# THE YIELD CURVE

## How fast will interest rates continue to increase?

### HIGHLIGHTS

- 2016 may be the year when the prolonged downward trend in bond yields will have finally come to an end.
- Even though the rise in bond yields has been especially marked since Donald Trump's victory at the beginning of November, the trend started around the end of summer.
- The Federal Reserve (Fed) increased its key rates by 0.25% for a second time at its December 14 meeting. The Fed should carry out two more increases in 2017. The appreciation of the U.S. dollar and the rise in longer-term interest rates should prevent the Fed from tightening its policy even more.
- Even though the economic conditions are improving, uncertainty remains high in Canada and headwinds keep blowing strong. Under these conditions the Bank of Canada should maintain its key rate status quo until the fall of 2018.
- Following the sharp adjustment U.S. bond yields underwent in the fall, we expect a more gradual progression. They could remain close to current levels in the first half of 2017, before increasing somewhat in the second half.

The year 2016 will have been significant in many respects. In the political field, Britain's vote in favour of Brexit and the election of Donald Trump in the United States represent major surprises that few people would have dared predict one year ago. The markets' calm and even positive reaction in view of these events was just as surprising. Moreover, few people would have imagined that, after capitulating in 2014, the Organisation of the Petroleum Exporting Countries (OPEC) would be able to come to an agreement in 2016 to significantly limit the worldwide production of crude oil, and even convince several other countries to join that agreement.

For the bond market, 2016 may be the year when the prolonged downward trend in bond yields will have finally come to an end. It has to be said, however, that this is not the first time we make this prediction. One year ago, we were betting on a gradual rise in bond yields in 2016, when everything pointed to the Federal Reserve (Fed) continuing its monetary tightening. Our targets at the time for the 10-year yields in Canada (1.95%) and the United States (2.75 %) ended up being fairly close to reality, but the evolution of the bond market was, as is often the case, much bumpier than anticipated (graph 1 on page 2).

Note that 2016 started very favourably for the bond market, when a surge in concern prompted the Fed to pause its monetary tightening, and led several other central banks to further relax their monetary policies. Later, the surprise Brexit vote brought many bond yields to historic lows while, once again, some central banks were increasing their stimulus measures, and an increase in U.S. key rates seemed put off indefinitely.

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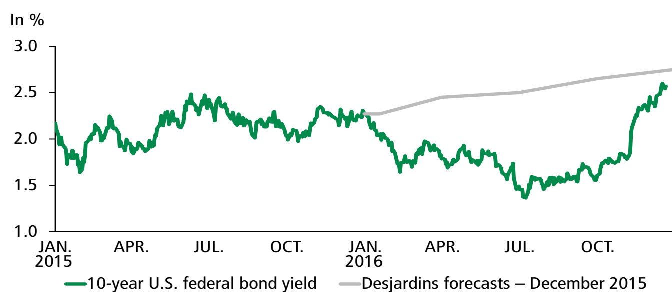
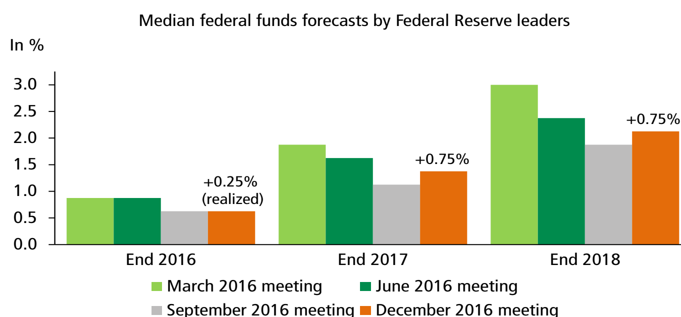
**GRAPH 1**
**The year 2016 was very volatile for the bond market**




Sources: Datastream and Desjardins, Economic Studies

**GRAPH 2**
**On this rare occasion, Federal Reserve leaders announce more rate increases**




Sources: Federal Reserve and Desjardins, Economic Studies

## A change in trend that started before the U.S. election

Even though the rise in bond yields has been especially marked since Donald Trump's victory at the beginning of November, the trend started around the end of summer. In our September issue, we pointed out a significant change of tone on the part of several central banks, which seemed to have a less positive view of very low and even negative bond yields. In practice, this meant a new monetary policy framework in Japan, specifically designed to limit the drop in long-term bond yields, and a clear signal from the Fed that it was about to start increasing its key rates once again. With the depressing effect of low oil prices on inflation starting to fade, and several economies showing more encouraging signs, it was entirely appropriate to see bond yields start to rise again towards slightly more normal levels.

In that context, the only obstacle to an increase in U.S. key rates in December seemed to be a surge in concern on the markets following the presidential election. In the end, the surprise election of Donald Trump was welcomed very favourably by voters, who focused on the fact that the president-elect's promises could translate into higher growth and inflation. The promises of deregulation also seem to have been very well received by business.

## Is Fed confidence in the U.S. economy solid?

To nobody's surprise, the Fed increased its key rates by 0.25% for a second time at its December 14 meeting. The fact that the Fed leaders' median forecast now points to an additional increase of 0.75% in 2017, rather than 0.50% as was the case in September, has caused a reaction on the part of investors and prompted a new rise in bond yields and the U.S. dollar. We are more used to seeing the Fed leaders revise downwards their forecasts regarding key rate levels (graph 2). At a press conference, Fed Chair Janet Yellen tried to minimize the importance of this change in forecast, but had some positive comments nevertheless, in particular when she affirmed that the rate hike represented a vote of confidence for the U.S. economy.

The experience of 2016 nevertheless demonstrated that the Fed leaders' confidence can be fragile. Bear in mind that four increases of 0.25% were called for in 2016 at this same time last year, and that, despite an acceptable economic performance, in particular with respect to the job market, the Fed ended up delivering only one of those increases. While the uncertainty will remain high in the coming year, it is likely that some event or other will prompt Fed leaders to delay their rate increases somewhat. In an environment where the other central banks are going to maintain very stimulating monetary policies, the increase in U.S. key rates may amplify the rise of the U.S. dollar and therefore weaken the outlook regarding growth and inflation.

For the time being, we thus continue to bet on two U.S. key rate increases of 0.25% each in 2017, probably at the June and December meetings. The absence of an increase in March, especially if it is paired with slightly less favourable economic data and a waning enthusiasm for the election of Donald Trump, could lead to some consolidation in the North American bond yields in the first part of the year. After that, a gradual increase could bring the U.S. 10-year yield to around 2.80%. The main risk against this gradual increase scenario is that the recent wave of optimism could carry over into the first part of 2017, leading the Fed to continue its tightening as early as the month of March.

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# Federal Reserve (Fed)

## Will Janet Yellen really seek to speed things up?

**FORECASTS**
While growth will probably accelerate over the coming year, the Fed should carry out two key rate increases in 2017. The appreciation of the U.S. dollar and the rise in longer-term interest rates should however prevent the Fed from tightening its policy even more.

It will have taken one year for the Fed to announce its second key rate increase of the current cycle. Over the last 12 months, several factors have prompted Janet Yellen and her colleagues to constantly delay such a move. There was the weakness of the U.S. economy in the first six months, the concerns relating to worldwide economic health, the British referendum on Brexit, and the uncertainty during the electoral campaign. The strength of the financial markets since the election of Donald Trump and the recent improvement in various economic indicators finally gave the Fed the opportunity to walk through the door that had been opened during the previous two meetings.

Should we believe that the Fed is now going to speed things up? On the one hand, its leaders' forecasts set the median key rate at 1.375% (mid-point of the target range) by the end of 2017. This means three 0.25% increases during the year. On the other hand, the economic forecasts made by these same leaders do not show a significant acceleration in growth. They are projecting a real GDP annual change of 1.9% for the last quarter of 2016, and of 2.1% for the same quarter of 2017. The Fed scenarios seem to disregard the potential impact of the budget and tax policies that could be implemented by the Trump administration.

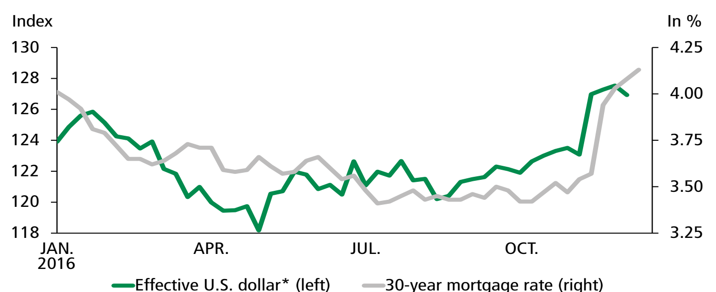
What factors would prompt the Fed to speed up its rate normalization cycle? The first one could be the low unemployment rate. The rate was at 4.6 % in November, its lowest level since August 2007 (graph 3). It is also below the long-term forecast of 4.8% made by the Fed, which means that the job market is about to put additional pressure on inflation. The Fed is in fact anticipating a modest increase in inflation next year. The annual change in the consumer price deflator would move from 1.5% in the last quarter of 2016 to 1.9% for the last quarter of 2017. Not a major difference, but inflation will be getting close to the Fed's objective of 2%.

The prospects of faster key rate increases over the coming year could however have a negative impact on the U.S. economy. Our economic scenarios, which bet on a positive input in the short term from the measures promised by Donald Trump during the electoral campaign, do take this counterweight into account. In such an environment, the Fed may want to limit the risks caused by an appreciation of the greenback and the increase in bond yields and mortgage rates (graph 4). So, as has often happened over the last few years, the Fed leaders may have to lower their expectations regarding the evolution of key rates.

**GRAPH 3**
**The U.S. jobless rate keeps dropping**

Sources: Bureau of Labor Statistics and Desjardins, Economic Studies

**GRAPH 4**
**Two factors may affect U.S. growth: the appreciation of the dollar and the rise in interest rates**




* Broad measure of the Federal Reserve.
Sources: Federal Reserve Board, Datastream and Desjardins, Economic Studies

# Bank of Canada (BoC)

## The level of uncertainty remains high: the status quo will last until 2018

**FORECASTS**

Even though the economic conditions are improving, uncertainty remains high in Canada and headwinds keep blowing strong. Under these conditions the monetary authorities should maintain the key rate status quo until the fall of 2018.

As expected, the Canadian economy bounced back in the third quarter, with a 3.5% gain (annualized quarterly rate), after registering a drop of 1.3% in the spring. In addition, the third quarter of 2016 ended on a positive note, with a 0.3% rise in real GDP by industry in September. Thus, the carryover for the fourth quarter is rather high, so a growth of slightly under 3% is projected for the period.

This means that real GDP could grow by 1.4% in 2016, rather than the 1.2% originally expected. For the coming year, growth should accelerate to reach 1.9%. A gain of about 2.0% is also expected for 2018.

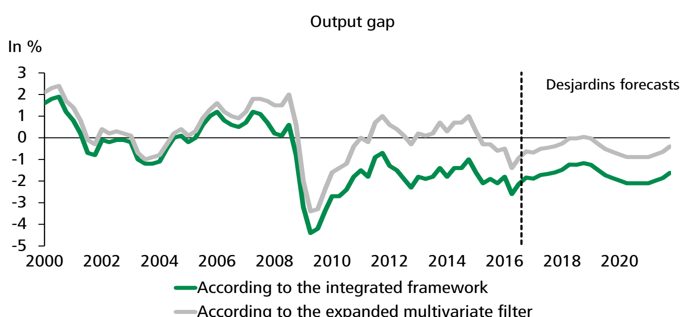
This being said, the picture remains clouded by a very high level of uncertainty. First of all, the benefits of the federal stimulus plan remain ambiguous, while the positive impact is not yet felt on real GDP. Second, non-residential investments continue to experience difficulties. Third, residential investments are showing signs of running out of steam after several quarters of high growth. It should be mentioned that the federal government introduced in the fall a new set of measures to tighten insured mortgage credit, and that the government of British Columbia put forward last summer measures to impose tighter controls on purchases by foreign nationals in the Vancouver area. Fourth, the uncertainties around the free trade agreement between Canada, the United States and Mexico will come on top of the business sector's existing concerns. Lastly, the weakness of non-energy exports is a concern, with U.S. demand on the rise and a relatively weak loonie.

Despite the rebounding Canadian economy in the second quarter of 2016, the output gap remains negative. Our forecasts indicate that the gap could well take several years to disappear completely (graph 5). This will limit the evolution of inflationary pressures, giving some leeway to the monetary authorities.

The overall annual inflation rate reached 1.5% last October. According to our projections, it should move towards the median target of 2% in 2017, due primarily to the gradual recovery in gas prices. That being said, core inflation has been very stable for the last several months, indicating that inflationist pressures are contained.

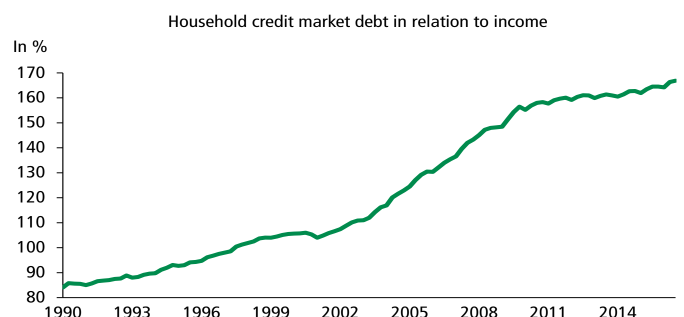
Standing at 166.86% in the third quarter of 2016, the debt ratio of Canadian households remains very high (graph 6). While the federal government remains vigilant, with the introduction of restrictive measures on mortgage credit, the risks this puts on the country's financial stability remain a source of concern for the BoC.

**GRAPH 5**
**Excess production capacities will last another several years**




Sources: Statistics Canada and Desjardins, Economic Studies

**GRAPH 6**
**The household debt ratio reached a new high in the summer of 2016**




Sources: Statistics Canada and Desjardins, Economic Studies

# Overseas central bank

## The foot remains on the gas pedal

### EUROPEAN CENTRAL BANK (ECB)

The rhythm of securities purchases by the ECB will drop from €80G to €60G at the beginning of April 2017. At the same time, this represents an extension of the purchase program. The program was initially intended to end in March 2017, and it will now continue until December 2017. Two parameters framing the program have also been modified. First of all, the lower limit of maturities that can be purchased was reduced from two years to one year. From now on, it will also be possible to acquire bonds displaying a yield lower that the ECB deposit rate (currently at -0.40%). These changes will expand the pool of securities available in order to grow the ECB's balance sheet. By the end of 2017, its total assets should be in the neighbourhood of €4,500G (graph 7).

These changes make it more probable that the ECB's interventions will continue past 2017. Several analysts were expecting a gradual reduction in the purchases of securities from here to the end of 2017, but this scenario is now postponed to the following year. The ECB's basic economic scenario also projects an inflation rate of 1.7% for 2019, which would be slightly lower than its official target.

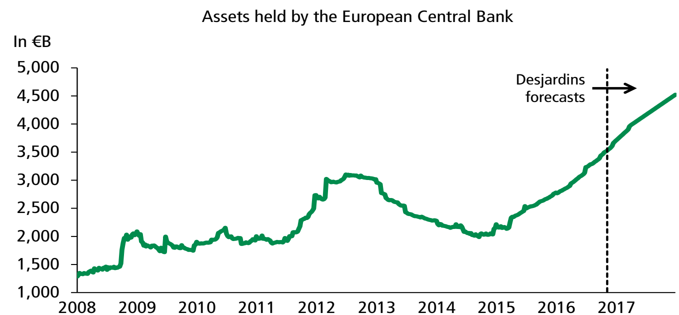
### BANK OF ENGLAND (BoE)

The BoE has not opened the door to another intervention in the short term, but it remains concerned about the risks of a slowdown in the British economy in 2017. It is still predicting an increase in inflation, but seems to indicate at the same time that it could show patience before reacting. The depreciation of the pound should play a big part in the expected rise in prices, and the effect should therefore be temporary. In the meantime, the securities purchase program continues. It will be interesting, however, to see what happens after January, once the purchase target is most probably fulfilled (graph 8). We believe that the BoE could announce a new target in the spring, when the Brexit negotiations should officially begin.

### BANK OF JAPAN (BoJ)

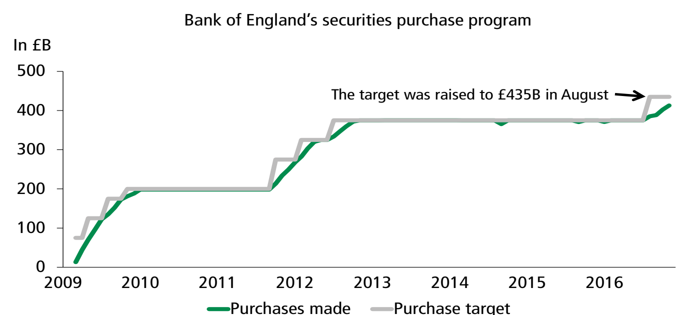
In September, the BoJ set a target of about 0% for the 10-year Japanese bond yield. Following the global trend, bond yields have increased slightly in Japan since the U.S. election. The 10-year yield is now at 0.08% (graph 9), which could encourage the BoJ to maintain a slightly faster rhythm for its securities purchases or favour longer maturities.

**GRAPH 7**
**European Central Bank's balance sheet will continue to grow in 2017**



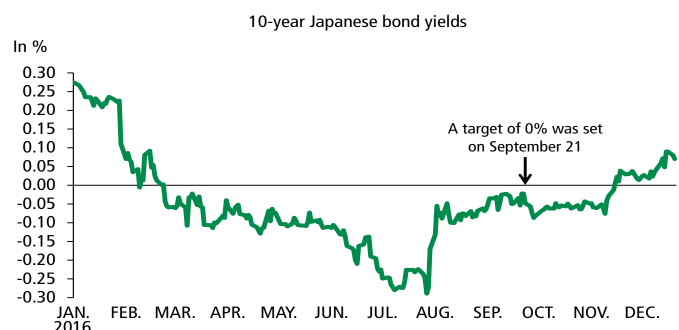

Sources: Datastream and Desjardins, Economic Studies

**GRAPH 8**
**The Bank of England will soon reach its assets purchase target**




Sources: Datastream and Desjardins, Economic Studies

**GRAPH 9**
**The Japanese 10-year yield has exceeded its target**




Sources: Datastream and Desjardins, Economic Studies

# Bond market

## Making rates rise again

**FORECASTS**

Following the sharp adjustment U.S. bond yields underwent in the fall, we expect a more gradual progression. They could remain close to current levels in the first half of 2017, before increasing somewhat in the second half, when the effect of lower taxes the U.S. government should order will start to be felt. We maintain a year-end target of 2.80% for the 10-year yield.

In Canada, yields were also up significantly, and the markets seem to downplay the idea of a monetary policy that would in no way be in tandem with the one south of the border. Yet, the Bank of Canada (BoC) seems serious on this point, and it is armed with good arguments. In the likely scenario where the BoC throws cold water on expectations of a rate hike in 2017, exposure to the short end of the bond curve would be profitable.

### U.S. FEDERAL BONDS

We had forewarned a number of times that bond markets were complacent against the risk of a sudden yield increase. The surprise election of Donald Trump has validated this observation. At the time of writing, the 10-year federal bond yield sits at 2.58%, an increase of close to 75 basis points over the pre-election level. The speed of the yield increases compares with the one registered during the 2013 taper tantrum. Let's not forget that, at the time, the 10-year yield had even gone above 3%. Very sharp rises are also noticeable in the 5-year yield (+72 points) and 30-year yield (+55 points). The 5-year yield surpassed the 2% mark for the first time since 2011.

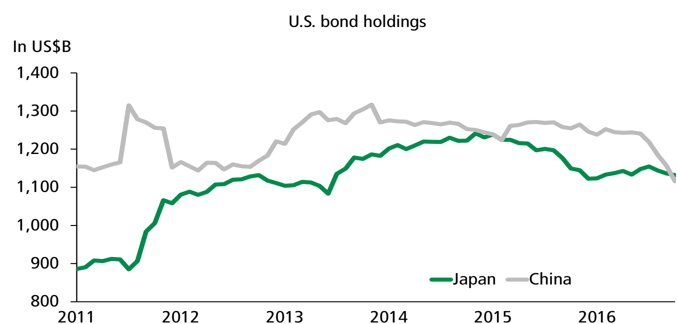
Behind the current rise in yields, there are higher inflation expectations. The 10-year inflation compensation measure, derived from inflation-indexed bonds, touched 2% on December 8. Even though it has retreated slightly since then, it sits at its highest levels since the fall of 2014, when plummeting energy prices weighed on inflation expectations. The recent rise comes in the context of a gradual increase in realized inflation, now that the dampening effect of energy prices is disappearing. The prospects of more expansionary fiscal policy in the United States, in a context of lower excess capacity, also point to a continuation of the inflation recovery in the medium term.

Beyond inflation expectations, however, what has increased the most in the 10-year yield is its real component. In fact, about three-quarters of the increase in the 10-year yield is attributable to the real component. Markets have stopped doubting the Federal Reserve (Fed), and are expecting two rate increases in 2017. This remains lower than the three increases announced by the Fed members' median forecast, but it is an improvement nevertheless. Until very recently, markets were for all intents and purposes expecting three years of status quo. In addition, in order to finance the substantial tax cuts promised by Donald Trump, the federal government will have to issue more bonds, in a context where a strong U.S. dollar is forcing China to reduce its Treasuries holdings as it attempts to stabilize its currency. The age of China systematically accumulating reserves in U.S. dollars seems to be over (graph 10), which means that a large purchaser of Treasuries in the last few years will be less present, precisely at a time where there will be more bonds available.

With respect to economic developments, the United States continues to hold its own. The official jobless rate dropped to 4.6% in November. The broad measure, which includes marginalized workers, stands at 9.3%. The spread between both measures recently dropped to its lowest level since 2008, a sign that the Fed's full employment objective is very close to being reached (graph 11 on page 7). These conditions should allow the Fed to continue lifting rates gradually in 2017.

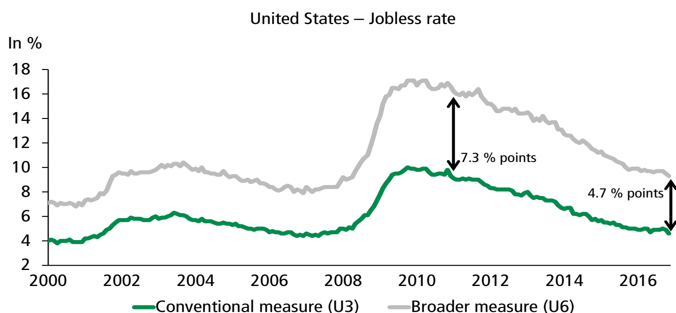
We question, however, the Fed's ability to deliver three rate increases, as indicated by the median projection of its members. In December 2014, the median indicated three increases for 2015; only one took place. In December 2015, the median projected four increases, but again, only one was announced.

**GRAPH 10**
**Chinese holdings of U.S. bonds recently fell below those of Japan**




Sources: U.S. Department of the Treasury and Desjardins, Economic Studies

**GRAPH 11**
**Spread between the broader measure and conventional measure of the jobless rate narrowed**




Sources: Bureau of Labor Statistics and Desjardins, Economic Studies

The global climate remains highly uncertain, and the significant elections that are to take place in Europe could generate volatility. In addition, stocks markets are not immune to a new-year meltdown, as happened at the beginning of 2016. Above all, near total uncertainty remains with respect to Donald Trump's economic announcements, and that in itself is conducive to volatility.

We continue to bank on two increases in the coming year. After the marked adjustment in bond yields that took place in the fall, we are anticipating a more gradual movement. Yields could remain close to current levels for the first half of the year, before rising somewhat in the second half, when the impact of the tax cuts that should be implemented by the government will begin to be felt. We are keeping our year-end target for the 10-year yield at 2.80%.

## CANADIAN FEDERAL BONDS

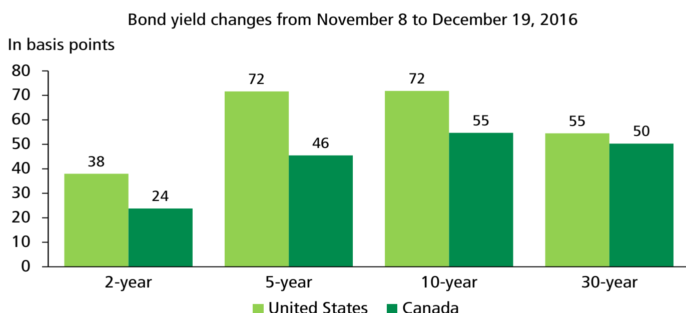
Canadian bonds have not been impervious to the Trump effect. Yields have also risen sharply on this side of the border (graph 12), weighing heavily on bond values. As an example, the 10-year yield rose from 1.27% prior to the election to around 1.85%, only 12 points below the increase experienced in the United States. For the 30-year bond, the increase has essentially been the same on both sides, a little over 50 basis points in the case of Canada, for a level of 2.42%. The 5-year yield rose significantly less than in the United States, but is nevertheless 46 basis points higher than it was on November 8, at 1.21%.

The reaction of the Canadian bond markets shows that, for the time being, investors are somewhat neglecting the fundamentals specific to the Canadian economy. The rise in U.S. yields is explained for the most part by increased expectations of inflation and a renewed optimism regarding growth, based on the expansionary policies the Trump administration promises to implement. For Canada, on the other hand, the election of Donald Trump only adds to pre-existing uncertainties. His protectionist intentions are a threat to an already weakened economy, with trade representing close to two-thirds of the GDP. Donald Trump plans to start renegotiating the North American Free Trade Agreement (NAFTA) as soon as he takes office. During the campaign, in addition to spewing invective on Mexico and China, he deplored the fact that the United States were "big-league losers" to Canada in terms of trade.

It seems therefore curious for the Canadian markets to replicate the U.S. trends so faithfully. Bankers' acceptance futures contracts (BAX) are positioned for a rate increase by the BoC within a year or so (graph 13), which tends to minimize the theory of economic and monetary divergence postulated by Stephen Poloz and his colleagues over the last few months.

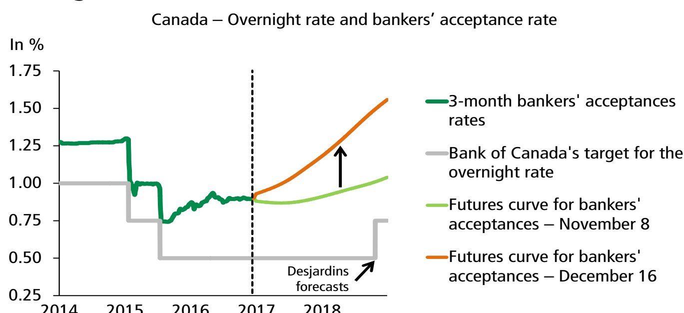
In the meantime, mortgage rates are moving back up, in addition to the tightening of mortgage insurance eligibility rules that was announced in the fall. The Canadian dollar has not depreciated following the election, contrary to what happened to our Mexican competitor. This will do nothing to help the competitiveness of Canadian exporters. In the end, everything points to the BoC looking unfavourably at too quick of a tightening of Canadian monetary conditions. We are counting on a rate increase only towards the end of 2018, and the BoC

**GRAPH 12**
**Canadian yields also rose significantly**




Sources: Bloomberg and Desjardins, Economic Studies

**GRAPH 13**
**Since Donald Trump's election, markets anticipated faster firming in Canada**




Sources: Bloomberg and Desjardins, Economic Studies

will at least want to reinforce the idea that it is not as eager to announce a rate hike as the markets are expecting. Keep in mind that it was debating the opposite option barely two months ago.

We recommend that investors get exposure to the front end of the Canadian curve, as the BoC may want to limit the tightening of monetary conditions until its next meeting. Regarding the slope, there are opportunities to capitalize on a potential dovish shift in the BoC's bias. The spread between 10-year and 2-year yields could increase further in particular. Betting on a flattening of the BAX curve also seems an attractive option at present.

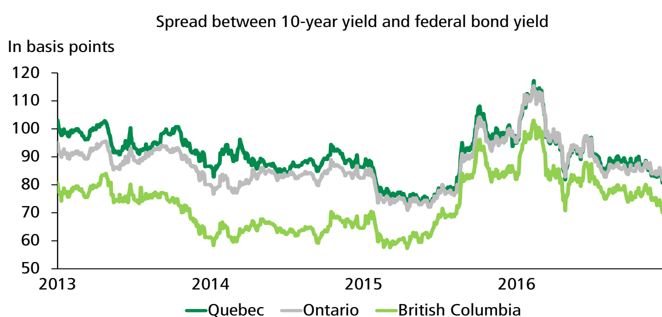
## PROVINCIAL AND CORPORATE BONDS

Provincial governments' borrowing costs have jumped along with the sharp rise in bond yields. The 10-year benchmark yield for Ontario is currently above 2.60%, whereas it had dropped below 2% this summer. The Quebec 10-year bond yield is slightly higher, at 2.66%. Taking a broader perspective, these levels remain incredibly low. For instance, prior to the crisis, the Quebec 10-year bond was yielding closer to 4%. The appetite for risk following the election of Donald Trump has nevertheless tended to reduce credit spreads somewhat, and provincial bonds have not escaped the trend. The spreads between provincial and Canadian bond yields are close to their lows for the last six quarters (graph 14). This includes Alberta, where the borrowing cost premium over Ontario has maintained a downward trend since the summer.

Helping the cause of the spreads in Alberta is the fact that oil prices are firming up. The agreement signed by the members of the Organisation of the Petroleum Exporting Countries (OPEC) has helped push the barrel price of WTI (West Texas Intermediate) oil above US$50. The price of WCS (Western Canada Select) sits at US$35. This remains well below breakeven levels, but it is better than the US$16 of the beginning of the year. The federal government's decision to give the go-ahead to the Northern Gateway pipeline capacity increase should give somewhat of a boost to an energy sector that is in dire need of one. The same goes for the election of Donald Trump. He has stated his support for the construction of the Keystone XL pipeline, and has just named as Secretary of State the former boss of Exxon Mobil, which has interests in Alberta. Ultimately, the upward movement in the oil price still has ways to go before Albertan oil producers become profitable again (graph 15), but the worst can be said to be over for the Alberta energy sector. This could contribute to maintaining a slight downward trend in the province's borrowing cost spread.

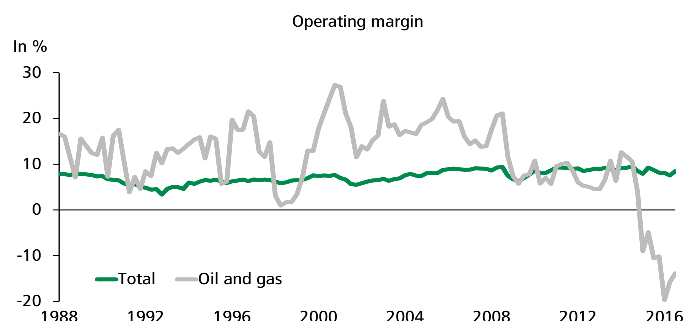
Regarding corporate bonds, spreads continue to tighten. For junk bonds, spreads are back close to their lows of the spring of 2015, a situation that heralds a clear rise in the appetite for risk following the election of Donald Trump. This mirrors the U.S. equity indices, which have all entered record territory recently. Even with the reduced spreads, corporate borrowing costs are more expensive in absolute terms. In theory, this should slow down investments, but it is well known that low rates have mostly encouraged share buybacks over the last few years. Lower activity in this area is among the downside risks for stock markets.

**GRAPH 14**
**Provincial spreads are compressing**




Sources: Desjardins, Capital Markets and Desjardins, Economic Studies

**GRAPH 15**
**Canadian energy sector still far from profitable**




Sources: Statistics Canada and Desjardins, Economic Studies

## TABLE 1
### Key interest rates

| END OF PERIOD IN % | 2016 Q1 | 2016 Q2 | 2016 Q3 | 2016 Q4f | 2017 Q1f | 2017 Q2f | 2017 Q3f | 2017 Q4f | 2018 Q1f | 2018 Q2f | 2018 Q3f | 2018 Q4f |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **United States** | | | | | | | | | | | | |
| Federal funds | 0.50 | 0.50 | 0.50 | 0.75 | 0.75 | 1.00 | 1.00 | 1.25 | 1.25 | 1.50 | 1.75 | 2.00 |
| **Canada** | | | | | | | | | | | | |
| Overnight funds | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.75 |
| **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 | 0.05 |
| **United Kingdom** | | | | | | | | | | | | |
| Base rate | 0.50 | 0.50 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 |
| **Japan** | | | | | | | | | | | | |
| Main key rate | -0.10 | -0.10 | -0.10 | -0.10 | -0.10 | -0.10 | -0.10 | -0.10 | -0.10 | -0.10 | -0.10 | -0.10 |

f: forecasts
Sources: Datastream and Desjardins, Economic Studies

## TABLE 2
### Schedule and key rates

| Date | Central banks | Decision | Rate |
|---|---|---|---|
| **September** | | | |
| 29 | Bank of Mexico | +50 b.p. | 4.75 |
| **October** | | | |
| 3 | Reserve Bank of Australia | s.q. | 1.50 |
| 12 | Bank of Korea | s.q. | 1.25 |
| 19 | Bank of Brazil | -25 b.p. | 14.00 |
| 19 | Bank of Canada | s.q. | 0.50 |
| 20 | European Central Bank | s.q. | 0.00 |
| 27 | Bank of Norway | s.q. | 0.50 |
| 27 | Bank of Sweden | s.q. | -0.50 |
| 31 | Reserve Bank of Australia | s.q. | 1.50 |
| 31 | Bank of Japan | s.q. | -0.10 |
| **November** | | | |
| 2 | Federal Reserve | s.q. | 0.50 |
| 3 | Bank of England | s.q. | 0.25 |
| 9 | Reserve Bank of New Zealand | -25 b.p. | 1.75 |
| 10 | Bank of Korea | s.q. | 1.25 |
| 17 | Bank of Mexico | +50 b.p. | 5.25 |
| 30 | Bank of Brazil | -25 b.p. | 13.75 |
| **December** | | | |
| 5 | Reserve Bank of Australia | s.q. | 1.50 |
| 7 | Bank of Canada | s.q. | 0.50 |
| 8 | European Central Bank | s.q. | 0.00 |
| 14 | Bank of Korea | s.q. | 1.25 |
| 14 | Federal Reserve | +25 b.p. | 0.75 |
| 15 | Bank of England | s.q. | 0.25 |
| 15 | Bank of Norway | s.q. | 0.50 |
| 15 | Bank of Mexico | +50 b.p. | 5.75 |
| 15 | Swiss National Bank | s.q. | -0.75 |
| 19 | Bank of Japan | s.q. | -0.10 |
| 21 | Bank of Sweden | s.q. | -0.50 |

s.q.: statu quo; b.p. : basis points
Source: Desjardins, Economic Studies

## TABLE 3
### Next meetings

| Date | Central banks |
|---|---|
| **January** | |
| 10-11 | Bank of Brazil |
| 12 | Bank of Korea |
| 18 | Bank of Canada |
| 19 | European Central Bank |
| 30-31 | Bank of Japan |
| 31-1 | Federal Reserve |
| **February** | |
| 2 | Bank of England |
| 7 | Reserve Bank of Australia |
| 8 | Reserve Bank of New Zealand |
| 9 | Bank of Mexico |
| 14 | Bank of Sweden |
| 21-22 | Bank of Brazil |
| 22 | Bank of Korea |
| **March** | |
| 1 | Bank of Canada |
| 7 | Reserve Bank of Australia |
| 9 | European Central Bank |
| 14-15 | Federal Reserve |
| 15-16 | Bank of Japan |
| 16 | Bank of England |
| 16 | Bank of Norway |
| 16 | Swiss National Bank |
| 22 | Reserve Bank of New Zealand |
| 30 | Bank of Mexico |
| **April** | |
| 4 | Reserve Bank of Australia |
| 11-12 | Bank of Brazil |
| 12 | Bank of Korea |
| 12 | Bank of Canada |
| 26 | Bank of Sweden |

Source: Desjardins, Economic Studies

**TABLE 4**
## United States: Fixed income market

| END OF PERIOD IN % | 2016 | | | | 2017 | | | | 2018 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4f | Q1f | Q2f | Q3f | Q4f | Q1f | Q2f | Q3f | Q4f |
| **Key interest rate** | | | | | | | | | | | | |
| Federal funds | 0.50 | 0.50 | 0.50 | 0.75 | 0.75 | 1.00 | 1.00 | 1.25 | 1.25 | 1.50 | 1.75 | 2.00 |
| **Treasury bills** | | | | | | | | | | | | |
| 3-month | 0.21 | 0.26 | 0.29 | 0.50 | 0.60 | 0.80 | 0.85 | 1.05 | 1.10 | 1.35 | 1.60 | 1.85 |
| **Federal bonds** | | | | | | | | | | | | |
| 2-year | 0.75 | 0.58 | 0.76 | 1.25 | 1.20 | 1.40 | 1.45 | 1.60 | 1.60 | 1.90 | 2.15 | 2.30 |
| 5-year | 1.21 | 1.00 | 1.15 | 2.05 | 1.95 | 2.05 | 2.15 | 2.30 | 2.30 | 2.55 | 2.85 | 2.90 |
| 10-year | 1.78 | 1.49 | 1.61 | 2.55 | 2.50 | 2.55 | 2.65 | 2.80 | 2.75 | 2.95 | 3.25 | 3.25 |
| 30-year | 2.62 | 2.31 | 2.33 | 3.15 | 3.10 | 3.20 | 3.25 | 3.35 | 3.30 | 3.40 | 3.55 | 3.55 |
| **Yield curve slopes** | | | | | | | | | | | | |
| 5-year - 3-month | 1.00 | 0.74 | 0.86 | 1.55 | 1.35 | 1.25 | 1.30 | 1.25 | 1.20 | 1.20 | 1.25 | 1.05 |
| 10-year - 2-year | 1.03 | 0.91 | 0.85 | 1.30 | 1.30 | 1.15 | 1.20 | 1.20 | 1.15 | 1.05 | 1.10 | 0.95 |
| 30-year - 3-month | 2.41 | 2.05 | 2.04 | 2.65 | 2.50 | 2.40 | 2.40 | 2.30 | 2.20 | 2.05 | 1.95 | 1.70 |

f: forecasts
Sources: Datastream and Desjardins, Economic Studies

**TABLE 5**
## Canada: Fixed income market

| END OF PERIOD IN % | 2016 | | | | 2017 | | | | 2018 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4f | Q1f | Q2f | Q3f | Q4f | Q1f | Q2f | Q3f | Q4f |
| **Key interest rate** | | | | | | | | | | | | |
| Overnight funds | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.75 |
| **Treasury bills** | | | | | | | | | | | | |
| 3-month | 0.44 | 0.49 | 0.53 | 0.50 | 0.50 | 0.55 | 0.55 | 0.55 | 0.55 | 0.60 | 0.65 | 0.85 |
| **Federal bonds** | | | | | | | | | | | | |
| 2-year | 0.54 | 0.52 | 0.52 | 0.80 | 0.70 | 0.75 | 0.80 | 0.85 | 0.85 | 1.10 | 1.25 | 1.40 |
| 5-year | 0.67 | 0.57 | 0.62 | 1.20 | 1.10 | 1.20 | 1.30 | 1.40 | 1.40 | 1.65 | 1.90 | 2.00 |
| 10-year | 1.23 | 1.06 | 1.00 | 1.80 | 1.70 | 1.75 | 1.85 | 1.95 | 1.90 | 2.10 | 2.35 | 2.40 |
| 30-year | 2.00 | 1.71 | 1.66 | 2.40 | 2.35 | 2.40 | 2.45 | 2.55 | 2.50 | 2.55 | 2.65 | 2.70 |
| **Yield curve slopes** | | | | | | | | | | | | |
| 5-year - 3-month | 0.23 | 0.08 | 0.09 | 0.70 | 0.60 | 0.65 | 0.75 | 0.85 | 0.85 | 1.05 | 1.25 | 1.15 |
| 10-year - 2-year | 0.69 | 0.54 | 0.47 | 1.00 | 1.00 | 1.00 | 1.05 | 1.10 | 1.05 | 1.00 | 1.10 | 1.00 |
| 30-year - 3-month | 1.56 | 1.22 | 1.13 | 1.90 | 1.85 | 1.85 | 1.90 | 2.00 | 1.95 | 1.95 | 2.00 | 1.85 |
| **Yield spreads** (Canada—United States) | | | | | | | | | | | | |
| 3-month | 0.23 | 0.23 | 0.24 | 0.00 | -0.10 | -0.25 | -0.30 | -0.50 | -0.55 | -0.75 | -0.95 | -1.00 |
| 2-year | -0.22 | -0.06 | -0.24 | -0.45 | -0.50 | -0.65 | -0.65 | -0.75 | -0.75 | -0.80 | -0.90 | -0.90 |
| 5-year | -0.54 | -0.43 | -0.53 | -0.85 | -0.85 | -0.85 | -0.85 | -0.90 | -0.90 | -0.90 | -0.95 | -0.90 |
| 10-year | -0.56 | -0.43 | -0.61 | -0.75 | -0.80 | -0.80 | -0.80 | -0.85 | -0.85 | -0.85 | -0.90 | -0.85 |
| 30-year | -0.62 | -0.59 | -0.67 | -0.75 | -0.75 | -0.80 | -0.80 | -0.80 | -0.80 | -0.85 | -0.90 | -0.85 |

f: forecasts
Sources: Datastream and Desjardins, Economic Studies