The Yield Curve

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Deflation and steepening make strange bedfellows

HIGHLIGHTS

- Another inflation slowdown in many advanced nations renewed fears of deflation and prompted the European Central Bank to lower its key rates.
- Today's economic situation in the United States is not in any way consistent with a true deflation, as the economy and the job market are recovering and housing prices are posting annual growth of over 10%. In Canada too, nothing suggests that the economy is headed for true deflation.
- Long-term yields have climbed substantially in recent weeks. This movement reflects the publication of solid U.S. data, which put the possibility that the Federal Reserve (Fed) would taper its bond purchases back at centre stage.
- Despite the opportunity window that seems to be opening for January, the Fed may well wait until March before announcing a reduction of its bond purchases.
- Given the Canadian monetary authorities' softer stance and rather weak outlooks for economic growth and inflation, the Bank of Canada could wait a bit longer than expected before raising its key rates.

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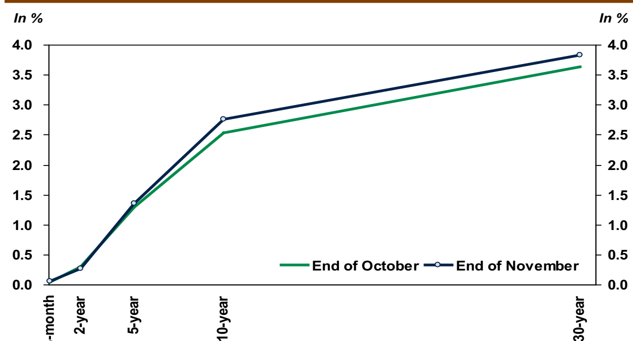
Editorial

Several interesting developments occurred on the bond market over the last few weeks. Another inflation slowdown in many advanced nations renewed fears of deflation and prompted the European Central Bank (ECB) to lower its key rates at its November meeting. New communication efforts from the Federal Reserve (Fed) to convince investors that reducing its bonds purchases would not signal a forthcoming climb in key rates put downside pressure on short-term yields. At the same time, the release of encouraging economic statistics in the United States increased the likelihood that the Fed would soon begin to taper its quantitative purchases, causing long-term yields to climb and the yield curve to steepen (graph 1).

Graph 1 – Yield curve for U.S. federal bonds



Sources: Datastream and Desjardins, Economic Studies

SHOULD WE REALLY BE WORRIED ABOUT DEFLATION?

Nobody can deny that inflation is currently very soft in advanced nations. The annual inflation rate for all Organisation for Economic Co-operation and Development countries dropped to just 1.3% in October, continuing its downtrend. Inflation has recently fallen below 1.0% in

François Dupuis
Vice-President and Chief Economist

Yves St-Maurice
Senior Director and Deputy Chief Economist

514-281-2336 *or* 1 866 866-7000, ext. 2336
E-mail: desjardins.economics@desjardins.com

Mathieu D'Anjou Senior Economist
Benoit P. Durocher Senior Economist
Francis Généreux Senior Economist
Jimmy Jean Senior Economist
Hendrix Vachon Senior Economist

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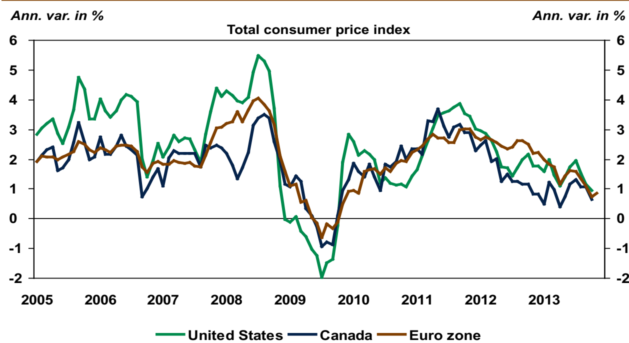
the euro zone and Canada, an uncomfortable situation for central banks (graph 2). Several elements are contributing to this weak price growth, including the fact that the major economies are still operating below capacity and the downtrend in commodity prices. Given inflation's current weakness, we cannot rule out the possibility that inflation will near zero in some countries, even temporarily moving into negative territory in the event of another shock, such as a steep drop in oil prices which would cause gas prices to plummet.

Graph 2 – Inflation remains very low in several countries



Sources: Bureau of Labor Statistics, Eurostat, Statistics Canada and Desjardins, Economic Studies

Using a very simple definition of deflation—a negative annual inflation rate—there is a possibility that several countries could face temporary episodes of deflation in the coming quarters. Deflation of this sort would have few consequences, however, like it was the case in 2009, following the commodities price collapse. For the financial markets and central banks, the issue is whether there is a risk of real sustained deflation, which could be defined as a widespread, lasting drop in prices. Deflation like this, similar to what happened in Japan over the last few decades, could have dramatic consequences, such as reining in consumption and investment and putting heavily indebted households and governments in a very difficult position. Moreover, long-term yields would fall well below the troughs seen in recent years.

True deflation is a very rare phenomenon in modern economies and does not happen without good reason. It is hard to imagine that an economy could experience real deflation without a sharp contraction by demand, credit or the money supply. Here, there was real reason for concern that the United States would slide into deflation at the end of last decade, after the real estate bubble burst and the banking system nearly collapsed. However, the Fed's very energetic actions staved off deflation. Today's economic situation in the United States is not in any way consistent with deflation, as the economy and the job market are recovering and housing prices are posting annual growth of over 10%. In Canada too, nothing suggests that the economy is headed for true deflation, as the economy continues to grow and financial conditions are quite favourable. At this time, only a spectacular collapse of the real estate sector could push the Canadian economy into deflation, but to date, the real estate sector seems to be headed for a soft landing. In this context, it is premature to envision a key rate cut in Canada. Given its stagnating economy, the pullback by credit and the harsh adjustments underway in some peripheral nations, risks of deflation seem more serious for the euro zone, arguing for continued vigilance by the ECB. The fact that inflation expectations remain well anchored at around 2%, even in the euro zone, also limits deflation risks.

RISING LONG-TERM YIELDS WILL PROMPT THE FED TO BE PATIENT

Another sign that true deflation is highly unlikely in North America is the fact that long-term yields have climbed substantially in recent weeks. This movement reflects the publication of solid U.S. data, which put the possibility that the Fed would taper its bond purchases back at centre stage. Accordingly, U.S. 30-year yields climbed back above 3.90%, nearing the cyclical peaks reached at the end of last summer. Unlike last summer, expectations regarding U.S. key rate increases did not move forward in tandem with the rise in long yields. Investors seem to be starting to accept the Fed's message that its bond purchases and forward-looking statements on future key rate movements are not directly related. Nevertheless, it is somewhat worrisome for the Fed to see long-term yields rising to levels that could hurt the economy. Despite the opportunity window that seems to be opening for January, it may well wait until March before announcing a reduction of its bond purchases.

François Dupuis
Vice-President and Chief Economist

Mathieu D'Anjou, CFA
Senior Economist

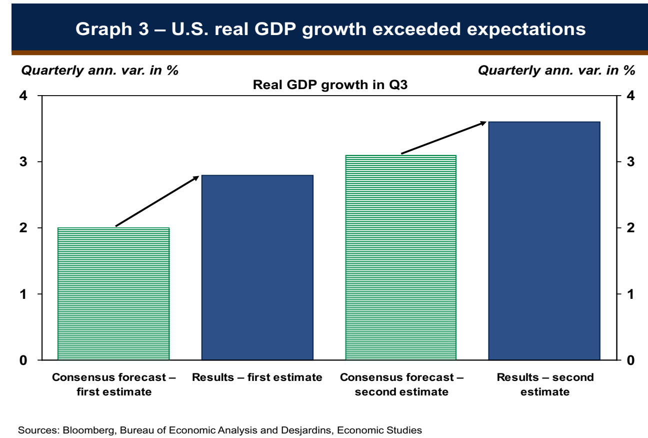
FEDERAL RESERVE

Some patience still needed...

- After the surprise created by Federal Reserve (Fed) leaders in September when they decided not to start tapering securities purchases as expected, markets were not anticipating any major announcements at the October meeting. In fact, there was little change to the statement. Given the shutdown and stronger concerns, the Fed's serenity was even read as a more hawkish signal. The meeting minutes partially validated this opinion, as Ben Bernanke and his colleagues still seem to believe that they will begin to withdraw their quantitative policy "in the coming months". This horizon remains vague.
- The economic situation provides some support to those who would like to see the Fed start tapering soon. Real GDP growth was stronger than the consensus forecast for the third quarter (graph 3). Job creation also beat expectations, adding 200,000 jobs in October and 203,000 in November (graph 4). The ISM indexes are still doing well, especially the manufacturing index, which posted six consecutive increases (graph 5).
- However, many of these elements call for some caution. Firstly, GDP rose despite a slowdown by consumption and stagnating business investment in equipment. The fact that growth comes from inventories is not a sign of vitality. Secondly, the vagaries of the labour force in recent employment figures raise some doubts about the true health of the labour market. Thirdly, we do not yet know the total effects of the budget impasse, and confidence was hit hard. Finally, inflation remains relatively soft in the United States.
- In these circumstances, it seems that the December 18 meeting is still too soon to officially announce a reduction to securities purchases. The Fed could instead try to highlight its promise to keep interest rates low for some time to come. It could thus lower the threshold for jobless rate that would eventually prompt it to normalize its key rate. However, the timing of such a change is uncertain. Will Ben Bernanke do it as part of his swan song, or will he leave it to Janet Yellen as she makes her mark?

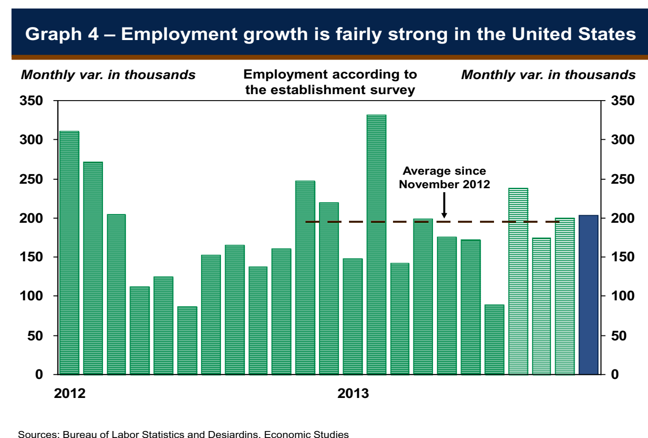
Forecasts: The Fed should not announce any tapering to its purchases before March 2014. It should then wind down gradually until the securities purchase program ends in late 2014. As for key rates, no increase is anticipated prior to September 2015.

Graph 3 – U.S. real GDP growth exceeded expectations



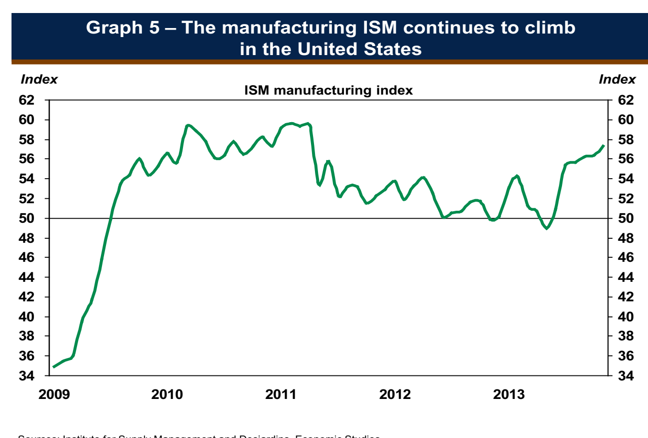
Sources: Bloomberg, Bureau of Economic Analysis and Desjardins, Economic Studies

Graph 4 – Employment growth is fairly strong in the United States



Sources: Bureau of Labor Statistics and Desjardins, Economic Studies

Graph 5 – The manufacturing ISM continues to climb in the United States



Sources: Institute for Supply Management and Desjardins, Economic Studies

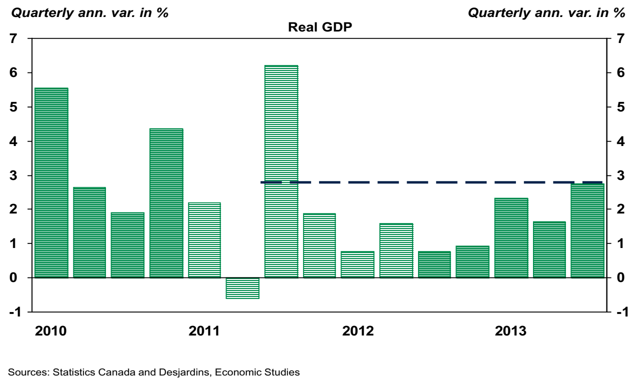
BANK OF CANADA

Downside risks to inflation intensify

- Economic growth was in line with our expectations for the third quarter of 2013, with real GDP rising a quarterly annualized 2.7%. This quarterly gain, the largest in two years, is partially due to the return to normal after the flooding in Alberta and the construction strike in Quebec (graph 6).
- Note that the Bank of Canada (BoC) was calling for a real GDP increase of just 1.8% in the third quarter. Despite this seemingly good news, two elements may worry the monetary authorities. First, non-residential business investment rose just 2.2% over the quarter. While this is better than the two previous quarters, growth remains fairly weak in a context of high expectations. Second, exports pulled back 2.0% in the third quarter. Clearly, Canada's economy has not yet managed to benefit from the gradual improvement by global demand, although it is one of the main assumptions in the BoC's economic scenario (graph 7).
- This shows how much uncertainty remains. Under these conditions, the risks to the BoC's forecast of Canadian economic growth of 2.3% in 2014 seem tilted to the downside.
- Due to the moderate growth expected in the coming quarters, the output gap may not close until the end of 2015. Until then, inflation pressures will remain limited in Canada. Total inflation, which fell below the lower target (1%) in October because of temporary arithmetic effects, should return to the BoC's target range rather quickly. A lasting return to the mid-point target (2%), however, is not expected before 2015 (graph 8).
- After softening their stance in October, mainly by withdrawing the remarks about eventual key rate hikes, Canada's monetary authorities took another step on December 4, emphasizing that downside risks to inflation appear to be greater. While according to the BoC the balance of risks remains within the zone set out in October, it would seem that it has moved to the lower end of this target, at least with regard to inflation.

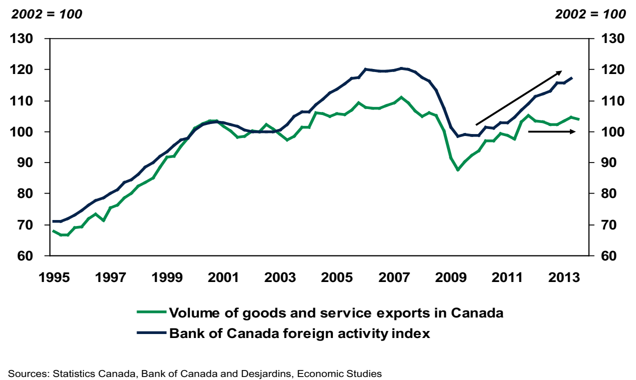
Forecasts: Given the monetary authorities' softer stance and rather weak outlooks for economic growth and inflation, the BoC could wait a bit longer than expected before raising its key rates. The first increase to the overnight rate may therefore not be ordered until September 2015.

Graph 6 – The strongest economic growth in two years in Canada



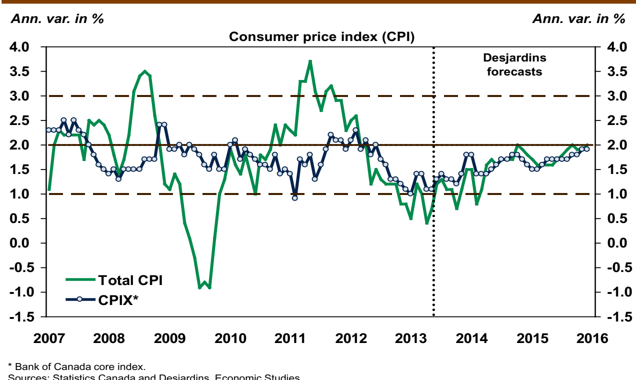
Sources: Statistics Canada and Desjardins, Economic Studies

Graph 7 – Canadian exports have not been keeping pace with rising international demand for some time



Sources: Statistics Canada, Bank of Canada and Desjardins, Economic Studies

Graph 8 – Inflation will not return to 2% in any lasting manner until 2015 in Canada



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

OVERSEAS CENTRAL BANK

Will the European Central Bank announce other measures?

EUROPEAN CENTRAL BANK (ECB)

- The ECB precipitately cut two of its three key rates on November 7. Only the deposit facility rate remains unchanged, at 0.0%. October's sharp drop by inflation seems to have weighed heavily in this decision. The annual change in consumer prices fell to 0.7%, but what is most worrisome is that inflation remains below the 1% mark even once volatile components such as energy and fresh food are excluded.
- While the ECB refrained from moving the deposit facility rate into negative territory, it is still saying that this option and several others remain possible. The ECB now expects a prolonged period of weak inflation and still sees many downside risks to economic growth. Note, however, that the decision to lower key rates was not unanimous, and that Germany's representatives seem increasingly uncomfortable with the ECB's actions. It the short term, it could be easier to push through further long-term refinancing operations (LTROs) to support banks as they try to increase lending.

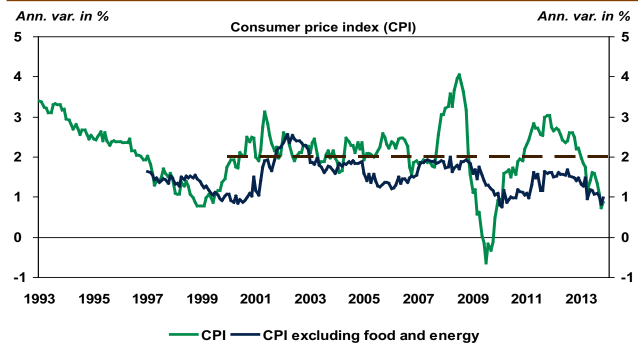
BANK OF ENGLAND (BoE)

- In its latest *Inflation Report*, the Bank of England acknowledged that the economic outlook is improving in the United Kingdom and that the unemployment rate could reach 7.0% in early 2015, much sooner than previously anticipated. However, that does not guarantee that the BoE will move up the onset of interest rate increases. The 7.0% unemployment threshold is a minimum. The drop by inflation gives the BoE a little more leeway. What's more, it could fall back on other firming measures before increasing the cost of money. For example, it announced that the Funding for Lending scheme would no longer apply to household loans in 2014.

BANK OF JAPAN (BoJ)

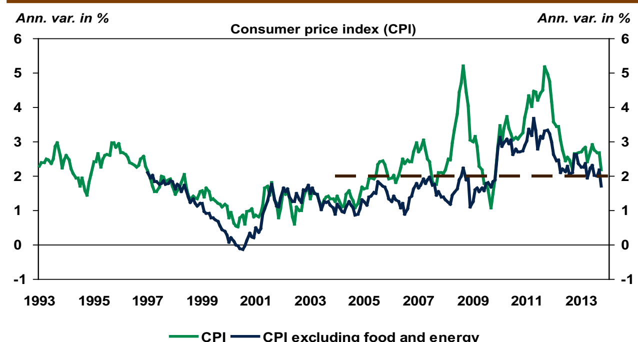
- Japan's real GDP growth melted by two thirds between the second and third quarters, and the picture would have been much worse without the major contribution from business inventories. This raises concerns, especially with regard to hitting the inflation target, established at 2%. Underperformance by the economy increases the chances that the Bank of Japan's assets purchase policy will be extended past 2014. Inflation recently went over the 1% mark, but for this progress to be characterized as sustainable, it must extend to a wider range of prices. Excluding fresh food and energy, inflation is just above 0%.

Graph 9 – Inflation rate in the euro zone



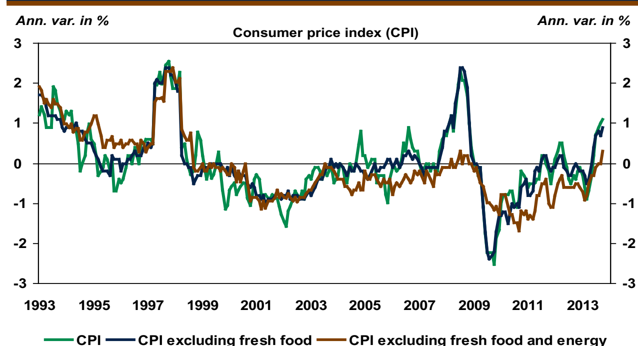
Sources: Datastream and Desjardins, Economic Studies

Graph 10 – Inflation rate in the United Kingdom



Sources: Datastream and Desjardins, Economic Studies

Graph 11 – Inflation rate in Japan



Sources: Datastream and Desjardins, Economic Studies

BOND MARKET

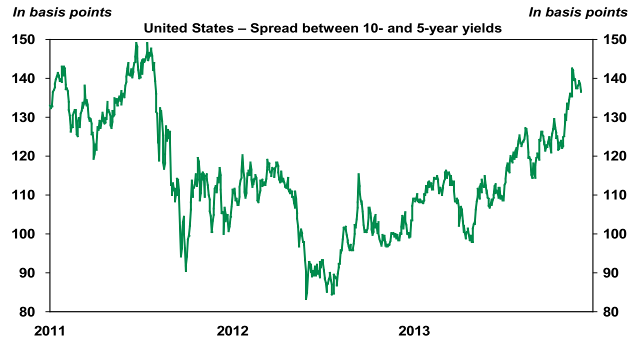
The curve will continue to steepen

U.S. FEDERAL BONDS

- November saw bond yields climb again, although nowhere near the violent moves observed during the summer. After falling to around 2.50% in October, 10-year yields recovered, fluctuating around 2.85% in early December. As for 30-year yields, they also climbed to a similar extent. Yields for shorter maturities, however, were excluded from this uptrend. Accordingly, 5-year yields tended to move in a narrow band, between 1.30% and 1.40% until early December, and 2-year yields trended down as well.
- Among other things, the associated steepening of the curve took the spread between 5- and 10-year yields temporarily beyond 140 basis points, the widest in over two years (graph 12). The Federal Reserve (Fed) seems to have better convinced investors that it will not raise the federal funds rate before mid-2015 (graph 13). In particular, a research paper written by high-ranking Fed staffers and presented to the International Monetary Fund stressed the macro-economic virtues of a commitment to keeping rates down for a longer period than prescribed by current policy settings (graph 14). These findings are in line with the recommendations Janet Yellen made about a year ago.
- Furthermore, the minutes of the Fed's October meeting raised debate over how to signal a longer period of low rates, although there was no consensus among leaders about communication methods. All the same, the minutes confirm that one of the objectives of this kind of signalling was to limit the tightening effect the eventual tapering of bond purchases would have. Even if the minutes mentionned that tapering could begin in "coming months", this did not shake investors' view that the reductions would probably start in March 2014.

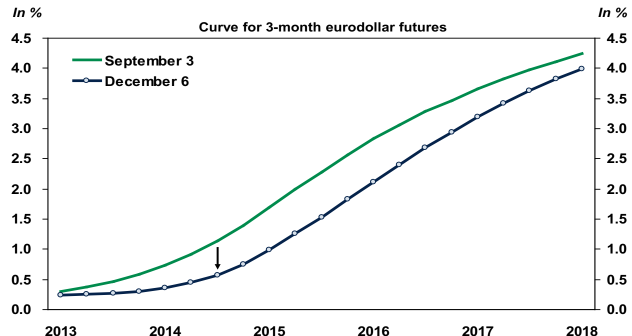
Forecasts: We expect 10-year bond yields to end the year around 2.80%. The 3.0% mark will probably be crossed at the end of the first quarter of 2014. With a Fed that will continue to work on the gradual transition to its conventional monetary policy tools, we expect the curve to keep steepening over the coming months.

Graph 12 – The U.S. curve steepened aggressively in November



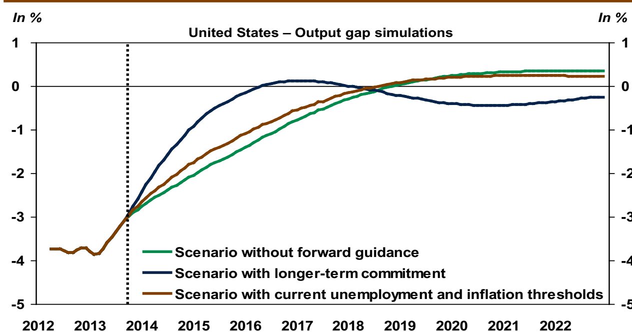
Sources: Bloomberg and Desjardins, Economic Studies

Graph 13 – Markets tempered their expectations for policy rate hikes in the United States



Sources: Bloomberg and Desjardins, Economic Studies

Graph 14 – The outcome of a Federal Reserve* simulation exercise backs resorting to a long-term commitment



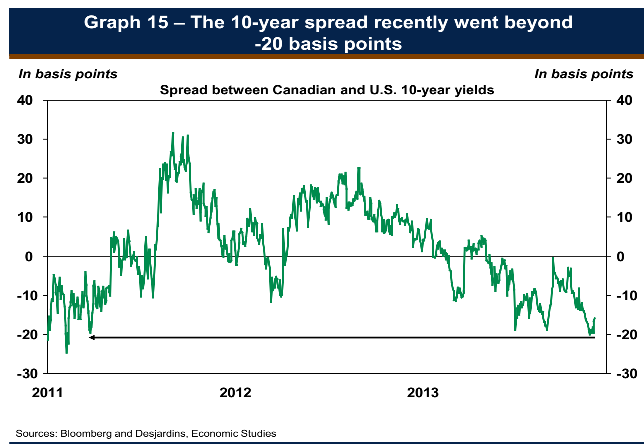
* William B. English et al., "The Federal Reserve's Framework for Monetary Policy—Recent Changes and New Questions", *International Monetary Fund*, November 7-8, 2013, www.imf.org/external/np/res/seminars/2013/arc/pdf/english.pdf.
Sources: Federal Reserve and Desjardins, Economic Studies

CANADIAN FEDERAL BONDS

- On a trend that has been ongoing for most of 2013, Canadian bonds had another month of torrid performance against U.S. bonds in November. The spread between 10-year yields hit -21 basis points at the end of the month, for the first time since the start of 2011 (graph 15). Five-year bonds, which had been heavily disadvantaged during the major bond selloff last summer, recouped much of the ground lost against U.S. bonds of the same maturity. The belly of the Canadian curve also performed better than the other maturities, a situation that has been favourable to butterfly strategies (graph 16).
- Fundamentally, the Bank of Canada's (BoC) decision to withdraw the forward-looking statement on key rates continued to make some ripples. Concerns over weak inflation expressed by the BoC in its statement of December reminded investors of Governor Poloz's remarks to the effect that a rate cut could be contemplated if downside risks to inflation materialized. Mr. Poloz also made surprising comments in November, expressing his disagreement with the position of the Organisation for Economic Co-Operation and Development which suggested that monetary policy tightening would become warrante by late 2014. The downward shift in the overnight indexed swap futures' curve reflects the strengthening market opinion that key rates will remain unchanged until the first half of 2015.
- In the short term, Canadian bonds should have a harder time posting gains against U.S. bonds, given the current spreads. The pace of growth recorded in the third quarter suggests some closing of the output gap, a trend which could continue in the fourth quarter. Furthermore, base-year effects should support a significant recovery in the November and December data for the annual change to the consumer price index (graph 17); this should go a long way towards eliminating the mild speculation about rate cuts that has recently resurfaced. The 10-year spread should therefore converge to -15 basis point between now and the end of December, and we expect the spread for 5-year yields to widen to around 40 basis points.

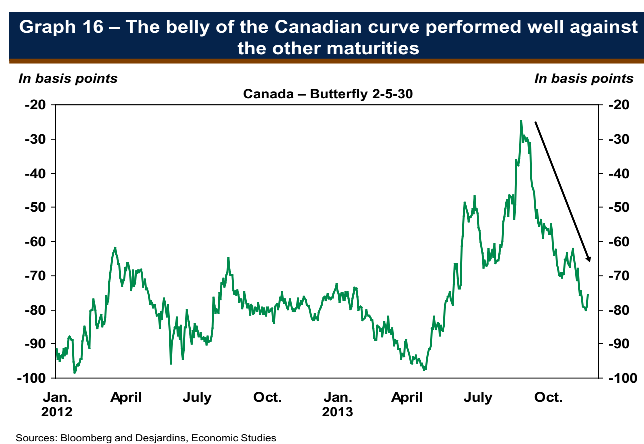
Forecasts: Canadian bond yields are expected to go up, especially at maturities of five years or less, as expectations of policy rate cuts will fade gradually. The ten-year yield should end 2013 at 2.65%, 15 basis points below the U.S. yield. In 2014, the slope of the Canadian curve, still among the flattest in the world, is expected to increase, as the yields in the long end will be pressured upwards under the effect of the tapering in the United States.

Graph 15 – The 10-year spread recently went beyond -20 basis points



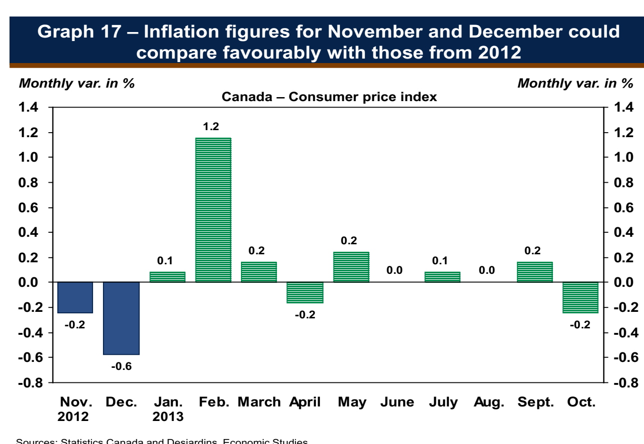
Sources: Bloomberg and Desjardins, Economic Studies

Graph 16 – The belly of the Canadian curve performed well against the other maturities



Sources: Bloomberg and Desjardins, Economic Studies

Graph 17 – Inflation figures for November and December could compare favourably with those from 2012



Sources: Statistics Canada and Desjardins, Economic Studies

Table 1 Key interest rates

End of period in %	2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4f	2014 Q1f	2014 Q2f	2014 Q3f	2014 Q4f
United States												
Federal funds	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Canada												
Overnight funds	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Euro zone												
Refinancing rate	1.00	1.00	0.75	0.75	0.75	0.50	0.50	0.25	0.25	0.25	0.25	0.25
United Kingdom												
Base rate	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
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
September 2013			
19	Bank of Norway	s.q.	1.50
19	Swiss National Bank	s.q.	0.00
October 2013			
1	Reserve Bank of Australia	s.q.	2.50
2	European Central Bank	s.q.	0.50
4	Bank of Japan	s.q.	0.10
9	Bank of Brazil	+50 b.p.	9.50
10	Bank of England	s.q.	0.50
23	Bank of Canada	s.q.	1.00
24	Bank of Norway	s.q.	1.50
24	Bank of Sweden	s.q.	1.00
25	Bank of Mexico	-25 b.p.	3.50
30	Reserve Bank of New Zealand	s.q.	2.50
30	Federal Reserve	s.q.	0.00 / 0.25
31	Bank of Japan	s.q.	0.10
November 2013			
4	Reserve Bank of Australia	s.q.	2.50
7	European Central Bank	-25 b.p.	0.25
7	Bank of England	s.q.	0.50
21	Bank of Japan	s.q.	0.10
27	Bank of Brazil	+50 b.p.	10.00
December 2013			
2	Reserve Bank of Australia	s.q.	2.50
4	Bank of Canada	s.q.	1.00
5	European Central Bank	s.q.	0.25
5	Bank of England	s.q.	0.50
5	Bank of Norway	s.q.	1.50
6	Bank of Mexico	s.q.	3.50

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

Table 3 Coming soon

Date	Central Bank
December 2013	
11	Reserve Bank of New Zealand
12	Swiss National Bank
17	Bank of Sweden
18	Federal Reserve
20	Bank of Japan
January 2014	
9	European Central Bank
9	Bank of England
15	Bank of Brazil
22	Bank of Canada
22	Bank of Japan
29	Federal Reserve
30	Reserve Bank of New Zealand
February 2014	
4	Reserve Bank of Australia
6	European Central Bank
6	Bank of England
12	Bank of Sweden
18	Bank of Japan
26	Bank of Brazil
March 2014	
4	Reserve Bank of Australia
5	Bank of Canada
6	European Central Bank
6	Bank of England
11	Bank of Japan
13	Reserve Bank of New Zealand
19	Federal Reserve
20	Swiss National Bank

Source: Desjardins, Economic Studies

Table 4
United States: fixed income market

End of period in %	2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4f	2014 Q1f	2014 Q2f	2014 Q3f	2014 Q4f
Key rate												
Federal funds	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Treasury bills												
3-month	0.07	0.09	0.10	0.05	0.07	0.04	0.02	0.05	0.10	0.15	0.20	0.25
Federal bonds												
2-year	0.35	0.32	0.24	0.24	0.25	0.34	0.32	0.30	0.45	0.60	0.80	1.00
5-year	1.03	0.72	0.61	0.70	0.74	1.36	1.36	1.45	1.75	1.90	2.05	2.25
10-year	2.22	1.66	1.64	1.75	1.85	2.48	2.62	2.80	3.00	3.10	3.20	3.40
30-year	3.35	2.77	2.83	2.94	3.11	3.50	3.69	3.85	3.90	3.95	4.00	4.15
Yield curve												
5-year - 3-month	0.96	0.63	0.51	0.65	0.67	1.32	1.34	1.40	1.65	1.75	1.85	2.00
10-year - 2-year	1.87	1.34	1.40	1.51	1.60	2.14	2.30	2.50	2.55	2.50	2.40	2.40
30-year - 3-month	3.28	2.68	2.73	2.89	3.04	3.46	3.67	3.80	3.80	3.80	3.80	3.90

f: forecasts
Sources: Datastream and Desjardins, Economic Studies

Table 5
Canada: fixed income market

End of period in %	2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4f	2014 Q1f	2014 Q2f	2014 Q3f	2014 Q4f
Key rate												
Overnight funds	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Treasury bills												
3-month	0.92	0.88	0.97	0.92	0.97	1.02	0.98	0.95	1.00	1.00	1.00	1.00
Federal bonds												
2-year	1.20	1.03	1.07	1.14	1.00	1.22	1.19	1.15	1.25	1.35	1.50	1.65
5-year	1.57	1.25	1.27	1.36	1.30	1.80	1.86	1.85	2.15	2.30	2.40	2.55
10-year	2.11	1.74	1.73	1.80	1.76	2.44	2.54	2.65	2.90	3.00	3.10	3.30
30-year	2.66	2.33	2.32	2.37	2.51	2.90	3.07	3.25	3.35	3.40	3.50	3.65
Yield curve												
5-year - 3-month	0.65	0.37	0.30	0.44	0.33	0.78	0.88	0.90	1.15	1.30	1.40	1.55
10-year - 2-year	0.91	0.71	0.66	0.66	0.76	1.22	1.35	1.50	1.65	1.65	1.60	1.65
30-year - 3-month	1.74	1.45	1.35	1.45	1.54	1.88	2.09	2.30	2.35	2.40	2.50	2.65
Spreads (Canada - U.S.)												
3-month	0.85	0.79	0.87	0.87	0.90	0.98	0.96	0.90	0.90	0.85	0.80	0.75
2-year	0.85	0.72	0.83	0.90	0.75	0.88	0.87	0.85	0.80	0.75	0.70	0.65
5-year	0.54	0.53	0.66	0.66	0.56	0.44	0.50	0.40	0.40	0.40	0.35	0.30
10-year	-0.11	0.08	0.09	0.05	-0.09	-0.04	-0.08	-0.15	-0.10	-0.10	-0.10	-0.10
30-year	-0.69	-0.44	-0.51	-0.57	-0.60	-0.60	-0.62	-0.60	-0.55	-0.55	-0.50	-0.50

f: forecasts
Sources: Datastream and Desjardins, Economic Studies