The Yield Curve

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The euro's plunge is complicating things for many central banks

HIGHLIGHTS

- The Federal Reserve (Fed) finally adopted a middle-of-the-road approach at its March 18 meeting. On one hand, it removed the word "patience" from its statement. On the other hand, the Fed officials revised their forecasts about future key interest rate trends downwards, and the median is now suggesting just two 25-point hikes in 2015.
- The fragility of the economy, the strength of the dollar and the weakness of inflation suggest that no increase of U.S. key rates will take place before September, and that the first few hikes will quickly be followed by a pause.
- After lowering its target for the overnight rate by 25 basis points in January, the Bank of Canada opted for the status quo at its March meeting. The overnight rate target should stay at 0.75% up until 2016. However, the possibility of another rate cut in the months ahead cannot be ruled out.
- The European Central Bank (ECB) started its sovereign bond purchases as planned in March. The ECB's actions have encouraged other central banks to ease their monetary policy. It was the case for the Swiss National Bank, the Riksbank and the Bank of Denmark.

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Editorial

After a relatively calm February, volatility returned to the financial markets with a vengeance in March. The U.S. 10-year bond yield jumped to around 2.25% on March 6, after the release of positive employment data in the United States. At that point, these data and some comments by Federal Reserve (Fed) officials seemed to put the possibility of a hike in U.S. key interest rates as early as June back on the table. In addition to rising bond yields, this perception that the Fed might soon start its monetary tightening triggered a slump in stock market indexes and a new surge in the U.S. dollar, especially against the euro and emerging country currencies.

These trends of early March proved short-lived. The release of several disappointing economic statistics in the United States quickly revived doubts about the advisability of monetary tightening, especially in light of the very strong dollar. The Fed finally adopted a middle-of-the-road approach at its March 18 meeting. On one hand, it removed the word "patience" from its statement, signalling that it would really start to examine the possibility of raising its key interest rates at the June 16-17 meeting. On the other hand, it noted the slowdown of the U.S. economy, and the Fed officials revised their forecasts of economic growth, inflation and—most importantly, the appropriate levels of key interest rates—significantly downwards (graph 1 on page 2).

The latter point is what grabbed the markets' attention. Last December, the Fed officials' median forecast hinted that the federal fund target rate would rise by 1% between now and the end of 2015, and by nearly 2.50% between now and the end of 2016. The median forecast is now calling for an increase of just 0.50% by the end of this year, and of 1.75% by the end of 2016. These outlooks of a far more gradual rise in interest rates drove the 10-year bond yield back down to around 1.90%, and the U.S. dollar fell back against most other currencies.

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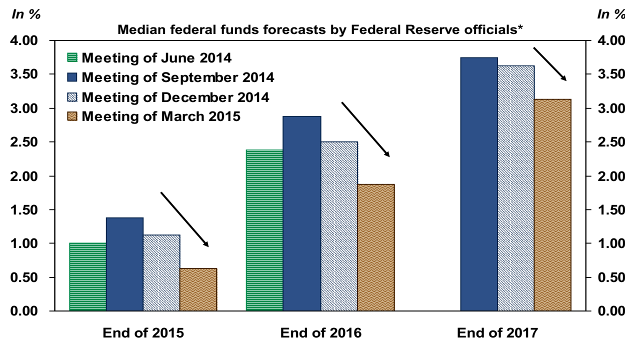
Graph 1 – Federal Reserve officials predict slower monetary tightening



* Adjusted to be on a comparable basis.
Sources: Federal Reserve and Desjardins, Economic Studies

THE FED'S CAUTIOUS APPROACH APPEARS JUSTIFIED

We can understand the Fed adopting a message designed to reassure investors. After a slowdown at the end of 2014, indications are that U.S. economic growth will be limited in the first quarter of 2015, largely due to weather effects. Under these conditions, and with the inflation rate hovering slightly below zero, it did not seem necessary to adopt a hawkish stance that would have amplified the market trends that were observed at the beginning of March.

First and foremost, the Fed probably wanted to avoid exacerbating the upwards pressure on the U.S. dollar. Prior to the Fed meeting, the DXY index (which measures the value of the greenback against six major currencies) had climbed above 100 for the first time since 2003, and was posting a spectacular surge of over 25% since mid-2014. Usually, the Fed focuses its full attention on the U.S. economy and has little to say about international developments. This is due to the massive size of the U.S. economy, which makes that country's growth far less dependent on foreign demand. However, in its latest press release it notes that U.S. exports have been flagging.

One could assume that the Fed officials were not overly concerned by the appreciation of the dollar while it mainly reflected the outperformance by the U.S. economy. The recent surge is more worrisome because it is taking place at a time when the U.S. economic statistics have generally been disappointing, and seems instead to reflect the quantitative policies of the European Central Bank (ECB).

THE EURO'S WEAKNESS IS AFFECTING ITS NEIGHBOURS EVEN MORE

While the consequences of the ECB's very aggressive monetary policy appear to be making the Fed hesitate, they are having a direct impact on the other European central banks. The Swiss National Bank, which was forced to abandon its minimum exchange rate between the Swiss franc and the euro in January, is still struggling to avoid further appreciation of the franc. Negative key interest rates have become almost inevitable for the small European countries that have their own currencies. Despite an enviable economic performance in the United Kingdom, the Bank of England is obliged to put aside any possibility of monetary tightening for the time being, given the strength of the pound sterling against the euro.

TOO MUCH CAUTION ALSO ENTAILS SOME RISK

While the Fed's hesitation about starting monetary tightening currently appears justified, that does not mean that its strategy is without risk. For one thing, it will only encourage some investors to believe that key interest rates will stay extremely low forever. In fact, futures contracts adjusted quickly after the March 18 meeting, and they are now suggesting just four rate hikes between now and the end of 2016. Such a perception could again encourage investors to take risks and chase yield, magnifying the probability of a financial bubble. The risk of a very negative market reaction when the day comes for the Fed to really start tightening its monetary policy is thus still very real. We also wonder whether it is advisable to foster the perception that the Fed will allow itself to be influenced by movements in the financial markets.

THE LOW INTEREST RATE ENVIRONMENT WILL LAST A WHILE LONGER

While this strategy entails some risk in the medium term, it should enable the Fed to gain some time and to maintain very expansionist financial conditions in the months to come. If the U.S. economy quickly gets back on its feet, as we believe it will, we still think the Fed will start raising its key interest rates next September. However, given its message of very gradual hikes, it might take a break after just two rate hikes. This prospect of more gradual interest rate hikes in the United States leads us to revise our forecasts of North American bond yields down slightly.

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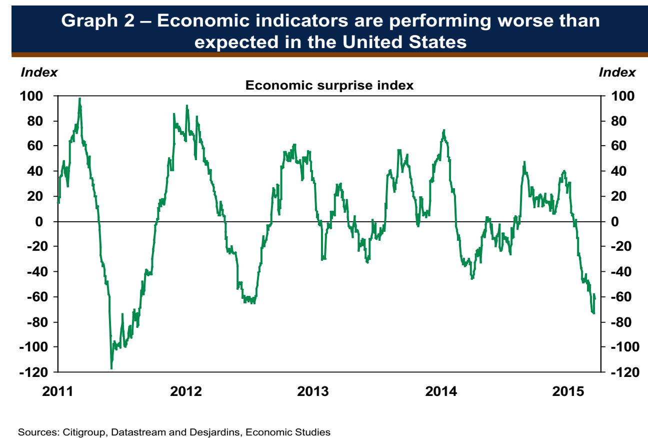
FEDERAL RESERVE

Less patient, but also less optimistic

- Job creation is still on track in the United States, with 295,000 hires in February and another drop in the jobless rate. However, many other indicators are revealing less positive economic conditions. The decline in the economic surprise index, which establishes a link between released statistics and expectations, clearly shows that forecasts have been missed (graph 2). Many factors may account for this weakness, and, fortunately, most of these are temporary. The things that first spring to mind are the harsh winter conditions in many areas, and the labour dispute that existed in the West Coast ports of the United States between December and February.
- It was in this context of satisfaction with the improving job market and disappointment with respect to other important indicators that the members of the Federal Reserve's (Fed) monetary policy committee met in the middle of March. In light of the strong job numbers and after various speeches by the officials, it was expected that the Fed would remove the word "patience" from its press release. That has been done. However, the Fed stated, in releasing its forecasts, that it was not ready to start raising key interest rates in the near term. For one thing, the economic forecasts have generally been revised downwards. The economic growth expected for 2015 (annual change in real GDP in the fourth quarter) has been chopped by 0.3 percent, to within a range between 2.3% and 2.7%. This is below our own forecasts (graph 3). At the same time, forecasts for 2016 and 2017 have also been lowered, as have inflation expectations. Meanwhile, Fed officials revised their forecasts about future key interest rate trends downwards, and the median is suggesting just two 25-point hikes in 2015.
- It would therefore be surprising if the Fed were to rush into rate hikes. We should also expect the rate hikes to be very gradual and interrupted with pauses. As its Vice Chairman, Stanley Fisher, recently said: "A smooth path upward in the federal funds rate will almost certainly not be realized, because, inevitably, the economy will encounter shocks." The fragility of the economy, the strength of the dollar and the weakness of inflation (graph 4) suggest that no increase will take place before September, and that the first few hikes will quickly be followed by a pause.

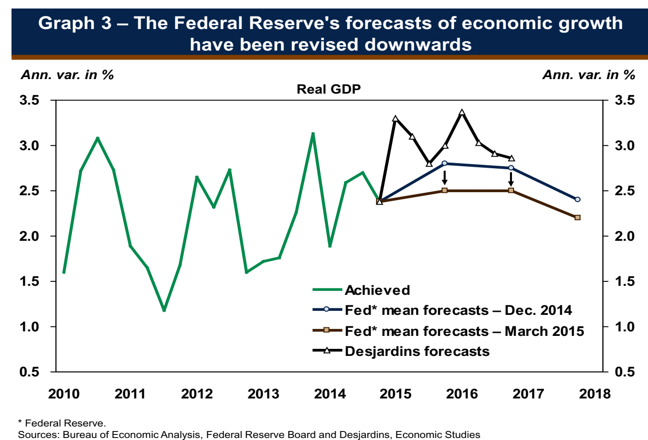
Forecasts: The Fed will likely begin raising key interest rates in September 2015. The top of the target range for the federal fund target rate should stand at 0.75% by the end of this year, and at 1.50% by the end of 2016.

Graph 2 – Economic indicators are performing worse than expected in the United States



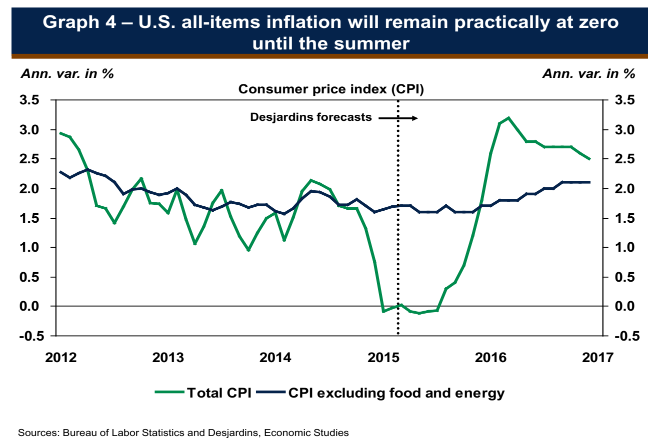
Sources: Citigroup, Datastream and Desjardins, Economic Studies

Graph 3 – The Federal Reserve's forecasts of economic growth have been revised downwards



* Federal Reserve.
Sources: Bureau of Economic Analysis, Federal Reserve Board and Desjardins, Economic Studies

Graph 4 – U.S. all-items inflation will remain practically at zero until the summer



Sources: Bureau of Labor Statistics and Desjardins, Economic Studies

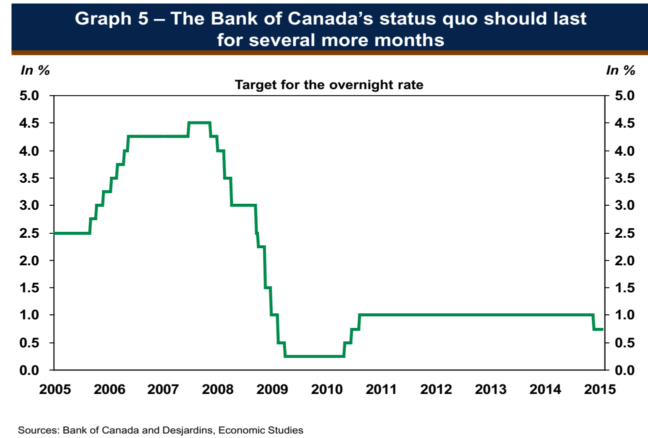
BANK OF CANADA

Another rate cut cannot be ruled out

- After lowering its target for the overnight rate by 25 basis points in January, the Bank of Canada (BoC) opted for the status quo at its March meeting (graph 5). This return to the status quo tells us that the BoC is quite confident that the current monetary conditions will be sufficiently accommodative to enable the Canadian economy to get through the difficulties that lie ahead. Keep in mind that said monetary conditions are a combination of a depreciating Canadian dollar, low bond yields and the effects of the key interest rate cut that was announced in January. However, we cannot rule out the possibility that another rate cut could be ordered in the months to come.
- As it happens, the latest economic statistics are rather disappointing. The volume of manufacturing sales dipped by 1.0% in January, while the volumes of retail and wholesale sales fell by 1.2% and 3.3% respectively (graph 6). However, most of these variables posted exceptional growth last December. At this point, it is difficult to tell whether we are seeing the effects of a pullback linked to a return to more normal activity in these sectors, or the beginning of a clearly weaker trend in this country's economic growth. It is too early to draw conclusions, but if economic activity were to fail to accelerate in February and March, the first quarter as a whole could wind up showing annualized quarterly growth below 1%, which would be below the BoC's forecast of 1.5%. That could open the door to the possibility of another key interest rate cut.
- On the other hand, inflation has proven fairly resilient lately; this could encourage the monetary authorities to exercise caution and show patience in the management of their monetary policy. Even though some base effects stemming from the slump in gasoline prices that occurred between the summer of 2014 and January 2015 could temporarily drive the total annual inflation rate below the bottom target in the months to come, some upwards pressure on prices is undeniable, especially for imported goods and services, due to the depreciation of the loonie. Accordingly, the annual change in the core index (CPIX) is still around 2% (graph 7).

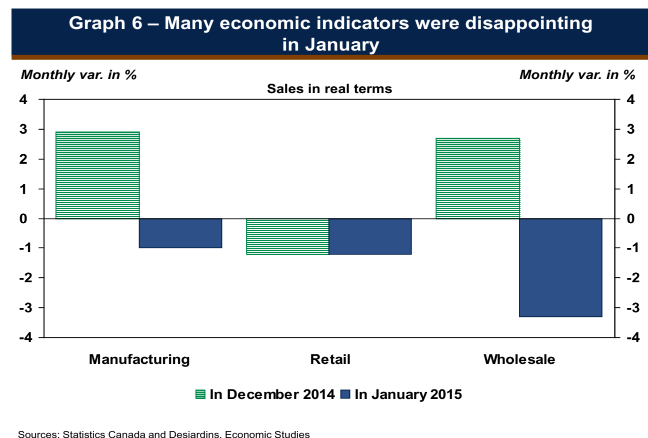
Forecasts: The most likely scenario is still an extension of the status quo for the overnight rate target, up until 2016. However, the possibility of another rate cut in the months ahead cannot be ruled out should economic growth prove to be weaker than expected, or should oil prices plunge once again.

Graph 5 – The Bank of Canada's status quo should last for several more months



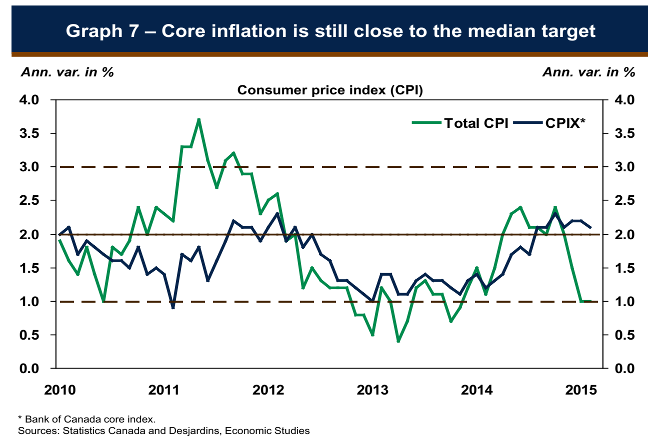
Sources: Bank of Canada and Desjardins, Economic Studies

Graph 6 – Many economic indicators were disappointing in January



Sources: Statistics Canada and Desjardins, Economic Studies

Graph 7 – Core inflation is still close to the median target



* Bank of Canada core index.
Sources: Statistics Canada and Desjardins, Economic Studies

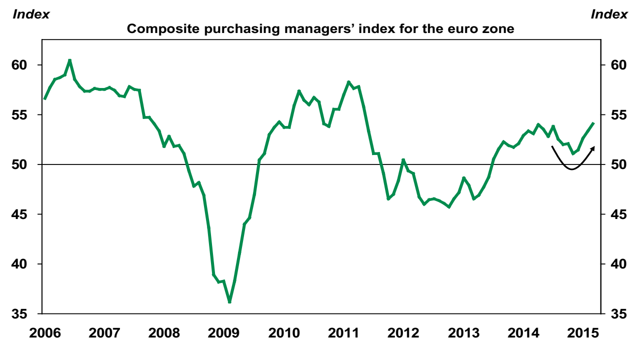
OVERSEAS CENTRAL BANK

The European Central Bank's actions are putting pressure on other central banks

EUROPEAN CENTRAL BANK (ECB)

- The ECB started its sovereign bond purchases as planned in March. No new measures are expected from the next few monetary policy meetings, unless the measures now in place prove unsuccessful in breathing sustainable positive momentum into the dynamics of the economy and inflation. On this point, we would mention that the latest data show some improvement on the economic front, which bodes well for the future (graph 8).
- The ECB's actions have encouraged other central banks to follow its lead. The Swiss National Bank, the Riksbank (Sweden's central bank) and the Bank of Denmark have all lowered some of their key interest rates into negative territory. The Riksbank even pushed its imitation a step further by announcing an asset purchases program in February, and then expanding it in March.

Graph 8 – An encouraging upturn in the euro zone purchasing managers' index

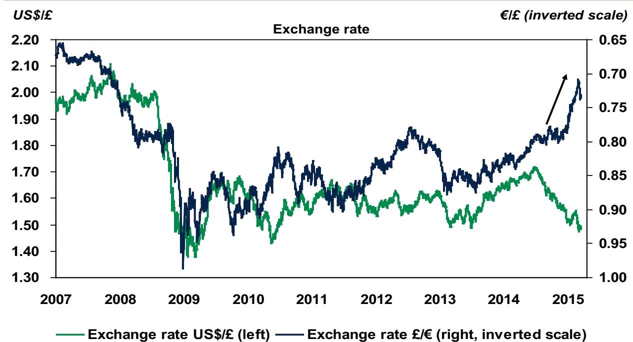


Sources: Bloomberg and Desjardins, Economic Studies

BANK OF ENGLAND (BoE)

- The BoE stands apart from its peers in Europe. The resilience of the British economy does not justify the BoE joining in the easing movement along with the other central banks. This is reflected in the exchange rate with the euro, which recently reached its lowest level since 2007, at £0.70/€ (graph 9). The appreciation of the pound could become an important issue in the months ahead. The minutes of the last monetary policy meeting show that the BoE officials are worried about diverging monetary policies, which could foster appreciation of the pound and prolong the period of low inflation. Under these conditions, the BoE could bide its time even longer before initiating monetary tightening.

Graph 9 – The pound has appreciated sharply against the euro in recent months

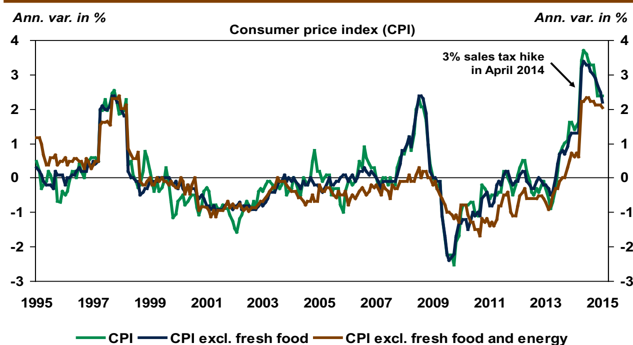


Sources: Datastream and Desjardins, Economic Studies

BANK OF JAPAN (BoJ)

- A door could open in the spring for new monetary easing measures in Japan. The BoJ estimates that annual price growth in that country, excluding fresh food, is somewhere between 0.0% and 0.5%, not including the effect of last April's sales tax hike (graph 10). This means that inflation could soon fall into negative territory, which would be far from meeting the inflation target of 2%. On the other hand, improving Japanese economic data could encourage the BoJ to hold off. We must point out that it is already very active with its asset purchases and that it could assign some of the blame for the weakness in inflation to the oil price slump. In our view, these two arguments could win out for a while, but in the longer term, an extension of the current measures will probably be necessary.

Graph 10 – The effect of the sales tax hike on inflation will come to an end next April in Japan



Sources: Datastream and Desjardins, Economic Studies

BOND MARKET

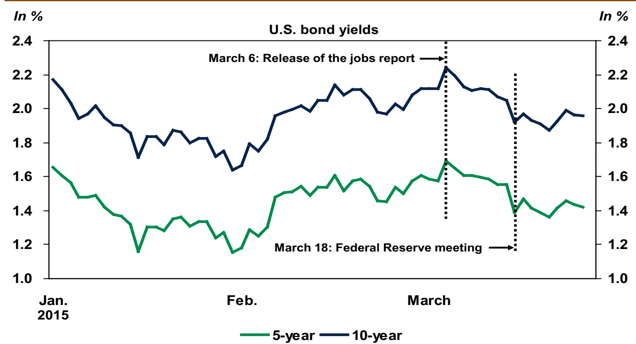
"Don't fight the Fed"

U.S. FEDERAL BONDS

- Two key events shaped the bond market action in March: the February job creation report and the Federal Reserve's (Fed) decision. Another month of remarkably strong hires (295,000 versus the 235,000 that the consensus was anticipating) convinced the markets that the Fed would stop referring to the concept of "patience" in its monetary policy press release, thereby giving itself the option of starting to normalize policy as early as June. The 10-year yield climbed to 2.25% after the job creation report, and the 5-year yield even reached 1.70%, a level that had not been touched since December.
- Twelve days later, the Fed confirmed speculations of the withdrawal of the word "patience" while at the same time offering significant caveats as to the meaning of this gesture. The sharp downward revision to the rate trajectory, as perceived by the Fed officials, sent the message that the central bank would take its time. Bond yields promptly tumbled and, testament to the power of the Fed's message, by the end of the month they were sitting below the levels they had reached prior to the job data report (graph 11).
- Apart from these two events, we note that U.S. economic statistics have been rather disappointing recently, and we should expect a lean quarter as far as GDP growth is concerned. The theme of large flows of capital out of Europe remains intact, and the market's inability to maintain an upwards yield trend partly reflects these dynamics. As for inflation expectations, the upturn of January and February was replaced with renewed weakness in March (graph 12). The robustness of the U.S. dollar (graph 13) and the vulnerability of oil prices to a new phase of weakness suggest that inflation will remain low for a good while longer.

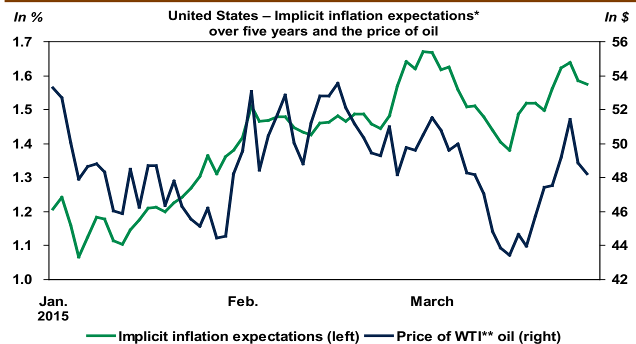
Forecasts: The Fed's March press release reinforces our conviction that monetary tightening will begin in September. However, the caution expressed by officials argues for only two rate hikes this year, whereas our previous scenario included three. In accordance with this change, we are revising our year-end targets downwards; the target for the 10-year yield now stands at 2.45%. The expected pickup in U.S. growth in the second quarter should help yields move up, but expansionist monetary policies in other parts of the world will continue to constrain the upward movement.

Graph 11 – Job creation and the Federal Reserve meeting sparked a reaction in March



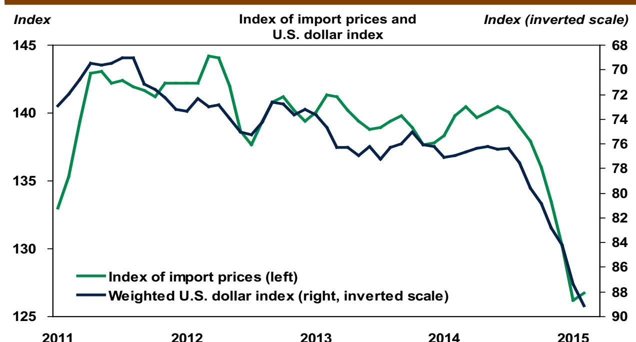
Sources: Bloomberg and Desjardins, Economic Studies

Graph 12 – Inflation expectations are sensitive to oil price movements



* Based on the spread between nominal bond yields and yields of inflation-indexed bonds; ** West Texas Intermediate.
Sources: Bloomberg and Desjardins, Economic Studies

Graph 13 – The strength of the dollar is doing much to lower import prices



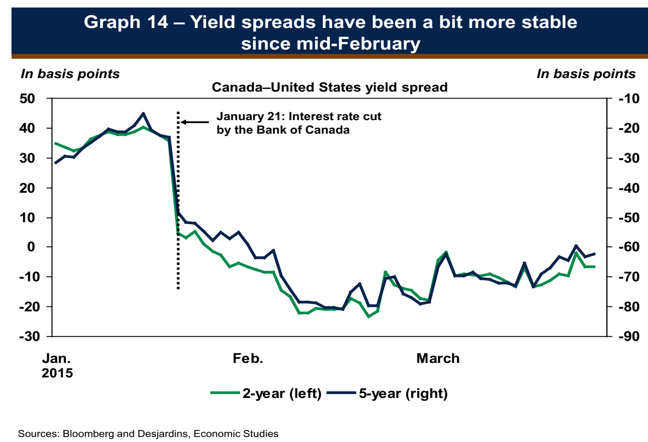
Sources: Datastream and Desjardins, Economic Studies

CANADIAN FEDERAL BONDS

- Canadian bonds have been pulled in various directions at the beginning of the year under the influence of actions and comments of the Bank of Canada (BoC). At the end of February, Governor Stephen Poloz stated that a single interest rate cut would provide the insurance needed to cope with the deleterious effects of falling oil prices, and in accordance with that comment, the BoC kept the status quo on March 4. Since then, the trend in Canadian bond yields has essentially been dictated by that of U.S. yields. Yield spreads have been practically flat since the end of February (graph 14). Thus the Canadian curve maintained a flattening bias fairly similar to that observed in the United States in March.
- This does not imply that markets have moved away from expectations of further monetary stimulus. While they do not expect imminent easing, futures embed a strong probability of more interest rate cuts during the year (graph 15). The latest run of economic data has done little to calm such speculations (graph 16). We have revised our growth forecasts for the first quarter of 2015 downwards, to 1.0%, and the risks appear to be on the downside.
- Nevertheless, the BoC seems to be showing a fair degree of tolerance towards short-term disappointments. In March, it suggested that the oil price shock could be more front-loaded than was expected in January, but it reaffirmed that the level of monetary stimulus was still appropriate. Among other things, it mentioned the beneficial effect that stimulation measures introduced overseas would have on Canadian financial conditions. Based on that message, the BoC will remain on the sidelines and will keep monitoring developments of certain factors, such as oil price trends, the performance of the U.S. economy, inflation and the behaviour of the real estate market in the West. Given the current climate of uncertainty, we can expect investors to keep anticipating future interest rate cuts, but the sometimes convoluted signals sent by the BoC could still generate some broad swings.

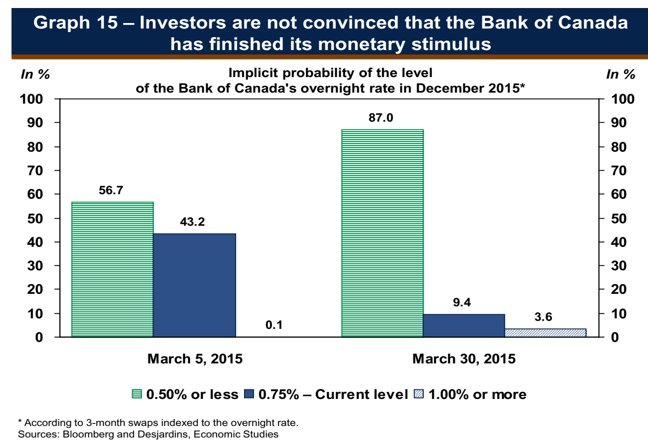
Forecasts: Our scenario for Canadian bond yields is currently anchored on the assumption of a continuation of the status quo for Canadian policy interest rates. The main changes compared with our previous scenario have to do with short-term bonds. Our yield targets for longer-term bonds have also been revised downwards slightly, in keeping with the adjustments to the scenario for U.S. bond yields.

Graph 14 – Yield spreads have been a bit more stable since mid-February



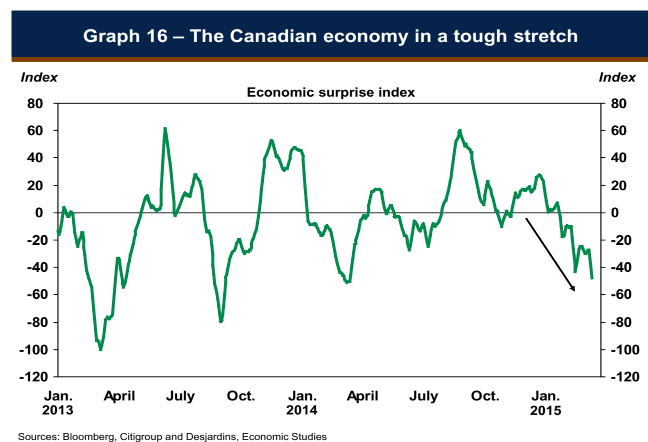
Sources: Bloomberg and Desjardins, Economic Studies

Graph 15 – Investors are not convinced that the Bank of Canada has finished its monetary stimulus



* According to 3-month swaps indexed to the overnight rate.
Sources: Bloomberg and Desjardins, Economic Studies

Graph 16 – The Canadian economy in a tough stretch

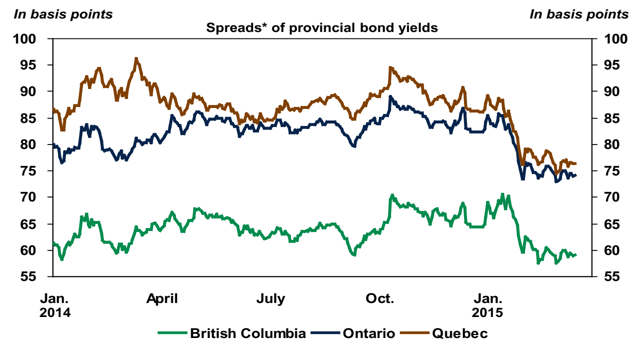


Sources: Bloomberg, Citigroup and Desjardins, Economic Studies

PROVINCIAL AND CORPORATE BONDS

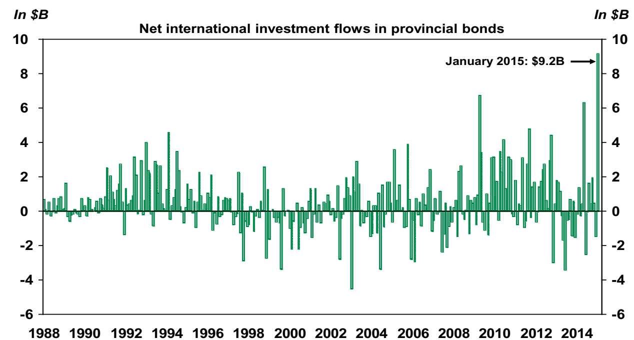
- Provincial bonds started off the year on a good note, and the yield spreads to federal bonds are still narrow for most of the large issuers (graph 17). Once again, the main catalyst seems to be the frantic search for returns around the world, exacerbated in particular by quantitative easing policies and the situation of very low, or even negative bond yields that prevails on the other side of the Atlantic. This situation seems to have increased the appeal of provincial bonds. The latest statistics on international securities transactions confirm that provincial bonds have attracted the attention of foreigners. In January, foreign investors boosted their holdings of such instruments by $9.2B, a record net inflow (graph 18). It must be pointed out that even though they have fallen considerably, the yields to maturity of benchmark 10-year bonds are in the neighbourhood of 1.9% for Ontario and Quebec. In contrast, a German 10-year bond is now yielding barely more than 0.2%.
- On a fundamental perspective, budget season is in full swing, and Alberta and Quebec were among the provinces presenting their plans recently. Alberta is facing deficits of $5.0B in 2015–2016 and $3.0B in 2016–2017. It will use its Contingency Account to absorb these shocks. However, the province will still have to borrow an average $9.5B over the next three years to fund its capital investment needs, which is a higher amount than the recent annual average. In contrast, Quebec announced a borrowing program of only $12.2B in 2015–2016, as it returns to a balanced budget and given higher pre-financing during the last fiscal year. Note that the amount to be borrowed for 2015–2016 includes $4B in pre-financing. All in all, investors can expect a more generous offer than usual in bonds from Alberta, and likely the opposite with respect to Quebec.
- Even though stock market volatility has intensified somewhat since the beginning of the year, this has not unduly affected corporate spreads, which are still very narrow, reflecting the demand for yield. On the supply front, after a fairly quiet January, bond issuances exploded in Canada in February, with $14B worth of securities being offered to investors. This was the largest volume of issuance since September 2013. In fact, the first quarter of 2015 was one of the most active, in terms of issuances, in recent years (graph 19). Banks accounted for 81% of these issuances, which is not surprising, given their substantial refinancing requirements in 2015. As an illustration of the attractive conditions of these offers, Canadian corporations have issued at a weighted average coupon rate of 2.4% since the beginning of the year, versus 3.4% at the same time last year. We still expect the corporate asset class to be sought after, given the conditions prevailing in global financial markets.

Graph 17 – Search-for-yield has pressured provincial spreads lower



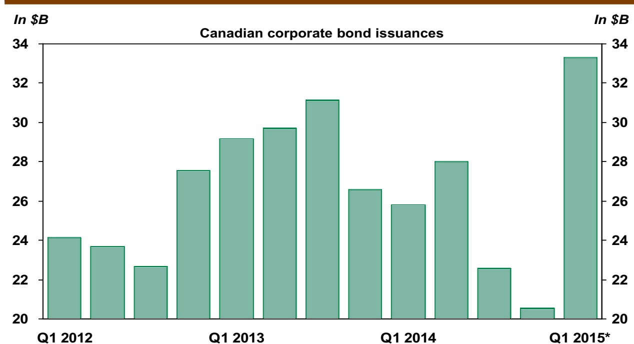
* 10-year bond yield compared with the yield of its federal counterpart.
Sources: Bloomberg and Desjardins, Economic Studies

Graph 18 – Foreigners purchased a record net amount of provincial bonds in January



Sources: Statistics Canada and Desjardins, Economic Studies

Graph 19 – Canadian bond issuers were very active in the first quarter



* Up until March 25 inclusively.
Sources: Desjardins, Capital Markets and Desjardins, Economic Studies

Table 1
Key interest rates

End of period in %	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015 Q1f	2015 Q2f	2015 Q3f	2015 Q4f	2016 Q1f	2016 Q2f	2016 Q3f	2016 Q4f
United States												
Federal funds	0.25	0.25	0.25	0.25	0.25	0.25	0.50	0.75	0.75	1.00	1.25	1.50
Canada												
Overnight funds	1.00	1.00	1.00	1.00	0.75	0.75	0.75	0.75	0.75	1.00	1.00	1.25
Euro zone												
Refinancing rate	0.25	0.15	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
United Kingdom												
Base rate	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.75	1.00	1.25
Japan												
Overnight funds	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 Bank	Decision	Rate
January 2015			
15	Swiss National Bank	-50 b.p.	-0.75
20-21	Bank of Japan	---	---
21	Bank of Brazil	+50 b.p.	12.25
21	Bank of Canada	-25 b.p.	0.75
22	European Central Bank	s.q.	0.05
28	Reserve Bank of New Zealand	s.q.	3.50
28	Federal Reserve	s.q.	0.00 / 0.25
29	Bank of Mexico	s.q.	3.00
February 2015			
2	Reserve Bank of Australia	-25 b.p.	2.25
5	Bank of England	s.q.	0.50
12	Bank of Sweden	-10 b.p.	-0.10
17	Bank of Korea	s.q.	2.00
17-18	Bank of Japan	---	---
March 2015			
2	Reserve Bank of Australia	s.q.	2.25
4	Bank of Brazil	+50 b.p.	12.75
4	Bank of Canada	s.q.	0.75
5	European Central Bank	s.q.	0.05
5	Bank of England	s.q.	0.50
11	Bank of Korea	-25 b.p.	1.75
11	Reserve Bank of New Zealand	s.q.	3.50
16-17	Bank of Japan	---	---
18	Bank of Sweden	-15 b.p.	-0.25
18	Federal Reserve	s.q.	0.00 / 0.25
19	Bank of Norway	s.q.	1.25
19	Swiss National Bank	s.q.	-0.75
26	Bank of Mexico	s.q.	3.00

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

Table 3
Coming soon

Date	Central Bank
April 2015	
7	Reserve Bank of Australia
7-8	Bank of Japan
9	Bank of England
9	Bank of Korea
15	European Central Bank
15	Bank of Canada
29	Reserve Bank of New Zealand
29	Bank of Sweden
29	Bank of Brazil
30	Bank of Japan
30	Bank of Mexico
May 2015	
5	Reserve Bank of Australia
7	Bank of Norway
11	Bank of England
15	Bank of Korea
21-22	Bank of Japan
27	Bank of Canada
June 2015	
2	Reserve Bank of Australia
3	European Central Bank
3	Bank of Brazil
4	Bank of England
4	Bank of Mexico
10	Reserve Bank of New Zealand
11	Bank of Korea
17	Federal Reserve
18	Bank of Norway
18	Swiss National Bank

Source: Desjardins, Economic Studies

Table 4
United States: fixed income market

End of period in %	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015 Q1f	2015 Q2f	2015 Q3f	2015 Q4f	2016 Q1f	2016 Q2f	2016 Q3f	2016 Q4f
Key rate												
Federal funds	0.25	0.25	0.25	0.25	0.25	0.25	0.50	0.75	0.75	1.00	1.25	1.50
Treasury bills												
3-month	0.05	0.04	0.02	0.04	0.05	0.15	0.50	0.65	0.70	1.00	1.20	1.50
Federal bonds												
2-year	0.39	0.42	0.56	0.63	0.55	0.70	1.00	1.20	1.30	1.55	1.70	1.80
5-year	1.71	1.60	1.77	1.64	1.40	1.55	1.75	1.90	2.00	2.15	2.30	2.40
10-year	2.73	2.52	2.51	2.17	1.95	2.05	2.30	2.45	2.50	2.65	2.80	3.00
30-year	3.56	3.34	3.21	2.75	2.55	2.65	2.85	2.95	3.00	3.10	3.20	3.35
Yield curve												
5-year - 3-month	1.66	1.56	1.75	1.60	1.35	1.40	1.25	1.25	1.30	1.15	1.10	0.90
10-year - 2-year	2.34	2.09	1.95	1.54	1.40	1.35	1.30	1.25	1.20	1.10	1.10	1.20
30-year - 3-month	3.51	3.30	3.19	2.71	2.50	2.50	2.35	2.30	2.30	2.10	2.00	1.85

f: forecasts
Sources: Datastream and Desjardins, Economic Studies

Table 5
Canada: fixed income market

End of period in %	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015 Q1f	2015 Q2f	2015 Q3f	2015 Q4f	2016 Q1f	2016 Q2f	2016 Q3f	2016 Q4f
Key rate												
Federal funds	1.00	1.00	1.00	1.00	0.75	0.75	0.75	0.75	0.75	1.00	1.00	1.25
Treasury bills												
3-month	0.89	0.94	0.92	0.92	0.55	0.60	0.65	0.65	0.70	1.00	1.10	1.40
Federal bonds												
2-year	1.07	1.10	1.12	1.01	0.50	0.65	0.85	0.95	1.05	1.30	1.45	1.55
5-year	1.71	1.53	1.63	1.34	0.80	0.90	1.15	1.35	1.50	1.70	1.80	1.90
10-year	2.46	2.24	2.15	1.79	1.40	1.45	1.70	1.85	1.95	2.20	2.30	2.40
30-year	2.96	2.78	2.67	2.34	2.00	2.10	2.30	2.40	2.45	2.60	2.65	2.80
Yield curve												
5-year - 3-month	0.82	0.59	0.71	0.42	0.25	0.30	0.50	0.70	0.80	0.70	0.70	0.50
10-year - 2-year	1.39	1.14	1.03	0.78	0.90	0.80	0.85	0.90	0.90	0.90	0.85	0.85
30-year - 3-month	2.07	1.84	1.75	1.42	1.45	1.50	1.65	1.75	1.75	1.60	1.55	1.40
Spreads (Canada - U.S.)												
3-month	0.84	0.90	0.90	0.88	0.50	0.45	0.15	0.00	0.00	0.00	-0.10	-0.10
2-year	0.68	0.68	0.56	0.38	-0.05	-0.05	-0.15	-0.25	-0.25	-0.25	-0.25	-0.25
5-year	-0.00	-0.07	-0.14	-0.30	-0.60	-0.65	-0.60	-0.55	-0.50	-0.45	-0.50	-0.50
10-year	-0.27	-0.28	-0.36	-0.38	-0.55	-0.60	-0.60	-0.60	-0.55	-0.45	-0.50	-0.60
30-year	-0.60	-0.56	-0.54	-0.41	-0.55	-0.55	-0.55	-0.55	-0.55	-0.50	-0.55	-0.55

f: forecasts
Sources: Datastream and Desjardins, Economic Studies