

THE YIELD CURVE

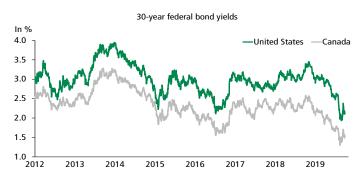
Heightened Uncertainties Should Keep Yields Very Low

HIGHLIGHTS

- In what Jerome Powell called a "mid-cycle adjustment," the Federal Reserve (Fed) has already twice cut its key rates by 25 points. Another cut is expected by the end of 2019. However, rates should remain unchanged in 2020. The trade war is making the Fed's job particularly difficult at the moment.
- In Canada, the economy's resilience, the drop in mortgage rates and high household debt are all factors in favour of the Bank of Canada maintaining the status quo, but it will keep a close eye on developments surrounding trade tensions.
- The developments we are expecting in inflation and monetary policy should justify somewhat higher bond yields in North America in the next few months. However, there is good reason to believe that the increase will be limited and that the very low interest rate environment will persist. In fact, all the signs are that uncertainty will continue to be very high, as trade tensions and recession fears threaten to remain very

Bond markets have been particularly volatile in recent months. A new round of trade hostilities between China and the United States in early August led to a sharp drop in bond yields, which accelerated when the U.S. yield curve inversion sent fears of a recession skyrocketing. The decline was especially marked in the long portion of the curve, with U.S. and Canadian federal 30-year bond yields even reaching new lows in mid-August (graph 1). The trend reversed just as dramatically at the beginning of September owing to signs of an easing in trade tensions and some reassuring economic data. The rebound in bond yields was particularly notable on the Canadian side, where expectations of monetary easing deflated as quickly as they had risen at the start of August. Downward pressures on yields have resurfaced over the past few days, reflecting, among other things, the Democrats' intention to launch impeachment proceedings against Donald Trump.

Long-term bond yields fell to a new low in mid-August



Sources: Datastream and Desjardins, Economic Studies

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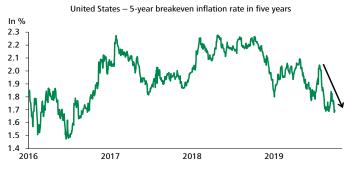


The August Tumble in Yields Seemed Exaggerated

It would be surprising for the strong downtrend in bond yields to continue in the months to come, especially since our economic scenarios are not calling for a full-blown recession in North America. The adverse effects of the trade conflict between China and the United States are becoming increasingly evident, particularly in business investment and the manufacturing sector. So far, however, they have been largely offset by the resilience in households and services. These resilient sectors are likely to be affected more and more over the next few quarters, as consumer goods from China are the target of fresh U.S. tariffs. However, in a context where the job market is still going strong and the drop in bond yields seems to already have jump started the real estate market on both sides of the border, moderate economic growth in Canada and the United States is still much more likely than a recession in the short term.

While investors may appear to be overestimating the probability of a recession in the short term, they seem to be overlooking the risk of an acceleration in inflation. The nosedive in long-term bond yields in the first two weeks of August thus reflected a marked drop in compensation for inflation (graph 2), as calculated by the spread between normal and real return bonds. This change is difficult to justify against the backdrop of fairly robust recent statistics on wages and inflation (graph 5 on page 3).

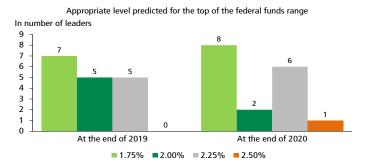
GRAPH 2
Is the recent decline in compensation for inflation justified?



Sources: Bloomberg and Desjardins, Economic Studies

The spectacular drop in bond yields since last fall is also a reflection of changes in monetary policy. The Federal Reserve (Fed) did a 180 by twice lowering its key rates. A number of other central banks, including the European Central Bank (ECB), have also swung back into easing mode. However, we sense that the monetary policy adjustment is coming to an end. In Europe and Japan, it would be difficult to do much more. In the United States, the Fed seems to be increasingly divided, and the leaders' latest forecasts signal little appetite for additional rate cuts (graph 3). Lastly, the economic situation in Canada does not appear to require action from the

GRAPH 3Opinions at the Federal Reserve are very divided



Sources: Federal Reserve and Desjardins, Economic Studies

Bank of Canada (BoC), as it looks like the drop in bond yields already had a significant stimulating effect.

The Potential for Rate Hikes Seems Limited

The developments we are expecting in inflation and monetary policy should justify somewhat higher bond yields in North America in the next few months. However, there is good reason to believe that the increase will be limited and that the very low interest rate environment will persist. First, all the signs are that uncertainty will continue to be very high, as trade tensions and recession fears threaten to remain very present. Major political tensions in the United States and the United Kingdom may also continue to create turmoil and spur demand for safe havens. In addition, the efforts that the Fed will continue to make to ensure the proper functioning of the money market may well be perceived, rightly or wrongly, as a new form of quantitative easing favourable to the bond market. Lastly, the maintenance of a negative rate environment in the euro zone and Japan will continue to support North American bonds. After the sharp decrease of the past few quarters, we thus expect a period of bond yield consolidation slightly above the recent lows, but with considerable volatility.

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Federal Reserve (Fed)

Trade War Making the Fed's Job Harder

FORECASTS

In what Jerome Powell called a "mid-cycle adjustment," the Fed has already twice cut its key rates by 25 points. Another cut is expected by the end of 2019. However, rates should remain unchanged in 2020.

One year ago, Fed leaders were foreseeing three key rate increases in 2019, continuing the normalization of the Fed's monetary policy begun in 2015. Instead, so far this year, we have seen two decreases of 25 basis points in what Fed Chair Jerome Powell described as a mid-cycle adjustment. More subdued economic growth in the United States, a troubled global economy, the trade war, inflation that remains stubbornly low relative to targets and financial market volatility all factor into the Fed's about-face. Some will add that pressure from President Donald Trump also contributed to this reversal. The Fed's main reasoning behind the rate cut is that it, along with the decrease in bond yields, will support economic growth. A certain effect of this has already unfolded in the recent improvement of a number of components of the housing market. There is still work to be done, however, as other indicators suggest that economic growth will continue to be slow and could deteriorate further (graph 4).

The Fed leaders' latest forecasts do not make it clear that the rate cuts will continue. The median forecast for key rates at the end of 2019 does not signal a rate change between now and then. The same holds true for 2020. There is also a sense that the Fed

GRAPH 4 U.S. business and household confidence deteriorated recently



Sources: Institute for Supply Management, Conference Board and Desjardins, Economic Studies

We should add that the trade war is making the Fed's job particularly difficult at the moment. For one, we are seeing the adverse effects of tariff increases and uncertainty on the economy, confidence and financial markets. A recent Fed study also estimates that trade policy uncertainty takes around 1% away from U.S. real GDP growth.² In late August, Jerome Powell said in a speech that trade policy was a new challenge for the Fed and that they could not look to the past for answers. This is all the more complicated for the Fed as the feeling now is that the past tariff increases are beginning to affect core inflation in the United States (graph 5). Further increases in U.S. tariffs on China, focused more on consumer goods, could drive prices even higher. In this context, Fed leaders will likely finish their mid-cycle adjustment in 2019 and leave the rates unchanged in 2020.

GRAPH 5
U.S. core inflation has accelerated in recent months



Sources: Bureau of Labor Statistics and Desjardins, Economic Studies

is somewhat divided: 7 out of the 17 leaders foresee another cut in 2019, while 5 others feel that the September 18 reduction was already one too many.

¹ The Drop in Interest Rates Is Beginning to Stimulate the U.S. Housing Market, Desjardins, Economic Studies, Economic Viewpoint, September 17, 2019, 7 p.

² Dario CALDARA et al., <u>Does Trade Policy Uncertainty Affect Global Economic Activity?</u>, Board of Governors of the Federal Reserve System, *Economic Research – FEDS Notes*, September 4, 2019.



Bank of Canada (BoC)

Canada Does Not Appear to Need Monetary Easing for the Time Being

FORECASTS

Unlike a number of other central banks, the BoC has made no changes to its monetary policy for close to a year now. The latest economic statistics for Canada have been fairly positive, particularly as concerns the labour market and real estate. Although the BoC has made no moves, the sharp drop in bond yields since last fall is a notable easing of financial conditions that are partially offsetting the tougher international climate. The BoC will keep a close eye on the global situation and its impact on the Canadian outlook, but the status quo could persist over the coming quarters.

After two quarters of near stagnation, Canada's economic growth was very strong in the second quarter at 3.7% (quarterly annualized), as a gradual return to normal in the energy sector led to a significant rebound in exports. Domestic demand, however, is back in the red after sliding 0.7%. The main difficulties are coming from non-residential business investment, which fell 16.2% in the spring. Oil and gas transportation constraints are curbing the development of new production capacity in the energy sector, and mounting trade tensions in the world are increasingly affecting the confidence of Canadian businesses.

Nevertheless, there is more encouraging news on the household front. After pulling back for several months, the housing market recently turned around, trending up again in most regions. Not only are mortgage rates now more appealing, but demand is strong across most of the country. Consumer spending continues to rise, with relatively high household confidence (graph 6).

Note that the country's labour market remains very lively, helping both the housing market and consumer spending. Faster wage growth has even been noted of late. If this trend persists, it could eventually put upside pressure on inflation. For now, inflation is relatively stable, and everything suggests that the total annual

inflation rate will remain around the median target (2%) in the coming quarters.

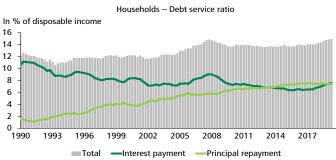
The housing market's recovery, however, risks relying on growing Canadian household debt levels once again. Already, we see an increase in the second quarter of 2019, bringing the household debt ratio to an all-time high. Debt service has also reached a new record, as close to 15% of disposable household income in Canada is used to pay interest and pay down the principal on loans (graph 7). In this context, the BoC will probably want to avoid adding fuel to the fire by lowering its key interest rates.

GRAPH 6Canadian consumer confidence is high



Sources: Conference Board of Canada and Desjardins, Economic Studies

Despite low interest rates, Canadian households' debt service is very high



Sources: Statistics Canada and Desjardins, Economic Studies



Overseas Central Bank

Monetary Easing Becoming Widespread

EUROPEAN CENTRAL BANK (ECB)

The ECB recently cut the interest rate of its deposit facility by 10 basis points, bringing it to a new low of -0.50%. It will also resume its asset buying to the tune of €20B per month. This new monetary easing will continue indefinitely. According to the ECB, no interest rate hikes or reduction in asset purchases will take place before the future trend in inflation converges very closely with its target. This means that it may still take years before we see the start of monetary tightening in the euro zone. Nor can we rule out a further reduction in deposit rates in the coming quarters or enhancements in the purchase program. The bottom line is that we should expect an extended period of negative bond yields across much of the board. More and more, the rates on savings, and perhaps even credit, could also fall below the 0% mark (graph 8).

BANK OF ENGLAND (BoE)

The uncertainty surrounding Brexit continues to cause headaches for the BoE. However, it is becoming increasingly clear that a key rate cut could be announced, regardless of the outcome. The economy is already showing signs of slowing down, and inflation has embarked on a downward trend (graph 9). The weak pound and the inflationary pressures this generates no longer seem enough to convince the BoE to wait before lowering rates. That said, in the event of a no-deal Brexit and a jump in the price of some imported goods, the BoE is likely to limit its easing measures.

BANK OF JAPAN (BoJ)

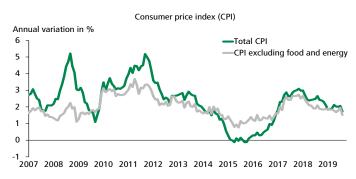
The Japanese economy is also showing signs of running out of steam, and inflation seems to want to resume a downward path. The BoJ recently showed openness to increasing the degree of monetary easing. The BoJ's key rate currently sits at -0.10% and could be lowered. There is also the possibility that asset purchases will be accelerated and that the target on the 10-year interest rate will be reduced. At present, the BoJ is targeting a 10-year yield of 0% by undertaking to purchase assets worth approximately ¥85,000B annually. That said, the Japanese 10-year yield slid down to negative territory recently, which reduced the need to purchase assets (graph 10). Ironically, if the 10-year target is not reduced, the BoJ might even have to sell assets.

GRAPH 8Some depositors already have to pay interest in the euro zone



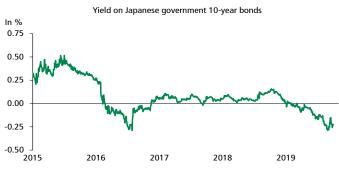
Sources: Datastream , European Central Bank and Desjardins, Economic Studies

GRAPH 9
Inflation in the United Kingdom is on a downtrend



Sources: Datastream and Desjardins, Economic Studies

GRAPH 10
The Japanese 10-year yield is below its target



Sources: Datastream and Desjardins, Economic Studies



Bond Market

Uncertainty, Tensions, Disagreements: A Cocktail That Will Continue to Weigh on Rates

FORECASTS

The Federal Reserve (Fed) will announce another rate cut this year, thus completing its mid-cycle adjustment. The uncertainty is not going anywhere, however, and the markets will continue bet on further action, as fears of a recession will remain at the forefront. We are expecting a rather flat path for bond yields, on average, but volatility should stay high.

In Canada, the economy's resilience, the drop in mortgage rates and high household debt are all factors in favour of the Bank of Canada (BoC) maintaining the status quo, but it will keep a close eye on developments surrounding trade tensions and their repercussions on the North American economy. Given the downward pressures on long-term rates arising from the global context, Canada's curve inversion is likely to persist.

U.S. FEDERAL BONDS

The 52 basis points drop in the 10-year yield in August ranked that month third among the largest monthly declines since 2010. Despite a significant rebound during the first half of September, at the time of writing, the 10-year yield was down by more than 100 basis points year-to-date. If the year were to end now, this would be the biggest annual drop since 2011, a year that had been marked by a strong surge in risk aversion amid U.S. budgetary tensions. Like in 2011, it is the real component of rates that has largely led the charge (graph 11), illustrating the extent of fears about the residual life of the expansion cycle, fears that have intensified as a result of the escalation in trade tensions, the contraction in global trade volumes and the slowdown in manufacturing activity. In an environment that

GRAPH 11
One of the steepest plunges in the real rate during the current cycle



Sources: Datastream and Desjardins, Economic Studies

³ <u>Economic Growth Will Weaken Further</u>, Desjardins, Economic Studies, Economic & Financial Outlook, September 23, 2019, 16 p. should remain tense, we expect bond selloff episodes to be short-lived, as testified by the one of early September.

We are calling for a U.S. 10-year yield that will end 2019 very close to current levels at 1.65%. In 2020, we forecast that the yield will stay in the range of 1.60% to 1.75%. This outlook is based on a scenario featuring a global economic slowdown³ and a climate of uncertainty that will remain elevated until at least the next U.S. presidential election. For the U.S. economy, this will mean real GDP growth of just 1.6% in 2020, down from the 2.3% forecast this year. Having expressed a willingness to extend the expansion cycle, the Fed should lower its key rates by another 25 basis points, likely in December. It should also announce that it will be resuming the expansion of its balance sheet, as the recent turmoil in the short-term funding markets suggests that reserves need to be increased a little earlier than planned. However, we still believe that the Fed will limit its "mid-cycle adjustment" to a total reduction of 75 basis points, assuming recession signals do not accumulate. Markets are pricing in close to three rate cuts between now and the end of 2020. In light of the increasingly divided views within the Federal Open Market Committee, this scenario seems to be more in line with a situation where recession signals would keep increasing and would persuade more officials of the need to further ease policy.

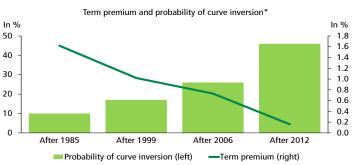
So far, the yield curve, deeply inverted for certain maturities, and the declining new manufacturing orders, have been the most prominent indicators pointing to an increased risk of recession.

However, the yield curve is not inverted for the same reasons as in the past, that is, a decidedly restrictive monetary policy that drives the front-end rates significantly above the neutral rate. Instead, the inversion is caused by weakness in longer-term rates, which have been pressured lower by successive waves



of quantitative easing from major central banks, as well as the negative rates⁴ sweeping across Europe and Japan, which are pulling down rates of other developed markets. We can also add to this the regulatory requirements forcing financial institutions to be well stocked in safe assets. These factors are the reason that the term premium recently fell to a record low, a situation that increases the likelihood of curve inversion, regardless of the risk of recession (graph 12).⁵ It should also be noted that even though an inverted curve has been the harbinger of a recession in the past, the time lapse between the initial inversion of the 2/10s curve and the start of a recession has varied widely, from eight months to close to three years. Over the past three cycles, the median delay has been 24 months. The 2/10s curve is currently in slight positive territory, although it did invert briefly in August. Given the above factors and the inaccuracy of the curve as a signal, we believe it should be viewed more as one piece of evidence that needs to be corroborated by other signals, rather than absolute proof.

GRAPH 12 A very low term premium makes curve inversions more frequent



^{*} According to a curve simulated by the Federal Reserve Bank of Richmond.

The clearest other negative signals come from manufacturing activity. The fall in new-order indices in many countries bears watching, as it is an indication of reduced activity down the road and potential job losses. Nonetheless, in the case of the United States, the manufacturing sector, in terms of value added, accounts for just 11% of GDP and 8% of jobs. The key question is whether the weakness in U.S. manufacturing is likely to drag down sectors with more considerable weight, including services, which have shown resilience thus far.

A certain parallel can be drawn with the episode of 2016, a year where the U.S. economy grew by a disappointing 1.6%.

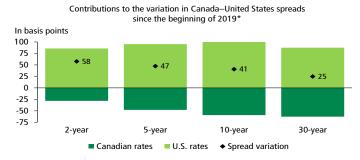
The economy was still reeling from the fallout of the plunge in oil prices, which led to severe contractions in investment in the energy sector. Manufacturing suffered as a result, and the ISM manufacturing index entered contraction territory in the fourth guarter of 2015. Still, there were no mass lay-offs, no upswing in the jobless rate and no contraction in consumer spending. As a matter of fact, consumers' wallets enjoyed some respite with via lower gas prices. In the present case, the source of relief might well be the more accommodative monetary policy, which has notably caused a strong wave of mortgage refinancing and rekindled property sales⁶ this year.

One thing is certain: even if the signals remain mixed, fears are not likely to disappear anytime soon, especially as trade conflict uncertainty will likely continue to stoke them. The implication for the bond markets will be monetary easing expectations that might sometimes be exaggerated, as well as a term premium that will stay particularly depressed.

CANADIAN FEDERAL BONDS

The shift in monetary policy expectations in the United States was behind the dramatic widening of the rate spreads between Canada and the United States observed for most maturities, but especially the front end (graph 13). This is not to say that Canadian yields have not fallen; at the time of writing, the 10-year yield was down by around 60 basis points year-to-date. Yields have simply decreased less than in the United States, mainly due to the BoC's status quo. Recall that at this time last year, the Fed was signalling three rate hikes for 2019, a view with which markets concurred. So far, it has rather delivered two rate cuts, and we believe that it will announce a third one in December. In October 2018, the BoC had also signalled more rate hikes, but rather than cutting its policy rates like the Fed,

GRAPH 13 Spread movement has mainly been caused by U.S. rates



^{*} As of September 30, 2019. Sources: Bloomberg and Desjardins, Economic Studies

⁴ Five Years of Negative Rates in Europe and It's Far from Being Over!, Desjardins, Economic Studies, Economic Viewpoint, September 10, 2019, 5 p.

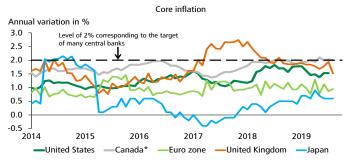
⁵ Renee HALTOM et al., Have Yield Curve Inversions Become More Likely?, Federal Reserve Bank of Richmond, Economic Brief, No. 18-12, December 2018,

⁶ The Drop in Interest Rates Is Beginning to Stimulate the U.S. Housing Market, op. cit.



it has left them unchanged. In the wake of the escalation in tariff tensions between China and the United States in August, investors were convinced that the BoC would follow in the Fed's footsteps and therefore expected more than one rate cut in Canada. The September 4 announcement and a speech by Deputy Governor Lawrence Schembri, instead pointed to a BoC believing that while global tensions were the dominant downside risk, one could not lose sight of the strength of the labour market and the attendant intensification in wage pressures, as well as inflation that, unlike in many other parts of the world, has been hovering around the 2% target for some time (graph 14). The BoC also alluded to the significant decline in mortgage rates, the offshoot of lower bond yields, which has revived home sales. Investors have heard these messages, and markets are pricing in a low likelihood of rate cuts in the near term.

GRAPH 14
Inflation behaviour in Canada differs from that of other developed countries



^{*} Average of the Bank of Canada's three core inflation measures. Sources: Datastream and Desjardins, Economic Studies

Our base case for Canadian monetary policy remains a continuation of the status quo. On the one hand, the global slowdown and uncertainty have made the idea of steering rates back to the neutral range (estimated to be between 2.25% and 3.25% by the BoC) somewhat reckless. The Canadian economy should see growth slightly below potential in 2020 according to our latest scenario. On the other hand, the decline in rates already operating through the economy (particularly via the mortgage market) is allowing the BoC to preserve its precious ammunition should the threat of a recession in the United States (and in Canada) grew more serious. After learning recently that the household debt service⁷ ratio had hit a new record in the second quarter, there is little doubt that monetary easing would come at the cost of increased risks to financial stability. On the currency front, the divergence in monetary policies could have caused a substantial appreciation in the Canadian dollar and make a case to ease policy in order to help mitigate pressures. Yet, the U.S. dollar's status as a safe haven has kept the Canadian Combined, these factors tend to suggest that Stephen Poloz and his colleagues will not let their decisions simply be influenced by those of other central banks but will have to be put in front of convincing arguments before considering lowering rates. The presence of important downside risks does mean that the rate cut scenario assumption has a non-zero probability but we believe that more pronounced economic deterioration relative to our baseline would be need for this to materialize.

This means that the spreads between the Canadian and U.S. yields could still compress further, particularly as concerns the 2-year and 5-year maturities, even though much of the move appears behind. For the 10-year yield, which is much more influenced by global market dynamics, we forecast 1.35% at the end of the year and a range of 1.45% to 1.65% in 2020. This configuration implies that the inversion of the Canadian curve should carry on through at least mid-2020.

dollar in a fairly stable range, a situation that will continue for some time to come, according to our latest scenario.8

⁷ <u>Canada: Household Indebtedness Hits Record High</u>, Desjardins, Economic Studies, Economic News, September 13, 2019, 1 p.

⁸ The U.S. Dollar Should End the Year on the Rise against a Backdrop of Continuing Concern over the Global Economy, Desjardins, Economic Studies, FX Forecasts, September 25, 2019, 3 p.



TABLE 1 Key interest rates

	2018					2019				2020			
END OF PERIOD IN %	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4f	Q1f	Q2f	Q3f	Q4f	
United States													
Federal funds	1.75	2.00	2.25	2.50	2.50	2.50	2.00	1.75	1.75	1.75	1.75	1.75	
Canada													
Overnight funds	1.25	1.25	1.50	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	
Zone euro													
Refinancing rate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
United Kingdom													
Base rate	0.50	0.50	0.75	0.75	0.75	0.75	0.75	0.75	0.50	0.50	0.50	0.50	
Japan													
Main key rate	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.20	-0.20	-0.20	-0.20	-0.20	

Sources: Datastream and Desjardins, Economic Studies

TABLE 2 Fixed income market

	2018				2019				2020			
END OF PERIOD IN %	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4f	Q1f	Q2f	Q3f	Q4f
UNITED STATES												
Treasury bills												
3-month	1.73	1.93	2.19	2.45	2.40	2.12	1.88	1.60	1.60	1.65	1.65	1.60
Federal bonds												
2-year	2.27	2.53	2.82	2.51	2.29	1.76	1.66	1.55	1.55	1.60	1.65	1.55
5-year	2.55	2.73	2.95	2.49	2.23	1.76	1.54	1.55	1.55	1.55	1.65	1.50
10-year	2.75	2.86	3.06	2.69	2.41	2.00	1.67	1.65	1.65	1.70	1.75	1.60
30-year	2.97	2.99	3.21	3.02	2.82	2.53	2.11	2.10	2.10	2.15	2.20	2.05
Yield curve slopes												
5-year - 3-month	0.82	0.80	0.76	0.04	-0.17	-0.36	-0.34	-0.05	-0.05	-0.10	0.00	-0.10
10-year - 2-year	0.47	0.33	0.24	0.18	0.13	0.24	0.01	0.10	0.10	0.10	0.10	0.05
30-year - 3-month	1.24	1.06	1.02	0.57	0.42	0.41	0.23	0.50	0.50	0.50	0.55	0.45
CANADA												
Treasury bills												
3-month	1.10	1.26	1.59	1.64	1.67	1.66	1.65	1.65	1.70	1.70	1.70	1.65
Federal bonds												
2-year	1.77	1.91	2.21	1.86	1.55	1.47	1.58	1.55	1.55	1.55	1.60	1.50
5-year	1.96	2.06	2.33	1.88	1.52	1.39	1.40	1.40	1.45	1.50	1.60	1.50
10-year	2.09	2.17	2.42	1.96	1.62	1.46	1.37	1.35	1.45	1.55	1.65	1.50
30-year	2.23	2.20	2.41	2.18	1.90	1.68	1.53	1.50	1.60	1.70	1.80	1.65
Yield curve slopes												
5-year - 3-month	0.86	0.80	0.74	0.24	-0.15	-0.27	-0.25	-0.25	-0.25	-0.20	-0.10	-0.15
10-year - 2-year	0.32	0.26	0.21	0.10	0.07	-0.01	-0.21	-0.20	-0.10	0.00	0.05	0.00
30-year - 3-month	1.13	0.94	0.82	0.54	0.23	0.02	-0.12	-0.15	-0.10	0.00	0.10	0.00
Yield spreads (Canada—	United Stat	es)										
3-month	-0.63	-0.67	-0.60	-0.81	-0.73	-0.46	-0.23	0.05	0.10	0.05	0.05	0.05
2-year	-0.50	-0.62	-0.61	-0.65	-0.74	-0.29	-0.08	0.00	0.00	-0.05	-0.05	-0.05
5-year	-0.59	-0.67	-0.62	-0.61	-0.71	-0.37	-0.14	-0.15	-0.10	-0.05	-0.05	0.00
10-year	-0.66	-0.69	-0.64	-0.73	-0.79	-0.54	-0.30	-0.30	-0.20	-0.15	-0.10	-0.10
30-year	-0.74	-0.79	-0.80	-0.84	-0.92	-0.85	-0.58	-0.60	-0.50	-0.45	-0.40	-0.40

Sources: Datastream and Desjardins, Economic Studies



Schedule 2019 of Central Bank Meetings

	Central banks	Decision	Rate		
January					
9	Bank of Canada*	s.q.	1.75		
22	Bank of Japan	s.q.	-0.10		
23	Bank of Korea	s.q.	1.75		
24	European Central Bank	s.q.	0.00		
24	Bank of Norway	s.q.	0.75		
30	Federal Reserve	s.q.	2.50		
February					
4	Reserve Bank of Australia	s.q.	1.50		
6	Bank of Brazil	s.q.	6.50		
7	Bank of England	s.q.	0.75		
7	Bank of Mexico	s.q.	8.25		
12	Reserve Bank of New Zealand	s.q.	1.75		
13	Bank of Sweden	s.q.	-0.25		
27	Bank of Korea	s.q.	1.75		
March					
4	Reserve Bank of Australia	s.q.	1.50		
6	Bank of Canada	s.q.	1.75		
7	European Central Bank	s.q.	0.00		
14	Bank of Japan	s.q.	-0.10		
20	Bank of Brazil	s.q.	6.50		
20	Federal Reserve	s.q.	2.50		
21	Bank of England	s.q.	0.75		
21	Bank of Norway	+25 b.p.	1.00		
21	Swiss National Bank	s.q.	-0.75		
26	Reserve Bank of New Zealand	s.q.	1.75		
28	Bank of Mexico	s.q.	8.25		
April					
1	Reserve Bank of Australia	s.q.	1.50		
10	European Central Bank	s.q.	0.00		
17	Bank of Korea	s.q.	1.75		
24	Bank of Canada*	s.q.	1.75		
24	Bank of Japan	s.q.	-0.10		
25	Bank of Sweden	s.q.	-0.25		
May					
1	Federal Reserve	s.q.	2.50		
2	Bank of England	s.q.	0.75		
7	Reserve Bank of Australia	s.q.	1.50		
7	Reserve Bank of New Zealand	-25 b.p.	1.50		
8	Bank of Brazil	s.q.	6.50		
16	Bank of Mexico	s.q.	8.25		
29	Bank of Canada	s.q.	1.75		
30	Bank of Korea	s.q.	1.75		
June					
4	Reserve Bank of Australia	-25 b.p.	1.25		
6	European Central Bank	s.q.	0.00		
13	Swiss National Bank	s.q.	-0.75		
19	Bank of Brazil	s.q.	6.50		
19	Bank of Japan	s.q.	-0.10		
	Federal Reserve	s.q.	2.50		
		•			
19	Bank of England	5.0	() /5		
19 20	Bank of England Bank of Norway	s.q. +25 h n	0.75 1.25		
19	Bank of England Bank of Norway Reserve Bank of New Zealand	s.q. +25 b.p. s.q.	1.25 1.50		

Date	Central banks	Decision	Rate
	Central banks	Decision	nuce
July 2	Reserve Bank of Australia	25 h n	1.00
3	Bank of Sweden	-25 b.p.	-0.25
10		s.q.	
	Bank of Canada*	s.q.	1.75
17	Bank of Korea	-25 b.p.	1.50
25	European Central Bank	s.q.	0.00
29	Bank of Japan	s.q.	-0.10
31	Bank of Brazil	-50 b.p.	6.00
31	Federal Reserve	-25 b.p.	2.25
August			. 75
1	Bank of England	s.q.	0.75
6	Reserve Bank of Australia	s.q.	1.00
6	Reserve Bank of New Zealand	-50 b.p.	1.00
15	Bank of Norway	s.q.	1.25
15	Bank of Mexico	-25 b.p.	8.00
29	Bank of Korea	s.q.	1.50
Septem	ber		
3	Reserve Bank of Australia	s.q.	1.00
4	Bank of Canada	s.q.	1.75
5	Bank of Sweden	s.q.	-0.25
12	European Central Bank	s.q.	0.00
18	Bank of Brazil	-50 b.p.	5.50
18	Bank of Japan	s.q.	-0.10
18	Federal Reserve	-25 b.p.	2.00
19	Bank of England	s.g.	0.75
19	Bank of Norway	+25 b.p.	1.50
19	Swiss National Bank	s.q.	-0.75
24	Reserve Bank of New Zealand	s.q.	1.00
26	Bank of Mexico	-25 b.p.	7.75
Octobe		<u> </u>	
1	Reserve Bank of Australia	-25 b.p.	0.75
15	Bank of Korea	-25 b.p.	0.73
24			
24	European Central Bank		
	Bank of Norway		
24	Bank of Sweden		
30	Bank of Brazil		
30	Bank of Canada*		
30	Bank of Japan		
30	Federal Reserve		
Noveml			
5	Reserve Bank of Australia		
7	Bank of England		
12	Reserve Bank of New Zealand		
14	Bank of Mexico		
28	Bank of Korea		
Decemb			
3	Reserve Bank of Australia		
4	Bank of Canada		
11	Bank of Brazil		
11	Federal Reserve		
12	European Central Bank		
12	Swiss National Bank		
18	Bank of Japan		
	•		
18	Bank of Japan Bank of England Bank of Norway		

Bank of Mexico