the difference to bonds. This takes advantage of the positive slope of the yield curve which prevails over most time periods, and allows our fixed income managers to shorten duration and build cash reserves whenever a correction in the bond market, or especially an inverted yield curve, is anticipated.

Regional Allocation

Global Bonds	**WGBI* Aug. 2019**	Past range	Fall 2018	New Year 2019	Spring 2019	Summer 2019	**Fall 2019**
North America	**43.3%**	18% – 48%	45.5%	46.8%	46.7%	40.3%	**48.3%**
Europe	**37.9%**	32% – 56%	35.0%	34.0%	36.5%	43.3%	**32.9%**
Asia	**18.8%**	16% – 35%	19.5%	19.2%	16.9%	16.5%	**18.8%**

Note: Past Range reflects historical allocation from Fall 2002 to present.

Global Equities	**MSCI** Aug. 2019**	Past range	Fall 2018	New Year 2019	Spring 2019	Summer 2019	**Fall 2019**
North America	**65.1%**	51% – 63%	63.1%	61.8%	61.5%	61.9%	**63.1%**
Europe	**17.5%**	18% – 35%	17.8%	18.6%	19.1%	19.1%	**18.2%**
Asia	**10.2%**	9% – 18%	11.7%	12.1%	11.9%	11.6%	**11.2%**
Emerging Markets	**7.3%**	0% – 8.5%	7.5%	7.5%	7.5%	7.5%	**7.5%**

Our asset mix is reported as at the end of each quarter. The mix is fluid and may be adjusted within each quarter, although we do not always report on shifts as they occur. The weights in the table should be considered a snapshot of our asset mix at the date of release of the Global Investment Outlook.

Global Equity Sector Allocation

	MSCI Aug, 2019**	RBC GAM ISC Summer 2019	**RBC GAM ISC Fall 2019**	Change from *** Summer 2019	Weight vs. Benchmark
Energy	5.16%	3.74%	3.16%	(0.58)	61.3%
Materials	4.41%	3.46%	2.41%	(1.05)	54.7%
Industrials	11.04%	10.52%	10.54%	0.02	95.5%
Consumer Discretionary	10.51%	11.66%	11.51%	(0.15)	109.5%
Consumer Staples	8.78%	9.92%	8.78%	(1.14)	100.0%
Health Care	12.75%	12.19%	13.75%	1.56	107.8%
Financials	15.48%	14.63%	13.48%	(1.15)	87.1%
Information Technology	16.50%	18.33%	18.50%	0.17	112.1%
Communication Services	8.54%	9.13%	8.54%	(0.59)	100.0%
Utilities	3.46%	3.25%	5.06%	1.81	146.2%
Real Estate	3.36%	3.17%	4.26%	1.09	126.8%

*FTSE World Government Bond Index **MSCI World Index ***As of the close on November 30, 2018, the Telecommunication Services Sector was broadened and renamed Communication Services. This modification in the classifications also impacted the Consumer Discretionary and Information Technology sectors.
Source: RBC GAM Investment Strategy Committee

At RBC GAM, we have a team dedicated to setting and reviewing the strategic asset mix for all of our multi-asset solutions. With an emphasis on consistency of returns, risk management and capital preservation, we have developed a strategic asset allocation framework for five client risk profiles that correspond to broad investor objectives and risk preferences. These five profiles range from Very Conservative through Balanced to Aggressive Growth.

Very Conservative

Asset Class	Bench-mark	Range	Last quarter	Current recommendation
Cash & Cash Equivalents	2%	0%-15%	2.5%	3.0%
Fixed Income	78%	55%-95%	75.0%	75.0%
Total Cash & Fixed Income	80%	65%-95%	77.5%	78.0%
Canadian Equities	10%	5%-20%	11.0%	10.9%
U.S. Equities	5%	0%-10%	5.3%	5.2%
International Equities	5%	0%-10%	6.2%	5.9%
Emerging Markets	0%	0%	0.0%	0.0%
Total Equities	20%	5%-35%	22.5%	22.0%

	Return	Volatility
40-Year Average	8.5%	5.5%
Last 12 Months	8.2%	3.8%

Very Conservative investors will seek income with maximum capital preservation and the potential for modest capital growth, and be comfortable with small fluctuations in the value of their investments. This portfolio will invest primarily in fixed-income securities, and a small amount of equities, to generate income while providing some protection against inflation. Investors who fit this profile generally plan to hold their investment for the medium to long term.

Conservative

Asset Class	Bench-mark	Range	Last quarter	Current recommendation
Cash & Cash Equivalents	2%	0%-15%	2.5%	3.0%
Fixed Income	63%	40%-80%	60.0%	60.0%
Total Cash & Fixed Income	65%	50%-80%	62.5%	63.0%
Canadian Equities	15%	5%-25%	15.7%	15.6%
U.S. Equities	10%	0%-15%	10.2%	10.1%
International Equities	10%	0%-15%	11.6%	11.3%
Emerging Markets	0%	0%	0.0%	0.0%
Total Equities	35%	20%-50%	37.5%	37.0%

	Return	Volatility
40-Year Average	8.8%	6.5%
Last 12 Months	7.1%	5.0%

Conservative investors will pursue modest income and capital growth with reasonable capital preservation, and be comfortable with moderate fluctuations in the value of their investments. The portfolio will invest primarily in fixed-income securities, with some equities, to achieve more consistent performance and provide a reasonable amount of safety. The profile is suitable for investors who plan to hold their investment over the medium to long term.

Balanced

Asset Class	Bench-mark	Range	Last quarter	Current recommendation
Cash & Cash Equivalents	2%	0%-15%	2.5%	3.0%
Fixed Income	43%	20%-60%	40.0%	40.0%
Total Cash & Fixed Income	45%	30%-60%	42.5%	43.0%
Canadian Equities	19%	10%-30%	19.3%	19.3%
U.S. Equities	20%	10%-30%	20.0%	20.0%
International Equities	12%	5%-25%	13.8%	13.4%
Emerging Markets	4%	0%-10%	4.4%	4.3%
Total Equities	55%	40%-70%	57.5%	57.0%

	Return	Volatility
40-Year Average	9.1%	7.7%
Last 12 Months	5.7%	7.2%

The **Balanced** portfolio is appropriate for investors seeking balance between long-term capital growth and capital preservation, with a secondary focus on modest income, and who are comfortable with moderate fluctuations in the value of their investments. More than half the portfolio will usually be invested in a diversified mix of Canadian, U.S. and global equities. This profile is suitable for investors who plan to hold their investment for the medium to long term.

Growth

Asset Class	Bench-mark	Range	Last quarter	Current recommendation
Cash & Cash Equivalents	2%	0%-15%	2.5%	3.0%
Fixed Income	28%	5%-40%	25.0%	25.0%
Total Cash & Fixed Income	30%	15%-45%	27.5%	28.0%
Canadian Equities	23%	15%-35%	23.1%	23.1%
U.S. Equities	25%	15%-35%	24.8%	24.8%
International Equities	16%	10%-30%	18.2%	17.8%
Emerging Markets	6%	0%-12%	6.4%	6.3%
Total Equities	70%	55%-85%	72.5%	72.0%

	Return	Volatility
40-Year Average	9.2%	9.4%
Last 12 Months	4.5%	8.9%

Investors who fit the **Growth** profile will seek long-term growth over capital preservation and regular income, and be comfortable with considerable fluctuations in the value of their investments. This portfolio primarily holds a diversified mix of Canadian, U.S. and global equities and is suitable for investors who plan to invest for the long term.

Aggressive Growth

Asset Class	Bench-mark	Range	Last quarter	Current recommendation
Cash & Cash Equivalents	2%	0%-15%	2.0%	2.0%
Fixed Income	0%	0%-10%	0.0%	0.0%
Total Cash & Fixed Income	2%	0%-20%	2.0%	2.0%
Canadian Equities	32.5%	20%-45%	31.6%	31.8%
U.S. Equities	35.0%	20%-50%	33.5%	33.8%
International Equities	21.5%	10%-35%	23.7%	23.3%
Emerging Markets	9.0%	0%-15%	9.2%	9.1%
Total Equities	98%	80%-100%	98.0%	98.0%

	Return	Volatility
40-Year Average	9.4%	12.1%
Last 12 Months	2.4%	12.2%

Aggressive Growth investors seek maximum long-term growth over capital preservation and regular income, and are comfortable with significant fluctuations in the value of their investments. The portfolio is almost entirely invested in stocks and emphasizes exposure to global equities. This investment profile is suitable only for investors with a high risk tolerance and who plan to hold their investments for the long term.

Capital Markets Performance

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The performance of the U.S. dollar was mixed against the four other major currencies in the three months ended August 31, 2019. The greenback rose 3.9% against the pound and 1.7% against the euro. Both sterling and the euro slumped on sluggish growth in Europe. This outlook was exacerbated in the U.K. by increased odds of a no-deal exit from the European Union. The U.S. dollar fell 2.0% versus the yen and 1.5% against the Canadian dollar as the U.S. yield advantage narrowed, making the yen and the Canadian dollar more attractive. Year-to-date, the greenback is up 4.8% against sterling and 4.3% against the euro, and down 3.1% against the yen and 2.5% against the loonie.

Poor economic data and mounting trade tensions turned central banks more dovish and caused bond yields everywhere to tumble. The U.S. Federal Reserve (Fed) cut its benchmark interest rate as insurance against a further moderation in economic growth, and the European Central Bank said it would consider easing monetary policy. The 10-year U.S. Treasury-bond yield dropped to 1.49% as of August 31, 2019, down almost 65 basis points from a quarter ago and near its 2016 low. Extending their rally from earlier this year, developed-world bond markets delivered total returns between 4% and 5% in U.S.-dollar terms in the past quarter. This latest move lifted year-to-date gains for major fixed-income indexes to between 6.3% for the FTSE European Government Bond Index and 11.5% for the FTSE Canada Universe Bond Index, measured in U.S. dollars.

Equity markets posted modest gains during the three-month period, aided by the drop in interest rates. The S&P 500 Index was among the best-performing major stock markets, rising 6.9%, and the S&P/TSX Composite Index gained 4.9%. The MSCI Emerging Markets Index was flat over the past three months, but is up 3.9% so far this year. Between June and August, the MSCI UK Index declined 1.7% due in part to concern about Brexit.

Large-cap stocks continued to outperform their smaller counterparts in the risk-off environment of the most recent three-month period. The large-cap S&P 500 outperformed both the mid-cap S&P 400 Index and the small-cap S&P 600 Index which gained 4.4% and 3.8%, respectively. Growth stocks topped value stocks in the quarter given the uninspiring outlook for corporate profits. The Russell 3000 Growth Index rose 8.2% while the Russell 3000 Value Index returned 4.6%. The growth index has outperformed its value counterpart over the past one, three and five-year periods.

All sectors except Energy gained in the latest three-month period. Information Technology performed best, with a 9.4% gain, followed by the defensive Consumer Staples and Utilities sectors, with gains of 7.8% and 6.6%, respectively. The cyclical Industrials and Financials sectors lagged, with increases of 3.8% and 0.9%, respectively.

Exchange Rates
Periods ending August 30, 2019

	Current USD	3 months (%)	YTD (%)	1 year (%)	3 years (%)	5 years (%)
USD–CAD	1.3314	(1.49)	(2.48)	2.02	0.51	4.13
USD–EUR	0.9099	1.65	4.25	5.61	0.49	3.63
USD–GBP	0.8218	3.90	4.75	6.55	2.57	6.41
USD–JPY	106.2350	(1.97)	(3.07)	(4.39)	0.88	0.42

Note: all changes above are expressed in US dollar terms

Canada
Periods ending August 30, 2019

	USD					CAD		
Fixed Income Markets: Total Return	3 months (%)	YTD (%)	1 year (%)	3 years (%)	5 years (%)	3 months (%)	1 year (%)	3 years (%)
FTSE Canada Univ. Bond Index TR	4.54	11.46	7.38	2.52	(0.18)	2.98	9.55	3.04

U.S.
Periods ending August 30, 2019

	USD					CAD		
Fixed Income Markets: Total Return	3 months (%)	YTD (%)	1 year (%)	3 years (%)	5 years (%)	3 months (%)	1 year (%)	3 years (%)
FTSE U.S. Government TR	4.21	9.26	10.32	3.13	3.37	2.66	12.55	3.51
Barclays Capital Agg. Bond Index TR	4.11	9.10	10.17	3.09	3.35	2.55	12.40	3.61

Global
Periods ending August 30, 2019

	USD					CAD		
Fixed Income Markets: Total Return	3 months (%)	YTD (%)	1 year (%)	3 years (%)	5 years (%)	3 months (%)	1 year (%)	3 years (%)
FTSE WGBI TR	4.12	7.60	7.92	2.27	1.68	2.56	10.11	2.65
FTSE European Government TR	4.89	6.31	5.60	1.96	0.04	3.32	7.73	2.47
FTSE Japanese Government TR	4.78	8.37	11.27	0.59	2.32	3.21	13.51	1.10

Canada
Periods ending August 30, 2019

	USD					CAD		
Equity Markets: Total Return	3 months (%)	YTD (%)	1 year (%)	3 years (%)	5 years (%)	3 months (%)	1 year (%)	3 years (%)
S&P/TSX Composite	4.89	20.10	2.28	6.66	(0.03)	3.32	4.35	7.20
S&P/TSX 60	4.53	19.70	3.03	7.62	0.80	2.96	5.12	8.16
S&P/TSX Small Cap	7.62	15.03	(7.12)	(0.41)	(5.19)	6.01	(5.24)	0.10

U.S.
Periods ending August 30, 2019

	USD					CAD		
Equity Markets: Total Return	3 months (%)	YTD (%)	1 year (%)	3 years (%)	5 years (%)	3 months (%)	1 year (%)	3 years (%)
S&P 500 TR	6.87	18.34	2.92	12.70	10.11	5.27	5.00	13.27
S&P 400 TR	4.35	14.37	(6.43)	8.06	7.22	2.79	(4.53)	8.60
S&P 600 TR	3.77	9.80	(15.06)	8.37	7.97	2.21	(13.34)	8.92
Russell 3000 Value TR	4.60	13.31	(0.56)	7.89	6.46	3.03	1.45	8.44
Russell 3000 Growth TR	8.15	22.80	3.09	16.55	12.68	6.54	5.17	17.14
NASDAQ Composite Index TR	7.12	20.89	(0.72)	16.43	12.97	5.52	1.29	17.02

Note: all rates of return presented for periods longer than 1 year are annualized. Source: RBC GAM

Global
Periods ending August 30, 2019

	USD					CAD		
Equity Markets: Total Return	3 months (%)	YTD (%)	1 year (%)	3 years (%)	5 years (%)	3 months (%)	1 year (%)	3 years (%)
MSCI World TR *	4.93	15.15	0.26	9.63	6.15	3.13	2.17	10.09
MSCI EAFE TR *	1.88	9.66	(3.26)	5.91	1.89	0.14	(1.41)	6.36
MSCI Europe TR *	2.02	10.70	(3.03)	5.92	1.05	0.27	(1.18)	6.37
MSCI Pacific TR *	1.68	8.04	(3.42)	6.13	3.59	(0.06)	(1.58)	6.58
MSCI UK TR *	(1.72)	5.69	(5.13)	3.56	(1.44)	(3.40)	(3.32)	4.00
MSCI France TR *	4.03	13.10	(2.75)	9.81	3.81	2.25	(0.89)	10.28
MSCI Germany TR *	0.54	7.27	(10.87)	2.78	0.51	(1.18)	(9.17)	3.22
MSCI Japan TR *	2.83	6.81	(5.61)	5.38	4.63	1.08	(3.81)	5.83
MSCI Emerging Markets TR *	(0.17)	3.90	(4.36)	5.76	0.38	(1.88)	(2.54)	6.21

Global Equity Sectors
Periods ending August 30, 2019

	USD					CAD		
Sector: Total Return	3 months (%)	YTD (%)	1 year (%)	3 years (%)	5 years (%)	3 months (%)	1 year (%)	3 years (%)
Energy TR *	(3.66)	1.47	(18.18)	(0.33)	(7.02)	(5.31)	(16.63)	0.10
Materials TR *	4.11	10.37	(4.24)	7.44	1.93	2.33	(2.41)	7.90
Industrials TR *	3.78	15.82	(1.53)	8.38	6.26	2.00	0.35	8.84
Consumer Discretionary TR *	6.46	16.71	0.26	11.68	8.88	4.64	2.17	12.15
Consumer Staples TR *	7.79	18.98	11.23	5.73	6.62	5.95	13.35	6.18
Health Care TR *	5.53	8.51	0.27	8.00	6.49	3.72	2.18	8.45
Financials TR *	0.94	9.51	(6.16)	8.10	3.61	(0.79)	(4.37)	8.56
Information Technology TR *	9.37	27.42	4.46	20.81	15.66	7.50	6.45	21.32
Communication Services TR*	5.20	17.87	12.25	3.25	3.19	3.41	14.39	3.68
Utilities TR *	6.62	15.91	16.01	9.50	6.31	4.79	18.22	9.96
Real Estate TR *	4.96	20.13	11.88	6.45	NA	3.17	14.01	6.90

* Net of taxes. Note: all rates of return presented for periods longer than 1 year are annualized. Source: Bloomberg/MSCI

Global Investment Outlook

Slowing growth, mounting risks

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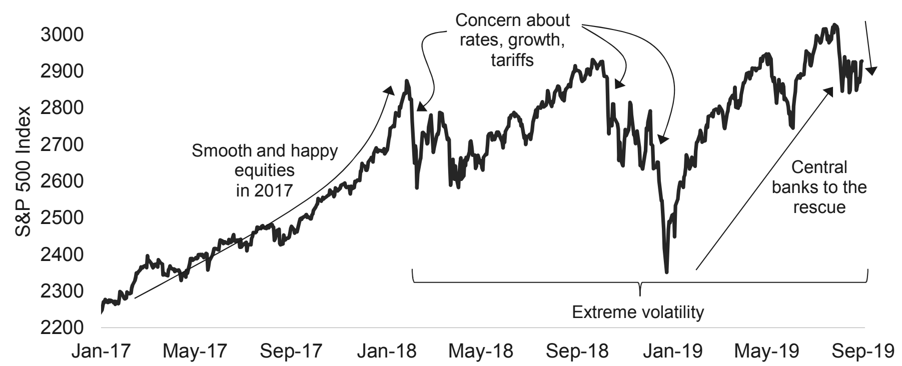
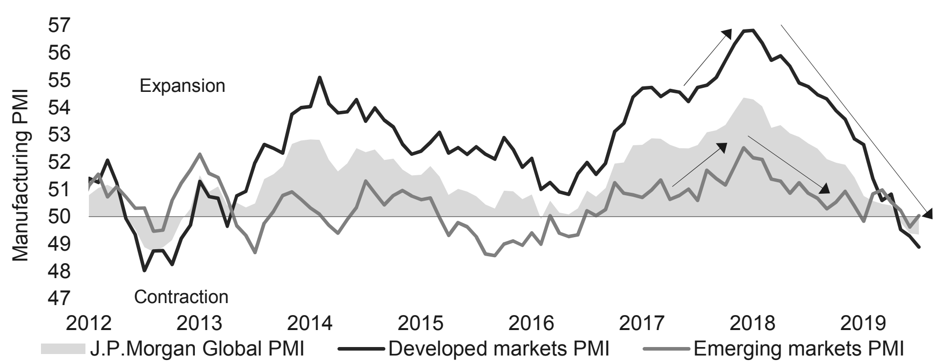
Exhibit 1: Stock market roiled by trade fears again



Note: As of 8/30/2019. Source: WSJ, Haver Analytics, RBC GAM

Exhibit 2: Global manufacturing continues its downshift



Note: As of Jul 2019. PMI refers to Purchasing Managers Index for manufacturing sector, a measure for economic activity. Source: Haver Analytics, RBC GAM

Financial markets continue to roil in response to alternating waves of bad and good news (Exhibit 1). Economic worries have mounted as tariff barriers rise, Brexit looms, the U.S. business cycle rings increasingly late and global growth slows (Exhibit 2).

Leading the battle against these unwelcome developments are central banks, which have now pivoted all the way from rate hikes to rate cuts, with more monetary stimulus to come. Interest rates are accordingly plumbing the depths once more. The stock market and other risk assets have celebrated this shift. Global fiscal policy is not presently contributing to the rescue effort, but could yet join as governments wake to the challenging environment.

It is not yet clear which side will ultimately prevail. Consequential policy decisions are coming on such matters as protectionism, Brexit and Chinese stimulus, each with its capacity to jolt markets up or down, depending on the verdict.

It is a cliché to claim that uncertainty is especially high, but objectively this is the case right now. A flat yield curve and a late business cycle are classic harbingers of volatility. For this reason, incorporating multiple scenarios and multiple time frames into the investing process is critical.

Over the next few years, our base-case outlook anticipates muted economic growth. That translates into modestly higher earnings and thus equities prices, with a fixed-income market that pays only meagre yields. However, the bear-case scenario over the same time frame – recession – is more probable than usual, and constitutes an outcome that heavily favours risk aversion. Combined, the weighted short-term view argues for a degree of investor caution.

But long-run considerations merit equal consideration. Here, valuations dominate. Few asset classes can be said to be cheap, but the risk premium presently enjoyed by the stock market over the bond market is unusually large. This cuts the opposite way as the short-term view.

Balancing these divergent inputs, we arrive at a tactical asset allocation that has continued to become incrementally less risk-seeking over time given evident near-term risks, but still maintains a vestige of our long-standing structural orientation to equities given their ongoing long-run promise. All of this is to say that our recommended equity allocation has fallen by another half a point to 57.0%, our cash allocation has increased by half a point to 3.0%, and our fixed-income weight has remained unchanged at 40.0%. These should be considered against our 'neutral' strategic asset mix of 55% equities, 43% fixed income, 2% cash.

A weaker macro trend

Global growth has continued to slow palpably, extending a trend that began at the start of 2018. This move has been led by a particularly violent deceleration in the manufacturing sector. Of course, while manufacturing remains an important area of the economy and punches above its weight in terms of signaling broader economic conditions, there are other sectors that also have a say in the overall economic picture.

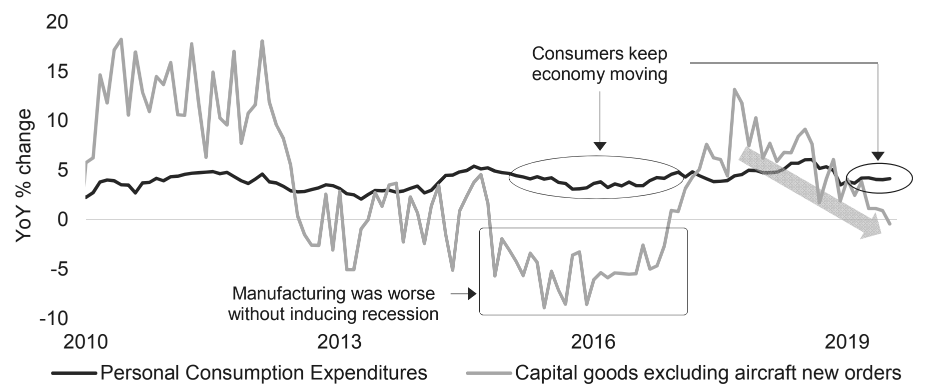
The services sectors have also slowed, though not by as much as manufacturing. This makes sense as services are less exposed to the capriciousness of U.S. trade policy. But the real silver lining comes from consumers, who have been holding up fairly well (Exhibit 3). This is a familiar theme, as a sharp manufacturing swoon in 2016 was also parried by resilient consumers. So long as consumers remain engaged, recession can likely be fended off.

In the U.S. context, hiring growth is still solid, wage growth has improved, and an elevated personal-savings rate affords room for continued spending even if economic conditions weaken. However, there is some tentative evidence that previously elevated consumer confidence is starting to slump.

For the moment, the broader economic trend remains in the direction of softening conditions, though the rate of decline has at least stabilized (Exhibit 4).

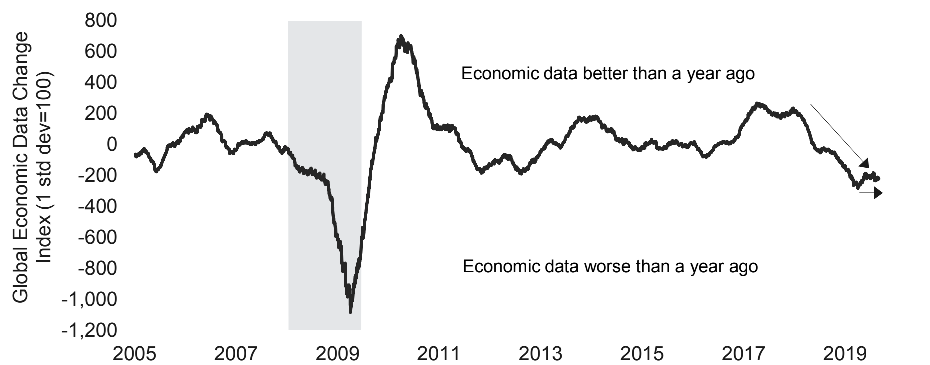
Interestingly, economic surprise indexes have begun to rise in the U.S. and China, though this appears to be more a function of expectations having declined than outcomes having improved (Exhibit 5). Nevertheless, the possibility of upside surprises is a welcome one for financial markets.

Exhibit 3: U.S. consumers provide offset to manufacturers



Note: As of Jul 2019. Source: Macrobond, RBC GAM

Exhibit 4: Global data goes steadily negative



Note: As of 8/30/2019. Shaded area represents U.S. recession. Source: Citigroup, Bloomberg, RBC GAM

Macro forecasts slide

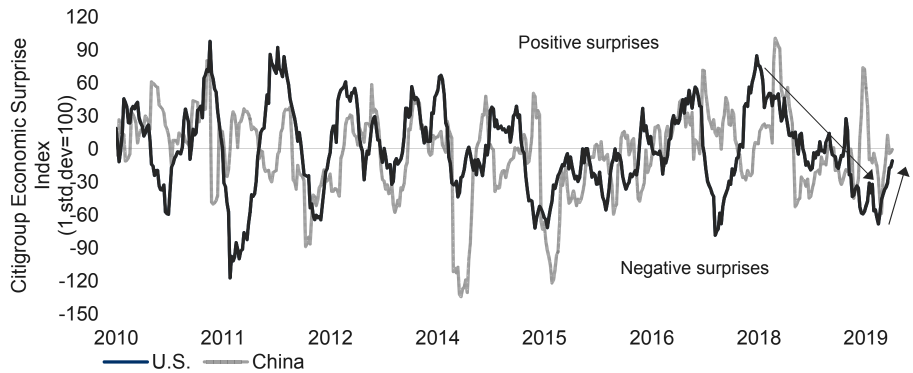
A variety of macroeconomic forces are buffeting the growth outlook. Negative elements include:

- A natural tendency for the economy to decelerate after unsustainably fast growth from late 2016 to early 2018.
- The rising drag from tariffs and related protectionist actions.
- Elevated uncertainty concerning the jumble of potential paths forward for such matters as protectionism and Brexit, resulting in economic paralysis.
- Fading U.S. fiscal stimulus (Exhibit 6), and a lack so far of global fiscal support elsewhere – at least so far (Exhibit 7).
- China's economic slowdown, the result of deleveraging, protectionism and structural drags.

Fortunately, plummeting interest rates – driven in sizeable part by central banks – have significantly improved financial conditions, providing some economic support (Exhibit 8).

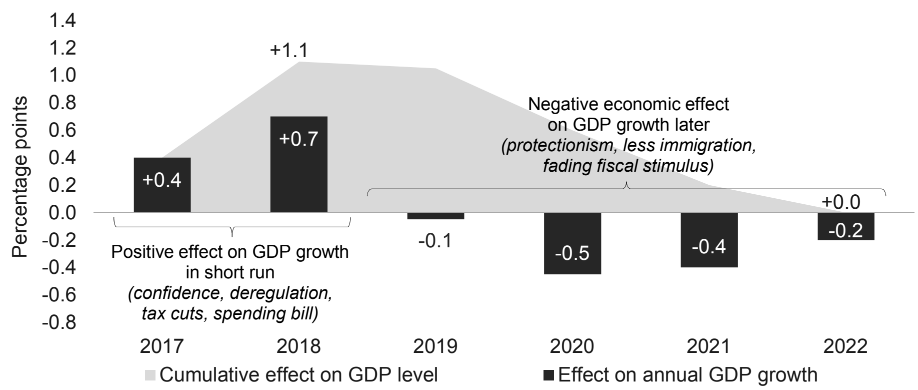
Weighing these various factors, the negatives outweigh the positives, with the result that economic growth is on track to have slowed in 2019 relative to 2018, with our base-case forecast looking for a further moderate deceleration into 2020 for both developed economies (Exhibit 9) and emerging markets (Exhibit 10). Prominent among them, the U.S., China and Japan are all set to continue slowing for a third consecutive year in 2020.

Exhibit 5: Economic surprises for the world's two largest economies



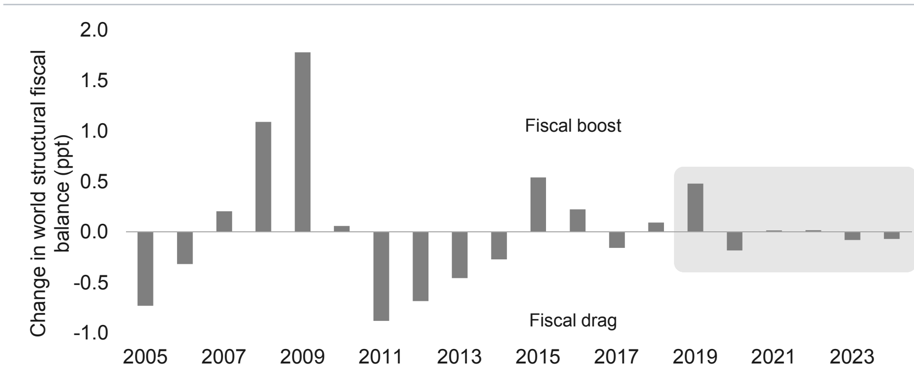
Note: As of 8/30/2019. Source: Citigroup, Bloomberg, RBC GAM

Exhibit 6: Effect of Trump policies on U.S. GDP



Source: RBC GAM assumptions and calculations

Exhibit 7: Global fiscal stimulus to be less supportive



Note: Forecast from IMF World Economic Outlook, Apr 2019. PPP-based country GDP as share of world total used as weights. Source: IMF, Haver Analytics, RBC GAM

In reaching this assessment, a central consideration is that it is hard for monetary policy to completely offset the challenges of such factors as protectionism because the economic boost per rate cut is fairly small, there simply isn't that much room to cut interest rates, and the market has already priced in a fair chunk of any future easing.

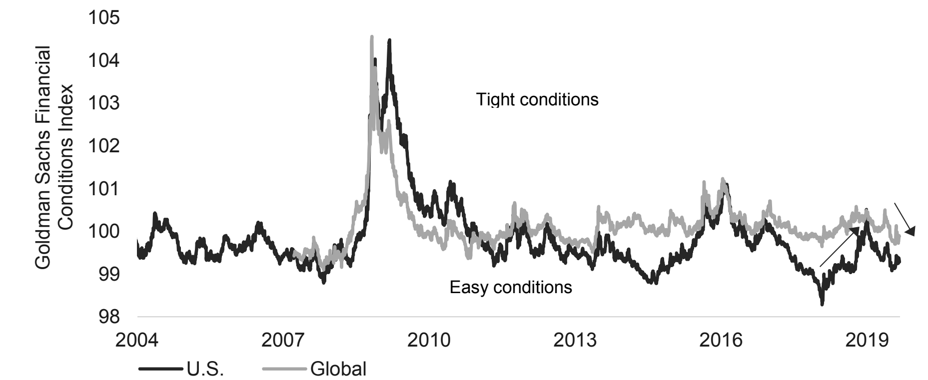
On an absolute basis, we have downgraded the 2019 global growth outlook by a hair – though the result is increasingly baked into the cake as the year progresses – and the 2020 growth outlook has been downgraded by slightly more. At the global level, that now puts us in line with the consensus for 2019 GDP, and modestly below the consensus for 2020. The consensus outlook itself is in decline, classically a signal that below-consensus forecasts are the winning bet (Exhibit 11).

Risks galore

Naturally, risks bracket the base-case forecast laid out so far (Exhibit 12). These extend in both directions, though the downside risks are currently larger than the upside ones, and actively mounting. As a result, the probability-weighted outlook for the economy and markets is worse than the base-case outlook.

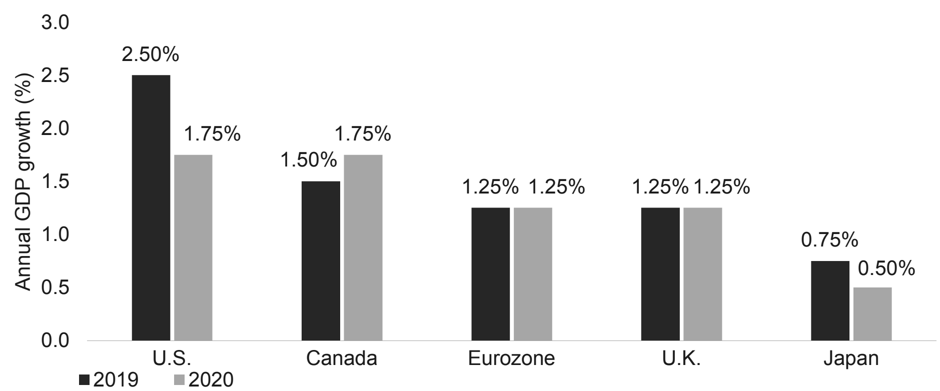
The three most prominent downside risks are the lateness of the business cycle, the advance of protectionism and the state of the Chinese economy. These have commanded the top positions for several quarters running, with the issues surrounding the business cycle and protectionism having recently become more intense.

Exhibit 8: Global financial conditions eased again



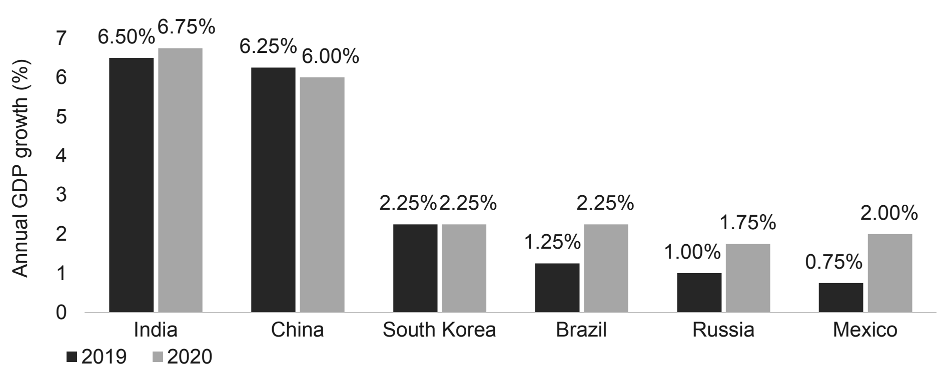
Note: As of 8/29/2019 for U.S., 8/28/2019 for global. Source: Goldman Sachs, Bloomberg, RBC GAM

Exhibit 9: RBC GAM GDP forecast for developed markets



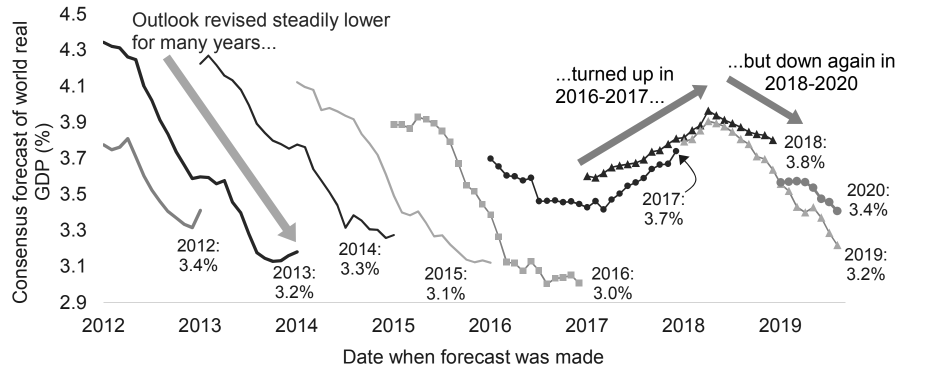
Source: RBC GAM

Exhibit 10: RBC GAM GDP forecast for emerging markets



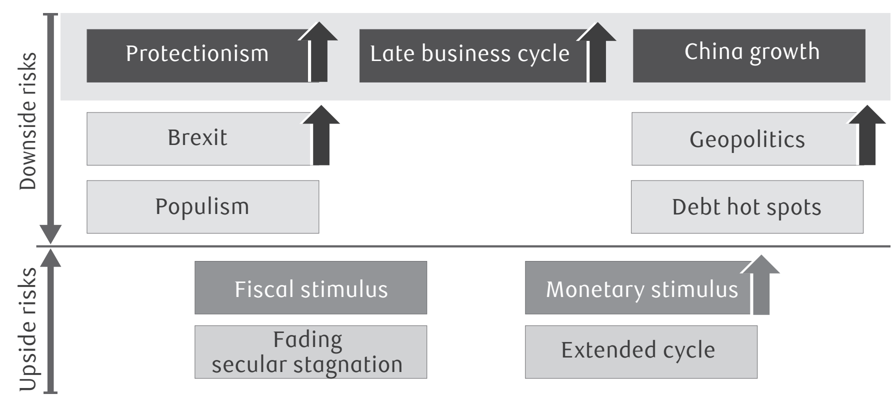
Source: RBC GAM

Exhibit 11: Consensus forecast revised lower



Note: As of Aug 2019. Source: Consensus Economics, IMF, RBC GAM

Exhibit 12: Macro risks: Some deterioration



Source: RBC GAM

All three subjects are discussed in their own sections later.

Other downside risks worthy of mention include the deteriorating geopolitical environment, Brexit, ongoing populist inclinations and various debt hot spots.

On the geopolitical front – setting aside U.S.-China relations and U.K.-EU relations, which we discuss in the context of protectionism and Brexit shortly – the most pressing concern is surely U.S.-Iran tensions. The two countries have been at odds for four decades, but the relationship has recently deteriorated badly after the U.S. accused Iran of violating their nuclear deal and accordingly re-imposed economic sanctions. In response, Iran has repeatedly attacked U.S. interests in the region, downing several drones, impeding the flow of commerce through the crucial Strait of Hormuz, and damaging oil pipelines in the region. Longstanding U.S. grievances relate to Iran's support of Hezbollah and the Islamic State, and the proxy war it is conducting with Saudi Arabia in Yemen.

The U.S. came close to responding to recent provocations with force, but stopped short. We expect this stalemate to hold for several reasons. The U.S. lacks the appetite for another war – particularly since the opponent would be more formidable than either Afghanistan or Iraq. The White House is averse to the higher oil prices that a conflict with Iran would bring. From Iran's perspective, the prospect of a war and likely a devastating loss would only compound its economic problems. Factors to watch include whether a war would boost the president's popularity in the lead-up to the 2020 election, and whether the U.S. grows sufficiently concerned that Iran is on the cusp of having a viable nuclear weapon.

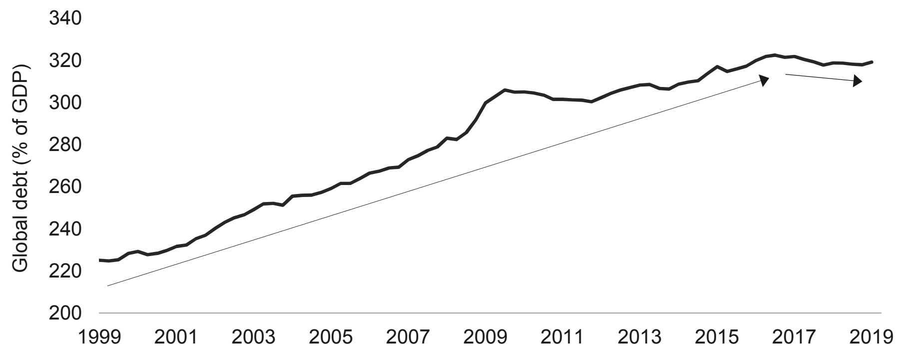
Global populism is motivated by a mix of inequality, slower-than-normal economic growth over the past decade and possibly even the fragmenting effects of the internet. The U.S. presidency and Brexit are the most consequential examples of this, though Italian politics are also concerning and chaotic. Suffice it to say that populism has not yet obviously peaked, and it classically acts as a drag on growth and an accelerant for inflation.

Lastly, there are pockets of debt excesses that could yet flare up. The top-down component of this risk has happily decreased now that global leverage is no longer actively ascending – a welcome development (Exhibit 13). Furthermore, the recent drop in interest rates makes financing debt particularly cheap at present, so no additional stress is forming.

However, the leveraged-loan market remains concerning, there are pockets of the corporate-debt space where interest-coverage ratios are stretched, Chinese debt remains gargantuan, and household indebtedness has soared over the past decade in some countries including Canada.

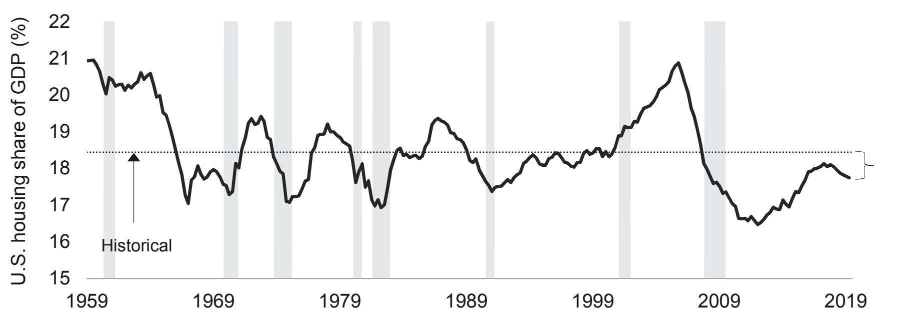
Fortunately, unlike a decade ago, the U.S. housing market doesn't appear to be particularly pressed (Exhibit 14), and banks around the world are less levered, making them less likely to transform an isolated problem into a global debt flu.

Exhibit 13: Global debt growth has stabilized, but at higher levels



Note: As of Q1 2019. Global debt includes government, household, nonfinancial corporate and financial corporate debt. Source: IIF, RBC GAM

Exhibit 14: U.S. housing never overheated, and is cooling



Note: As of Q2 2019. Housing share of GDP calculated as residential investment, housing rent (both actual and imputed for home owners), maintenance and repair of dwellings, utilities, plus half of furniture, textiles, appliances & equipment for house and garden, household utensils and supplies. Historical average from 1959 to present. Shaded area represents recession. Source: Haver Analytics, RBC GAM

Business cycle advances

Our U.S. business-cycle scorecard continues to read "late cycle," as it has for a few years (Exhibit 15). But beyond this superficial stability, there is considerable forward motion. Eight of the underlying 17 inputs to the scorecard advanced relative to the prior quarterly update. As a result, the "end-of-cycle" claims have strengthened, with the "recession" argument even receiving a few tentative nods. In contrast, the argument for "mid cycle" – which long vied for supremacy with "late cycle" – has substantially lessened.

In short, the U.S. cycle is late and actively advancing. Quite a number of developments support this conclusion. Prominently, the current expansion is now the longest on record. Granted, recessions don't arrive according to a stopwatch, and it makes sense that this expansion has been especially long as it ticks many of the boxes for a lengthy cycle, including having occurred after a financial crisis, having set an unusually leisurely pace, and being underpinned by an increasingly services-oriented economy. But the recession vulnerability does increase with time, and so a degree of fragility now exists.

Many measures of the economy point to an unusual amount of economic tightness – a signal that it may be hard for the economy to continue progressing, at least without becoming vulnerable to overheating. Many such signals originate in the labour market, including a rock-bottom unemployment rate. One fascinating recent development is that the number of Americans receiving disability benefits is now shrinking – a rare occurrence that signals employers are turning to previously untapped corners of the population to meet their workforce needs (Exhibit 16).

The classic recession indicator is the slope of the yield curve (Exhibit 17). At the time of writing, the three most closely watched curves have all inverted – the 3-month to 10-year

Exhibit 15: U.S. business-cycle scorecard

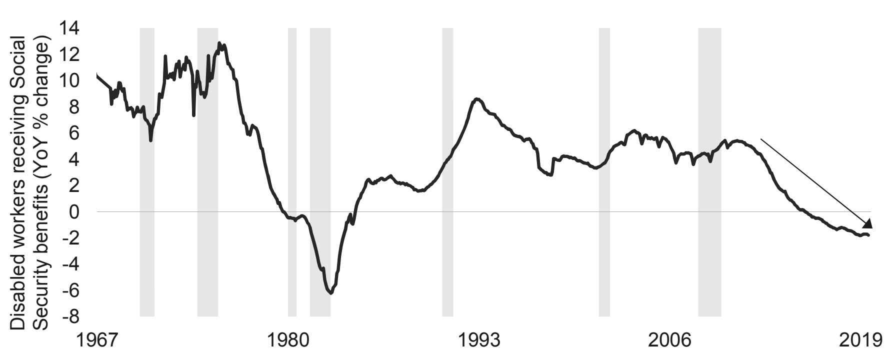
	Start of cycle	Early cycle	Mid cycle	Late cycle	End of cycle	Recession
Consumer						
Leverage						
Business investment						
Employment						
Corporate profitability						
Credit						
Inventories						
Prices						
Housing						
Economic trend						
Volatility						
Sentiment						
Economic slack						
Equities						
Cycle age						
Monetary policy						
Bonds						
Scores for each stage of business cycle	0	0.5	5.5	13	8.5	1.5

Note: As at 8/8/2019. Dark shading indicates the most likely stage of business cycle (full weight); light shading indicates alternative interpretation (0.5 weight). Source: RBC GAM

spread, the 2-year to 10-year spread, and a short-term metric constructed by the U.S. Federal Reserve (Fed). These inversions do not constitute an airtight conviction – in particular, there is a fierce debate around whether a vanishing term premium has distorted these signals – but it is fair to say that the bond market highlights a substantial risk of recession over the next six months to two years.

While there are obvious economic headwinds to growth, one would struggle to construct an argument that their various effects cumulatively sum to outright economic decline.

Exhibit 16: Fewer people in U.S. receiving disability benefits



Note: As of Jul 2019. Shaded area represents recession. Source: U.S. Social Security Administration, Haver Analytics, RBC GAM

Where, then, would a recession come from? The concept of “stall speed” is helpful in explaining this. For a long time, nearly every instance of annual U.S. GDP growth dipping below 2.0% resulted in a further tumble into recession. Businesses and households would freeze up in response to the initial deceleration, creating a vicious circle that eventually resulted in recession.

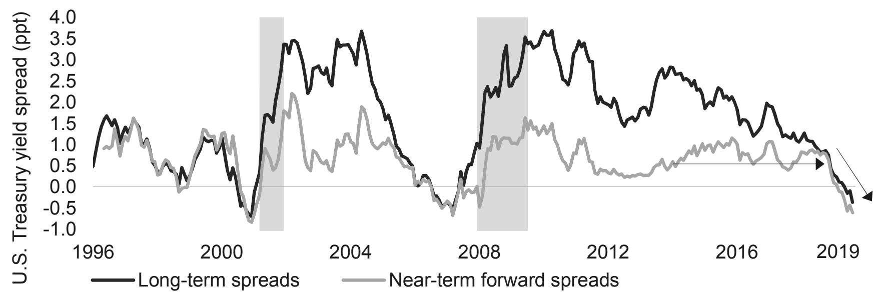
Fortunately, the modern-day stall speed appears to be well below 2.0%, as demonstrated by several recent bouts of sub-2% growth without a recession (Exhibit 18). This makes sense: the normal growth rate is also lower than it once was. Perhaps the stall speed today is more like 1.0% – still a reasonably safe margin from the current growth rate, but not an insurmountable gap.

Tariffs continue to rise

Protectionism remains a central economic headwind, with global trade now in outright decline (Exhibit 19). The U.S. remains the key instigator, where the average tariff on imported goods is set to have roughly quadrupled between 2017 and the end of 2019 (Exhibit 20). While U.S. tariff rates remain substantially lower than at other problematic junctures such as during the Great Depression, the flow of trade is so much greater today that even relatively small barriers can have an outsized economic effect.

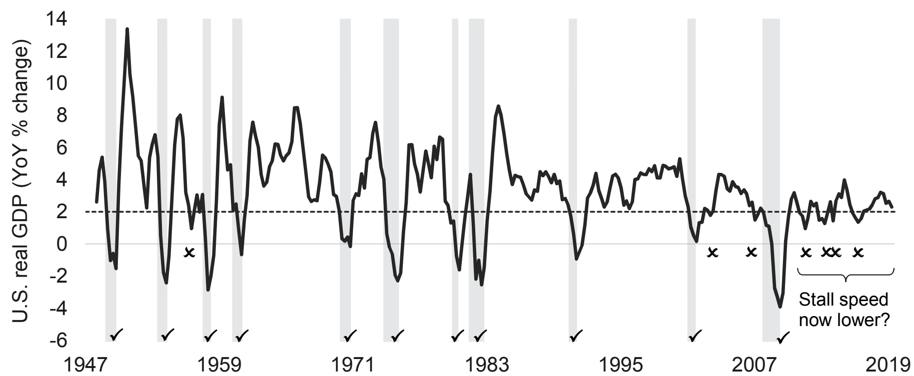
In the interest of completeness, it is worth acknowledging that the U.S. is not alone in its protectionist zeal. Brexit represents an expression of anti-globalization sentiment in the U.K; Japan and South Korea are currently

Exhibit 17: Yield curve signals rising recession risks



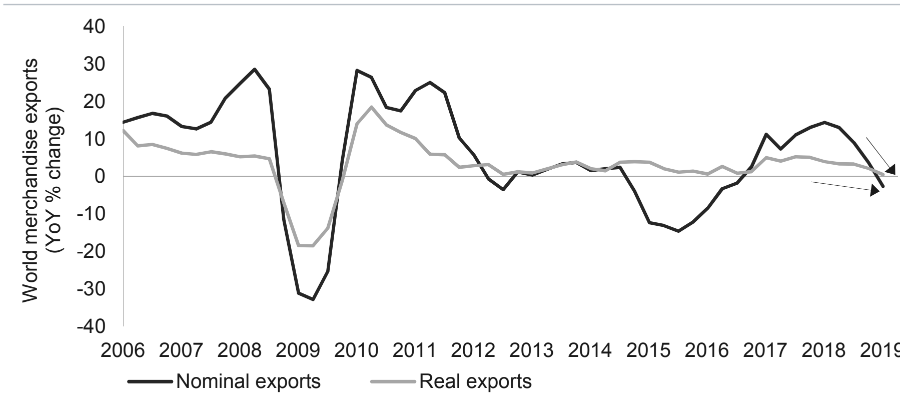
Note: As of 8/30/2019. Long-term spreads measured as 10-year U.S. Treasury yield minus 3-month Treasury yield. Near-term forward spread is forward rate of 3-month Treasury bill six quarters from now minus spot 3-month Treasury yield. Shaded area represents recession. Source: Engstrom and Sharpe (2018). FEDS Notes. Washington: Board of Governors of the Federal Reserve System, Bloomberg, Haver Analytics, RBC GAM

Exhibit 18: New GDP stall speed probably closer



Note: As of Q2 2019. Shaded area represents recession. Source: BEA, Macrobond, RBC GAM

Exhibit 19: Global trade hampered by tariffs



Note: As of Q1 2019. Nominal exports in U.S. dollars. Source: WTO, RBC GAM having a trade spat of their own; China has blocked more and more Canadian agricultural products; and many countries have been subtly increasing their non-tariff barriers for years, despite publicly advocating for barrier-free borders.

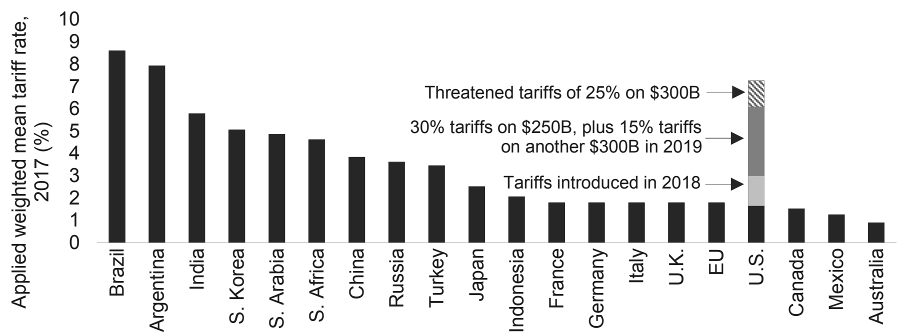
Nevertheless, the U.S. remains today's primary antagonist to free trade. The country's relationship with China is the main issue given the heft of the two countries, the fact that China generates more than half of the U.S. trade deficit, and enhanced Chinese state support and intellectual-property practices that give Chinese companies an apparent advantage.

Several new rounds of U.S.-China tariffs have been announced. The U.S. is implementing a phased rollout of tariffs on the remaining US$300 billion of untaxed Chinese products, and increasing the tariff rate by 5 percentage points on other Chinese goods already subjected to trade-impeding measures.

China, for its part, has responded with additional tariffs on US$75 billion of U.S. goods, has re-imposed tariffs on U.S. vehicles, and has permitted its currency to depreciate past the symbolic 7.0 threshold relative to the dollar.

Naturally, there are a number of ways this trade war could progress. At the optimistic end of the spectrum, political imperatives – the U.S. election in 2020 most obviously – could motivate a slapped-together resolution over the coming months as a remedy for slowing economic growth. China is less likely to blink than is the U.S. despite being subjected

Exhibit 20: U.S. tariff rate now substantially higher



Note: Applied weighted mean tariff rates for all products. Estimates of U.S. tariffs introduced in 2018 and after based on additional tariffs announced up to end of August 2019. Source: Deutsche Bank, World Bank, Haver Analytics, RBC GAM

to greater economic damage, in part because it lacks the pressure of an election cycle, in part because it hopes that a post-election change of U.S. leadership might lessen the pressure it is subjected to, and in part because the U.S. is making demands of it that would require a wrenching reformulation of the country's economic model.

The most likely scenario, however, is that the announced tariffs are fully implemented, and that relations don't improve from there. This aligns with our "negative" scenario, which would subtract a cumulative 0.60% to 0.80% from U.S. GDP and 0.75% to 0.95% from Chinese GDP over a number of years (Exhibit 21). Some of this damage has already been absorbed, but it is equally the case that non-tariff barriers such as corporate-level bans are also hurting growth, and yet are not formally included in the models that tally the economic damage.

Turning to smaller fronts in the trade war, we continue to assume that the still-unratified USMCA deal will eventually bind the U.S., Mexico and Canada, or at a minimum that the pre-existing NAFTA will not be torn up. It appears that Japan and the U.S. have reached a high-level agreement to sustain their own trading relationship. We feel that the EU is capable of reaching a similar deal, though with less conviction than with regard to Japan. Beyond China, the remaining trade risk pertains to the possibility of auto tariffs, the threat of which could reactivate this November. To the extent the U.S. appears to be well on its way to striking deals with its main sources of auto imports – Europe, Japan, Mexico and Canada – we are hopeful, though not entirely confident, that this risk will eventually fade.

China's mild slowdown

The Chinese economy has now been on a structurally slowing trajectory for a decade, hindered by declining competitiveness as wages have risen and the drag from deleveraging as the country grapples with an earlier debt buildup. China is also subjected to a naturally declining speed limit as it approaches the global technology frontier; confronted by the diminishing viability of export growth in an era of fading globalization; and facing a shrinking working-age population. China's economic deceleration is thus likely to continue for the foreseeable future.

Put into numbers, this means Chinese growth can no longer run at an annual pace that once touched 10% per year, instead finding itself limited to around 6% for the moment, and perhaps lower than that in the coming years. We forecast 6.25% growth for 2019, followed by 6.00% in 2020. Of course, this is still spectacular relative to most other countries, and China remains responsible for a startling one-third of global economic growth.

But the Chinese economy's deceleration is not merely a function of structural barriers. Slower global growth and mounting U.S. tariffs are also weighing on the economy. Illustrating this dampening effect on consumer behavior, Chinese auto sales are now in decline – a rare occurrence for a country with a burgeoning middle class (Exhibit 22).

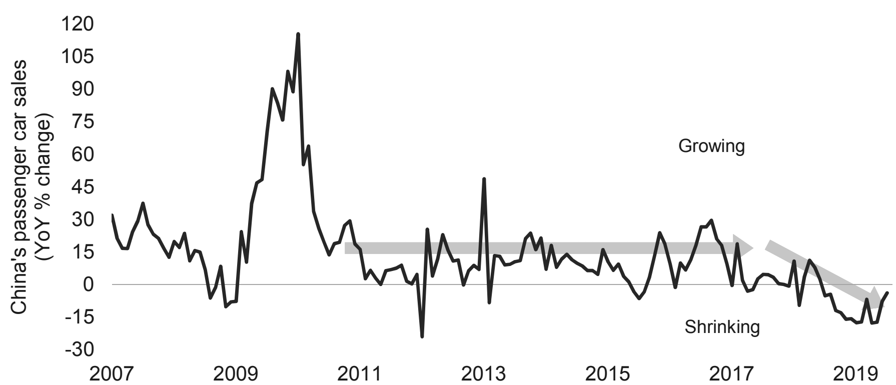
Chinese policymakers are not taking this lying down. They have already delivered extensive monetary stimulus, including a refashioning of the country's primary target rate to better align it with actual borrowing costs. The renminbi has depreciated, providing a small competitiveness boost. And a round of tax cuts has already been delivered, with a smattering of infrastructure spending alongside. More stimulus may yet be delivered. This is starting to perk up the country's credit impulse (Exhibit 23), a mixed blessing given that it could accidentally reignite debt risks as it seeks to stabilize economic growth.

Exhibit 21: U.S. trade scenarios looking worse again

Scenario	Worst case	Negative	Slightly negative	Neutral	Best case
Likelihood	15%	55%	20%	5%	5%
Detail	Global trade war	Substantial tariffs	Small tariffs	Trump tariffs unwind	Foreign barriers fall to pressure
Economic effect	U.S.: -2.1%	U.S.: -0.6 to -0.8%	U.S.: -0.1 to -0.2%	U.S.: 0.0%	U.S.: positive
	CN: -2.5%	CN: -0.75 to -0.95%	CN: -0.2 to -0.5%	CN: 0.0%	CN: ?
	CA: -2.0%	CA: -0.4 to -0.6%	CA: -0.1%	CA: 0.0%	CA: ?

Source: RBC GAM, Oxford, Bloomberg, OECD, Nomura, Goldman Sachs, UBS, Barclays, Fajgelbaum et al

Exhibit 22: Chinese car sales shrinking



Note: As of Jul 2019. Source: China Automotive Information Net, Bloomberg, RBC GAM

Thus, while our base-case forecast is for China to remain among the world's fastest-growing economies and to suffer only a slight deceleration over time, there are also considerable downside risks around this view.

One such thread relates to the country's large debt markets, which contain pockets of vulnerability as evidenced by the struggles this year of several Chinese banks. That said, it still doesn't make sense to bet on debt troubles because the government has repeatedly bailed out troubled corners of the credit market – it recently did so with the aforementioned banks, and several years ago fixed the country's shadow finance system, as well as debt problems afflicting local governments and industrial companies.

The other Chinese risk relates directly to China's impact on global economic growth. Chinese stimulus and its contribution to the expansion was key to the worldwide recovery that took hold in 2009 after the last recession.

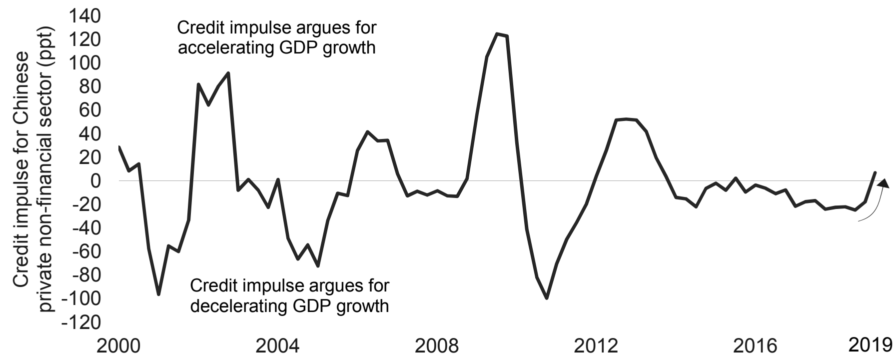
But China may be less able or willing to deliver similar heroics this time, particularly with the aforementioned headwinds in place.

Upside risks

While the term "upside risks" constitutes an awkward turn of phrase, the concept is nevertheless important. Just as the business cycle, protectionism and China could go worse than is assumed in our base-case forecast, there are other things with a palpable chance of going better than we currently assume in our base-case outlook.

Two of the more prominent such upside risks are the potential for more global fiscal stimulus, and the possibility that productivity growth could be sustainably accelerating.

Exhibit 23: Chinese credit impulse turned positive



Note: As of Q1 2019. Credit impulse measured as year-over-year change in year-over-year change in credit outstanding as percentage of GDP. Source: IIF, RBC GAM

Fiscal stimulus?

Just as central banks have jumped into action as global growth has slowed and downside risks mounted, fiscal policy possesses the same basic inclination. One need only look back to the 2008—2009 period for examples of truly extraordinary fiscal stimulus delivered in response to economic crisis.

For the moment, government budgets point to the contrary: a moderate drag on economic growth over the next year (refer back to Exhibit 7). However, plans may yet change. China is famously agile and aggressive with its economic policies. Germany has publicly stated its willingness to deliver about 50 billion euros of stimulus, though only in the event of a deep recession. The U.K. is likely to deliver more fiscal support in response to high Brexit uncertainty and the considerable risk of a bad outcome. The White House recently floated policy balloons relating to a temporary payroll-tax cut akin to that delivered by President Obama during his first term and/or a capital-gains tax cut that would be achieved by indexing returns to inflation. That said, these specific measures are long shots, and it is far from clear that anything short of an emergency would induce the kind of political cooperation needed to deliver a major fiscal package in the U.S.

High public-debt loads are unlikely to constitute a near-term problem given that bondholders are seemingly happy to pay European and Japanese governments for the privilege of financing their debt, and to charge only a pittance in North America and elsewhere. Furthermore, the fact that borrowing costs are so low makes it quite easy to fund programs that can pay for themselves with the economic benefits they create. Talk of financing public spending directly via the printing of money – Modern Monetary Theory – still seems fairly distant, but this may be a moot point given that there appear to be few short-term repercussions for running large deficits in the modern era.

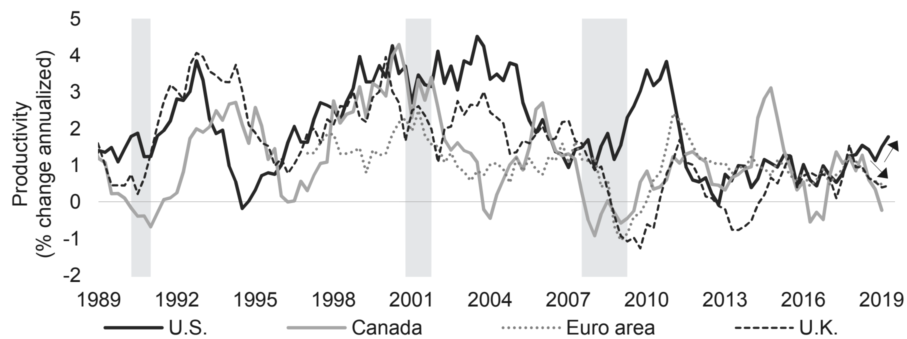
The problem with expecting too much from fiscal policy is that fiscal policy is rarely timely in its delivery. Political procedure can be cumbersome, partisan interests often clash and the programs themselves usually take months or even years to fully implement. Fiscal stimulus can still be helpful if a giant economic hole needs to be filled, but not always for more delicate tasks.

Productivity revival?

Another upside risk revolves around the possibility of reviving productivity growth after a long malaise. This is tentatively occurring in the U.S., while other countries are showing no such progress (Exhibit 24).

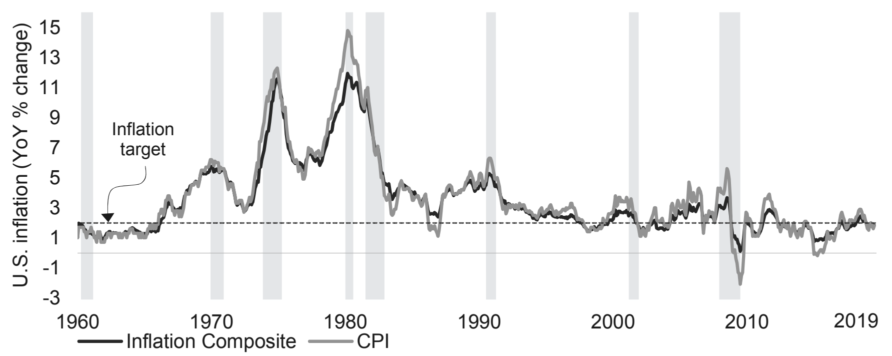
Productivity growth is crucial, in that – in partnership with job growth – it sets the rate of economic expansion. Economic growth, in turn, has a lot to say about the rate at which the stock market can ascend, and what constitutes a normal borrowing cost.

Exhibit 24: Productivity divergence: U.S. vs. other developed countries



Note: As of Q2 2019 for U.K. and U.S., Q1 2019 for Canada and Eurozone. Productivity measured as rolling 8-quarter annualized % change of the business sector/total economy output per hour of all persons. Shaded area represents U.S. recession. Source: NBER, Macrobond, RBC GAM

Exhibit 25: U.S. inflation hovering around target level



Note: As of Jul 2019. Inflation Composite is an average of YoY % change of 15 inflation measures where data is available. Shaded area represents recession. Source: Haver Analytics, RBC GAM

Productivity has risen only sluggishly for most of the post-crisis period, in part because of the risk aversion that lingered after the financial crisis. We are hopeful that the recent improvement in U.S. productivity growth will stick as the bad memories of the financial crisis fade and because of the remarkable technological changes visible in the world today. Extending this productivity improvement to other countries might require additional business-friendly policies in those markets.

Inflation slumbers

The price environment is also important, not just as a measure of the erosion of purchasing power over time, but as a proxy for the state of the economic cycle and a guide for central banks.

Competing forces are grappling over the inflation outlook: economic conditions and protectionism are pushing higher, whereas commodity prices, inflation expectations and demographics are pushing lower.

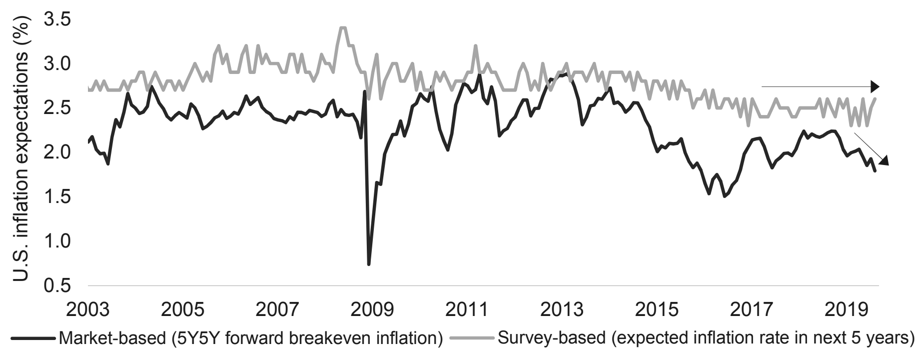
Economic indicators, though weakening, continue to indicate that output is running in the vicinity of full capacity. Unemployment rates are low and output gaps are mostly closed. Historically, this would argue for above-average inflation across much of the developed world. The reality so far is that this has not yet transpired – inflation is actually running a hair below normal (Exhibit 25). A possible explanation for this is that there may be more economic slack than conventional methodologies assume, perhaps because previously discouraged job-seekers are now being lured back into the market. Simultaneously, the connection between economic tightness and wage growth has seemingly weakened somewhat, and the connection between wage growth and inflation may also have diminished. The first of these may be explained by the globalization of labour markets – workers cannot easily demand large wage gains so long as other countries have substantial numbers of unemployed. Nevertheless, tight economic conditions should exert at least a slight upward pressure on inflation.

In addition to being bad for growth, protectionism is also inflationary in that tariffs increase the price of products. This effect may become more visible shortly in the U.S., in part due to the many tariffs now being applied, and in part because the next round of U.S.-China tariffs target consumer products for the first time. However, the net effect is both temporary and manageable – no more than a one-percentage-point increase in prices spread over a few years.

Conversely, several factors are helping to dampen inflation. Commodity prices are mostly down over the past year, including for oil and base metals. So long as the global economy is softening, it is hard for these to revive. Inflation expectations have also diminished, helping to cap inflation. That said, inflation expectations in North America are not as low as commonly imagined, still operating within the broad range of normal (Exhibit 26). Europe is a different story, suffering a sharper drop in inflation expectations. We discuss that in more detail in the Eurozone section of this report.

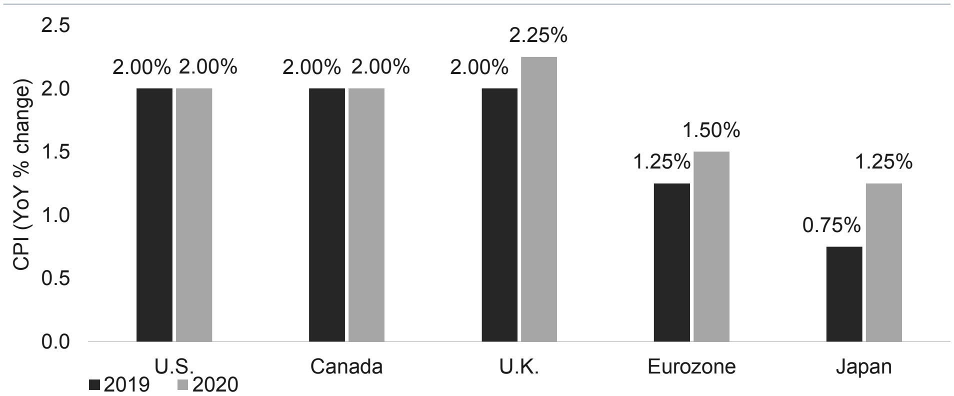
In sum, it makes sense that inflation is slightly below normal as upward pressures from economic conditions and protectionism are parried by lower commodity prices, low inflation expectations and the structural drag from deteriorating demographics. Our forecasts anticipate a slight uptick in 2020 due to the assumption of further tightening of economic conditions, but this should still leave inflation in the realm of normal (Exhibit 27). All in all, inflation is in a relatively benign place and unlikely to adversely affect financial markets.

Exhibit 26: U.S. inflation expectations



Note: Market-based inflation expectations as of 8/30/2019, survey-based inflation expectations as of Aug. 2019.
Source: Federal Reserve, University of Michigan Surveys of Consumers, Haver Analytics, RBC GAM

Exhibit 27: RBC GAM CPI forecast for developed markets



Source: RBC GAM

Central banks leap into action

Having abandoned their prior tightening trajectory, prominent central banks have now pivoted to outright monetary easing. The Fed has already begun this process, with several additional cuts seemingly in store (Exhibit 28). China and India have also eased, and the European Central Bank (ECB) is on the cusp of major action at the time of writing.

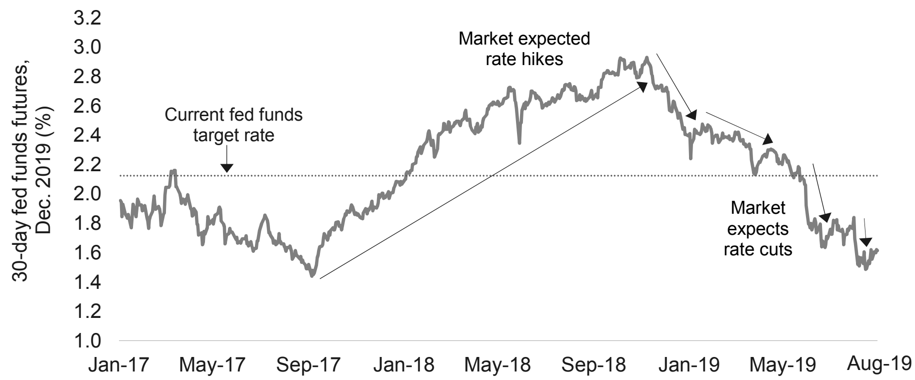
This synchronized pivot is in clear response to the combination of slowing global growth, the drag from protectionism and elevated uncertainty on such matters as tariffs and Brexit. Markets have taken to celebrating each rate cut, consistent with the view that monetary stimulus encourages economic activity and is serving as a useful psychological offset to macroeconomic uncertainty.

This is likely the correct way to interpret the situation – more stimulus in its simplest interpretation is good for growth and for risk assets.

However, we recognize that there are a number of other possible interpretations, and monetary stimulus is not always a positive (Exhibit 29). For instance, monetary stimulus normally induces additional demand – possibly a dangerous development that could hasten the end of the business cycle given that economies are already running hot. Similarly, monetary easing is a limited resource. Rate cuts today are reducing the scope for rate cuts later when the need might be more dire. Finally, periods of rate-cutting have a strong historical association with bad economic outcomes, not because cuts hurt growth but because central banks are often unable to overcome the serious economic problems with which they are grappling.

For the moment, rate cuts should probably continue to be interpreted positively. This is partly because it rarely pays to assume that the market's model of the world will change on a dime, and partly because central banks have sprung into action early enough that they have a decent chance of arresting the slowdown. To this end, the Fed is explicitly describing the slowdown and its response in mid-cycle terms.

Exhibit 28: Central-bank expectations have changed radically



Note: As of 8/30/2019. Source: Bloomberg, RBC GAM

Exhibit 29: Six competing interpretations of rate cuts

GOOD	1) Improve growth	Simplest interpretation is rate cuts boost growth, positive for risk assets
GOOD	2) Prevent overreaction	Rate cuts boost confidence, offset psychological hit from protectionism
GOOD	3) Supply-side growth	If rate cuts deliver supply-side growth, economy quickens without overheating
BAD	4) Demand-side growth	However, if rate cuts deliver demand-side growth, economy could simply overheat sooner
BAD	5) A limited resource	Rate cutting now means less room to ease later
BAD	6) Bad signal	Historically, rate cutting is associated with the end of the business cycle
	The positive interpretation is presently prevailing, but watch for evidence to the contrary	

Source: RBC GAM

U.S. downshifts

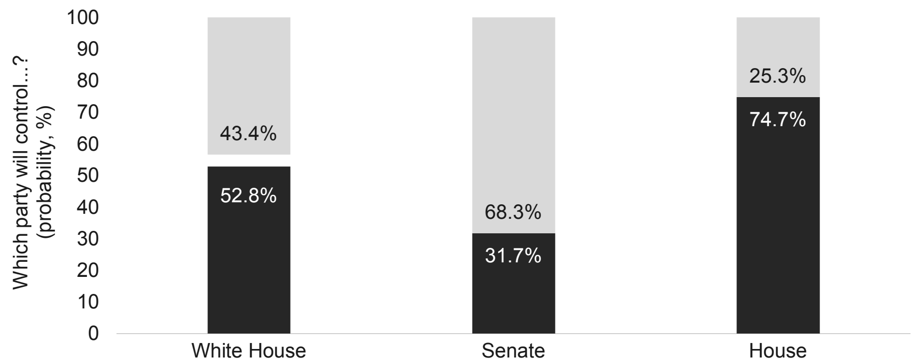
We have already discussed the U.S. extensively in the context of a slowing economic trajectory, an aging business cycle and the headwind of protectionism. The Fed is working hard to counter these effects, but it is not clear that it has the necessary horsepower. In contrast to 2.9% growth in 2018, our base-case forecast calls for growth of 2.5% in 2019, followed by a mere 1.75% gain in 2020 as fading fiscal stimulus also becomes more relevant. These are below-consensus forecasts. Over this period, the Fed is likely to deliver several additional cuts.

After a long rally, the U.S. dollar is now proceeding through a choppy peaking process. Arguments for a softer greenback include the Fed's ongoing monetary stimulus, the White House's clear preference for a weaker currency and the currency's excessive valuation. That said, were economic conditions to deteriorate badly, all bets would be off as the dollar would likely experience classic safe-haven flows.

On the political front, the 2020 elections are beginning to approach. Markets presently view the outcome of the presidential race as being too close to call, though with the Democratic Party considered slightly more likely to field the next president (Exhibit 30). That said, the Democratic candidate is not yet known, and betting markets picked the wrong horse in 2016.

Markets have expressed some anxiety about the choice between a populist right-leaning incumbent versus what could prove to be an unusually far left-leaning Democrat. Financial markets generally prefer centrist candidates, but such options appear scant for 2020. That said, radical policy change is unlikely regardless of the next president, as markets expect Congress to remain divided, limiting the scope for legislation through 2022.

Exhibit 30: 2020 presidential race still up in the air



Note: As of 8/27/2019. Source: PredictIt; RBC GAM

Brexit clock ticks

The U.K. economy continues to sport a surprisingly robust labour market, but its growth rate has suffered over the past few years, with the most recent quarter recording a small decline in output. Brexit uncertainty remains the dominant drag, alongside deteriorating global growth prospects. In response, the Bank of England (BOE) recently slashed its growth forecast for the country. Our own U.K. GDP growth forecast has slipped to 1.25% for both 2019 and 2020 – slightly below the consensus.

Brexit prospects are a moving target with the current deadline of October 31. The outlook has turned worse in light of the hard line that new British Prime Minister Boris Johnson has taken with the EU and the proroguing of the British parliament, substantially raising the prospect that the U.K. will crash out of the EU without a deal. We have raised this risk to above 40% (Exhibit 31). Of course, this figure means that other, less damaging, scenarios are still collectively more probable, potentially involving a journey through a snap election, extension and/or a second referendum.

With Brexit concerns weighing on the pound, U.K. inflation is likely to remain slightly higher than elsewhere. We forecast 2019 inflation of 2.0% and 2020 inflation of 2.25%. The BOE is increasingly likely to cut rates alongside other central banks.

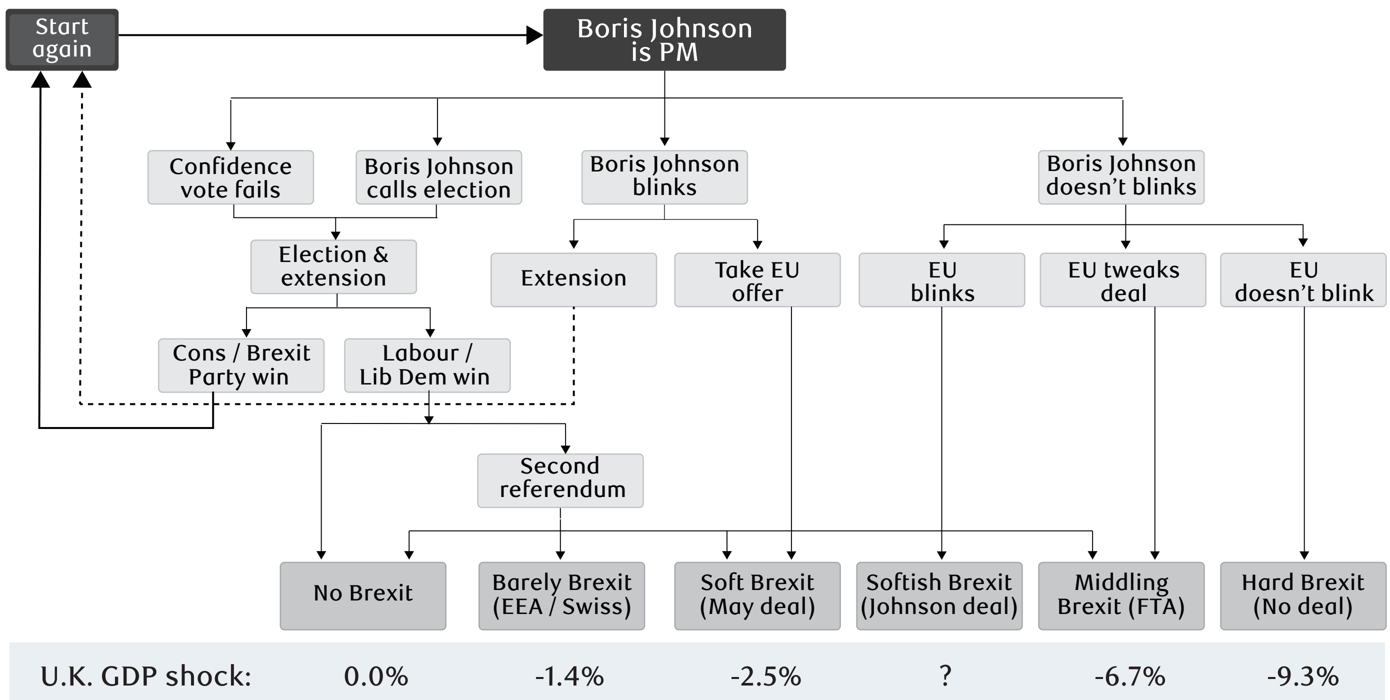
Japan muddles along

The Japanese economy is decelerating alongside the rest of the world, impeded by weaker demand from both the U.S. and China. Japan's closely watched Tankan Survey continues to soften, confirming the damage (Exhibit 32).

From a domestic perspective, a coming headwind will soon arrive in the form of a long-planned sales-tax hike, set for implementation on October 1. Conversely, the 2020 Tokyo Olympics may provide a slight boost to growth next year, though most of the benefit has already likely arrived in the form of additional infrastructure spending over the past several years. We forecast slightly above-consensus growth for Japan of 0.75% in 2019, followed by 0.50% in 2020.

Prime Minister Abe's governing party recently captured another victory in Japan's lower house, allowing for the continued implementation of his economic reforms. While Abe's program has not fully achieved its aims, the country's economic speed limit has increased at least slightly and prices are no longer falling outright.

Exhibit 31: Convoluted Brexit scenarios

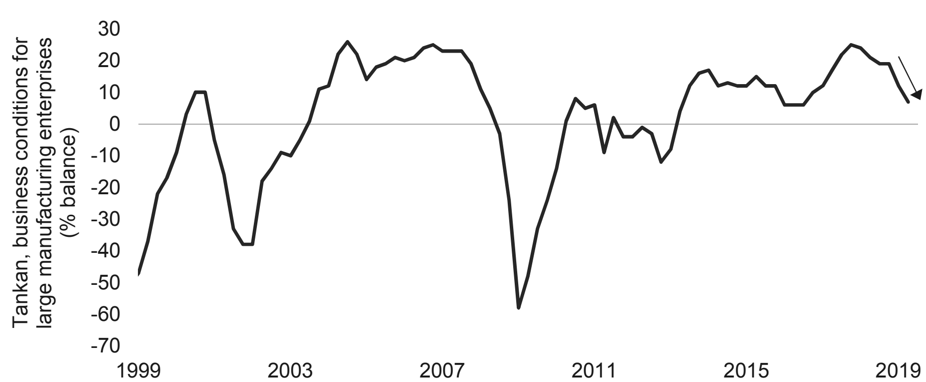


Source: RBC GAM

We forecast inflation of 0.75% in 2019, followed by 1.25% in 2020 as the sales-tax hike raises consumer prices. Further economic reforms are likely, and additional fiscal stimulus is both conceivable and justifiable at a time when Japanese sovereign borrowing costs are negative. On this front, the Bank of Japan seems likely to maintain negative rates and continue its bond-buying operations.

The yen has already marched to a different drummer over the past year, rallying while other currencies tumble, in part for safe-haven reasons. We believe the currency can appreciate further over the coming year.

Exhibit 32: Japanese business conditions deteriorated further

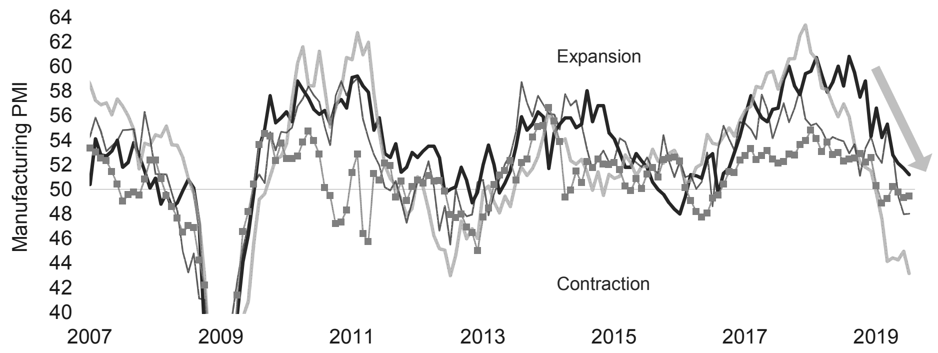


Note: As of Q2 2019. Source: Bank of Japan, Macrobond, RBC GAM

Eurozone downshifts

Eurozone growth has also weakened, possibly more seriously than elsewhere. At a minimum, Germany's manufacturing swoon has been more profound than in other major markets (Exhibit 33).

Exhibit 33: Manufacturing activities sank in advanced economies

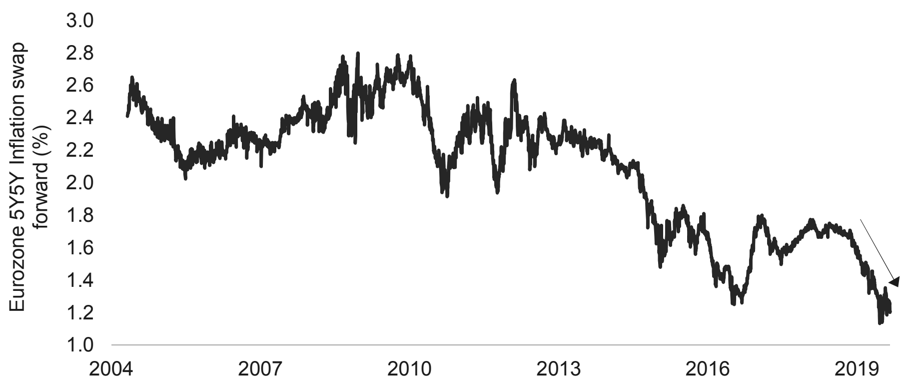


Note: As of Jul 2019. PMI refers to Purchasing Managers Index for manufacturing sector, a measure for economic activity. Source: Haver Analytics, RBC GAM

Europe-specific challenges span the continent's susceptibility to populist governments, including a chaotic situation in Italy; the threat of U.S. tariffs as the two regions begin difficult trade negotiations; and the potential for Brexit-related damage. Our models point to Eurozone growth of 1.25% in both 2019 and 2020, slightly above the consensus but not particularly inspiring. The euro may manage moderate gains relative to the dollar.

More broadly, Europe continues to slip down the path of "Japanification", with deteriorating demographics seemingly restricting Eurozone growth and inflation in much the same fashion as befell Japan over the past three decades. In fairness, Europe is unlikely to suffer a hit quite so great given that its demographics are not as grim and its policymakers have not made the same errors that Japan did in the 1990s, but the fact that the region's inflation expectations continue to slip is nevertheless worrying (Exhibit 34). This, alongside the global slowdown, appears likely to motivate a major new stimulus effort from the ECB. This should keep inflation from falling too low: we anticipate a 1.25% rate in 2019 and 1.50% in 2020.

Exhibit 34: Inflation expectations in Eurozone near record lows



Note: As of 8/30/2019. Source: Bloomberg, RBC GAM

Emerging markets skitter

Several emerging-market headwinds from 2018 have faded, including the fact that global borrowing costs are no longer rising and China is attempting to stabilize its own economy (Exhibit 35). However, with a slowing global economy and mounting protectionism, emerging-market growth is nevertheless on track to also be palpably slower in 2019 than in 2018. We look for a slight pickup in 2020.

Of course, everything is relative when dealing with emerging markets. While they are on track for their worst growth in four years, that pace still amounts to a greater than 5% advance – better than double the developed world's growth rate. Compounded over the past several decades, emerging-market economies have been transformed into a global powerhouse, responsible for 60% of the world's economic output, and generating more than 70% of its growth (Exhibit 36).

Emerging-market inflation remains well behaved, though may rise slightly across 2019 and 2020. The more important point is that previous inflation basket cases such as

India and Brazil have managed to significantly reduce their trend rate of inflation.

Canadian housing stabilizes

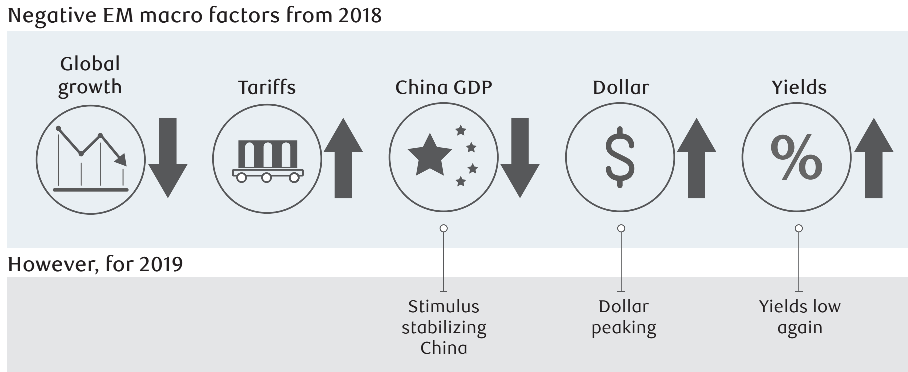
The Canadian economy remains a curious one, with a labour market that has massively outperformed its economy over the past year (Exhibit 37). This disparity is unlikely to persist indefinitely.

On a positive note, Canada's housing market is no longer actively weighing on growth. Several key metrics including existing home sales, home prices and household-credit growth have tentatively rebounded after a lengthy fall. Furthermore, Canada's underlying housing vulnerability is shrinking, as evidenced by the decline in the fraction of new mortgages with high debt-to-income ratios and low down payments (Exhibit 38).

Of course, with U.S. growth slowing, it is reasonable to expect a softening economic performance in Canada as well. Our leading indicator continues to highlight below-normal growth ahead (Exhibit 39).

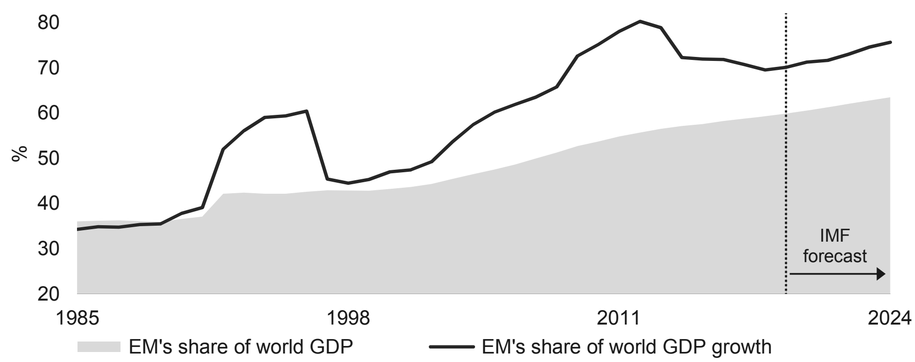
Canada-specific concerns include diminishing competitiveness (Exhibit 40) and a crimped energy sector that faces unattractive prices and insufficient transportation capacity. Canada also faces U.S. tariffs (softwood lumber) and a Chinese ban on certain Canadian agricultural products. Consequently, we forecast muted growth of 1.50% in 2019, followed by a slight improvement to 1.75% in 2020. Canadian inflation should remain right on the Bank of Canada's (BOC) target, at 2.0% for both years.

Exhibit 35: Emerging-market challenges significant, but may fade



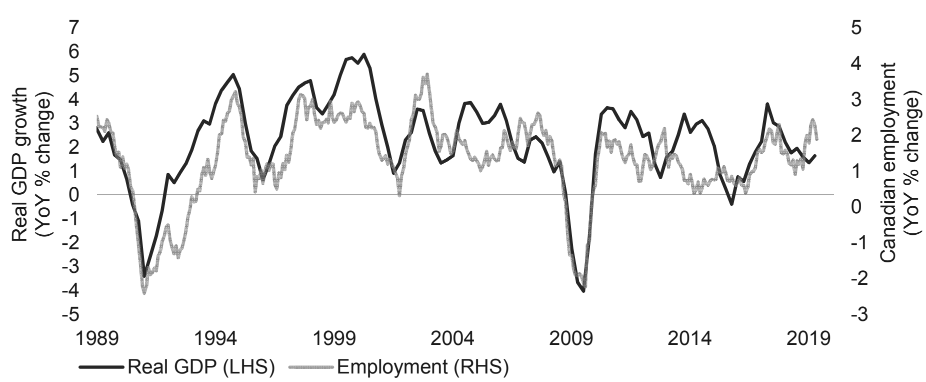
Source: RBC GAM

Exhibit 36: Emerging markets matter for the world



Note: Emerging markets (EM) PPP-based nominal GDP and 5-year average GDP growth used in calculations. Source: IMF World Economic Outlook, Apr 2019, Macrobond, RBC GAM

Exhibit 37: Disagreement between Canadian employment and GDP



Note: As of Q2 2019 for GDP, Jul 2019 for employment. Source: Statistics Canada, Macrobond, RBC GAM

The Canadian dollar can perhaps shed a few more cents to restore competitiveness with the U.S.

For the moment, the BOC is disinclined to cut rates, and it is correct that the Canadian economy does not presently scream out for this. However, as global growth slows and other central banks pivot to rate-cutting mode, we think it will prove increasingly difficult for the BOC to remain out of step.

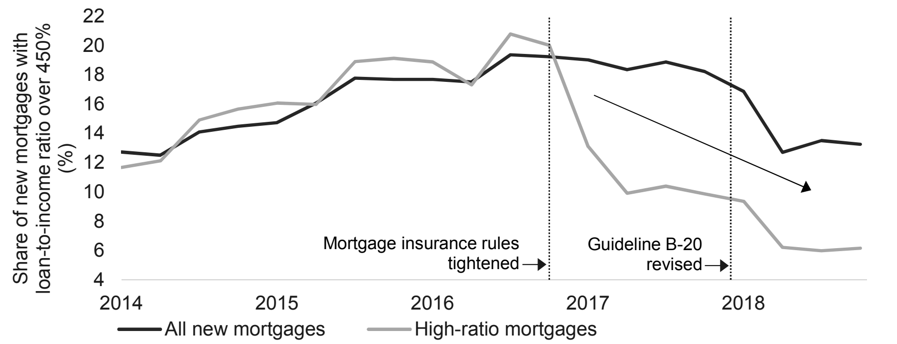
Whenever the next recession comes along, be it next year or not for many years, we are operating on the assumption that Canada may be hit somewhat harder than the U.S., primarily because the U.S. economy had a tougher time of it during the last recession as its housing market excesses were washed away. Canada now finds itself in a broadly analogous position today, with a housing share of GDP that is probably larger than it should be.

Canada will hold its next general election on October 21. Early polls had put the opposition Conservatives ahead, but the race has since tightened and the vote could well result in a minority government. Given the closeness of the race and the fact that policy platforms remain unannounced, it is impossible to say at this juncture whether the election will prove a net positive or negative for markets.

Model suggests more Fed rate cuts are appropriate

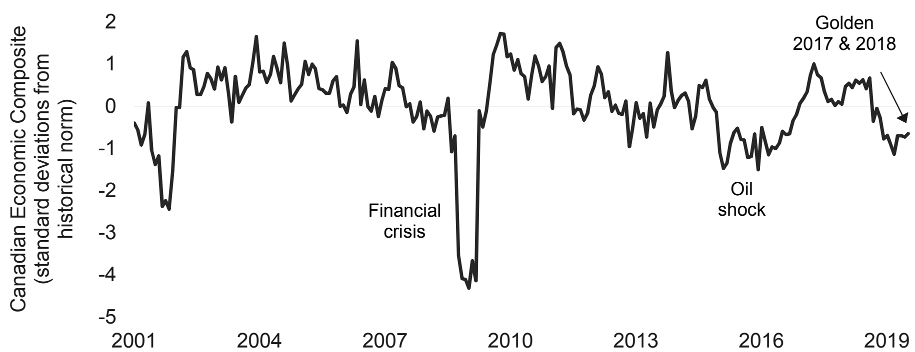
The current environment of slowing economic growth and elevated uncertainty has pushed the Fed to start easing, and our model suggests that more interest-rate cuts may be

Exhibit 38: New mortgages becoming less dangerous



Note: As of Q4 2018. Mortgages with a loan-to-value ratio greater than 80% are high-ratio mortgages; loan-to-value ratio for low-ratio mortgages is 80% or lower. Source: Bank of Canada, RBC GAM

Exhibit 39: Leading indicators point to continued softness in Canada



Note: As of Jul 2019. Composite constructed using four leading indicators from surveys on Canadian businesses. Source: CFIB, Macrobond, RBC GAM

Exhibit 40: Canada is losing its competitive edge
How Canada stacks up

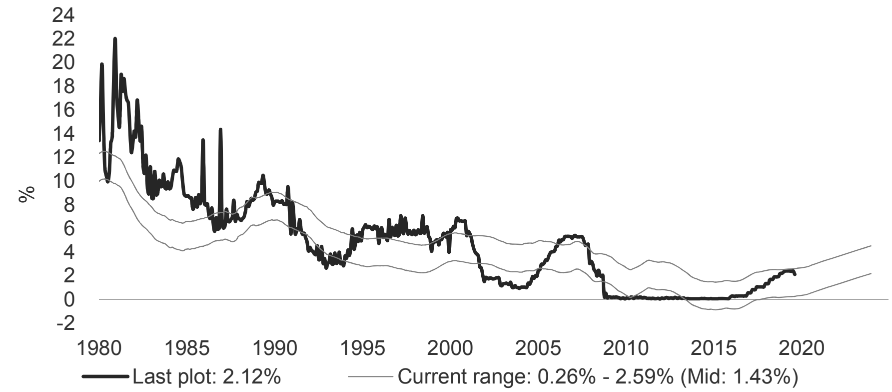
Canada's international ranking (percentile)			
Measure	**2007-2008**	**2017-2018**	**Change**
Public Policy	93.8	92.2	↓
Labour	92.5	92.0	↓
Innovation	91.8	84.7	↓
Composite	93.0	90.2	↓

Note: The composite ranking is a weighted average of the three measures. Ranking for each measure is an average of percentile rankings of the underlying components. Public policy is composed of World Governance Indicators, Ease of Doing Business, and Global Competitiveness Index (GCI). Labour is made up of GCI Higher Education and Training Subindex, GCI Labour Market Efficiency Subindex, and Global Human Capital Index (GHCI). Innovation comprises GCI Technological Readiness Subindex, GCI Innovation Subindex, and Global Innovation Index. GHCI 2013 data used in the calculation of the innovation measure for the 2007-2008 period. Source: GII database, Cornell, INSEAD, WIPO, World Bank, World Economic Forum, RBC GAM coming. The tightening that occurred from 2015 to 2018 pushed the fed funds rate too high relative to underlying growth and inflation trends in the economy (Exhibit 41). The Fed has already delivered one 25-basis-point cut, but further rate reductions would be needed to bring the fed funds rate in line with the model's equilibrium level. Investors broadly expect more easing, as evidenced by the futures market, where four more cuts are baked in over the year ahead (Exhibit 42). While the Fed's latest projections show less of an easing bias, we expect that their view will gradually move towards the market's. Our own forecast fits between the Fed and the market with an expectation of three more rate cuts over the next 12 months.

Market reaction through past easing cycles

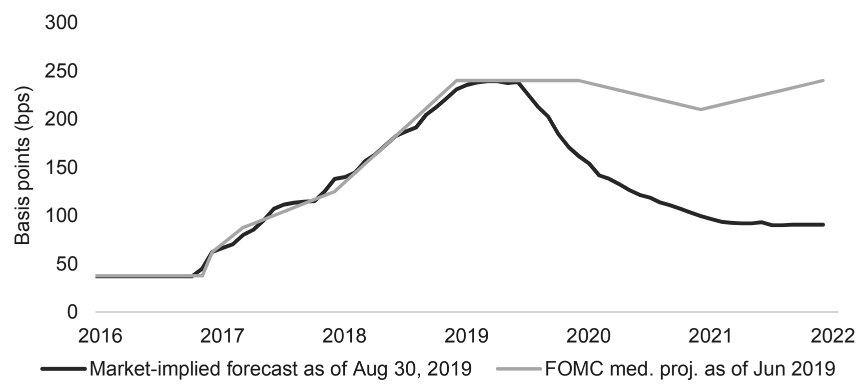
To gauge how markets might behave in a period of falling short-term interest rates, we constructed a series of road maps based on 15 past easing cycles. Exhibits 43 to 45 trace the median path of the fed funds rate, the U.S. 10-year yield and the S&P 500 Index in the months leading up to and following an initial fed rate cut (T=0 on the chart). Teasing out the cycles where no recession materialized reveals some interesting observations. Should the economy manage a soft landing, we could expect interest rates to fall only slightly from current levels, for bond yields to stabilize and begin to move higher, and for stocks to resume their upward trend. However, in recession scenarios, the Fed would continue cutting rates for up to two years, yields would decline further and stocks would be vulnerable. The market tends to

Exhibit 41: U.S. fed funds rate
Equilibrium range



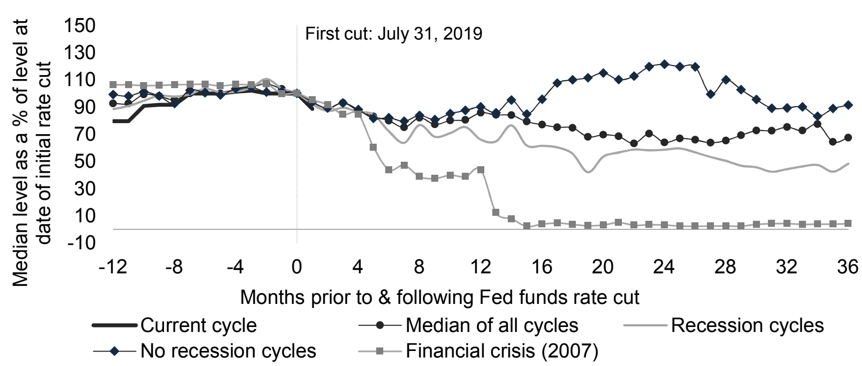
Source: Federal Reserve, RBC GAM

Exhibit 42: Implied fed funds rate
12-months futures contracts



Source: Bloomberg, U.S. Federal Reserve, RBC GAM

Exhibit 43: Path of the fed funds rate
Implications for current cycle, following first rate cut



Source: RBC GAM

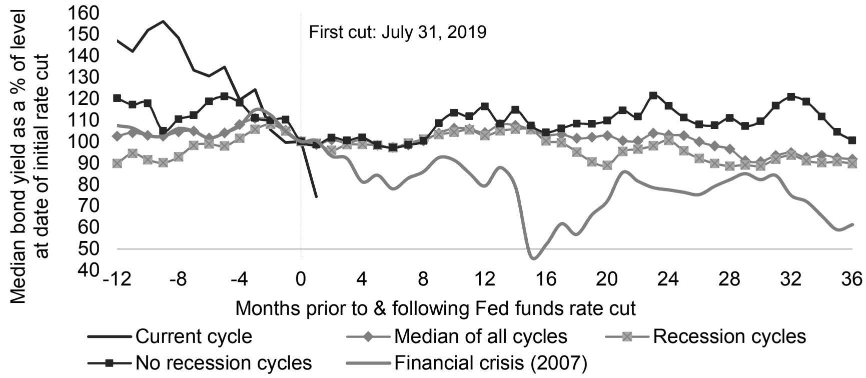
sniff out a recession versus a non-recession outcome between three and six months following the initial rate cut. So far, the current cycle has tracked well against history, except for the case of bond yields, where we have seen unusually large declines.

Plunge in bond yields magnifies valuation concerns

Global sovereign bonds extended their rally in the past quarter and our valuation models are signaling caution as yields declined to record lows. In Germany, the bund yield is now below zero across all maturities. Negative-yielding debt has become pervasive in Europe, in particular, and the total size of global fixed-income assets with negative yields has ballooned to over US$17 trillion (Exhibit 46). In the U.S., the 30-year yield fell below 2.00% for the first time ever during the most recent quarter and the 10-year yield declined to its lowest level since 2016. According to our valuation models, yields have fallen through the bottom of their equilibrium channels in all major markets including North America (Page 43). Moreover, our global bond-yield composite has tumbled to an all-time low and suggests that valuation risk in sovereign bonds is acute (Exhibit 47).

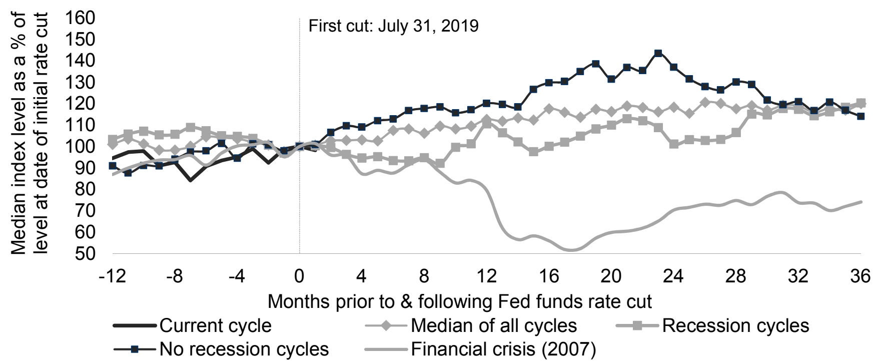
Based on our bond-equilibrium models, real yields have declined to unsustainably low levels. Exhibit 48 plots the construction of our U.S. 10-year yield model, which consists of an inflation premium and a real rate of interest. The inflation premium embedded in yields is roughly where we would expect at around 2%. However, the real rate in the model (i.e.

Exhibit 44: U.S. 10-year bond yield and the fed funds rate cut
Implications for current cycle, following first rate cut



Source: RBC GAM

Exhibit 45: S&P 500 and the fed funds rate cut
Implications for current cycle, following first rate cut



Source: RBC GAM

Exhibit 46: Barclays Global Aggregate Index
Market capitalization of negative-yielding debt

Source: Bloomberg, Barclays, RBC GAM

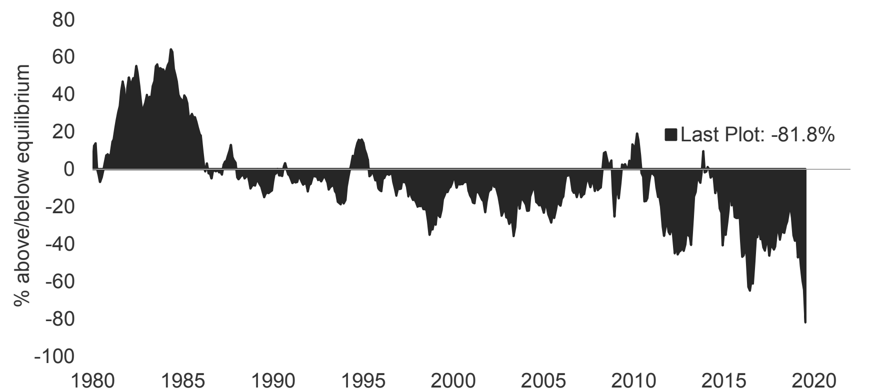
the nominal yield minus inflation) has fallen below zero, meaning investors are now accepting a guaranteed loss in purchasing power should they hold the bonds to maturity. Investors could argue that lower real rates are appropriate due to slower economic growth, aging demographics and lower productivity growth. While we agree with this notion to a degree, it's unlikely that these headwinds would hold real rates in negative territory forever. Our model assumes that real yields will eventually revert to historical norms, acting as a source of upward pressure on long-term bond yields, potentially over a long period. For this reason, the possibility of a bond bear market in which returns are low or even negative for many years cannot be dismissed.

Market stress signals appear benign outside of the sovereign-bond market

Although bonds appear to reflect a dire outcome for the economy, credit markets have shown little or no sign of stress. Spreads have widened a bit in the energy sector, but the overall risk premium on high-yield bonds remains below its long-term norm with little reaction to slowing economic growth, Brexit and the trade war (Exhibit 49). We monitor credit spreads as a signal of the health of the economy and corporate profits. Importantly, *credit markets don't appear to be subscribing to the view that the economy is about to tumble into recession or that corporate profits are at serious risk of decline.*

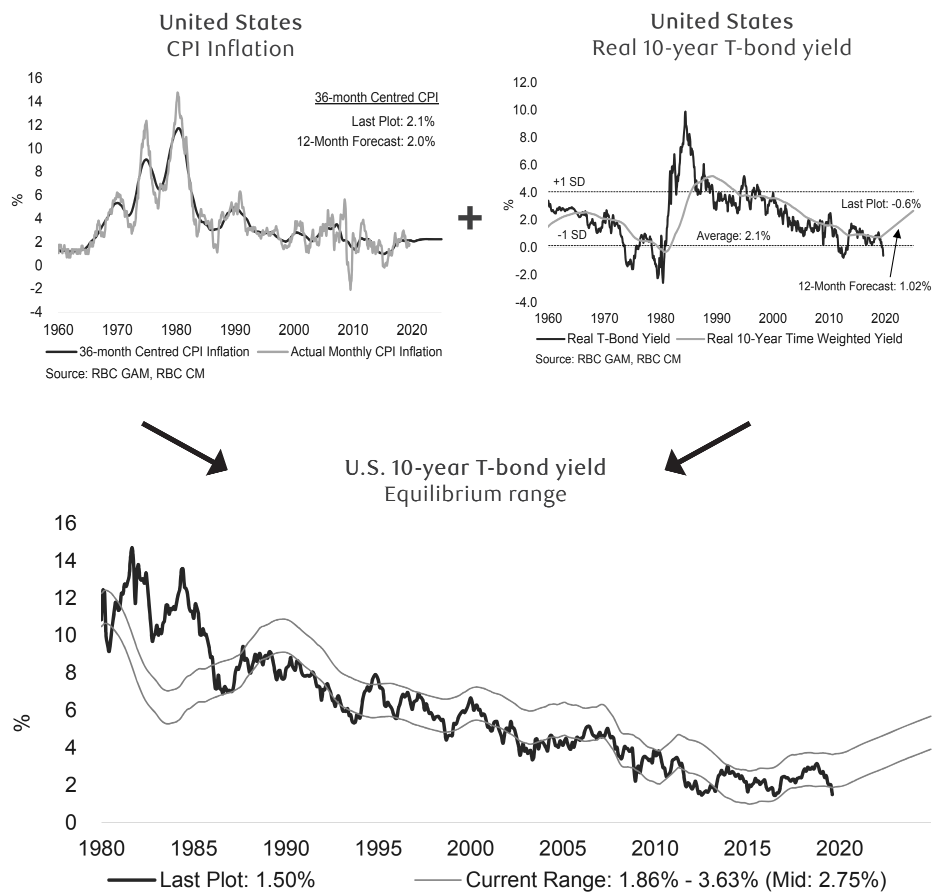
That said, volatility in equity markets has picked up and we should expect

Exhibit 47: Global bond market composite
10-year government bond yields relative to equilibrium



Source: RBC GAM

Exhibit 48: U.S. 10-year bond yield
Fair-value estimate composition



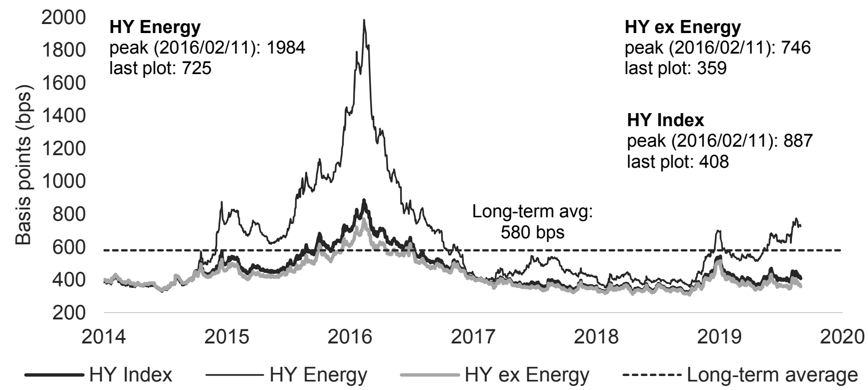
Source: RBC GAM, RBC CM

even more going forward given the shape of the yield curve. We noticed that the volatility index (i.e. the VIX) tends to track, with a 30-month lag, the slope of the yield curve as measured by the spread between yields on 2-year and 10-year Treasuries (Exhibit 50). This relationship shows that the flattening in the yield curve (plotted in reverse, and advanced 30 months on the chart) that has occurred since 2015 has been a good predictor of the heightened stock-market volatility we are now seeing, and the fact that the curve remains flat suggests that higher volatility will be a feature for some time yet. But an extremely flat or even inverted yield curve doesn't always coincide with recession. In the mid-1990s, the curve was extremely flat, volatility was elevated and stocks continued to perform well for several years.

Equity rally dimmed by additional tariffs, EM equities especially hurt

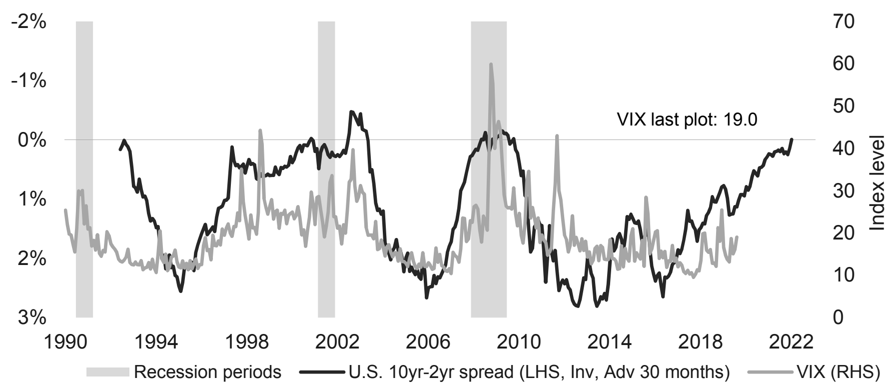
The synchronized global equity rally that was underway in June and July ground to a halt as trade tensions escalated between the world's two largest economies. The S&P 500 slipped as much as 6% from its record high in August after the U.S. announced expanded tariffs against China on August 1. But even with the August stumble, most major markets managed to hold onto gains for the quarter (Exhibit 51). The MSCI World Index climbed 3.25% during the three-month period ending August 31. U.S. equities led the way, gaining 6.9%. But emerging-market equities were more negatively impacted by the trade war.

Exhibit 49: BofAML U.S. High Yield Master II Index
Government option adjusted spread



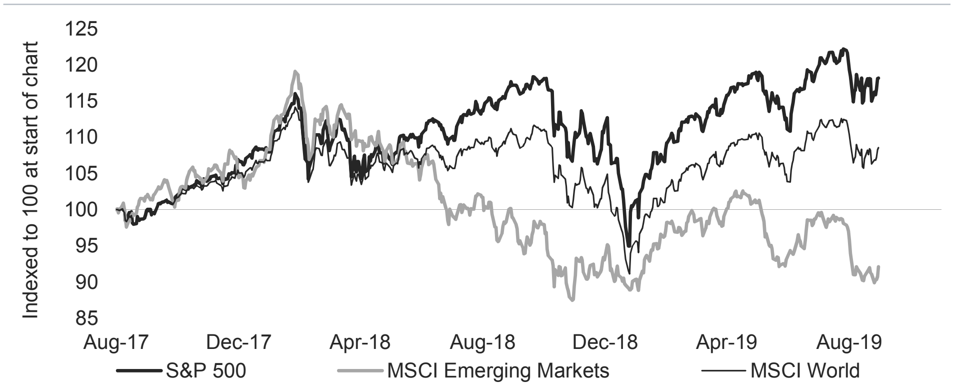
Source: BofAML, RBC GAM

Exhibit 50: U.S. yield curve vs. VIX volatility



Source: Bloomberg, RBC GAM

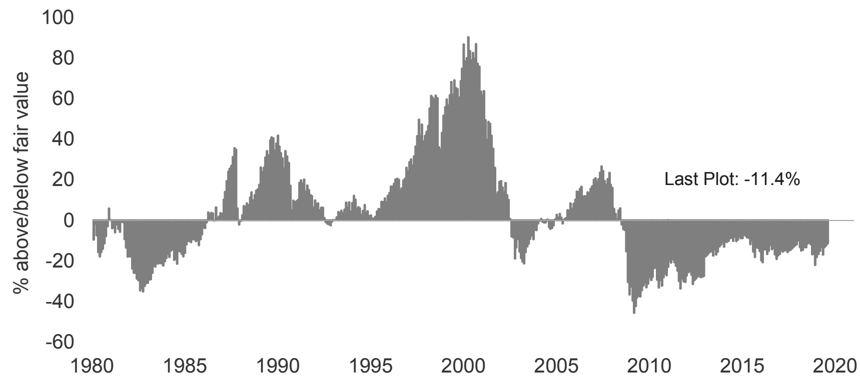
Exhibit 51: Relative performance
Price levels, indexed to 100 at start of the chart, in U.S. dollars



Source: MSCI, Bloomberg, RBC GAM

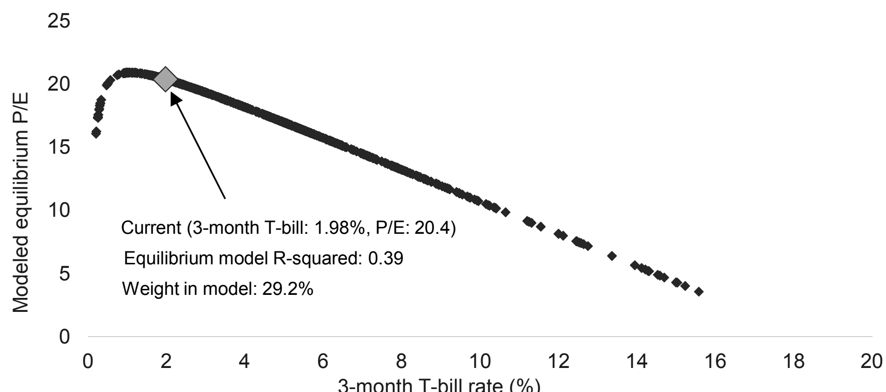
The MSCI Emerging Markets Index declined as much as 10% in August, ending the quarter flat, and now rests close to its 2018 low. According to our valuation models, the S&P 500 is the most fully valued global market, but markets outside the U.S. are relatively attractive on this basis (Page 44). In aggregate, equity markets are reasonably priced, but not as compelling as at earlier points in the bull market (Exhibit 52). We place more emphasis on the U.S. stock market in the remainder of this article because it is the largest and is widely held by investors around the world.

Exhibit 52: Global stock-market composite
Equity market indexes relative to equilibrium



Source: RBC GAM

Exhibit 53: S&P 500 equilibrium model
P/E factor as a function of 3-month T-Bill rate



Source: RBC GAM

Unusually low yields weigh on fair value for stocks

A deeper dive into the construction of our fair-value models reveals that declines in short-term interest rates and long-term bonds yields to extremely low levels can eventually have a negative impact on price-to-earnings (P/E) multiples. Exhibits 53 and 54 plot short-term interest rates and long-term bond yields as they relate to our modelled equilibrium P/E. These represent two of six components that make up our multi-factor P/E model, but together they represent roughly half the weight in the final equation. The normal relationship is that falling short-term interest rates and long-term bond yields lead to higher P/Es. But beyond a certain point, further declines in rates can signal problems in the underlying economy and result in lower P/Es, a notion that is picked up by our least-square regression equations. Short-term rates are on the cusp of breaching that point, which is slightly below 2%, and 30-year bond yields are already at the point where declines translate to a lower modelled P/E. What this also means is that *an increase in yields from ultra-low levels would likely be welcomed by investors, acting as a signal that the economy is recovering and resulting in a boost to P/Es.*

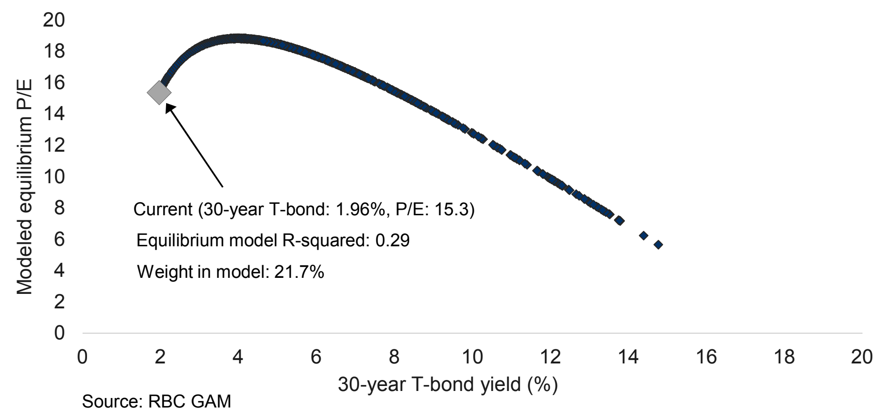
U.S. equities currently reside in a low-return, high-volatility valuation zone

The combination of slightly higher equity prices and the decline in equilibrium P/E due to extraordinarily low yields has pushed the S&P 500 Index into a less favourable valuation zone. Exhibit 55 plots a standardized version of our S&P 500 fair-value model, and the chart is segmented into four valuation zones or 'buckets.' We computed historical return statistics for the S&P 500 based on which bucket the index was situated in at the start of any one-year measurement period (Exhibit 56). The S&P 500 spent most of the post-financial crisis bull market in Bucket 2 – between fair value and one standard deviation below fair value. In this zone, stocks have delivered average 1-year returns of 12.1%, rose in 83.9% of months and experienced relatively low volatility. However, the S&P 500 has recently climbed into Bucket 3 – between fair value and one standard deviation above fair value – which has historically been associated with much lower returns and higher volatility. In this bucket, 1-year average returns drop to 3.5%, stocks rise in only 62.3% of months and the standard deviation of returns rises. We should be prepared for lower returns and a bumpier road ahead for U.S. stocks, but we note that the S&P 500 is the only global equity market we monitor where stocks are trading above their fair value.

Earnings growth stalls, downgrades have become commonplace

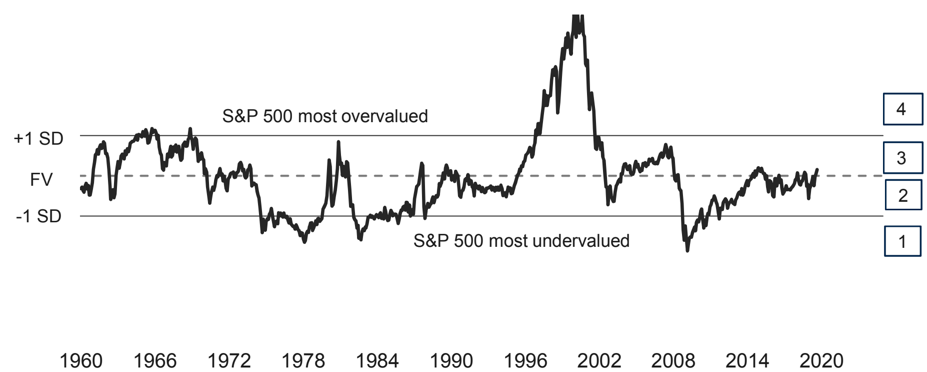
The bulk of returns for the S&P 500 index so far this year have been delivered by expanding valuations, but with stocks above fair value, corporate profit growth will likely be needed to push prices sustainably higher. That said, given increased macroeconomic uncertainty, slowing growth and increased tariffs, earnings momentum has declined considerably from last year. Indeed, analysts have been downgrading earnings estimates at more than three times the usual

Exhibit 54: S&P 500 equilibrium model
P/E factor as a function of 30-year bond yield



Source: RBC GAM

Exhibit 55: Standardized S&P 500 fair-value bands



Source: Haver Analytics, RBC GAM

Exhibit 56: S&P 500 Index
Return prospects by valuation zone

Valuation	Data set (Bucket)	1-year average return	Batting average^	1-year average return in win*	Max loss	1-year return Std. dev.
(S&P 500 most overvalued)	4	-0.3%	50.7%	14.7%	-27.5%	16.9%
1 SD Above	3	3.5%	62.3%	13.0%	-41.4%	15.6%
Equilibrium	2	12.1%	83.9%	16.0%	-44.8%	13.5%
1 SD Below (S&P 500 most undervalued)	1	14.7%	80.2%	19.9%	-12.8%	16.3%

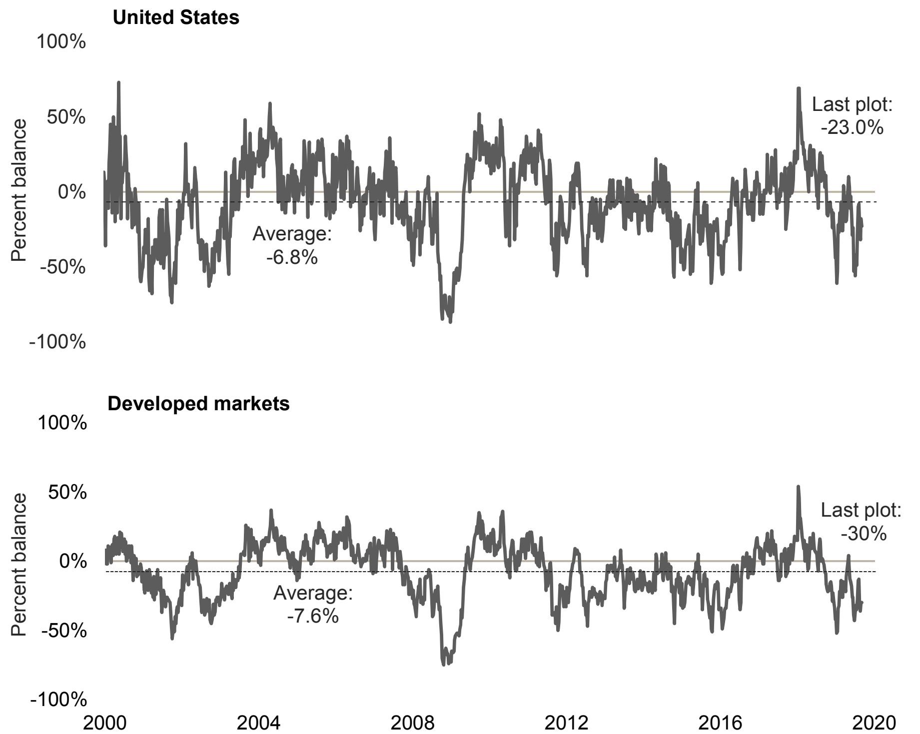
*Win = Periods where returns are above 0%. ^Batting average = Incidence of winning in any given period.
Source: RBC GAM

rate (Exhibit 57). S&P 500 earnings are expected to grow at low-single-digit rates in 2019 versus greater-than-20% gains in 2018 on the back of tax cuts and faster economic growth. Analysts had expected earnings to rebound from their slump in the second half of 2019, but the timeframe for a recovery has now been pushed back to 2020 (Exhibit 58). There is a risk that expectations are still too optimistic if earnings growth doesn't stabilize and/or trade tensions escalate further.

Stocks offer decent upside potential if negative outcome is avoided

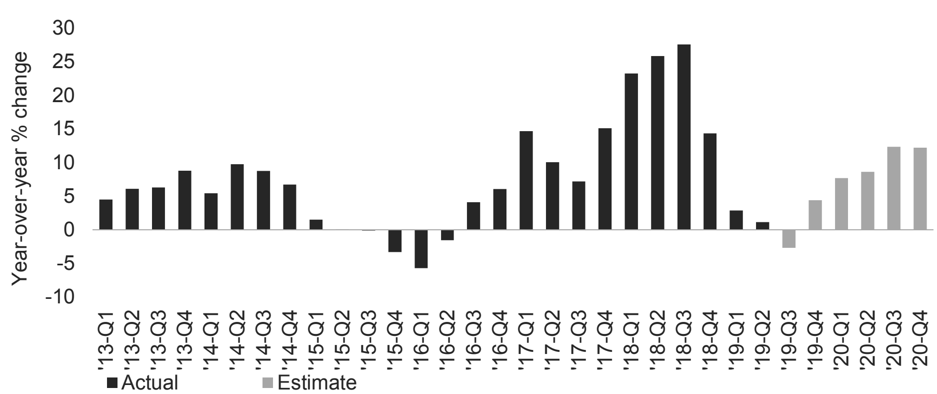
Assuming S&P 500 earnings are in line with current estimates in the coming quarters, the market could deliver attractive gains in an environment where recession is avoided and interest rates and inflation stay low. Exhibit 59 outlines a variety of scenarios for the S&P 500 by combining consensus earnings estimates with different P/Es to gauge the potential for stocks through this year and next. Our models suggest 18.3 is the P/E for the S&P 500 consistent with current levels of interest rates, inflation and corporate profitability. Combining this equilibrium P/E with the top-down consensus earnings estimate of US$166.50 would place the S&P 500 at 3049 by year-end, roughly 6% above the close on August 31. Looking ahead to 2020, the market could rise to 3367 for a 17% gain if analyst earnings estimates of US$183.90 materialize and investor risk appetite remains healthy. In a recessionary scenario, though,

Exhibit 57: Analysts are downgrading earnings expectations
Percentage of companies with upward profit revisions



Source: Citi, RBC GAM

Exhibit 58: S&P 500 Index earnings per share
Quarterly earnings % change from same quarter in prior year



Source: Thomson Reuters, RBC GAM

earnings are likely to contract and markets would suffer accordingly.

Styles – growth stocks maintain market dominance over value stocks

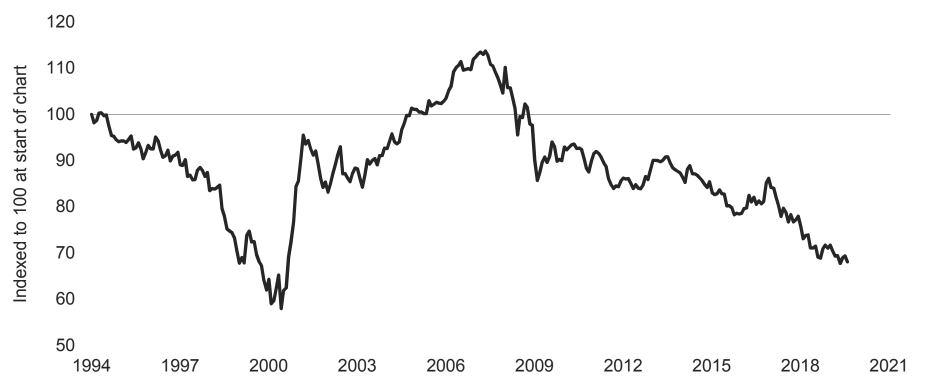
One fascinating aspect of the post-financial-crisis bull market has been the consistent outperformance of growth stocks relative to value stocks. Exhibit 60 plots the cumulative return of the S&P 500 Value Index relative to the S&P 500 Growth Index over time and shows that growth stocks have outperformed value stocks by 40% since the financial crisis and that relative performance is approaching levels not seen since the tech bubble of the late 1990s. In the current environment of slow economic growth, investors are prepared to pay a premium for growth stocks. Our fair-value models can help measure the valuation gap between the growth and value styles of investing. Our model for the Russell 3000 Growth Index suggests that growth stocks are indeed expensive relative to their own fair value, but not outrageously so (Exhibit 61). Value stocks, however, are not necessarily cheap, as our model indicates that they are hovering around fair value (Exhibit 62). Taken together, growth stocks are expensive relative to their value counterparts, but have not reached the extremes experienced during the technology bubble (Exhibit 63).

Exhibit 59: Earnings estimates and alternative scenarios for valuations and outcomes for the S&P 500 Index

		Consensus			
		2019 Top down	2019 Bottom up	2020 Top down	2020 Bottom up
	P/E	$166.5	$165.6	$183.9	$182.4
+1 Standard Deviation	22.4	3735.1	3713.1	4125.0	4089.9
+0.5 Standard Deviation	20.4	3392.1	3372.2	3746.2	3714.4
Equilibrium	18.3	3049.1	3031.2	3367.4	3338.8
-0.5 Standard Deviation	16.3	2706.2	2690.2	2988.7	2963.2
-1 Standard Deviation	14.2	2363.2	2349.3	2609.9	2587.7

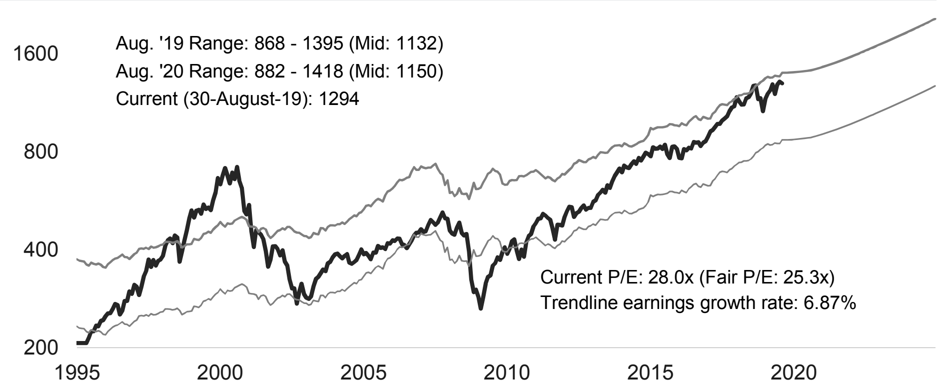
Source: RBC GAM

Exhibit 60: Relative style performance
S&P 500 Value TR Index / S&P 500 Growth TR Index



Source: Bloomberg, RBC GAM

Exhibit 61: Russell 3000 Growth Index
Normalized earnings & valuations



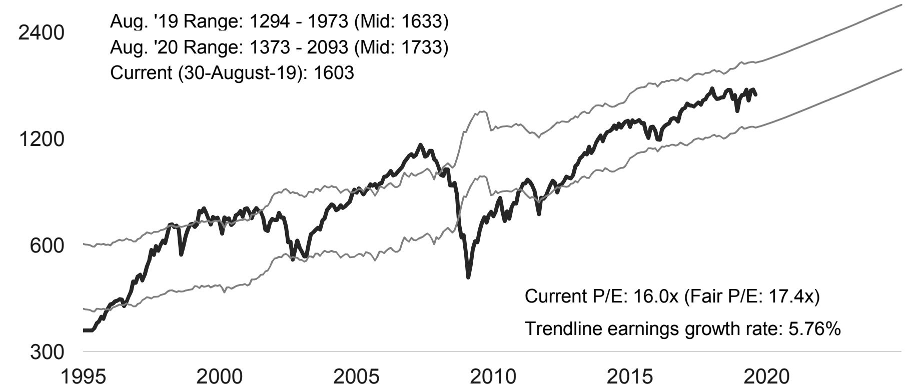
Source: RBC GAM

Stock market declines are generally mild during secular bull regimes

Recognizing there are many challenges to the aging bull market, we often ponder what the next downturn might look like whenever it ultimately occurs. In this context, the secular backdrop is important because we have noticed that the experience of declines differs drastically whether we are in a secular bull or bear phase. These secular phases are long-lived, measured in decades rather than months or years. We believe that U.S. equities are currently in a secular bull market supported by the turn higher in long-term price momentum at the end of 2016 (Exhibit 64). The last time stocks entered a secular bull market according to this indicator was in the early 1980s, and it lasted nearly two decades.

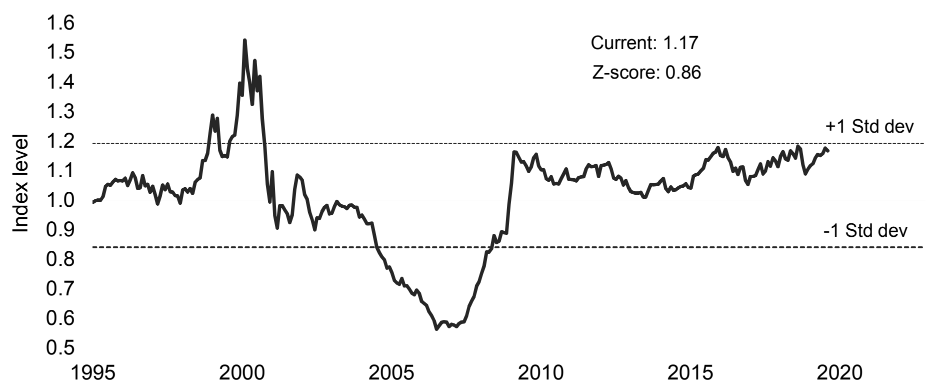
If we are right in our assessment that U.S. equities are in a secular bull regime, we can expect declines to be relatively shallow and short-lived compared to corrections during secular bear markets. Exhibit 65 plots the median performance of the S&P 500 following a cyclical peak, grouping the results by secular regime. During secular bears, downturns are characterized by median declines in the S&P 500 of 15% during non-recession cycles and 25% during recession periods over the initial 12-month period. In both cases, stocks fail to recoup their losses even after three years. But declines during secular bull markets are much more tolerable, with median losses of 7% in non-recession cycles and 8% in recession cycles during the 12 months following the start of the downturn.

Exhibit 62: Russell 3000 Value Index
Normalized earnings & valuations



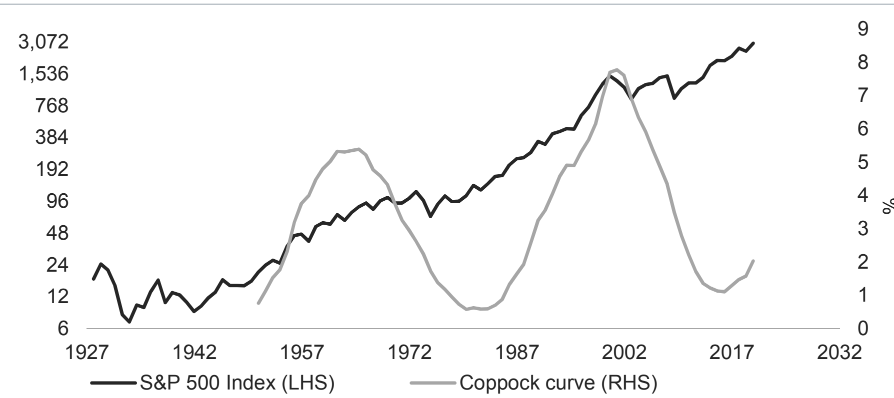
Source: RBC GAM

Exhibit 63: Russell 3000 Growth % of equilibrium relative to Russell 3000 Value % of equilibrium – U.S. equity styles: relative valuation



Source: RBC GAM

Exhibit 64: S&P 500 Index
Long-term price momentum



Note: coppock curve based on yearly data. Source: Bloomberg, RBC CM, RBC GAM

In as little as 24 months, stocks have almost fully recovered their losses in recession scenarios while delivering gains of 14% for the median of instances where recession was avoided.

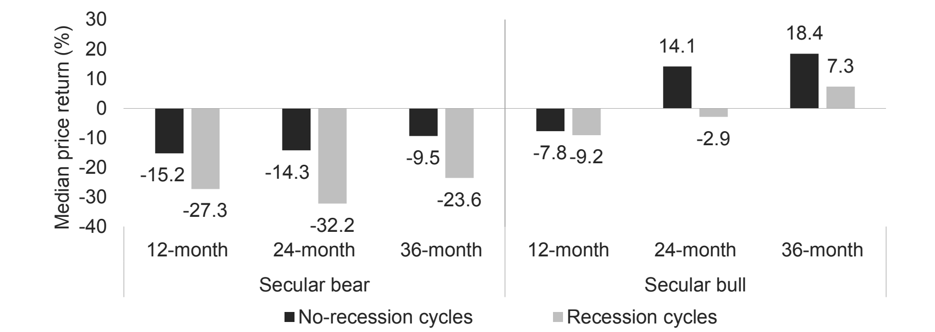
Asset mix – reducing equity weight, increasing cash reserve

The macroeconomic outlook is particularly murky, the business cycle is aging and U.S. equity valuations are not as attractive as they have been at earlier points in the cycle. In particular, protectionism, Brexit and a fear that the U.S. economy will decelerate to "stall speed" have magnified downside risk.

Against this backdrop, we have increased our odds of recession to approximately 40% within the next year, high by any standard, but still not our central outcome. There are reasonable scenarios where the current challenges simply retreat, allowing for the economy and earnings to quicken or flush up waning momentum. In this environment, it's not clear to us that a substantial bias against risk assets in portfolios is currently justified.

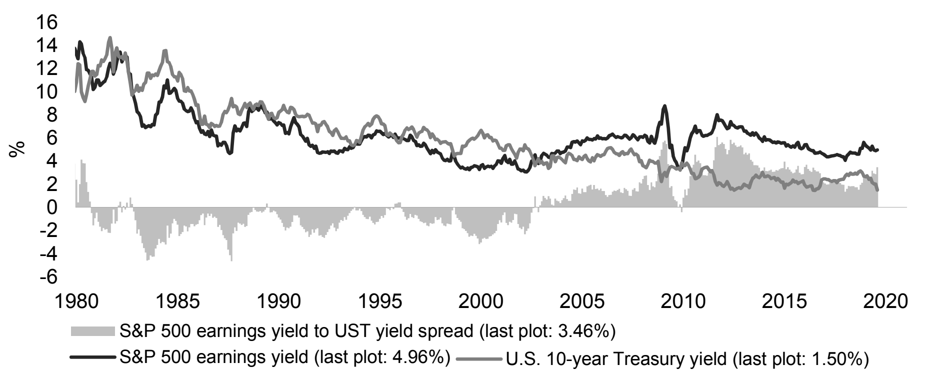
Barring recession, prospective returns for sovereign fixed income are slim or even slightly negative over the coming year. Moreover, the recent plunge in yields has widened the risk premium afforded to stocks over bonds, and dividend yields exceed bond yields in all major equity markets, in some cases by a significant amount (exhibits 66 and 67). As a result, stocks offer superior return potential to fixed income over the longer term.

Exhibit 65: S&P 500 Index performance in cyclical downturns
Cumulative price returns from date of cyclical market peak



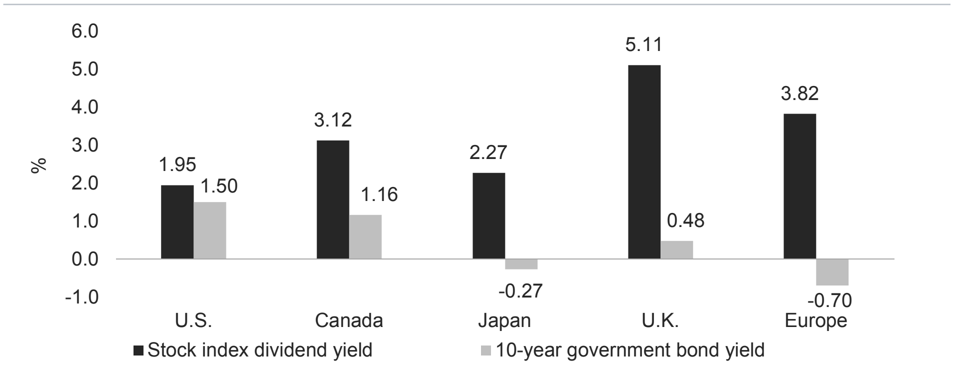
Note: chart shows performance of the S&P 500 in the 12 months, 24 months, and 36 months following a cyclical peak in the stock market. Performance is not annualized. Based on historical U.S. stock-market data since 1870. Data based on monthly closing prices. Source: Robert J. Shiller, RBC CM, RBC GAM, RBC GAM

Exhibit 66: S&P 500 earnings yield
12-month trailing earnings/index level



Source: RBC GAM, RBC CM

Exhibit 67: Equity versus fixed-income yields
12-month trailing dividend yield versus 10-year government bond yields

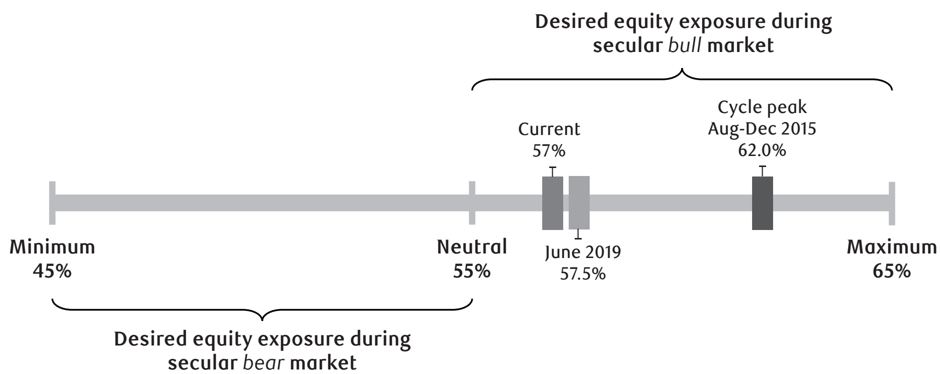


Notes: Data as at August 30, 2019. Equity indices used for U.S., Canada, Japan, U.K, and Europe were S&P 500, TSX composite, Nikkei, FTSE 100, and STOXX 600, respectively. The German bund was used for the bond yield in Europe.Source: Bloomberg, RBC GAM

Our asset mix, however, takes into account a higher chance of declines in equities and other risk assets in the near term and, in a bear-market scenario, fixed income would serve as protection in a balanced portfolio.

We trimmed exposure to stocks again this quarter by half a percentage point to 57.0%, versus the long-term strategic neutral setting of 55.0%. This change places our equity allocation close to the lower end of our risk budget during a secular bull market and represents a meaningful reduction in risk-taking versus the peak of 62.0% in stocks that was held earlier in the cycle (Exhibit 68). In order to further reduce our equity weight we would need to have more conviction that a recession is in store. For a balanced, global investor, we currently recommend an asset mix of 57.0 percent equities (strategic neutral position: 55.0 percent) and 40.0 percent fixed income (strategic neutral position: 43.0 percent), with the balance in cash.

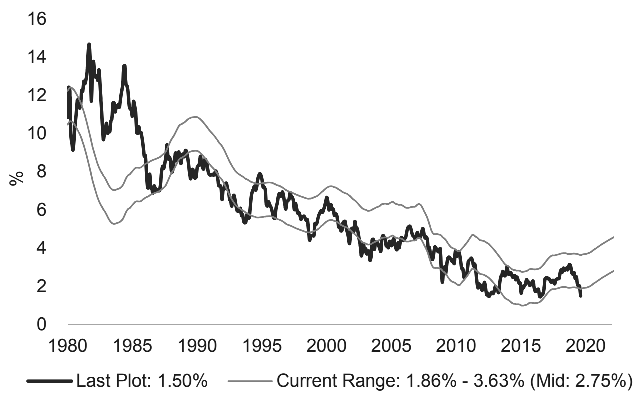
Exhibit 68: Recommended equity allocation for a global balanced investor



Source: RBC GAM

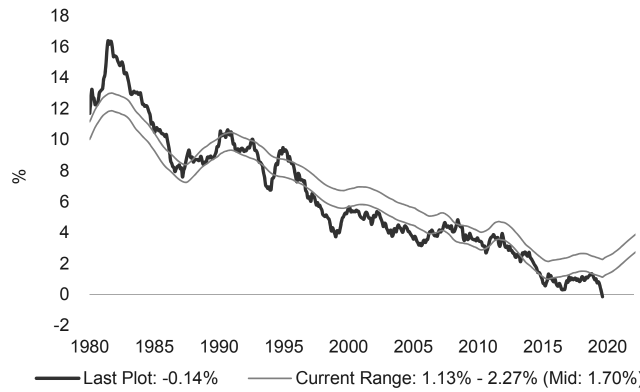
Global Fixed Income Markets

U.S. 10-Year T-Bond Yield
Equilibrium range



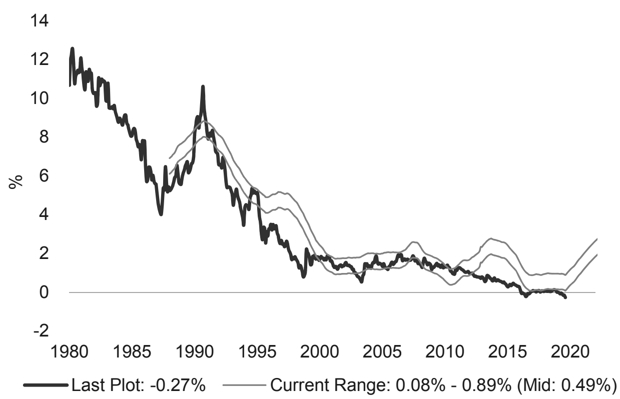
Source: RBC GAM, RBC CM

Eurozone 10-Year Bond Yield
Equilibrium range



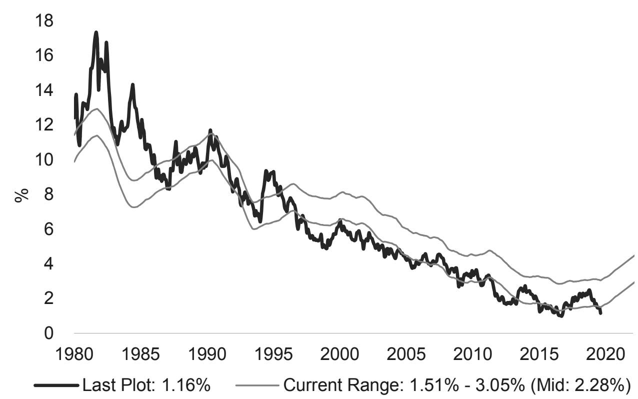
Source: RBC GAM, RBC CM

Japan 10-Year Bond Yield
Equilibrium range



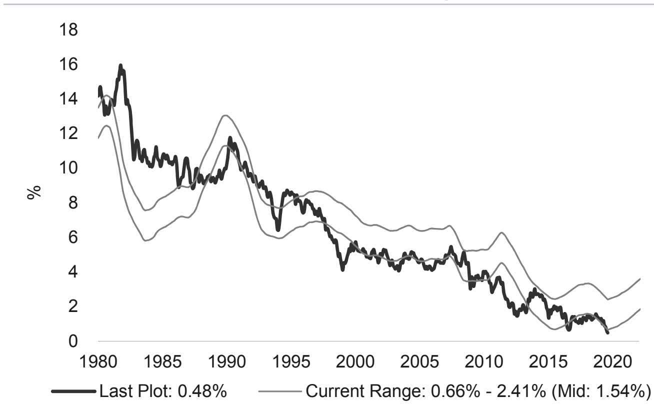
Source: RBC GAM, RBC CM

Canada 10-Year Bond Yield
Equilibrium range



Source: RBC GAM, RBC CM

U.K. 10-Year Gilt
Equilibrium range

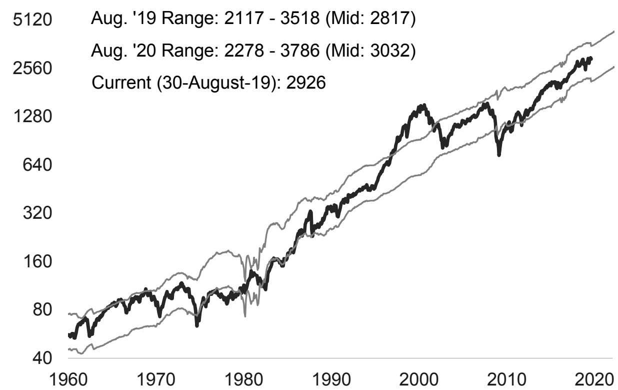


Source: RBC GAM, RBC CM

"According to our valuation models, yields have fallen through the bottom of their equilibrium channels in all major markets including North America."

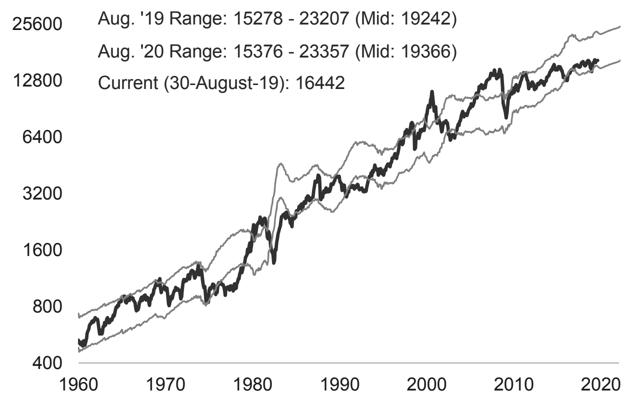
Global Equity Markets

S&P 500 Equilibrium
Normalized earnings and valuations



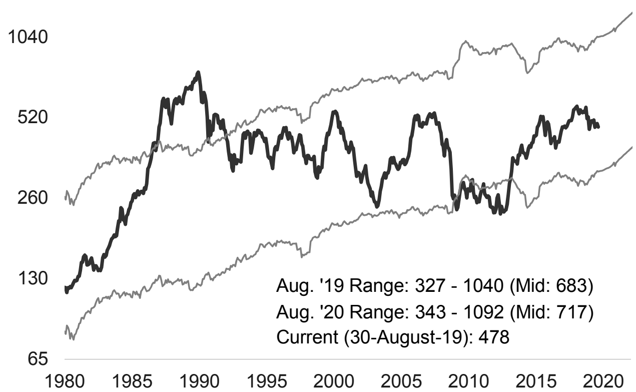
Source: RBC GAM

S&P/TSX Composite Equilibrium
Normalized earnings and valuations



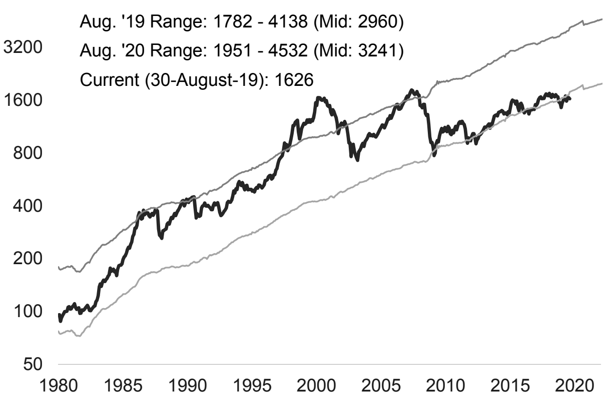
Source: RBC GAM

Japan Datastream Index
Normalized earnings and valuations



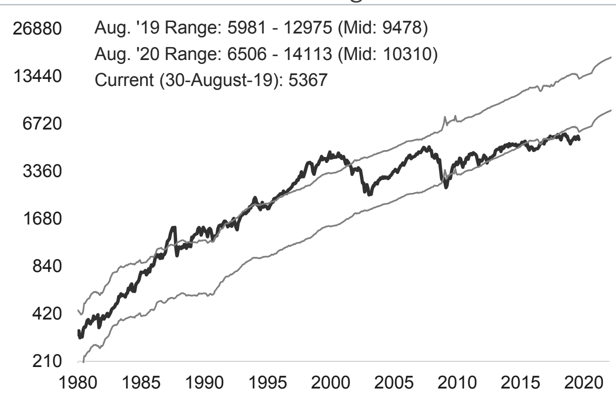
Source: Datastream, Consensus Economics, RBC GAM

Eurozone Datastream Index
Normalized earnings and valuations



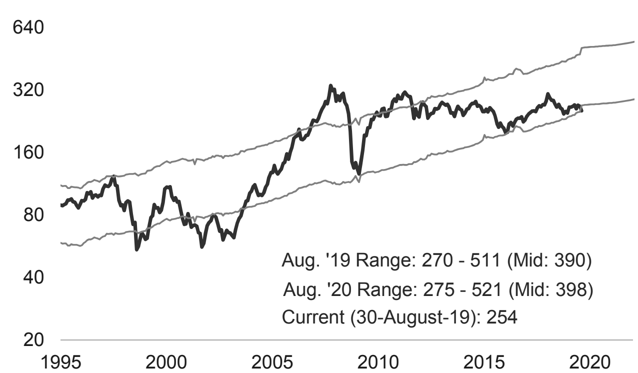
Source: Datastream, Consensus Economics, RBC GAM

U.K. Datastream Index
Normalized earnings and valuations



Source: Datastream, Consensus Economics, RBC GAM

Emerging Market Datastream Index
Normalized earnings and valuations



Source: Datastream, RBC GAM

Global Fixed Income Markets

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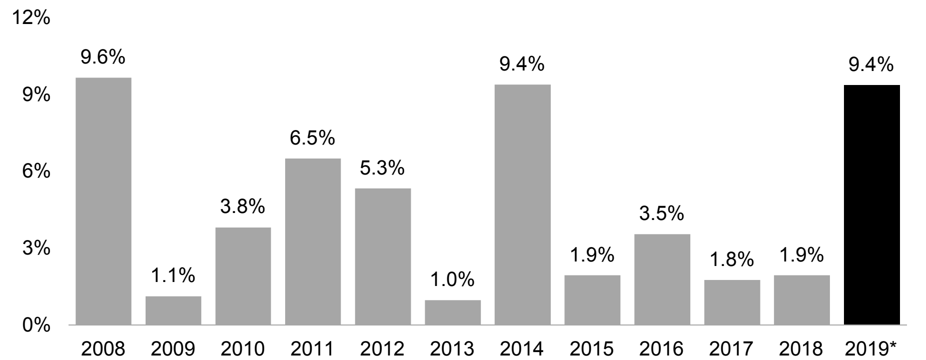
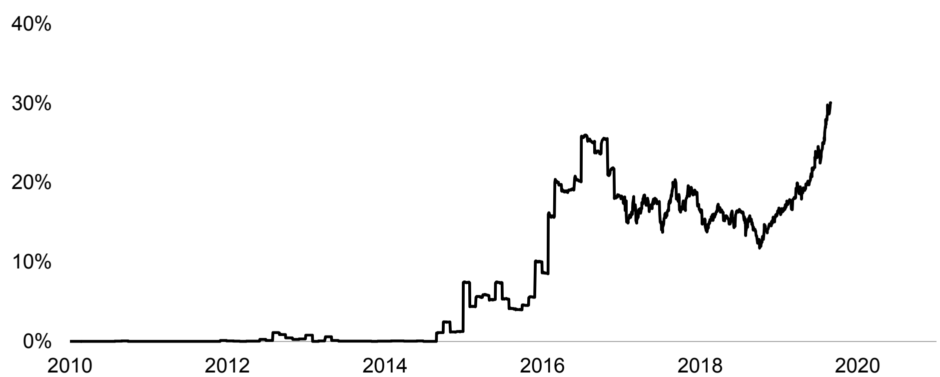
Exhibit 1: Global government-bond returns
Hedged to Canadian dollars



Note: As of Aug. 28, 2019. *The return for 2019 is year-to-date. Source: FTSE, Bloomberg

Exhibit 2: Share of global bonds with negative yields



Note: As of Aug. 29, 2019. Source: Bloomberg Barclays

Market views

Dramatic global declines in bond yields in 2019 have produced a banner year for fixed income, with Canadian investors posting the best currency-hedged bond returns in five years (Exhibit 1). The major impetus for lower yields has come from a continued slowdown in the global economy, due in part to the escalating trade war between the U.S. and China. Markedly slower growth and investor anxiety about the possible abandonment of a global commitment to free trade have led many investors to seek safety in government bonds, and this demand has resulted in the share of global government bonds sporting negative yields rising substantially (Exhibit 2).

Against this backdrop, investors have lowered their estimates of future interest rates. The decline in the 10-year Treasury yield to 1.49% on August 30 from 2.15% as recently as mid-June has been accompanied in many major markets by inverted yield curves (as measured by the relationship between policy rates and 10-year benchmark bonds). Historically, the decline in longer-term bond yields below central-bank policy rates has pointed to the increased likelihood of a U.S. recession. Over the next 12 months, investors should expect a global bond portfolio to deliver returns that are close to cash.

Central banks are adjusting their outlooks to account for the slowdown in growth, and last year's broad consensus on the desirability of gradual policy tightening has given way to a preference for monetary stimulus. At the beginning of this year, for example, the U.S. Federal Reserve (Fed) was telegraphing four interest-rate hikes by December 2019. Fast-forward to July, when the Fed actually *cut* its benchmark rate for the first time in a decade and signaled the possibility of further reductions if warranted by the slowing global economy. In Europe and Japan, policymakers never raised interest rates from emergency levels, and are now discussing new stimulus measures. The retreat of central banks from their stated commitment to increase rates boosts the possibility that extraordinarily low rates will be, if not a permanent feature of global economy, one that will be with us for some years to come.

As recently as last year, many policymakers held to the belief that, given the fading impact of the global financial crisis, interest rates would slowly rise and central banks would reverse the enormous balance-sheet expansion that had been used to support economic activity. However, some economists warned that a "new normal" was in store for the global economy. In this view, historically low interest rates reflected structural pressures that had been building for decades. Readers of prior editions of the *Global Investment Outlook* will recognize most of the arguments supporting the "lower-for-longer" scenario for interest rates, including aging populations, slow productivity growth, high debt burdens (both public and private) and new regulations requiring banks to hold more government debt. It is toward the perspective of a "new normal" that the consensus has been shifting, and since 2012, the Fed's estimate of the neutral long-term policy rate has fallen by a third.

When making our yield forecasts, we start with the premise that the arguments favouring low yields are strong. However, the huge drop in interest rates this year forces us to consider whether the bond market has gotten a little ahead of itself and that perhaps we are entering a period where yields will be broadly unchanged, at least for the next several months. Investors are expecting a 1-percentage-point decrease in the fed funds rate over the next 12 months, which would represent an exceptional amount of stimulus if a recession does not unfold. Of particular concern to us is that the rapid reduction in yields has occurred during a period of relatively strong job growth, rising wages for most workers and core inflation near 2%. At this point, even a modest outbreak of optimism would be sufficient to produce a significant increase in yields.

Also in this environment of ultra-low policy rates and bond yields, investors are questioning whether central banks would have the ability to respond to a deeper slowdown or recession. The Fed is the only major central bank that has been able to raise rates more than a token amount since the financial crisis (Exhibit 3). Policy rates in Japan, the Eurozone, Sweden, Denmark and Switzerland have been below zero for several years with no immediate prospect for getting into positive territory. Given the extraordinary lengths that central banks have gone to support the economy after the financial crisis, it is striking how lacklustre growth has been, especially with the global financial crisis so far in the rearview mirror. The anemic pace of growth bolsters our conviction that low interest rates and low bond yields will be with us for the foreseeable future.

Direction of rates

The U.S. – After the Fed rate reduction in July, we expect policymakers to cut three more times over the next 12 months. The Fed has been at pains to assert that the rate reduction did not portend an imminent recession. Instead, it reflected two realities: the risks to economic growth presented by global trade disputes and the eagerness of the Fed to nip a recession in the bud amid concern about whether it has the necessary tools to navigate a more serious downturn. In addition to rate cuts, the Fed has ended the process of unwinding its balance sheet earlier than many investors expected. We expect the 10-year Treasury yield to be slightly higher in a year, at 1.75%, a drop from our prior forecast of 2.55%. Our forecast for the fed funds rate is 1.50%, a change of view from our previous call for the Fed to pause at 2.50%.

Germany – Policymakers at the European Central Bank (ECB) face a more challenging set of circumstances than do those at the Fed. The ECB's main policy rate has been below zero since 2015, and a substantial portion of European government bonds have yields that are below zero. Europe's troubles are being exacerbated by the U.S.-China trade war because Europe's export-oriented economy is more exposed to slowing global trade. Europe is also less able to supplement monetary stimulus with fiscal stimulus than are China and the U.S. because each member of the Eurozone retains fiscal control. Adding to the ECB's woes is the fact that a period of modestly rising inflation in 2018, itself lower than policymakers would like, has yielded to disinflation in 2019. For these reasons, the ECB is widely expected to announce a raft of easing measures this month. Potentially complicating matters is the imminent departure of ECB President Mario Draghi. However, in choosing Christine Lagarde as the new president, Europe's politicians have signaled that they want policy continuity from their central bank.

Reflecting the ECB's circumstances, we expect further rate cuts, the restart of quantitative easing and attempts to ease the burden of negative interest rates on bank earnings. We are lowering our policy-rate forecast to -0.60% from -0.40%. Our 12-month forecast for the 10-year bund yield is -0.40%, down from a previous forecast of 0.20%.

Japan – At 5% through August, Japanese government bonds delivered their best local-currency returns in 10 years given the shift to assets perceived as offering safety and as falling North American yields made JGBs more attractive on a relative basis. Longer-term JGBs especially benefited from the global grab for yield, as yields in other regions came down. A steeper Japanese yield curve makes investments in Japanese debt on a hedged basis attractive for North American investors. In our forecast, we consider it unlikely that the BOJ will change its short-term policy rate over the next 12 months. A continuation of current policy indicates that yields on 10-year JGBs will return to a range between -0.20% and 0.20%.

The U.K. – We are changing our view on the Bank of England (BOE) and now expect the BOE to cut rates by 25 basis points to 0.50% in response to the slowdown in global growth and worries about the impact of Brexit on the domestic economy. These worries outweigh the positives of a resilient labour market and inflation that has been above the BOE's target given weak sterling. Our 10-year gilt-yield forecast falls to 0.50%, close to where the yield is now. The outlook for U.K. interest rates suggests that current

Interest rate forecast: 12-month horizon
Total Return calculation: August 29, 2019 – August 28, 2020

U.S.

	3-month	2-year	5-year	10-year	30-year	Horizon return (local)
Base	1.50%	1.45%	1.45%	1.75%	2.25%	0.49%
Change to prev. quarter	(1.00%)	(1.00%)	(1.00%)	(0.80%)	(0.70%)	
High	2.50%	2.75%	2.80%	3.00%	3.35%	(6.35%)
Low	0.50%	0.40%	0.60%	1.00%	1.60%	5.52%
Expected Total Return US$ hedged: 0.31%						

Germany

	3-month	2-year	5-year	10-year	30-year	Horizon return (local)
Base	(0.60%)	(0.60%)	(0.50%)	(0.40%)	(0.05%)	(2.60%)
Change to prev. quarter	(0.20%)	(0.20%)	(0.50%)	(0.60%)	(0.70%)	
High	(0.40%)	(0.20%)	(0.05%)	0.10%	0.30%	(6.96%)
Low	(0.60%)	(0.60%)	(0.70%)	(0.70%)	(0.30%)	0.35%
Expected Total Return US$ hedged: (1.13%)						

Japan

	3-month	2-year	5-year	10-year	30-year	Horizon return (local)
Base	(0.10%)	(0.10%)	(0.20%)	(0.20%)	0.30%	(2.31%)
Change to prev. quarter	0.00%	(0.05%)	(0.15%)	(0.30%)	(0.35%)	
High	(0.10%)	(0.05%)	(0.05%)	0.10%	0.65%	(7.43%)
Low	(0.10%)	(0.10%)	(0.20%)	(0.30%)	0.30%	(2.15%)
Expected Total Return US$ hedged: (0.93%)						

Canada

	3-month	2-year	5-year	10-year	30-year	Horizon return (local)
Base	1.50%	1.50%	1.50%	1.50%	1.70%	0.99%
Change to prev. quarter	(0.25%)	(0.25%)	(0.25%)	(0.25%)	(0.30%)	
High	1.75%	2.00%	2.00%	2.00%	2.15%	(6.75%)
Low	1.00%	0.80%	0.80%	0.75%	1.00%	5.38%
Expected Total Return US$ hedged: (1.07%)						

U.K.

	3-month	2-year	5-year	10-year	30-year	Horizon return (local)
Base	0.50%	0.50%	0.50%	0.50%	1.20%	(2.14%)
Change to prev. quarter	0.00%	(0.30%)	(0.50%)	(0.75%)	(0.60%)	
High	0.75%	1.00%	1.00%	1.00%	1.50%	(3.74%)
Low	0.00%	0.10%	0.10%	0.25%	1.25%	4.81%
Expected Total Return US$ hedged: (1.64%)						

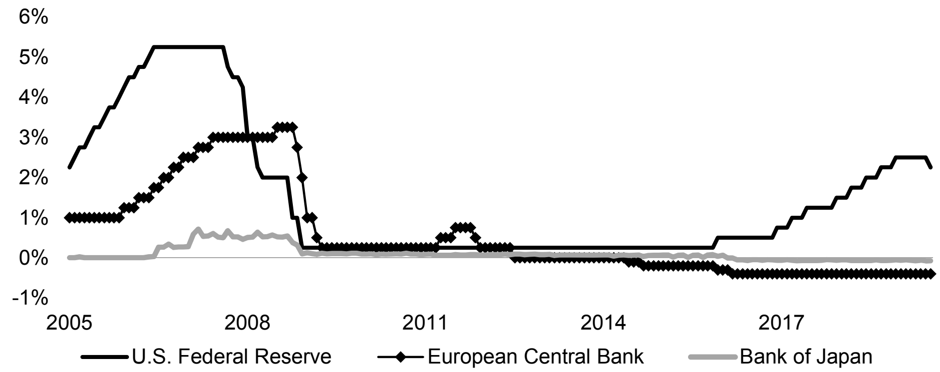
Source: RBC GAM

market conditions have priced in much of the bad Brexit and trade news, as well as the likelihood that the BOE steps up monetary stimulus.

Canada – Longer-term Canadian government-bond yields plummeted with their global counterparts. The yield on the 10-year security has rallied almost 100 basis points since the beginning of the year and is currently just 15 basis points above the all-time low of 95 basis points. In a world where US$16 trillion of sovereign bonds are tagged with negative yields, Canada can at least boast of offering positive rates and a measure of safe-haven status. The most notable feature of the current rally has been the inversion of the yield curve: yields on 3-month bills, which are tied to the Bank of Canada (BOC) benchmark rate, are 50 basis points higher than they are on 10-year federal-government bonds.

The BOC finds itself in a unique position. The Fed and other major central banks are either lowering benchmark interest rates or readying to apply additional monetary stimulus. The BOC, meanwhile, appears not to be contemplating such moves as domestic economic data is holding up well against a backdrop of intensifying

Exhibit 3: Central-bank policy rates



Note: As of Aug. 28, 2019. Source: Central banks, Bloomberg

global risks. Domestic debt burdens remain an issue and credit growth has started to re-accelerate with the improvement in housing. Interest-rate cuts applied by the BOC in 2015 helped fuel housing markets in Toronto and Vancouver and Governor Poloz does not want a repeat.

We forecast one rate reduction over the next 12 months, which would lower the benchmark rate to 1.50% from 1.75%. The BOC left its policy rate unchanged on September 4 and gave no indication that the odds of a rate cut have increased in the near term. As long as the Fed characterizes a second rate reduction as mere insurance against slowing growth rather than as required by the onset of a recession, the BOC is likely to stand pat in October as well. Our forecast for 10-year bond yields 12 months from now is 1.50%, implying a flat yield curve.

Regional preferences

We recommend overweighting Treasuries by 5%, against an equal underweight in German bunds. We believe U.S. Treasuries stand to gain the most in the current round of easing as spreads between Treasury yields and bunds yields could narrow to levels suggested by our fair-value model.

Currency Markets

Trade tensions extend topping process for U.S. dollar

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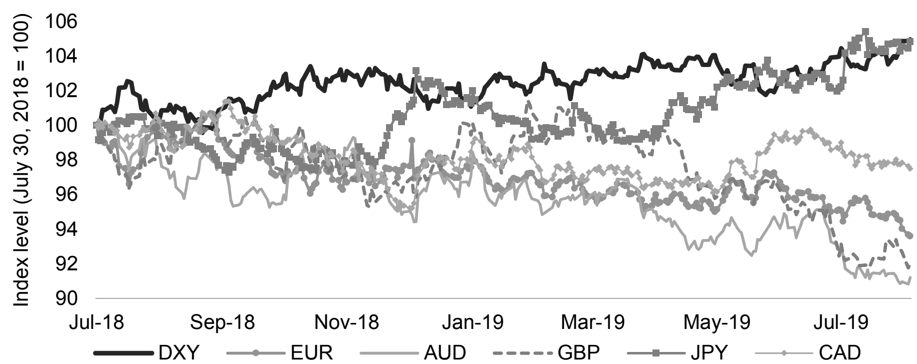
Portfolio Manager
RBC Global Asset Management Inc.

Exhibit 1: Major developed-market currencies over the past year



Note: As at Sep. 3, 2019. Source: Bloomberg, RBC GAM

These days, it seems, everyone wants a weaker currency. That includes President Trump, who has been calling for a weaker greenback since taking office in 2017. Yet the U.S. dollar's resilience continues, largely because the U.S.-China trade war has been pushing down most currencies against the greenback. The U.S. dollar has, in fact, been the best-performing currency for much of the past 12 months (Exhibit 1) as the trade conflict and relatively strong U.S. economic growth have overshadowed the plunge in U.S. bond yields.

Global trade tensions are hardly new, but foreign-exchange markets have paid more heed because trade-related uncertainty tends to dent other currencies more than it does the U.S. dollar. Examples of this phenomenon include the Canadian dollar and Mexican peso weakening during North American trade negotiations, the euro softening at the prospect of U.S.-imposed auto tariffs and the Chinese yuan falling after each escalation in tariffs. The U.S. dollar's strength for now seriously complicates President Trump's goal of making the U.S. more competitive because the advantage gained from imposing tariffs is quickly lost to trade partners' currency weakness.

This is more than just an annoyance for the White House – that much is clear from recent Trump tweets. But the market fluctuations are perfectly logical to foreign-exchange traders. We often refer to currencies as the relief valve that helps equilibrate global imbalances. It is more politically and economically palatable for countries to compete on trade by letting their currencies fall than taking steps to lower wages or increase fiscal spending. In a world where economic growth is harder to come by and the fruits of trade are diminishing, few national leaders are willing to venture along the tougher road of structural reform.

With currency markets fighting Trump, an oft-asked question is: when does a trade war morph into a currency war? Our view is that currency wars and trade wars are nearly always one and the same. So the next question becomes: what steps can the U.S. take to ensure that a stronger U.S. dollar doesn't undo all of the perceived benefits of pursuing a trade war? President Trump does have a few tools at his disposal:

1. The currency manipulator label

U.S. Treasury Secretary Mnuchin in early August formally labeled China a "currency manipulator" after Chinese policymakers allowed the renminbi to decline by 2% in a single day, a large move for a relatively stable currency. China's move came in response to the U.S. imposition of a 10% tariff on US$290 billion of imports. Mnuchin was quick to claim that China had been meddling in currency markets, even though China meets just one of the Treasury department's three criteria required to be considered a currency manipulator (Exhibit 2). It's not clear whether any punishments doled out for currency manipulation would have a detrimental impact on China at this point because the country is already facing tariffs on the trade front. Moreover, the IMF recently reported that the renminbi is fairly valued, undermining the U.S. claim.

2. A weak-dollar policy

Another tool that U.S. policymakers have utilized is verbal intervention, with recent comments aimed at putting downward pressure on the greenback.

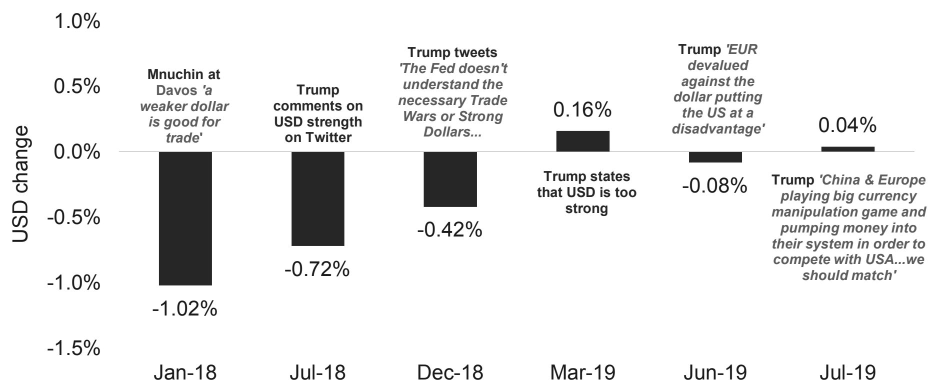
This is a marked departure from the "Strong Dollar Policy" installed in the mid-1990s by then-Treasury Secretary Robert Rubin and the hands-off approach of benign neglect adopted in later years. Given that the U.S. dollar remains the primary means of exchange for goods, services and financial instruments, these policies form a critical pillar in the foundation of global commerce. Mnuchin's comments in January 2018 were the first in several decades to communicate an explicit preference for a weaker currency, so we should not be surprised to see that markets reacted at the time (Exhibit 3). Interestingly, though, subsequent efforts to jawbone the currency lower had an incrementally smaller marginal impact on markets.

Exhibit 2: Criteria to be labeled a currency manipulator

✔	Significant bilateral trade surplus with U.S.	>20bln
✘	Material current account surplus	>2% of GDP
✘	Persistent 1 sided FX intervention	2% of GDP in 12 months

Note: As at Aug. 12, 2019. Source: RBC GAM

Exhibit 3: Impact of verbal intervention on the U.S. dollar



Note: As at Aug. 12, 2019. Source: BofA Merrill Lynch, State Street Global Markets, Bloomberg, RBC GAM

3. Foreign-exchange intervention

Unsuccessful in its attempts to influence the dollar with words and tweets, the Trump administration is now faced with taking more concrete steps to reverse the greenback's ascent. Direct intervention in foreign-exchange markets is seen as a last-ditch effort to combat the dollar's stubborn strength. The debate is whether such a step would achieve the goal of pushing down the greenback. We side with skeptics who think the impact will be fleeting since history shows that intervention is rarely successful unless it is coordinated globally, and this sort of cooperation is unlikely to materialize without a more significant U.S.-dollar appreciation that creates economic distress around the globe.

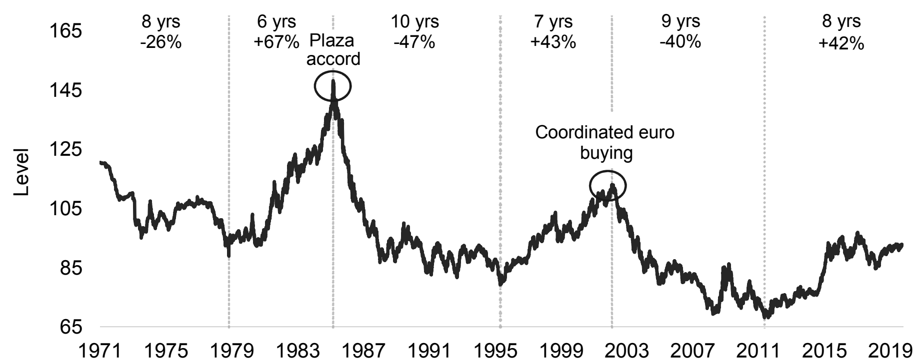
Through the Exchange Stabilization Fund, the Treasury has some US$68 billion available for intervention purposes, an amount that could be used immediately without Congressional approval. That amount could double if the Fed upholds historical precedent by matching the Treasury's foreign-exchange purchases, but even that additional firepower would be small compared to the massive size of global currency markets, which churn US$5 trillion every single day.

Furthermore, it would be easy for policymakers in other countries to intervene themselves should they wish to counter the Treasury's efforts. With foreign-exchange reserves exceeding US$3 trillion, China has shown its capacity to outgun the Treasury. It is also not clear that the U.S. is set up to hold renminbi-denominated assets, so U.S. intervention would likely focus on strengthening the currencies of developed-market rivals instead, namely the euro and yen.

Weighing the outlook

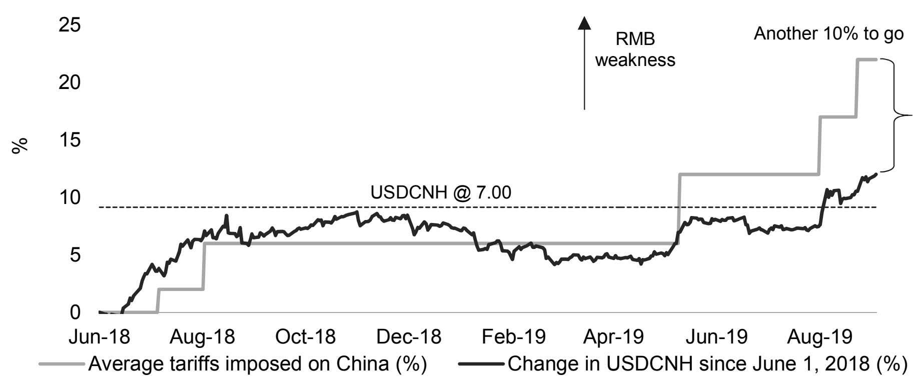
The likelihood that the U.S. engages in foreign-exchange intervention is low, even as the administration runs out of tools and as it watches smaller countries such as Switzerland and Thailand weaken their currencies. Historically, though, intervention has played an important role in past turning points of long-term U.S. dollar cycles so long as other countries are on board with the greenback weakening (Exhibit 4). Another factor that is historically important for concerted efforts to weaken the greenback is extreme U.S.-dollar overvaluation. The absence of both conditions is the reason that our currency outlook over the past couple of years has assumed an extended period of choppiness in the greenback rather than a sudden reversal lower. We still expect the choppiness to continue in the short term. However, growing fiscal and current-account deficits and a narrowing bond-yield advantage will likely lead to U.S.-dollar weakness over the next few years.

Exhibit 4: Coordinated intervention marks U.S. dollar peaks



Note: As at Aug. 1, 2019. Source: RBC GAM

Exhibit 5: As tariffs rise, renminbi falls



Note: As at Sep. 3, 2019. Source: Citibank, Bloomberg, RBC GAM

Chinese renminbi

All eyes are on the Chinese renminbi after the latest round of tariff increases in August. The currency weakened to almost 7.20 renminbi per U.S. dollar, the weakest since 2008 and a level that was unthinkable as recently as July, when the People's Bank of China (PBOC) was seen to be defending the key level of 7.00. The fact that the Chinese yuan has broken through this level is an acknowledgement that the currency needs to weaken in response to market forces and to escalating trade threats. While the PBOC is active in currency markets, the central bank's recent intervention has been aimed at supporting the currency, not weakening it as is claimed by the White House. This summer's fluctuations suggest that policymakers in China are not defending any particular level, but are instead slowing depreciation in order to avoid disorderly volatility.

Investment banks are predicting that the renminbi will continue to weaken slowly over the next year, but we believe the depreciation may be more significant than the consensus. According to Bloomberg, only one in 10 forecasters expects the renminbi to weaken by more than 2% in the coming year. But Citibank's model, based on the average level of tariffs applied to China's US$540 billion in U.S. exports, suggests that the renminbi could weaken much more if announced tariffs are implemented (Exhibit 5).

Would further weakening of the renminbi create a panic similar to the one that led to massive capital outflows in 2015, when China devalued the renminbi? We don't think so. For one thing, the trigger for weakness this year comes in the form of an external event rather than a deliberate change in policy. For another, the market environment seems less threatening for an uncontrolled decline in the yuan (Exhibit 6). In 2015, the U.S. dollar was making new highs in response to interest-rate hikes by the Fed, and the overvalued renminbi was vulnerable to capital outflows. These days, dollar gains are smaller, the Fed is easing and the renminbi is close to fairly valued. Also, capital flows are no longer one-sided. This point is best illustrated by Chinese foreign-exchange reserves, which have been far more stable than in the lead-up to the August 2015 episode (Exhibit 7).

Euro

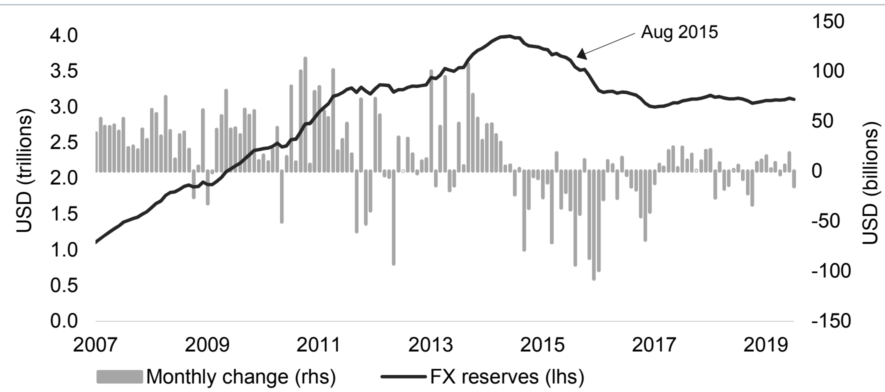
The capital-flow situation in Europe looks more positive than it has in a while. Previously, domestic investors were pushed to accumulate foreign bonds, having been displaced by a central bank that was gobbling up European debt through quantitative easing. Now that quantitative easing has ended, capital outflows have lessened substantially. Monthly portfolio flows have turned positive for the euro, and will continue to pull the annual figures higher over the coming months (Exhibit 8). The impact of portfolio flows will likely be muted by any resumption in quantitative easing by the European Central Bank (ECB) later this year. Indeed, anticipation of a restart in ECB bond purchases may be the reason that lower U.S. yields in recent months have not helped the euro as much as they have the yen and the Canadian dollar. The ECB is widely expected to unveil a comprehensive package including rate cuts and asset purchases before President Draghi

Exhibit 6: Macro environment is different from 2015

	RMB 2015	RMB 2019
Trigger	PBOC policy change	External tariff
Fed direction	Hiking	Cutting
USD trend	$ hits new highs	$ rangebound
CNY valuation	Overvalued	Fairly valued
Flows	Large outward FDI	Tighter restrictions on outflows
Reserves	Falling	Stable
Foreign Investment	Limited	Welcoming

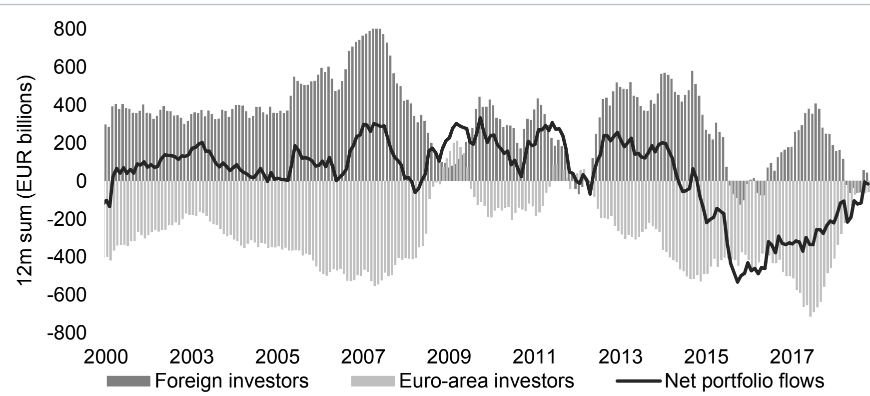
Note: As at Aug. 12, 2019. Source: RBC GAM

Exhibit 7: China's foreign-exchange reserves are stable



Note: As at Jun. 30, 2019. Source: COFER, Bloomberg, RBC GAM

Exhibit 8: Net euro portfolio flows



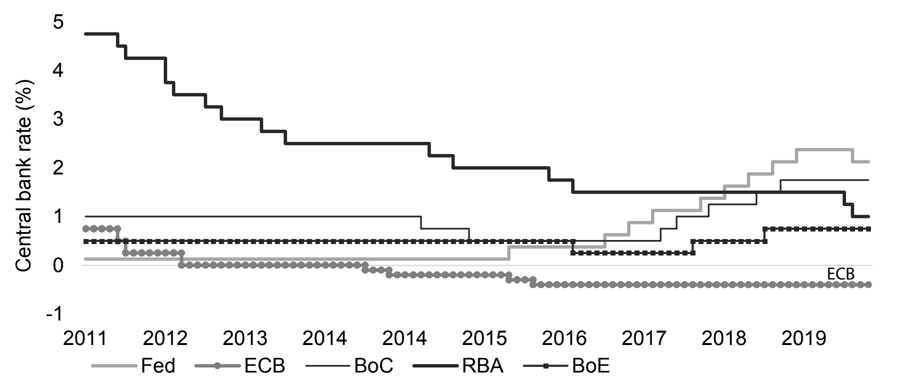
Note: As at May 31, 2019. Source: Bloomberg, RBC GAM concludes his eight-year term next month. Still, it is tough to imagine that the policies of his successor, Christine Lagarde, will do much to further weaken the euro given that other central banks have much more room to cut than the ECB (Exhibit 9). If anything, it is sluggish growth and the multitude of European-specific risks such as Italian elections, Brexit and sclerotic banks that are causing the most concern.

Longer term, we continue to see signs that reserve managers are shifting slowly away from the U.S. dollar (Exhibit 10), an important trend that benefits the euro. One study from RBC Capital Markets offers confirmation of this theory by highlighting consistent euro demand during trading sessions in Asia (Exhibit 11), where most of the world's US$11 trillion of reserve assets reside. Consistent with our bias for a gradually weaker dollar, we expect the slow drip of reserves into currencies other than the U.S. dollar will provide support to the single currency over the next year. However, the 2.5% negative yield indicated in currency forwards will limit euro total returns. Our forecast remains at 1.20.

Japanese yen

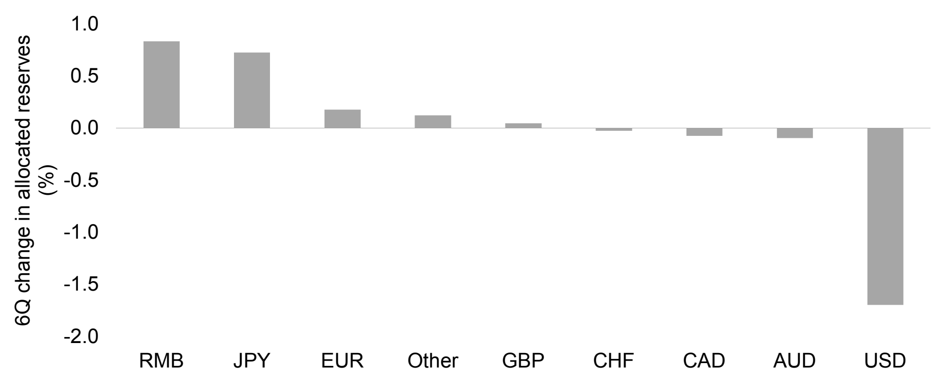
We have been biased toward yen strength over the past couple of years. It is among the most undervalued developed-world currencies on a purchasing-power-parity basis, and enjoys the benefit of a large current-account surplus (Exhibit 12). The yen has benefited from a move lower in Treasury yields, to which it is tightly correlated (Exhibit 13). We are not fretting over the potential effect of the Japan-South Korea trade spat, knowing

Exhibit 9: Central-bank policy rates



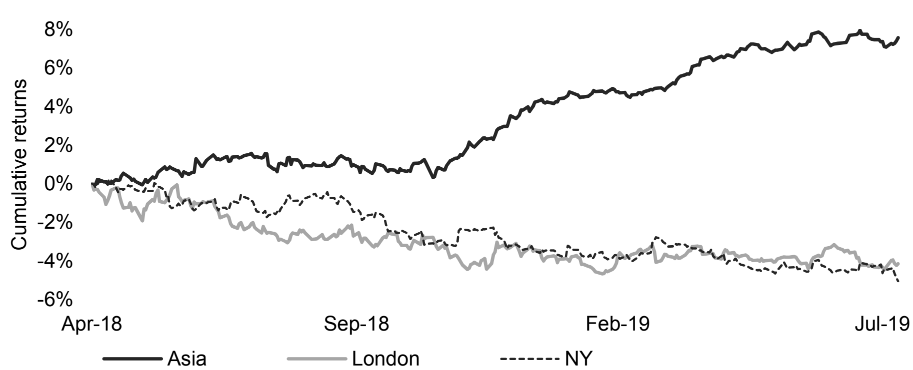
Note: As at Sep. 4, 2019. Source: Bloomberg, RBC GAM

Exhibit 10: Changes to composition of foreign-exchange reserves



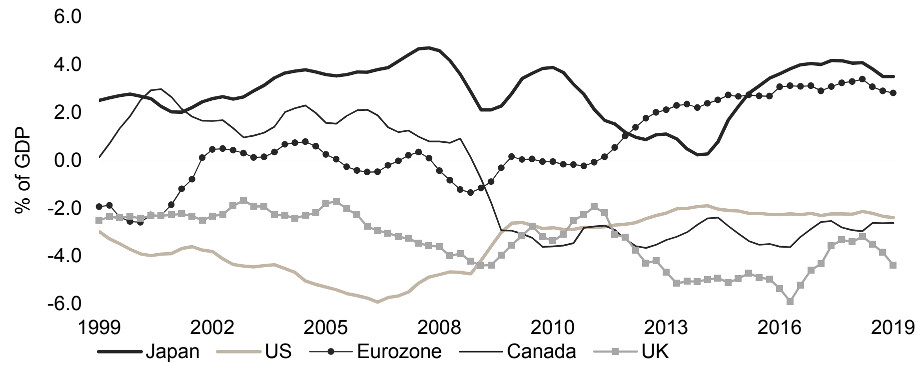
Note: As at Jun. 30, 2019. Source: COFER, Bloomberg, RBC GAM

Exhibit 11: Persistent strength suggests euro buyers in Asia



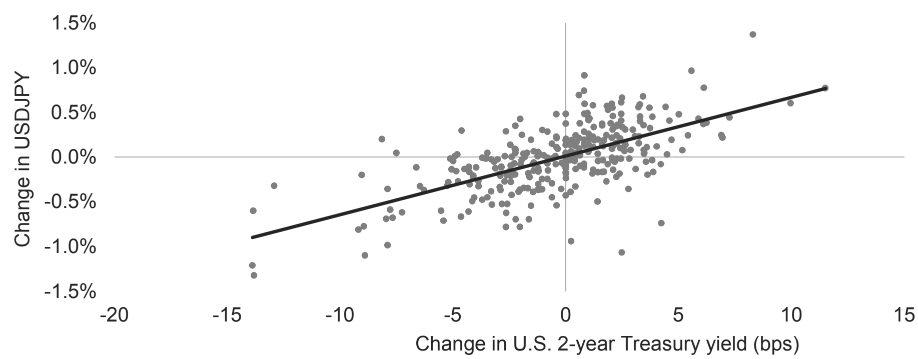
Note: As at Aug. 9, 2019. Source: Bloomberg, RBC Capital Markets, RBC GAM that any serious hostility between the two nations would have a greater economic impact on South Korea than Japan. In a broader sense, trade tensions are actually positive for the yen, as the Japanese currency is widely regarded as a safe-haven asset during times of financial and economic stress. The yen usually rallies when stocks sink because Japanese investors who own global assets tend to repatriate funds when asset markets falter. In fact, we find the yen particularly attractive right now because there are a multitude of geopolitical affairs that could spark a financial-market pullback. While Brexit and Hong Kong protests currently dominate the news, other issues have also been on the horizon: a border dispute between India and Pakistan over the region of Kashmir and Argentina's struggle to meet its debt obligations are just two of them. These and dozens of other flare-ups have the potential to boost the Japanese currency, and we hold the yen in our portfolios as a hedge against such risks. We forecast that the yen will appreciate to 98 per U.S. dollar in 12 months' time from about 106 now.

Exhibit 12: Relative current-account surpluses



Note: As at Mar. 31, 2019. Source: Bloomberg, RBC GAM

Exhibit 13: Relationship of the 2-year Treasury note to USDJPY



Note: As at Sep. 4, 2019. Source: RBC GAM

British pound

We remain negative on the prospects for U.K. economic growth. GDP fell 0.2% in the second quarter, the worst quarterly rate since 2012 (Exhibit 14). Analysts have downplayed the softer reading, blaming seasonal maintenance of auto factories and a slowdown in production aimed at depleting excess inventory stocked ahead of the original March Brexit deadline. Even accounting for these factors, the economic situation is uninspiring, and neither businesses nor households seem well cushioned for a Brexit shock.

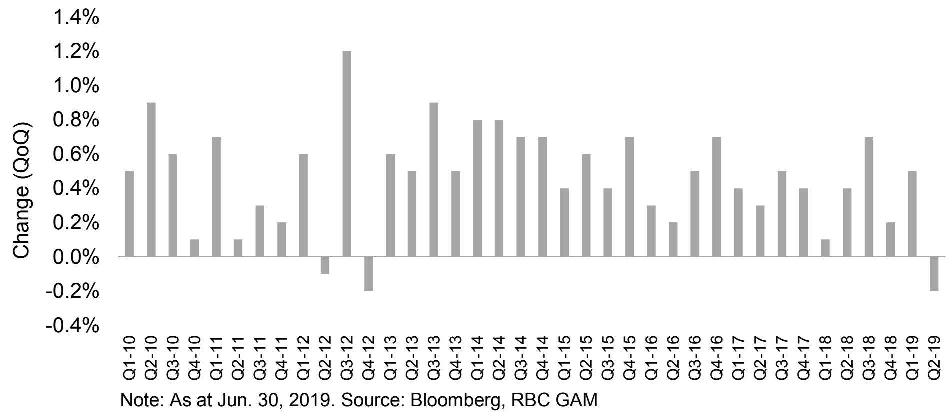
The likelihood of an economically damaging hard-Brexit scenario is rising by the day, most recently with a suspension of Parliament, which leaves little time for a referendum or new elections. Should Prime Minister Boris Johnson's game of chicken backfire, a combination of fiscal and monetary support will likely be required. But since both are constrained by fiscal rules and already low policy rates, a cheaper currency will be an important crutch in supporting economic growth. How far it falls will be a highlight on Brexit day. Our valuation models suggest a zone of US$1.05-US$1.10 per pound, but the exchange rate versus the euro is likely to be the more important one as the Eurozone is the U.K.'s largest trading partner. On that basis, the pound is nowhere near cheap enough (Exhibit 15).

Canadian dollar

Canada has been the only G7 country whose growth has consistently exceeded expectations this year. This development is surprising given that the country faces competitive challenges and that its small, open economy should be more sensitive to global uncertainty and trade tensions. For lack of a better explanation, we call it the "neighbourhood" effect. Canada has benefited from fiscally stimulative U.S. growth, which for the time being is supporting the loonie because it encourages the Bank of Canada (BOC) to put off rate cuts at a time when other central banks are turning more dovish. However, it seems unlikely to us that the central bank can remain on the sidelines of this monetary race to the bottom.

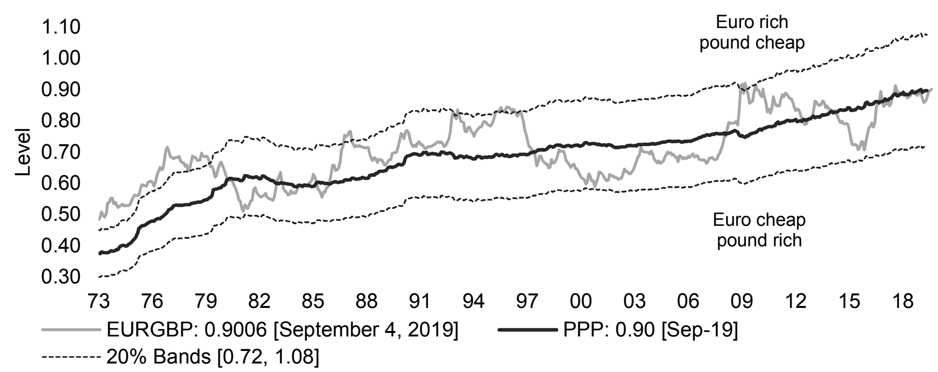
While lower mortgage rates and the recovery in real estate have helped to alleviate some of the central bank's concerns, bucking the global trend in monetary policy would likely mean a sharply stronger currency at a time of heightened trade tensions. Energy exports have been decent - partly in response to stronger oil prices. Unfortunately, the remaining categories, which make up the lion's share of Canada's trade, are not faring nearly as well. Total non-energy trade is clearly in deficit and has shown little sign of improvement alongside other economic data (Exhibit 16). Exports are further curbed by strained international relations with Saudi Arabia and China over the assassination of Jamal Khashoggi and the detainment of Huawei executive Meng Wanzhou. China has since shown its displeasure by suspending imports of Canadian canola and

Exhibit 14: U.K. GDP growth



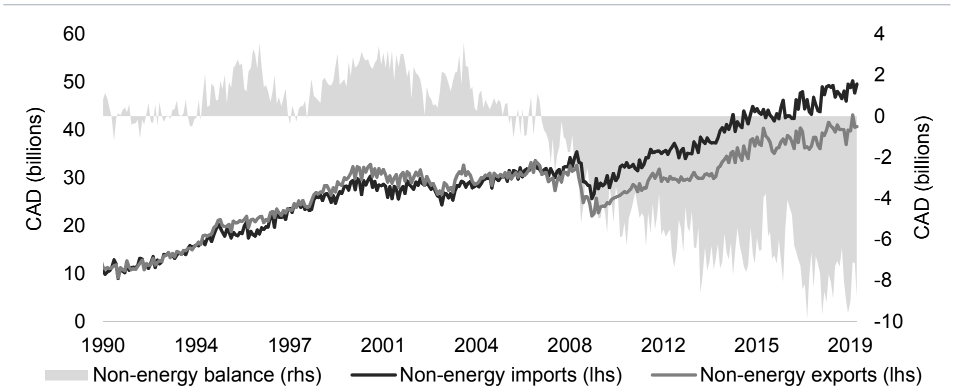
Note: As at Jun. 30, 2019. Source: Bloomberg, RBC GAM

Exhibit 15: Pound fairly valued against the euro



Note: As at Sep. 4, 2019. Source: RBC GAM

Exhibit 16: Canadian non-energy trade balance

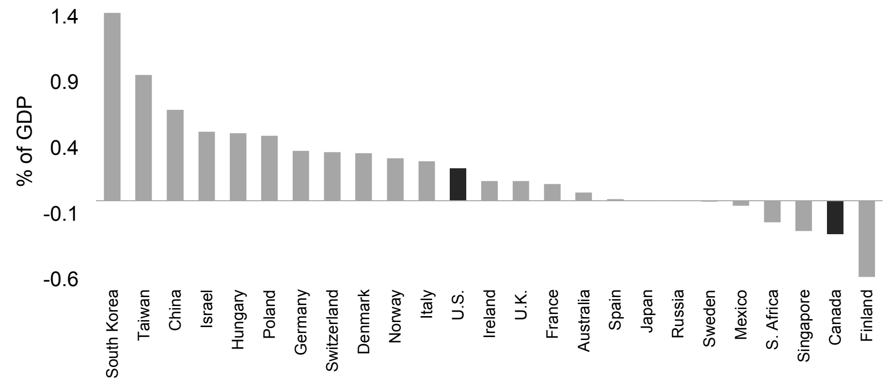


Note: As at Jun. 30, 2019. Source: StatsCan, Bloomberg, RBC GAM meat products, neither of which is critically damaging to the welfare of most Canadians, but nonetheless deleterious for our trade situation.

Business spending, the other area that the BOC had expected to support economic growth, has so far disappointed. Non-residential investment was flat for the first quarter of 2019, as business confidence lagged based on the BOC's quarterly Business Outlook Survey. Moreover, Canada is investing fewer dollars in R&D than its global peers (Exhibit 17). This lack of investment highlights the country's competitiveness challenges and perhaps explains why marginal investment dollars are flowing out of the country, as Canadian firms find more attractive opportunities abroad (Exhibit 18).

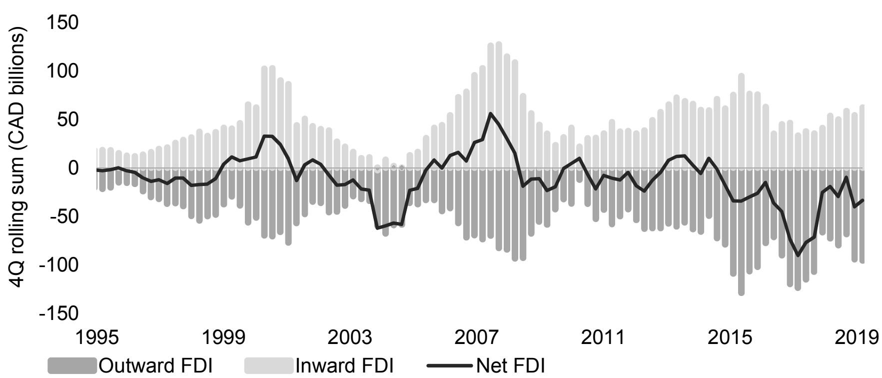
Canada's economy is commodity-driven and export-dependent and therefore sensitive to shifts in global economic growth and trade. As a result, the currency tends to rise and fall with risk sentiment and, like the Australian and New Zealand dollars, weaken abruptly when stocks sink. Owning some U.S. dollars and/or Japanese yen can prove handy as insurance in these environments. We have assumed a $1.30-$1.40-per-U.S. dollar range for several quarters and are encouraged to see the bottom of that range hold firm. We find it strange, however, that most analysts surveyed by Bloomberg expect the Canadian dollar to remain near $1.30. This collective expectation seems overly complacent to us and clashes with our belief that foreign-exchange volatility is set to rise. Our 12-month forecast of $1.37 per U.S. dollar aims

Exhibit 17: 10-year change in business R&D spending



Note: Annual data as at Dec. 31, 2017. Source: OECD, RBC GAM

Exhibit 18: Canadian foreign direct investment



Note: As at Mar. 31, 2019. Source: StatsCan, Bloomberg, RBC GAM

to strike a balance between our view that the greenback could weaken and the headwinds faced by the loonie. The Canadian dollar is likely to be among the weakest developed-world currencies.

Overall, our view is that short-term positives currently support the U.S. dollar, which could extend for some time the U.S.-dollar topping process. However, longer-term negatives, including narrowing yield differentials and the dual deficits, are coming into focus. The greenback will likely peak at different times against individual major currencies. Over the next 12 months, we expect the euro and yen to perform better than the loonie and the pound. We also expect higher levels of volatility as markets become agitated by trade disputes and geopolitical concerns.

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Regional Outlook – U.S.

Brad Willock, CFA
V.P. & Senior Portfolio Manager
RBC Global Asset Management Inc.

The S&P 500 Index posted above-average returns over the three-month period as gains in June and July more than offset an August decline to leave the market up almost 7% for the period. The big stories during the period were the huge drop in U.S. Treasury yields, an inversion in the yield curve and the escalating trade war between the U.S. and China. The index's low point came on the first trading day of June but was followed by a 10% rally to a record high of 3026 on July 26. The U.S. Federal Reserve (Fed) cut its benchmark interest rate at the end of July, and on August 1, President Trump announced a 10% tariff on roughly US$300 billion of Chinese exports to the U.S. Stocks reacted negatively, falling over 6% in three days. Later in August, China retaliated by announcing tariffs of its own and Trump responded with another round of tariff increases.

While falling interest rates were good for stock-market returns, concerns about the significance of the yield-curve inversion – a situation where longer-term rates fall below shorter-terms ones – clearly worried investors. The concerns were understandable given that the last seven recessions have been preceded by inverted yield curves. However, there have been three false signals, and even when a recession did ensue, the time lag to a recession has been as long as 24 months. In our opinion, the yield curve is not an accurate predictor of economic downturns, but rather a signal to investors to pay increased attention to the health of credit markets and consumer spending.

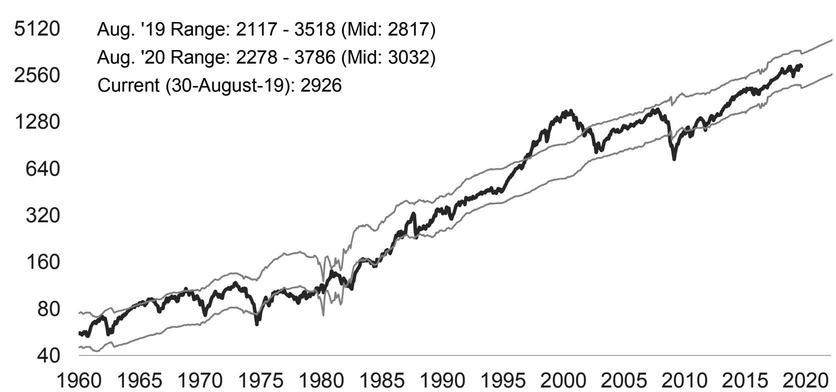
There are two key credit-market indicators that we watch closely. The first is the Fed's Senior Loan Officer Survey, which gauges banks' willingness to lend, and the second is the cost of borrowing in capital markets. The usefulness of these indicators lies in their ability to tell us whether companies have access to capital and whether the cost of money is attractive. If this is the case, companies will be more likely to borrow to buy equipment, conduct

United States – Recommended sector weights

	RBC GAM Investment Strategy Committee August 2019	Benchmark S&P 500 August 2019
Energy	3.8%	4.4%
Materials	1.7%	2.7%
Industrials	8.5%	9.2%
Consumer Discretionary	10.8%	10.2%
Consumer Staples	7.6%	7.6%
Health Care	13.5%	13.9%
Financials	11.8%	12.8%
Information Technology	23.3%	22.1%
Communication Services	11.5%	10.5%
Utilities	4.3%	3.5%
Real Estate	3.5%	3.3%

Source: RBC GAM

S&P 500 Equilibrium
Normalized earnings and valuations



Source: RBC GAM

research and development, and hire. At the moment, most banks are showing a willingness to lend and the cost of debt has fallen dramatically since late December. For now, credit markets remain supportive of equities, and absent problems in credit markets, there is likely no problem with the broader economy.

With respect to the U.S. economy, nothing is more important than consumers' ability to spend and their willingness to do so. We like to focus on three indicators to evaluate the health of the consumer: employment, confidence and retail sales. As long as the employment market is strong and consumer confidence is high, we are unlikely to experience a recession since consumption accounts for about 70% of U.S. economic activity. The signs are good for the jobs market, where employers have added an average of 170,000 positions over the past 12 months, wages are rising at an annual rate of more than 3% and the unemployment rate hovers near a 50-year low below 4%. In terms of confidence, surveys suggest that consumers feel good about their current financial situation, but that they are less optimistic about what things will be like in six months. This signal bears watching, but for now nothing negative has shown up in consumer-spending patterns as retail sales for the three months ended July increased at a 5.4% annual clip. For us, the most important data point is the weekly change in the number of people applying for unemployment insurance, which is among the most accurate and timely economic indicators. At the moment, this figure rests near an all-time low. We note that, although the employment market is solid in aggregate, manufacturers have started shedding jobs, perhaps as a consequence of the trade war with China. If the trade war continues to heat up, both jobs and consumer confidence could be in jeopardy.

A review of public companies' most recent financial results shows that large U.S. companies generated revenue growth of roughly 5% and earnings growth of about 3%.The first observation to make is that revenue growth remains solid thanks in large part to strong consumer spending, which has helped to offset the impact of the trade conflict. The second observation is that, for the third consecutive quarter, earnings rose more slowly than revenues as tariffs weighed on the profit margins of companies with Chinese supply chains. If the latest tariffs go into effect as proposed, S&P 500 aggregate per-share earnings in 2020 could fall US$10 to US$15, wiping out most of the growth expected for next year. We think the probability of this outcome is quite high, and in this negative scenario, S&P earnings for 2020 could fall to US$172 from the current consensus estimate of US$184. Based on these earnings and a P/E ratio of 17, the S&P 500 would trade at roughly 2925, about where it is today. If global economic growth improves and the risks of a recession diminish, the market might trade at 18 times earnings, which would put the S&P 500 near 3100, a 6% rise from current levels. However, if global growth continues to fade and the U.S. is pulled into a recession, we should expect earnings to fall 10% to 20%, and the S&P 500 could decline 25% or more.

For the first time since the financial crisis of 2008-2009, the balance has shifted significantly and should be recognized in risk-taking and portfolio construction. Counting against markets are the fact that we are late in the economic cycle, the yield curve is inverted, the odds are rising that the U.K. soon leaves the EU in costly fashion, governments and corporations have accumulated significant debts, and the world's two largest economies are engaged in a trade war. In this macroeconomic environment, we have become increasingly defensive but are hopeful that the outlook for trade and global growth will improve as we move later into 2019.

Regional Outlook – Canada

Sarah Neilson, CFA
Portfolio Manager
RBC Global Asset Management Inc.

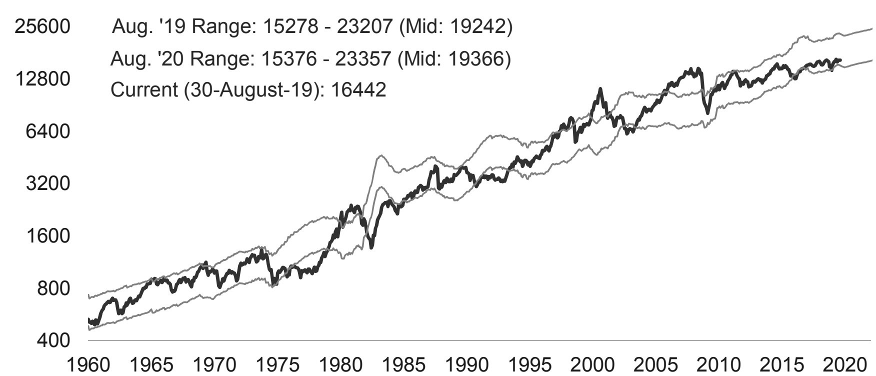
Irene Fernando, CFA
Portfolio Manager
RBC Global Asset Management Inc.

Canada – Recommended sector weights

	RBC GAM Investment Strategy Committee August 2019	Benchmark S&P/TSX Composite August 2019
Energy	15.5%	16.2%
Materials	11.0%	11.8%
Industrials	11.3%	11.4%
Consumer Discretionary	5.3%	4.3%
Consumer Staples	5.3%	4.1%
Health Care	1.0%	1.5%
Financials	31.0%	31.2%
Information Technology	5.0%	5.6%
Communication Services	6.3%	5.6%
Utilities	4.5%	4.6%
Real Estate	4.0%	3.6%

Source: RBC GAM

S&P/TSX Composite Equilibrium
Normalized earnings and valuations



Source: RBC GAM

After a strong start to 2019, gains for the S&P/TSX Composite Index stalled during the three-month period along with most other global equity markets. The Canadian index has kept pace with the S&P 500 Index, gaining 3.3% against the 6.8% rise for the U.S. benchmark, and the MSCI World Index advanced by 4.5%. The intensification of global trade tensions between China and the U.S., combined with moderating economic indicators, have weighed on global equity markets. This macroeconomic backdrop has led central banks to move to a more cautious approach to policy-setting.

Rebounding from economic sluggishness early in the year, Canada's GDP is now exhibiting broad-based growth. A healthy labour market and the reversal of earlier weather-related slowdowns have supported the gains. Consensus forecasts for Canada's GDP growth remain modest at 1.4% for 2019, and the Bank of Canada (BOC) has raised its forecast for Canada's 2019 GDP growth slightly to 1.3% from 1.2%. While the BOC is keeping a wary eye on the impact of trade tensions on the domestic economy, Canadian GDP has been resilient given a stabilizing outlook for housing, solid labour markets and inflation near the BOC's 2% target rate. In September, the BOC kept its benchmark interest rate at 1.75% - the rate in place since October 2018 - and investors expect the central bank to move more slowly than the U.S. Federal Reserve (Fed) in lowering rates. Expectations that the Fed will cut rates in the second half of 2019 could prompt the BOC to consider a rate cut to maintain the Canadian dollar at levels that support exports.

With the outlook shifting on global trade, revisions to the S&P/TSX earnings outlook have been generally reduced. S&P/TSX Composite aggregate earnings are forecast to climb 5% in 2019 to $1,073. As we look out to 2020, earnings growth is forecast to grow 7.5%, which in our view appears to be optimistic. However, more of the earnings growth is expected to come from the Financials, Materials and Industrials sectors, shifting away from reliance on the Energy sector. While a resolution to some of the trade tensions could boost earnings estimates, we believe that equity markets and earnings estimates do not yet reflect the greater downside risk that could emerge from a continuation of negative trade rhetoric, weaker corporate and consumer confidence, and deteriorating global economic data.

The more dovish central-bank tone has supported S&P/TSX multiple expansion this year. After reaching a multiyear low P/E of 12.2 in late 2018, the TSX now trades at 14.3, slightly below the long-term average of 14.7. The S&P/TSX's valuation remains at a discount to the S&P 500, which is due partly to the Canadian benchmark's more-significant exposure to cyclical sectors including Financials, Energy and Materials.

The Information Technology sector has been the best-performing sector so far this year, as e-commerce software provider Shopify continues to lead the Canadian benchmark. Meanwhile, lower bond yields are helping to support valuations in the Utilities sector, where dividends are worth more to investors seeking income in the low-yield environment. The Materials sector was supported by a rally in gold prices because investors flocked to safe-haven investments and negative real yields in Europe and Japan made gold relatively attractive. The Health Care sector lost momentum as cannabis stocks have failed to maintain their gains from earlier this year on concern that industry profits might not come as quickly as investors had expected.

The Financials sector has underperformed the S&P/TSX Composite so far this year. Bank stocks have been particularly weak, gaining 5.6% this year, versus 14.8% for the broader market. The negative outlook for interest rates and its impact on profit margins, especially at the banks' U.S. divisions, is one of the main reasons for the sector's underperformance. However, lower mortgages rates could spur a rebound in mortgage lending, offsetting some of the earnings pressure. Concerns about Canadian consumer debt remain top of mind for stock-market investors, but falling interest rates should lower household debt-servicing costs and potentially stimulate growth in consumer spending.

Canada's Energy sector has gained 4.5% so far this year, in line with the U.S. peers. While equities in both markets have underperformed the roughly 20% rise in crude-oil prices, volatility in crude oil and natural gas have weighed on the outlook for the sector's long-term profitability. Supply and demand for crude oil remain relatively balanced, though we expect the short-term global supply constraints and uncertain global economic growth will keep a level of downside risk reflected in prices. In Canada, specifically, the lack of progress on new pipeline construction, government-mandated production limits and growing concerns about long-term demand continue to negatively affect investors' assessment of the sector. We note that a number of major Canadian producers have had success in lowering costs to levels required to generate free cash flow at current oil prices, resulting in several energy producers that trade at attractive valuations. Politics in Canada are likely to continue to have an outsized impact on the expectations for the long-term prospects of Canada's Energy sector. Federally, the outcome of the October election will be in focus. The current administration has had a negative impact on the sector, and more political support for the development of Canada's resources would be a significant positive for the sector.

Regional Outlook – Europe

James Jamieson
Portfolio Manager
RBC Global Asset Management (UK) Limited

Continued lacklustre economic data, increased political uncertainty due in part to Brexit and trade tensions have produced a monetary-policy U-turn that is arguably the most important development for financial markets over the past half-year. The European Central Bank's (ECB) abandonment of any pretense that it would pursue tighter monetary policy and the U.S. Federal Reserve's decision in late July to cut interest rates for the first time in more than a decade confirm that the world's major central banks have committed to actively supporting the global economy.

This time, however, interest rates are significantly lower than they were the last time that central banks were called on to deliver stimulus, so investors face the possibility that monetary policy will carry less potency than it has in the past. In our view, investors seem a bit more sanguine about the impact of accommodation than is probably warranted.

Even as the ECB acknowledges a less-than-rosy macroeconomic picture, we expect renewed monetary stimulus to make stocks and other risk assets more enticing. Economic data in much of the world remains tepid, but things have stopped worsening for now. In other words, more subdued expectations are lessening the chances that investors will be disappointed and cause significant market declines. Assuming that politics don't get in the way, the prospects for European stocks look attractive relative to the U.S. as weaker European growth already reflects the possibility that we are close to the end of the growth phase of the economic cycle. However, any stock gains would likely take place against a backdrop of elevated volatility given geopolitical and trade risks.

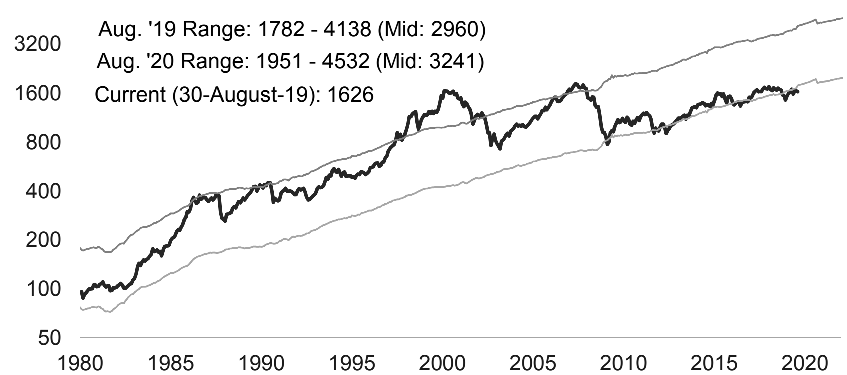
Many European companies continue to stress that they expect to increase capital expenditures and hiring, boding well for business prospects. The principal focus of increased capital spending is technology, especially among larger companies, and for some time companies have been crowing about how their investments will pay off by driving corporate returns in the

Europe – Recommended sector weights

	RBC GAM Investment Strategy Committee August 2019	Benchmark MSCI Europe August 2019
Energy	6.0%	7.0%
Materials	6.0%	7.1%
Industrials	14.0%	13.6%
Consumer Discretionary	10.5%	9.5%
Consumer Staples	16.0%	15.7%
Health Care	15.0%	13.9%
Financials	16.0%	16.9%
Information Technology	6.5%	5.8%
Communication Services	4.0%	4.7%
Utilities	5.0%	4.6%
Real Estate	1.0%	1.4%

Source: RBC GAM

Eurozone Datastream Index Equilibrium
Normalized earnings and valuations



Source: Datastream, Consensus Economics, RBC GAM not-too-distant future. However, it should be noted that it's just a small minority of companies for whom these expenditures eventually pay off.

An important consideration for holders of European assets is the U.S.-China trade war, as Europe is the regional stock market with the greatest foreign exposure. Our view is that a resolution of the dispute will take longer than is currently expected by the consensus. Moreover, any U.S.-China resolution would likely shift Trump's attention to seeking additional trade concessions from Europe, which he is trying to force to open up its markets to U.S. agricultural products. Trade escalation therefore looks inevitable and it could negatively affect the Eurozone given Germany's economic importance and integrated cross-border and cross-industry supply chains.

Investors are also likely to conclude that plans by some European countries to increase fiscal spending will be insufficient to turn the tide on subdued Eurozone macroeconomic data. Moreover, any hopes that Germany will step in with major economic stimulus should a recession unfold appear misguided, as the government has long adhered to a philosophy that budgets must be balanced. In a nutshell, countries that are in a position to spend won't, while those that want to spend already have too much debt to do so.

One development being looked at by investors is the strong appetite for transactions involving private-equity firms, a trend that is being driven by a combination of relatively low European equity valuations, historically low interest rates and fairly conservative corporate balance sheets. Also under analysis is the changing of the guard among the EU's institutional leaders. The new European Commission president is German Defence Minister Ursula von der Leyen, whose unexpected election by the European Parliament is a sign of the power now commanded by blocs skeptical of the EU and an indication that they have enough representation to affect decision-making. As a result, von der Leyen's pledges to further political and economic integration of the EU will be largely thwarted by a divided European parliament and council.

A longer-term question on the minds of investors is whether Europe is in the throes of 'Japanification.' In other words, is Europe destined to undergo the two decades of economic stagnation and perennially low inflation that has beset Japan since the 1990s? While there are marked differences between the macroeconomic landscapes – Europe has overall lower debt levels and the absence, so far, of deflation, the general idea appears credible to us. In an environment of chronically slow economic growth, companies that offer steady earnings gains will attract higher valuations, and such companies lend themselves to our investment philosophy.

Valuations have expanded since the start of the year, although it's fair to say that they aren't stretched and, in our assessment, are broadly in line with where they should be. Banks merit special mention because their relatively low valuations reflect the fact that regulatory uncertainty has been undermining returns. Until investors can attain sufficient visibility on capital positions and dividend dependability, banks will remain largely outside our investment universe, with trading limited to periods of high volatility. European equities remain attractive thanks to a generous dividend yield of about 4%, making them the only region where yields are above the historical average. This level of yield is valuable in our income-starved environment. We have spread positions quite evenly across sectors and styles, with less exposure to banks for the reasons discussed above.

Regional Outlook – Asia

Mayur Nallamala
Head & Senior V.P., Asian Equities
RBC Global Asset Management(Asia) Limited

Asian equities were volatile during the three months ended August 31, 2019, and ended the period more or less flat. Stocks climbed in June and early July, as concerns about the impact of the U.S.-China trade conflict abated and markets anticipated a U.S. interest-rate reduction, which happened in mid-July. Stocks then pulled back sharply in early August, responding to falling bond yields and renewed trade concerns suggesting slowing economic growth.

Developments affecting individual countries included a depreciation of the Chinese currency, which fell below the 7-per-U.S.-dollar level for the first time since 2008, amid speculation that Beijing is allowing currency depreciation to counter U.S. tariffs. In Hong Kong, citywide protests and China's resultant use of force led to a significant decline in the Hang Seng Index. Equity markets in Australia, Indonesia and the Philippines outperformed while India, Hong Kong and South Korea lagged the regional benchmark, and Japan slightly outperformed.

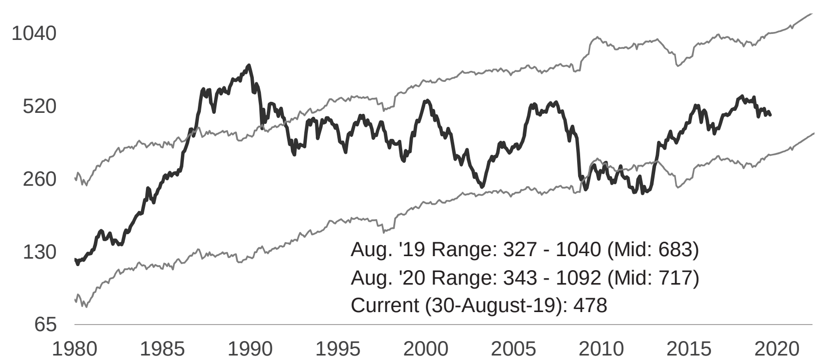
Across the region, the best performing sectors were Utilities, Consumer Staples and Health Care, while Energy and Consumer Discretionary underperformed.

Asia – Recommended sector weights

	RBC GAM Investment Strategy Committee August 2019	Benchmark MSCI Pacific August 2019
Energy	2.5%	3.1%
Materials	5.3%	6.0%
Industrials	11.5%	12.0%
Consumer Discretionary	15.5%	14.8%
Consumer Staples	6.5%	6.6%
Health Care	7.0%	6.3%
Financials	19.0%	20.1%
Information Technology	14.0%	13.0%
Communication Services	10.5%	9.9%
Utilities	3.0%	2.7%
Real Estate	5.3%	5.6%

Source: RBC GAM

Japan Datastream Index Equilibrium
Normalized earnings and valuations



Source: Datastream, Consensus Economics, RBC GAM

Japan

Gains in Japanese equities in local-currency terms were tempered during the period by appreciation in the yen and its negative impact on exports. It is important to note that in recent years Japanese companies have increased their dependence on China as a production base for both exports and for products sold within China. Therefore, U.S.-China trade frictions have a knock-on effect in Japan as demand weakens in China and globally.

The Japanese economy remains sluggish, with GDP in the second quarter of 2019 forecast at 0.3%, and 0.7% for the full year. The main drag is from declining Japanese exports given economic weakness in the country's major export destinations – the U.S. Europe and China. Furthermore, there is the risk of further yen appreciation because the currency operates as a safe haven in times of concern about recession and geopolitical tensions. On the positive side, consumer spending received a boost as next month's hike in the consumption tax led people to move up purchases. Sales of new cars in the second quarter of 2019 rose 5.5% from the previous quarter, the fastest pace in a decade, and public spending accelerated to 1.6% from 1.2% in the first quarter as a fiscal-stimulus program kicked in.

The Bank of Japan (BOJ) continues to affirm its accommodative policy stance. Japan's inflation is forecast to be 0.7% in 2019, lower than the 1.0% recorded in 2018 and well shy of BOJ targets. Prime Minister Abe's party won the majority of seats in the upper house of Parliament in July elections, and he is set to become the country's longest-serving prime minister. Under Abe, we expect continued reforms in the same vein as earlier ones that have encouraged share buybacks, and better capital efficiency and corporate governance. These changes should act as tailwinds for Japanese equity markets.

Asia Pacific ex-Japan

Given slowing global and regional economies, we expect accommodative monetary policies in China, South Korea, India, Indonesia, the Philippines and Australia. The Chinese economy, especially, faces further trade escalation vis-à-vis the U.S., with tariffs announced by the U.S. in just the past three months being roughly equal to all tariffs imposed on China in 2018. The recent sell-off in Chinese stocks in part reflects investor worries about the link between trade and a sharp decline in economic growth during the second half of 2019. Chinese policymakers still have the capacity and willingness to step up stimulus measures, and July's Politburo meeting suggests that Chinese officials will consider encouraging leverage and easing property controls to stimulate the economy if necessary. The People's Bank of China will continue to add liquidity to the banking system with a combination of cuts to the benchmark interest rate and incentives for banks to increase lending to small- and medium-sized businesses. Market data suggests Beijing continues to intervene in stock markets with state funds.

The Hong Kong economy has been hit by China's slowdown, as well as the local protests. The political turmoil was triggered in June by demonstrations against a proposed law that many Hong Kong residents feared would allow China to seek the extradition of political opponents from countries with which Hong Kong does not have extradition treaties. The demands raised by protestors remain unresolved and the confrontations have escalated to the point that they are hurting tourism and having a broad negative impact on the retail, transportation and property areas of the economy. June retail sales were down 7% from the year-ago period, and July figures are expected to be significantly worse. Similarly, June property transactions on existing properties fell 25% from a year earlier.

South Korea's economy has been negatively affected by the trade war and weak prices for semiconductors, one of its main exports. The Bank of Korea cut its benchmark interest rate by 0.25% to support the economy and is expected to deliver another reduction in the fourth quarter. The government is also expected to increase fiscal spending by 10%, supported by increased borrowing.

Indonesian stocks outperformed the regional benchmark in the past three months. President Jokowi was re-elected in July and we view the victory as a strong endorsement of his economic agenda, which over the past five years has focused on developing physical infrastructure. In a recent interview, the president committed himself to carrying out major reforms such as cutting corporate taxes, opening more industries to foreign investment and making labour laws more business-friendly. The country's central bank has turned more accommodative, cutting rates by a total of 0.50% to 5.50% during the period after hiking rates by 1.75 percentage points over the past year.

Australian equities outperformed their regional peers. The Australian parliament recently cut taxes for low- and middle-income earners. The longer-term economic outlook in Australia appears stable with growth having regained 3%, unemployment relatively low at 5% and inflation at 2%, well within the central bank's targeted range.

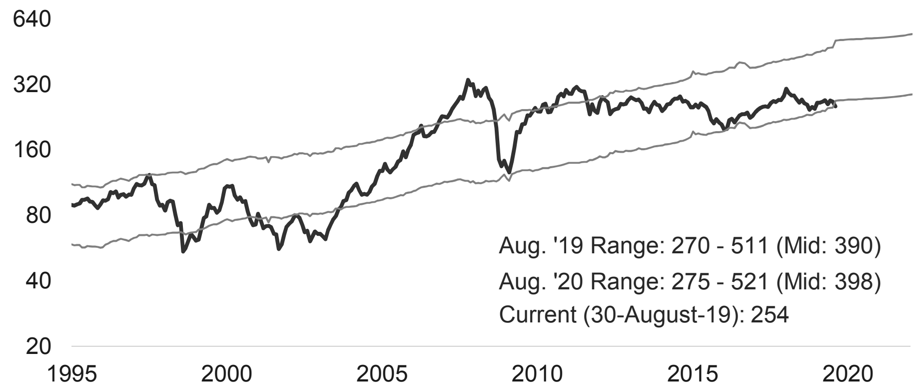
Regional Outlook – Emerging Markets

Guido Giammattei
Portfolio Manager
RBC Global Asset Management (UK) Limited

Emerging-market equities rose 3.9% in U.S. dollar terms between January and August of 2019, although the gains were far from a smooth ride (Exhibit 1). Emerging-market stocks started the year strongly, up 14% between January and April, but ceded about half of those gains in May alone. Almost all of the May losses were recovered in June and July, but emerging-market equities fell again following renewed U.S.-China trade tensions during the first week of August. Changes in expectations on U.S. monetary policy and trade-related matters have been the key drivers of equity-market performance.

In our view, the key influences on emerging markets for the rest of the year will be: 1) global monetary policy; 2) the economic cycle; 3) the performance of the U.S. dollar; 4) the trade war between the U.S. and China, and the related battle between China and the U.S. for technological superiority.

Emerging Market Datastream Index Equilibrium
Normalized earnings and valuations



Source: Datastream, RBC GAM

1. Monetary policy

During June, there was a dramatic change in the monetary-policy outlook across all regions. Expectations in place as recently as December 2018 that U.S. interest-rate hikes would continue during 2019, have been replaced by a consensus view that rate cuts will take place in the coming months. Central banks in emerging markets have turned dovish for the first time in three years, with policymakers in Chile, Malaysia, India and the Philippines having already cut rates this year and several more countries are expected to do the same.

The shift in monetary-policy expectations can be largely attributed to concerns about the global economic expansion. In the short term, the weak economic-growth outlook could put pressure on the performance of emerging-market equities. Taking a longer-term view, the shift downwards in the U.S. yield curve should prove positive for the emerging-market carry trade – the real-yield premium of local-currency emerging-market debt compared with a basket of U.S. and German bonds – while also stimulating the economy through lower borrowing costs.

2. Economic cycle

Growth in both developed and emerging-market economies has moderated since the end of 2018. At the start of the year, emerging-market GDP growth was expected to be 4.8% in 2019, and 2.2% in developed markets. Since then, the expected growth rates have fallen to 4.6% and 2.0%, respectively, leaving a 2.6% growth differential that is the second lowest in the past 15 years. According to consensus forecasts, however, the gap will widen to 3.2% in 2020, as U.S. economic growth slows and central banks continue to ease. A pickup in relative emerging-market growth should reduce some of the headwinds to stronger emerging-market equity performance.

3. U.S. dollar and emerging-market currencies

Currency plays a key role in returns for emerging-market equities. The U.S. dollar usually falls when emerging-market equities rise, and vice versa. Therefore, the strong U.S. dollar has been a major headwind for emerging markets over the past few years. One of the outcomes of the recent dramatic shift in monetary-policy expectations is that the premiums available on emerging-market bond yields are at the highest level in over a decade, which should be positive for emerging-market currencies. Emerging-market currency valuations are also at supportive levels.

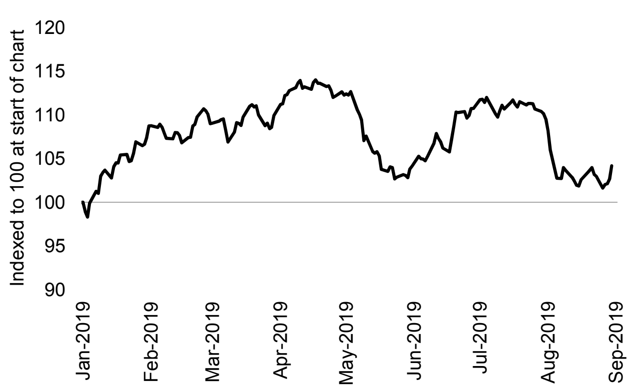
4. The trade war and China's Sputnik moment

According to Credit Suisse, emerging-market equities tend to underperform when trade tensions between China and the U.S. are capturing headlines, and the recent underperformance of emerging markets seems perhaps to be anticipating a return of trade tensions to previous peaks. One of the main reasons that emerging markets are highly sensitive to the trade war, and therefore negatively impacted the most, is that exports to China and the U.S. tend in many cases to account for a relatively large percentage of emerging-market GDP.

The impetus for an aggressive U.S. trade stance toward China arises in part from some of the same concerns that led to America's "Sputnik moment" in 1957. That was when the U.S., surprised by the technological advances revealed by the Soviet Union's launch of the first Earth-orbiting satellite, embarked on research and development that led just 12 years later to the landing of an American on the moon. The roots of today's conflict are extremely complicated with many ramifications, and it would be wrong to assume that the U.S. has the upper hand in this trade war. In the long term, we do not believe that China's advancements in science and technology can be derailed by obstructionism, as the country has already made too much progress to be sidetracked. Before any economy can ramp up research and development, it must first assemble a pool of qualified researchers, the "stock" of human capital. China's pool of researchers has overtaken that of the U.S. and it is now twice as large as Japan's (Exhibit 2).

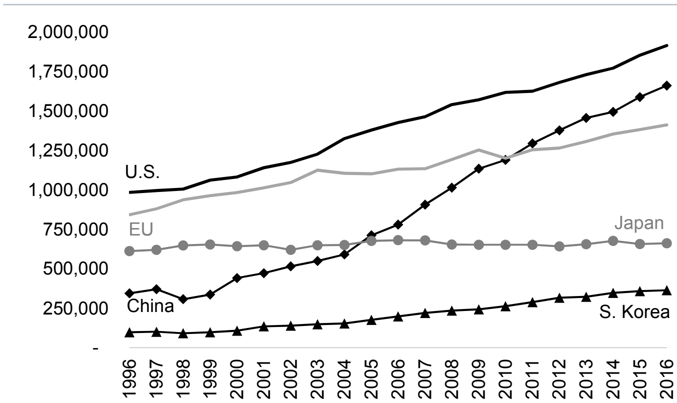
In the past 20 years, China's expenditures on research and development as a percentage of gross domestic product increased from 0.6% – the level of a typical developing economy – to over 2%, a level achieved by only 18 nations. China's total research spending is expected to exceed that of the U.S. this year, and the number of registered patents and published scientific papers eclipsed U.S. figures years ago. Just last year, Chinese applications filed under the Patent Co-operation Treaty, a stricter process designed to grant patents under multiple international jurisdictions through a unified system, reached 52,000, exceeding U.S. applications for the first time. Quantity does not necessarily equal quality, but China is making rapid strides in catching up to its main rival.

Exhibit 1: MSCI Emerging Markets Index
Cumulative net total return index in USD



Note: Data as of: August 31, 2019. Source: MSCI, RBC GAM

Exhibit 2: Number of researchers in China



Source: World Bank, Jefferies

RBC GAM Investment Strategy Committee

Members

Daniel E. Chornous, CFA

Chief Investment Officer
RBC Global Asset Management

Chair, RBC GAM Investment Strategy Committee

Dan Chornous is Chief Investment Officer of RBC Global Asset Management Inc., which has total assets under management of approximately $461 billion*. Mr. Chornous is responsible for the overall direction of investment policy and fund management. In addition, he chairs the RBC Investment Strategy Committee, the group responsible for global asset-mix recommendations and global-fixed income and equity portfolio construction for use in RBC Wealth Management's key client groups including retail mutual funds, International Wealth Management, RBC Dominion Securities Inc. and RBC Phillips, Hager & North Investment Counsel Inc. He also serves on the Board of Directors of the Canadian Coalition for Good Governance and is Chair of its Public Policy Committee. Prior to joining RBC Asset Management in November 2002, Mr. Chornous was Managing Director, Capital Markets Research and Chief Investment Strategist at RBC Capital Markets. In that role, he was responsible for developing the firm's outlook for global and domestic economies and capital markets as well as managing the firm's global economics, technical and quantitative research teams.

* AUM in CAD as of July 31, 2019.

Stephen Burke, PhD, CFA

Vice President and Portfolio Manager
RBC Global Asset Management

Stephen is a fixed-income portfolio manager and Head of the Quantitative Research Group, the internal team that develops quantitative research solutions for investment decision-making throughout the firm. He is also a member of the PH&N IM Asset Mix Committee. Stephen joined Phillips, Hager & North Investment Management in 2002. The first six years of his career were spent at an investment-counselling firm where he quickly rose to become a partner and fixed-income portfolio manager. He then took two years away from the industry to begin his Ph.D. in Finance and completed it over another three years while serving as a fixed-income portfolio manager for a mutual-fund company. Stephen became a CFA charterholder in 1994.

Dagmara Fijalkowski, MBA, CFA

Head, Global Fixed Income & Currencies
RBC Global Asset Management

As Head of Global Fixed Income and Currencies at RBC Global Asset Management, Dagmara leads investment teams in Toronto, London and Minneapolis in charge of almost $100 billion in fixed income assets. In her duties as a portfolio manager, Dagmara heads management of several bond funds, manages foreign-exchange hedging and active currency overlay programs across a number of funds. Dagmara chairs the Fixed Income Strategy Committee. She is also a member of the Investment Policy Committee, which determines asset mix for balanced and multi-strategy products, and the RBC Investment Strategy Committee. In 2016, she was appointed to the RBC GAM Executive Committee. Dagmara, who began her investment career in 1994, holds an MBA from the Richard Ivey School of Business in Canada and a Master's degree in economics from the University of Lodz in Poland. Dagmara has been a CFA charterholder since 1997.

Stuart Kedwell, CFA

Senior Vice President and
Senior Portfolio Manager
RBC Global Asset Management

Stu co-leads the North American Equity team and is a member of the RBC GAM Investment Strategy Committee, which is responsible for establishing the firm-wide global asset mix for mutual funds and for institutional and high net worth private clients. Stu began his career in 1996 with RBC Dominion Securities in the firm's Generalist program, a two-year internship in which participants rotate through different areas of the firm. In 1998, he joined the RBC Investments Portfolio Advisory Group, which provides investment ideas and recommendations to RBC DS Investment Advisors. He was also a member of the RBC DS strategy & focus list committees. Stu has been with the firm since 2002 and is a CFA charterholder.

Eric Lascelles

Chief Economist
RBC Global Asset Management

Eric is the Chief Economist for RBC Global Asset Management Inc. (RBC GAM) and is responsible for maintaining the firm's global economic forecast and generating macroeconomic research. He is also a member of the RBC GAM Investment Strategy Committee, the group responsible for the firm's global asset-mix recommendations. Eric is a frequent media commentator and makes regular presentations both within and outside RBC GAM. Prior to joining RBC GAM in early 2011, Eric spent six years at a large Canadian securities firm, the last four as the Chief Economics and Rates Strategist. His previous experience includes positions as economist at a large Canadian bank and research economist for a federal government agency.

Hanif Mamdani

Head of Alternative Investments
RBC Global Asset Management

Hanif Mamdani is Head of both Corporate Bond Investments and Alternative Investments. He is responsible for the portfolio strategy and trading execution of all investment-grade and high-yield corporate bonds. Hanif is Lead Manager of the PH&N High Yield Bond and Alternative strategies, including a multi-strategy hedge fund. He is also a member of the Asset Mix Committee. Prior to joining the firm in 1998, he spent 10 years in New York with two global investment banks working in a variety of roles in Corporate Finance, Capital Markets and Proprietary Trading. Hanif holds a master's degree from Harvard University and a bachelor's degree from the California Institute of Technology.

Martin Paleczny, CFA

Vice President and
Senior Portfolio Manager
RBC Global Asset Management

Martin Paleczny, who has been in the investment industry since 1994, began his career at Royal Bank Investment Management, where he developed an expertise in derivatives management and created a policy and process for the products. He also specializes in technical analysis and uses this background to implement derivatives and hedging strategies for equity, fixed-income, currency and commodity-related funds. Since becoming a portfolio manager, Martin has focused on global allocation strategies for the full range of assets, with an emphasis on using futures, forwards and options. He serves as advisor for technical analysis to the RBC GAM Investment Strategy Committee.

Sarah Riopelle, CFA

Vice President and
Senior Portfolio Manager
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Since 2009, Sarah has managed the entire suite of RBC Portfolio Solutions. Sarah is a member of the RBC GAM Investment Strategy Committee, which sets global strategy for the firm, and the RBC GAM Investment Policy Committee, which is responsible for the investment strategy and tactical asset allocation for RBC Funds' balanced products and portfolio solutions. In addition to her fund management role, she works closely with the firm's Chief Investment Officer on a variety of projects, as well as co-manages the Global Equity Analyst team.

William E. (Bill) Tilford

Head, Quantitative Investments
RBC Global Asset Management

Bill is Head, Quantitative Investments, at RBC Global Asset Management and is responsible for expanding the firm's quantitative-investment capabilities. Prior to joining RBC GAM in 2011, Bill was Vice President and Head of Global Corporate Securities at a federal Crown corporation and a member of its investment committee. His responsibilities included security-selection programs in global equities and corporate debt that integrated fundamental and quantitative disciplines, as well as management of one of the world's largest market neutral/overlay portfolios. Previously, Bill spent 12 years with a large Canadian asset manager, where he was the partner who helped build a quantitative-investment team that ran core, style-tilted and alternative Canadian / U.S. funds. Bill has been in the investment industry since 1986.

Milos Vukovic, CFA

Vice President, Investment Policy
RBC Global Asset Management

Milos, who joined RBC in 2003, oversees investment-management activities including new-fund launches, performance analytics and trade-cost analysis. He is also responsible for developing and monitoring investment mandates and implementing tactical asset allocation for the RBC GAM investment solutions. Milos earlier worked for a Big 4 accounting firm and two top-tier securities firms. He earned an MBA at the Schulich School of Business and has held the CFA designation since 2004. He is a board member of both the Canadian Buy-Side Investment Management Association and the Canadian Advocacy Council for Canadian CFA Institute Societies, and recently joined IIROC's Market Structure Advisory Committee.

Brad Willock, CFA

Vice President and
Senior Portfolio Manager
RBC Global Asset Management

Brad Willock joined RBC Global Asset Management in July 2002 and is a Senior Portfolio Manager and CFA charterholder. In his current role, Brad has responsibility for RBC Global Asset Management's core and income-oriented U.S. equity strategies. He joined RBC in May 1996 after receiving a bachelor's of commerce degree with distinction from the University of Calgary. Prior to that, Brad obtained a bachelor's of science degree at the University of British Columbia and represented Canada at the 1992 Barcelona Summer Olympics in volleyball.

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Disclosure

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