

# The Yield Curve



**Desjardins**  
Economic Studies

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## The European Central Bank has staunched the hemorrhage, but the patient is still not cured

### The Federal Reserve announcement will limit the rise in bond yields

#### HIGHLIGHTS

- The decisive action taken by the European Central Bank did away with a lot of the concern about the European banking sector.
- The euro zone's future will be played out in the zone's largest countries. It will not be easy to cut deficits in the current economic context.
- The Federal Reserve (Fed) surprised the markets on January 25, announcing that it did not plan to raise its key rate until late 2014. Once again, the Fed has demonstrated that it is prepared to do everything it can to support the job market while inflation seems to be under control.
- Concerned about triggering an overly violent rise of the Canadian dollar, the Bank of Canada will be hesitant to kick off monetary firming too much ahead of the Fed.
- The recent developments shore up our hope that the worst will be avoided and that the euro zone will manage to survive this crisis. In this context, long-term North American bond yields should rise sooner or later to better reflect the economic situation, even if the Fed keeps its key rate at its floor until 2015.

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#### Summary

North America's bond markets once again confounded the sceptics by posting a remarkable performance in 2011. The Canadian DEX Bond Universe Index returned a yield of nearly 10% last year, an even more impressive result when we consider that most of the other major asset classes, such as the stock markets and commodities, delivered zero or negative returns. Yet the end of 2010 and beginning of 2011 had been fairly tough for the bond market, as fears of another economic slowdown gave way to concerns about accelerating inflation. With the global economic outlook worsening again and the European sovereign debt crisis intensifying, bond yields quickly fell again. Although more encouraging U.S. economic statistics were released after that (graph 1), North American bond yields ended the year close to historic lows.

**Graph 1 – U.S. yields are exceptionally low, despite the encouraging statistics**



Sources: Datastream, Citigroup and Desjardins, Economic Studies

#### THE EUROPEAN CENTRAL BANK TO THE RESCUE

After a year marked by many disappointments, the euro zone finally saw one encouraging development at the end of 2011.

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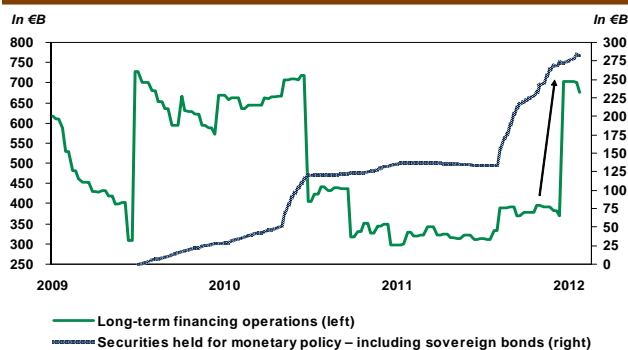
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The decisive action taken by the European Central Bank (ECB) (graph 2), particularly a three-year financing operation for which demand totalled €489B (US\$636B), did away with a lot of the concern about the European banking sector. Not that long ago, it was hard to see how, having lost investors' confidence, European banks would manage to repay the bonds that were maturing in 2012. A banking crisis seemed increasingly likely, and this would have propelled financial strains. There was also a concern that banks would be forced to sell off their assets, including their substantial sovereign security portfolios, thus magnifying the financing problems facing euro zone nations.

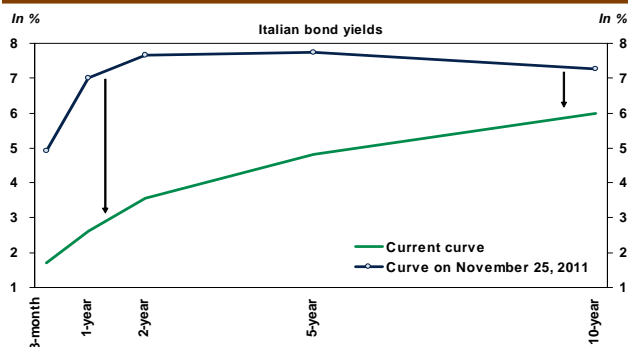
**Graph 2 – The ECB\* has heavily increased its long-term financing operations**



\* European Central Bank.  
Sources: European Central Bank and Desjardins, Economic Studies

By actively playing its role as a lender of last resort, the ECB defused the bomb that was threatening the entire financial system. Now that the fears of a liquidity shortage have dissipated, the financial markets have relaxed and even seem to be opening up for institutions that are seeking financing. Far from having to sell off their sovereign bonds, European banks now have an incentive to increase their holdings, as these securities can be used as collateral with the ECB. The impact on the financing costs of several European countries, including Italy (graph 3) and Spain, is impressive, even though

**Graph 3 – Italy's financing costs have retreated**



Sources: Bloomberg and Desjardins, Economic Studies

their credit rating was lowered. By avoiding or at least limiting a credit contraction, the ECB's extraordinary measures should have many more positive impacts on the euro zone than a straightforward quantitative policy such as those instituted by the Federal Reserve (Fed) and Bank of England.

**THE BALL IS IN THE GOVERNMENTS' COURT**

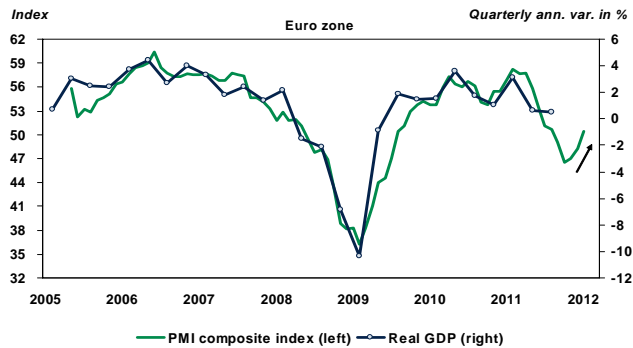
The ECB's latest actions have greatly decreased the risk that the sovereign debt crisis will quickly turn into global financial crisis. However, the real solution to the crisis must come from the governments of Europe, which must convince investors that they can get their public finances under control.

Currently, Greece is starting to raise concerns again as it struggles to reach an agreement with its creditors on how to restructure its debt. It also seems increasingly clear that a partial write-off of bonds held by the private sector will not be enough to ensure that Greece's debt is sustainable. Beyond these unending discussions, Greece's situation is unequivocal. The country is insolvent and will default shortly, probably by mid-March. The form the default takes (negotiated, imposed, partial or complete) will have some impacts on the markets, but should not be critical to the euro zone's future. Even if Greece eventually abandons the euro, it would not necessarily be catastrophic for the rest of the zone.

The euro zone's future will be played out in the zone's largest countries. The recent drop in Italy's and Spain's financing costs is encouraging, but these countries must maintain their efforts to get their public finances back under control and win back investor confidence on a lasting basis. France will also have to intensify its efforts to avoid suffering Italy's fate. It will not be easy to cut deficits in the current economic context and European governments will want to avoid worsening their economic slowdowns. As the ECB recently remarked, the austerity measures' negative impact on the economy could be offset by structural reforms designed to increase European economies' growth potential. For now, it is somewhat worrisome to see many European countries relying mainly on tax increases to reduce their deficits. Given the gloomier economic outlook, we can expect that the assistance plans for Greece, Portugal and perhaps even Ireland will have to be increased. Note, however, that some euro zone economic figures posted surprise increases lately (graph 4 on page 3).

Also keep an eye on how negotiations and talks between European nations develop. Although not adequate, and perhaps not even completely necessary to deal with the current crisis, the acceptance of a new fiscal pact and implementation of the European Financial Stability Facility could have a major impact on investor confidence. A substantial increase

**Graph 4 – Euroland’s economy is showing some slightly more encouraging signs**



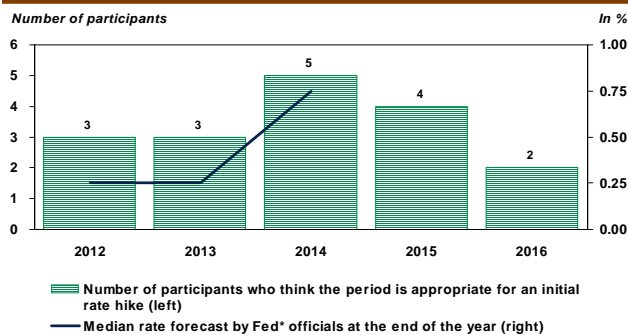
Sources: Bloomberg, Markit, Eurostat and Desjardins, Economic Studies

to the International Monetary Fund’s financing would be an especially positive event, although member nations do not seem very inclined to increase their contributions. Conversely, any serious new dissent among euro zone nations or within the countries that are combating their deficits could boost investor fears.

**THE FED IS TRYING TO INSTITUTE EVEN MORE STIMULATIVE FINANCIAL CONDITIONS**

While moderating financial strains in Europe were starting to affect the performance of North America’s bonds, the Fed surprised the markets on January 25, announcing that it did not plan to raise its key rate until late 2014 (graph 5). Its previous commitment referred to mid-2013. Although conditional on how the economic situation develops, a commitment of this length despite the encouraging economic statistics released in the last few months sends the market a clear message: even if the U.S. economy performs relatively well in the coming quarters (as projected by monetary policy committee members’ economic outlooks), the Fed will keep its key rate at its floor. Once again, the Fed has demonstrated that it is prepared to do everything it can to support the job market

**Graph 5 – Most Fed\* officials do not anticipate a rate increase before 2014**



\* Federal Reserve. Sources: Federal Reserve Board and Desjardins, Economic Studies

while inflation seems to be under control. In this context, additional quantitative measures will likely be instituted.

This new position from the Fed will have several impacts on the financial markets. Already, currencies and commodities have reacted sharply, particularly gold, as the Fed’s aggressiveness could raise renewed doubts about the greenback’s solidity. The Fed’s action also requires us to revise our interest rates scenarios. Previously, we were expecting an initial U.S. key rate increase at the start of 2014. It now seems wiser to anticipate the first increase in early 2015. In this context, the short portion of the U.S. yield curve will remain close to zero for the coming quarters.

The Fed’s announcement also puts the Bank of Canada (BoC) in a tough position. Concerned about triggering an overly violent rise of the Canadian dollar, the BoC will be hesitant to kick off monetary firming too much ahead of the Fed. Canada’s situation is very different from the situation in the United States, however, and the BoC could sooner or later run out of reasons to keep its key rate at 1.00%, especially if the euro zone’s financial strains keep dwindling and the Canadian economy returns to full capacity. In our view, the BoC will start to firm up its monetary policy in spring 2014, about nine months later than we originally forecast. However, it is not clear how the deferred rise in key rates will impact long-term bond yields.

**HOW TO JUSTIFY YIELDS BELOW 2%?**

A U.S. 10-year bond that offers a nominal yield of 2% does not in fact give investors any real return, as the yield barely compensates for inflation. The yields on most real return bonds are currently zero or negative (graph 6). For an investor who is sure that the U.S. and Canadian economies will see substantial deflation in the years to come, as in Japan, for example, a nominal rate of return of 2% could be appealing. However, inflation expectation measurements show that,

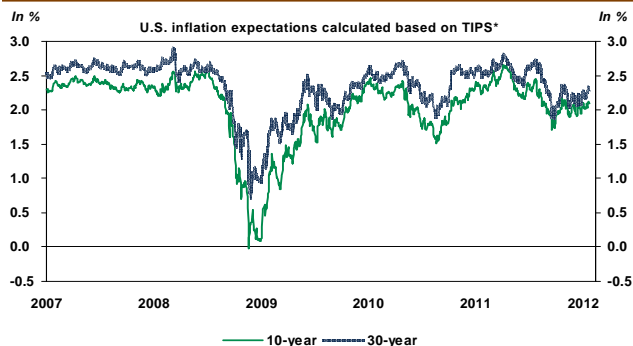
**Graph 6 – Real bond yields have hit a new low**



\* Treasury Inflation Protected Securities. Sources: Bloomberg and Desjardins, Economic Studies

overall, economic agents are banking on long-term inflation of about 2% (graph 7).

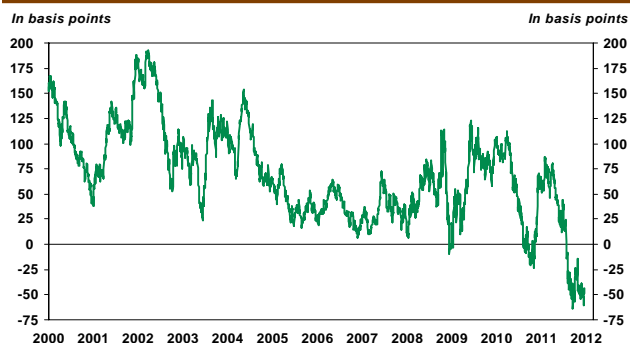
**Graph 7 – The market does not appear to be expecting deflation in the United States**



\* Treasury Inflation Protected Securities.  
Sources: Bloomberg and Desjardins, Economic Studies

A 10-year bond yield can be broken down into a portion that reflects the average short-term yield expected for the next 10 years and another portion that represents a term premium. This premium compensates the person buying a 10-year bond for the fact that the money is committed for a longer period and other investment opportunities have been sacrificed. Because long-term bonds have a lengthier maturity, they are riskier; theoretically though, a higher yield should compensate for this. Calculating the term premium is a fairly complex matter; however, it is clearly currently very low, or even negative, as shown by a Fed calculation method (graph 8). The situation is even more striking in Canada, where the markets are no longer expecting the BoC to lower its key rate. Canada's key rate will stay where it is for several more quarters, but should easily go above 2.5% on average over the next 10 years.

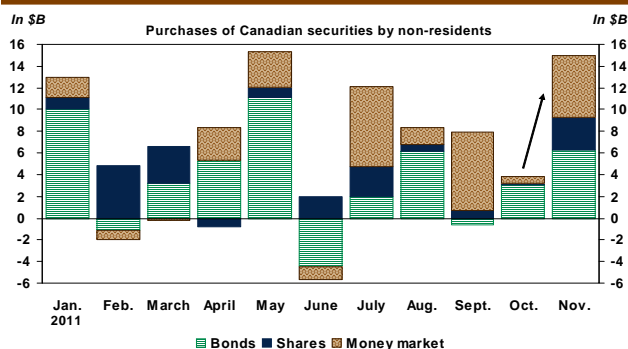
**Graph 8 – The term premium on a U.S. 10-year bond is currently negative**



Sources: Federal Reserve Board and Desjardins, Economic Studies

Now that the fears that the U.S. economy will relapse have largely dissipated, it is primarily the situation in the euro zone that is driving investors to keep buying North American bonds, despite their high cost. In addition to supporting the possibility of another financial crisis, the situation in the euro zone is making funds flow to other regions. With fewer and fewer euro zone nations considered to be high-quality issuers, investors must turn to the bonds of other countries like the United States, Canada, Australia and even the United Kingdom. Foreign purchases of Canadian securities have thus risen lately (graph 9).

**Graph 9 – Foreign investors bought a lot of Canadian securities in November**

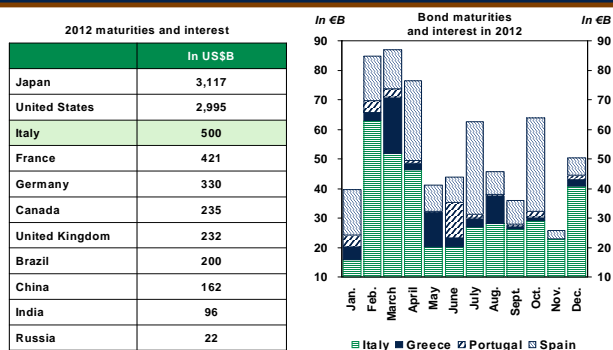


Sources: Statistics Canada and Desjardins, Economic Studies

**THE NEXT FEW MONTHS PROMISE TO BE VOLATILE**

The recent developments shore up our hope that the worst will be avoided and that the euro zone will manage to survive this crisis. In this context, long-term North American bond yields should rise sooner or later to better reflect the economic situation, even if the Fed keeps its key rate at its floor until 2015. However, we recommend caution for the coming months. The euro zone is still facing a sizable challenge and the first half of the year's major refinancing needs (graph 10)

**Graph 10 – Financing European debt will remain a drag in 2012**



Sources: Bloomberg and Desjardins, Economic Studies

could drive financial strains up, in a context in which the economic data could confirm another recession. The experience of recent years has also shown that European politicians have a strong propensity for fanning the crisis just when it seems to be calming down. Interest rates should therefore fluctuate close to current levels until mid-year and then very gradually start to come up.

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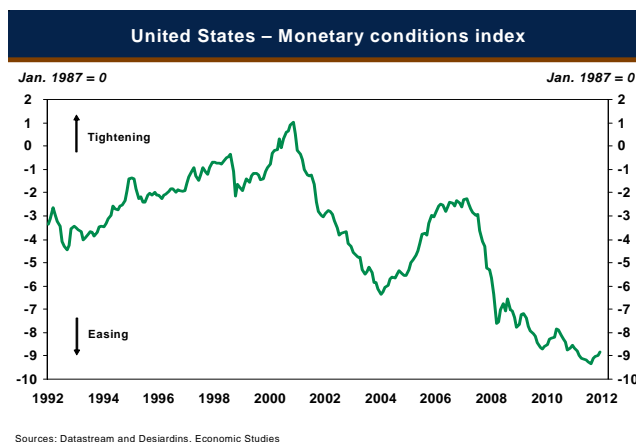
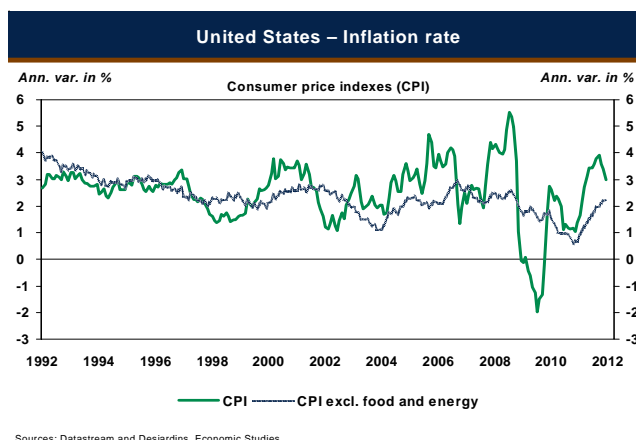
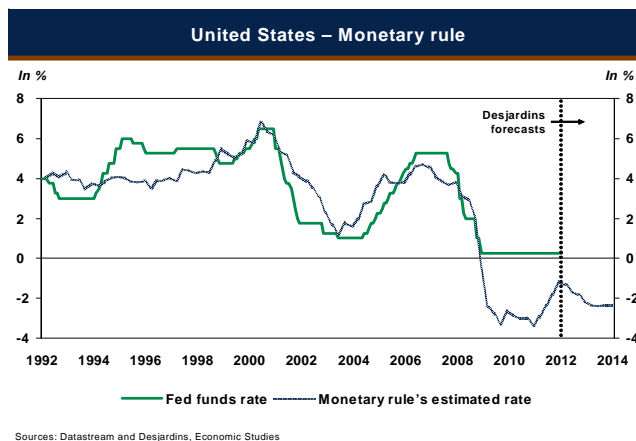
Senior Economist

# FEDERAL RESERVE

## Even further ...

- On January 25, the Federal Reserve (Fed) surprised more than a few: in its sentence on when the monetary policy committee anticipates increasing rates, the Fed modified the target date from “until mid-2013” to “at least through late 2014.” Somewhat of a change was plausible, but postponing the likely date for the first rate increase to that extent is astounding.
- The change comes at a time when the Fed is setting up new measures to increase the transparency of its decisions. This means that, in addition to the quarterly publication of monetary policy committee members’ projections for the real GDP, unemployment and inflation, the Fed is now releasing its outlook for future interest rate movements. As most committee members expected rates to start to go up in 2014 or later, it was natural to change the sentence in the statement dealing with this conditional “commitment.”
- Yet the Fed is still fairly optimistic about the economic situation: its real GDP growth forecasts are higher than our own scenarios for the next three years, even though it has generally been revising them downwards since the November exercise. The fact that several economic indicators have improved in the last few months, particularly consumer confidence, could have prompted more caution, but Ben Bernanke is not ready to declare that the economy has entered a stronger phase. It is the economy’s persisting weakness and, in particular, underutilization of capacity, as suggested by the jobless rate and output gap, that is encouraging the Fed to defer the initial rate increase to that extent.
- Note that the commitment is conditional. If the economy were to show convincing acceleration, in addition to the 2.8% growth recorded in the last quarter of 2011 and, in particular, if the jobless rate were to decline more quickly than anticipated, the Fed could change its mind. Nothing is carved in stone. Already, there is some dissent within the monetary policy committee, as six members think that 2012 or 2013 would be better timing for raising key rates. However, our scenarios call for modest real GDP growth for the coming years which, combined with high unemployment and stable inflation, make this possibility unlikely.

**Forecasts:** The Fed’s shift prompts us to postpone the onset of key rate normalization. An initial increase to the target for the federal funds rate should only come at the beginning of 2015. In the meantime, in addition to pursuing its current policies, the Fed is likely to want to further stimulate growth by buying additional mortgage securities, possibly as of the second quarter of 2012.

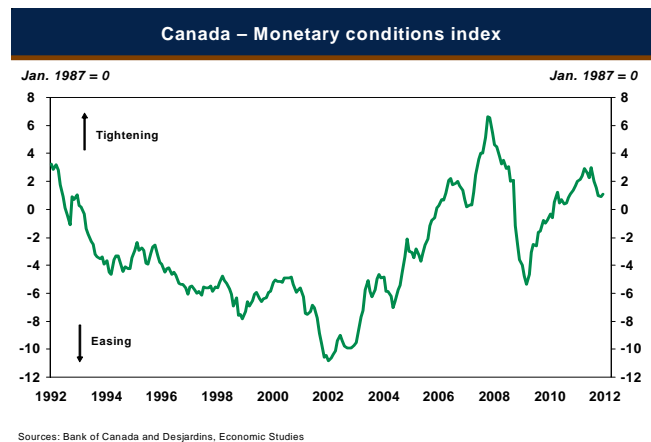
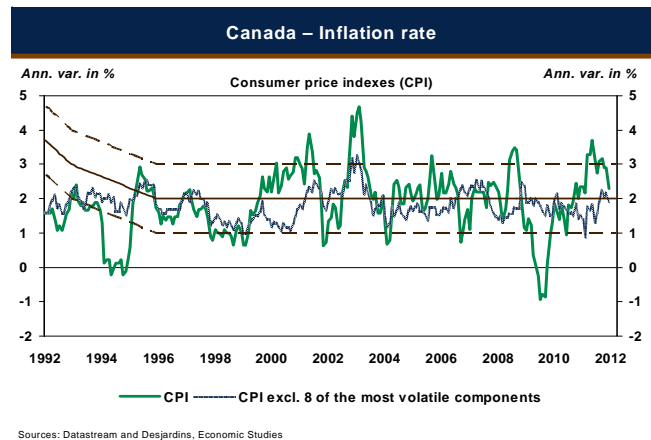
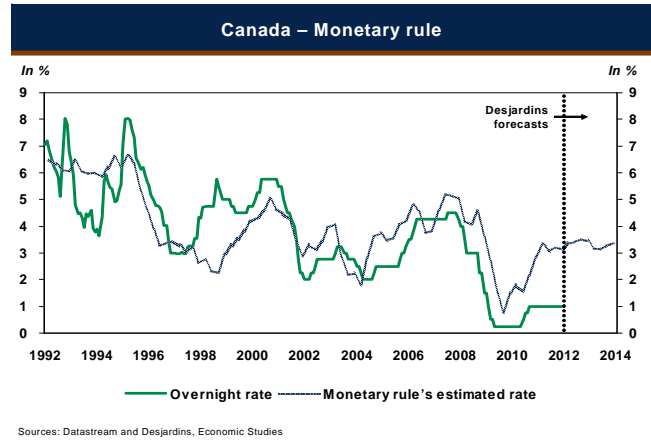


# BANK OF CANADA

## The U.S. key rate status quo will force the Bank of Canada to defer its increases

- The Canadian economy's Q3 2011 rebound should be followed by more modest growth. Among other things, international merchandise trade could see some difficulties due to the deteriorating global economic conditions. Also, domestic demand growth will be less lively as the budget deficit fight and withdrawal of stimulus plans prompt cuts to government spending. This will wipe out some of the benefits of a rise in non-residential investment.
- The recent movement by many economic indicators attests to slowing Canadian real GDP growth. The labour market has been more sluggish recently and the unemployment rate rose from 7.1% in September to 7.5% in December. Even with a slight rebound in January, consumer confidence is also on a downtrend.
- According to our estimates, the output gap, which the Bank of Canada (BoC) put at -0.7% in Q3 of 2011, should keep closing gradually. The economy is expected to be back at full capacity by the third quarter of 2013, a forecast similar to Canadian monetary authorities' recent projection.
- The total consumer price index's (CPI's) monthly decline was much sharper than anticipated last December. Note, however, that the additional increase to the Québec sales tax will put upside pressure on the monthly growth posted by Canada's total CPI in January 2012. That said, core inflation has been very stable in recent months and our projections indicate that it should stay around the BoC's median range (2%) throughout 2012.

**Forecasts:** Although the Canadian economy's outlook for growth has not changed much in the last few weeks, the recent statement from U.S. monetary authorities is forcing us to change our forecasts for when the BoC will start raising its key interest rates. Since the target for the U.S. federal funds rate will likely stay at its floor until early 2015, it will be very hard for the BoC to raise Canadian key rates in mid-2013, as we initially thought. Otherwise, the spread between Canadian and U.S. rates could trigger a substantial rise in the Canadian dollar, a situation that could harm the country's economic growth. Everything therefore suggests the BoC will have to wait until spring 2014 before proceeding with another increase to the target for the overnight rate.



# OVERSEAS CENTRAL BANK

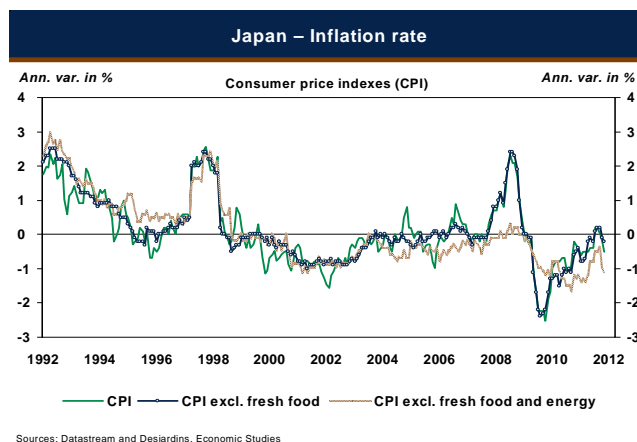
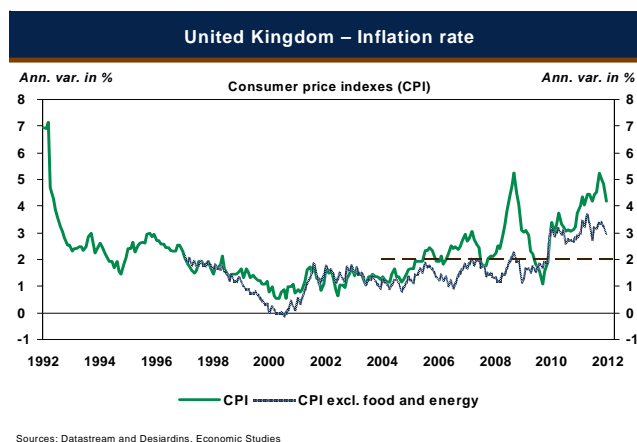
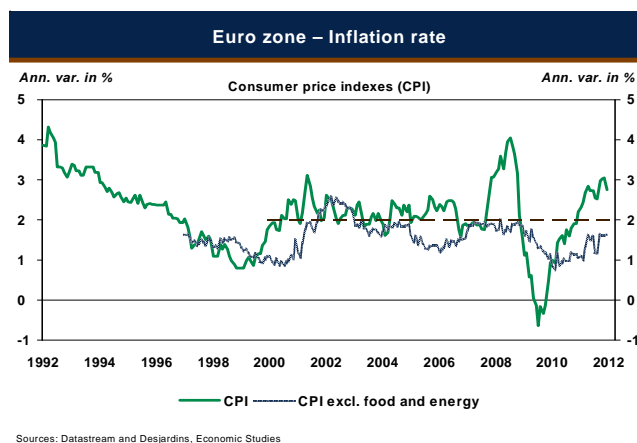
## Other actions expected from Europe

### EUROPEAN CENTRAL BANK (ECB)

- The ECB stayed on the sidelines at its last monetary policy meeting in early January. Note that it was very active at the end of 2011, taking its main key interest rate back to 1.00% and increasing its purchases of sovereign debt and measures to support Europe's financial system. Investors in particular reacted well to the long-term loans to financial institutions and widening of the range of securities the ECB accepts as collateral.
- The ECB did not send a clear signal regarding future key rate movements. On one hand, it notes some signs that Euroland's economy is stabilizing and seems satisfied with the impacts of the measures taken to support the financial sector. On the other, it is aware that its economic scenario features major downside risks and signals that it will keep a very close eye on upcoming statistics and developments. Moreover, President Mario Draghi reiterated that 1.00% does not represent a key rate floor.
- It would be surprising to see the economic context improve in the near term and the financial strains associated with European sovereign debt wane substantially. We continue to anticipate a recession in the euro zone and think that government authorities still have several actions to take to resolve the sovereign debt crisis. It thus seems more likely that the ECB will order additional rate cuts in the months to come, especially if the inflation rate keeps falling as predicted. The ECB will also remain under heavy pressure to continue its sovereign bond purchases and measures to support banks, such as extending long-term financing.

### BANK OF ENGLAND (BoE)

- The U.K.'s economy contracted by an annualized 0.8% in the fourth quarter of 2011. The country now has one foot in a recession, increasing pressure on the BoE to expand its quantitative easing program. In February, the BoE will have completed the purchases of government securities announced in October, totalling £75B (US\$110B).
- The minutes of the last monetary policy meeting showed that several members favour increasing the purchases of government securities. In particular, they apparently worry that inflation could drop substantially below its 2% target in 2012. Inflation in the United Kingdom is currently 4.2%, but the end of a number of base effects and the disinflationary pressure underlying the economy's weakness support a scenario of steeply dropping inflation in the months to come. The door is therefore open for additional intervention from the BoE.



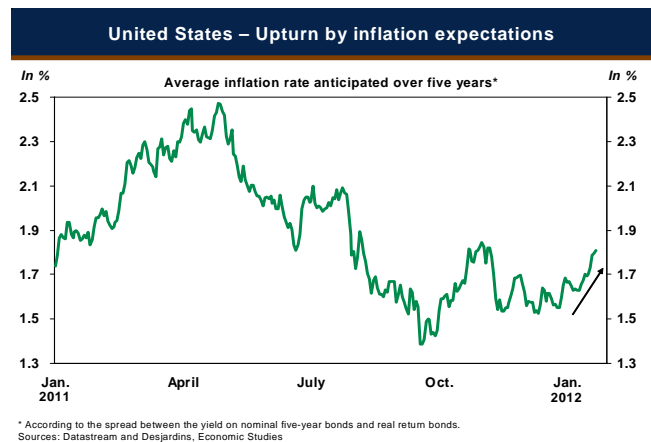
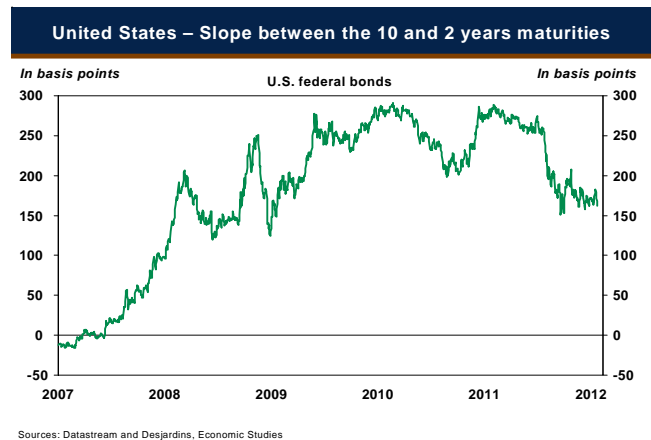
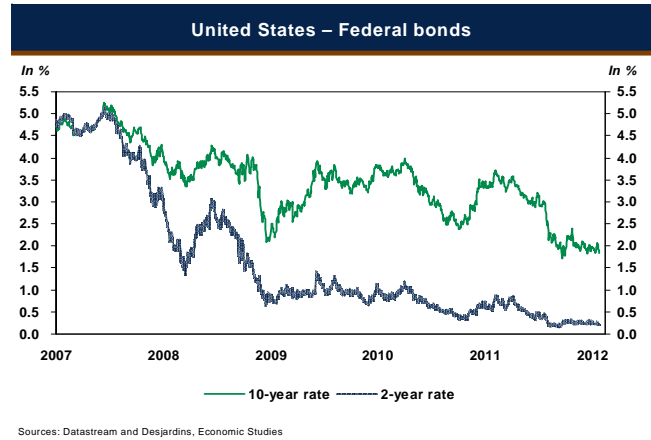
# BOND MARKET

## The Federal Reserve is not giving short-term yields much of a chance to rise

### U.S. FEDERAL BONDS

- After several months of hesitation, with persisting signs of an improving economy, U.S. bond yields finally displayed an uptrend in the middle of January, taking 10-year yields briefly above 2.0%. The markets got a big surprise, however, when the Federal Reserve (Fed) announced that its key rate could stay where it is for nearly three more years. The 10-year yield quickly fell below 2.0% on the news, but the striking thing was primarily the abrupt drop in medium-term yields. The 5-year yield hit 0.71%, at new low.
- In addition, with the Fed showing unequalled determination to stimulate growth, investors are banking on a higher inflation rate over a five-year horizon. Five-year real return bond yields plunged, setting a record at -1.32%, as investors acquired some inflation protection. The implicit expected inflation rate, measured by the difference between nominal return bond yields and yields on real return bonds, hit 1.8%, the highest it has been since October. Even though it is still nowhere near the 2.1% posted in July, the uptrend for inflation expectations is quite clear.
- Despite the recent improvement in investor sentiment, it is still too early to rely on a scenario in which everything is fine, as more potentially nasty surprises are lurking. We expect the Fed to be proactive in the coming months, with a third quantitative easing program likely to be announced this spring. Even though the program should focus on mortgage securities, the Fed's determination to keep rates low for nearly three more years and the prospect of another expansion of its balance sheet, should keep bond yields from taking off.

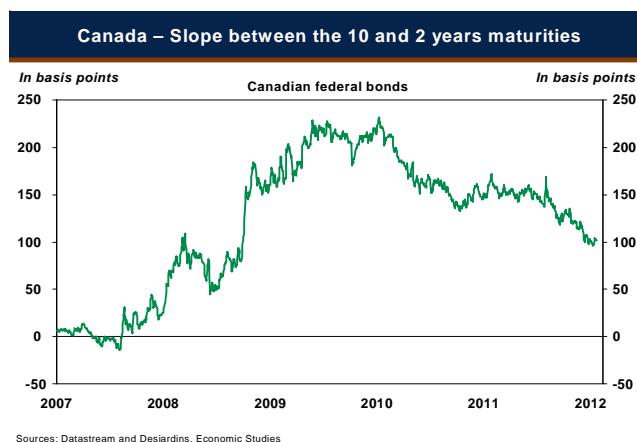
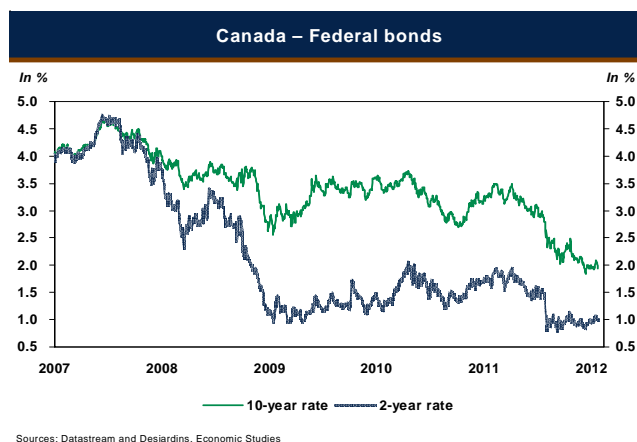
**Forecasts:** The target for the U.S. 10-year yield has been lowered for 2012, to 2.4%. In the near term, the European recession and slowness of the crisis resolution process will offset U.S. economic data, which could also show some signs of moderating. The Fed will continue to support long-term bonds until June with Operation Twist, while the news of a new quantitative easing program this spring could be another event that helps keep yields at their current levels. As of mid-year, however, the end of Operation Twist should relieve the downside pressure on yields somewhat. Their subsequent rise will be very slow.



**CANADIAN FEDERAL BONDS**

- Canada's economic statistics were muted in the fourth quarter, in keeping with our forecast scenario, which called for growth to be about half as fast as it was in the third quarter. In its latest *Monetary Policy Report*, the Bank of Canada (BoC) continued to stress external risks, anticipating a deeper recession in Europe which should trim 0.6 percentage points from Canada's GDP in 2012. However, the BoC clearly refrained from signalling any rate cuts.
- Positioned for a key rate cut at the end of 2012, some investors had to adjust subsequent to the BoC's statement. The improvement of U.S. economic statistics and rise in bond yields in the United States also took Canadian yields up in mid-January. Two-year yields, which had hit a low of 0.84% in December, had climbed above 1% in mid-January. The 10-year yield managed to cross the 2% mark again on January 19 until the Fed announced its commitment to keep rates low until the end of 2014.
- The greater optimism that has been reigning since the start of 2012 has resulted in a parallel upward shift by the Canadian yield curve. The spread between 10-year and 2-year yields, which had recently hit a 3-year-old low of 98 basis points, has barely widened in the last few weeks. Note that, unlike the U.S. curve, the short portion of the Canadian curve is not nearly as entrenched, as shown by the spread between 2-year Canadian and U.S. yields, which recently went to 83 basis points, the highest in three months. For its part, the Canadian 10/30 curve is comfortably within the 56 to 62 basis point range it has been in since the end of December, also reflecting the parallel shift by the entire yield curve.

**Forecasts:** We are lowering our target for the Canadian 10-year yield to 2.4% for the end of 2012. Canadian bonds should remain popular abroad, as Canada is one of a dwindling number of countries with an AAA rating. The Fed, with no plans to raise its key rate for nearly three years, argues in favour of even lower yields for a long time, especially as the BoC could also stay on the sidelines into 2014. In the first half of 2012, yields are not expected to fluctuate much from their current levels, as the European recession will be in full swing and a plethora of uncertainties will favour quality bonds. Only in the second half of the year will we likely see yields move up, although very gradually.



**Table 1**  
Key interest rates

End of period in %	2011				2012				2013			
	Q1	Q2	Q3	Q4	Q1f	Q2f	Q3f	Q4f	Q1f	Q2f	Q3f	Q4f
<b>United States</b>												
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
<b>Canada</b>												
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
<b>Euro zone</b>												
Refinancing rate	1.00	1.25	1.50	1.00	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
<b>United Kingdom</b>												
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
<b>Japan</b>												
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
<b>October 2011</b>			
31	Reserve Bank of Australia	-25 b.p.	4.50
<b>November 2011</b>			
2	Federal Reserve	s.q.	0.00 / 0.25
3	European Central Bank	-25 b.p.	1.25
10	Bank of England	s.q.	0.50
15	Bank of Japan	s.q.	0.10
30	Bank of Brazil	-50 b.p.	11.00
<b>December 2011</b>			
2	Bank of Mexico	s.q.	4.50
5	Reserve Bank of Australia	-25 b.p.	4.25
6	Bank of Canada	s.q.	1.00
7	Reserve Bank of New Zealand	s.q.	2.50
8	European Central Bank	-25 b.p.	1.00
8	Bank of England	s.q.	0.50
13	Federal Reserve	s.q.	0.00 / 0.25
14	Bank of Norway	-50 b.p.	1.75
15	Swiss National Bank	s.q.	0.00
20	Bank of Sweden	-25 b.p.	1.75
20	Bank of Japan	s.q.	0.10
<b>January 2012</b>			
12	European Central Bank	s.q.	1.00
12	Bank of England	s.q.	0.50
17	Bank of Canada	s.q.	1.00
18	Bank of Brazil	-50 b.p.	10.50
20	Bank of Mexico	s.q.	4.50
23	Bank of Japan	s.q.	0.10
25	Reserve Bank of New Zealand	s.q.	2.50
25	Federal Reserve	s.q.	0.00 / 0.25

s.q.: status quo; b.p.: basis points

Source: Desjardins, Economic Studies

**Table 3**  
Coming soon

Date	Central Bank
<b>February 2012</b>	
6	Reserve Bank of Australia
9	European Central Bank
9	Bank of England
14	Bank of Japan
16	Bank of Sweden
<b>March 2012</b>	
5	Reserve Bank of Australia
7	Reserve Bank of New Zealand
7	Bank of Brazil
8	European Central Bank
8	Bank of England
8	Bank of Canada
13	Bank of Japan
13	Federal Reserve
14	Bank of Norway
15	Swiss National Bank
16	Bank of Mexico
<b>April 2012</b>	
4	European Central Bank
4	Reserve Bank of Australia
5	Bank of England
10	Bank of Japan
17	Bank of Canada
18	Bank of Brazil
19	Bank of Sweden
25	Reserve Bank of New Zealand
25	Federal Reserve
27	Bank of Japan
27	Bank of Mexico

Source: Desjardins, Economic Studies

**Table 4**  
**United States: fixed income market**

End of period in %	2011				2012				2013			
	Q1	Q2	Q3	Q4	Q1f	Q2f	Q3f	Q4f	Q1f	Q2f	Q3f	Q4f
<b>Key rate</b>												
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
<b>Treasury bills</b>												
3-month	0.09	0.03	0.02	0.02	0.05	0.10	0.10	0.10	0.15	0.15	0.15	0.15
<b>Federal bonds</b>												
2-year	0.76	0.44	0.26	0.23	0.25	0.25	0.35	0.40	0.45	0.50	0.55	0.60
5-year	2.19	1.72	0.94	0.81	0.80	0.85	1.00	1.10	1.20	1.30	1.40	1.50
10-year	3.45	3.16	1.93	1.88	1.90	2.00	2.20	2.40	2.50	2.60	2.70	2.80
30-year	4.51	4.38	2.92	2.89	3.05	3.10	3.25	3.40	3.50	3.60	3.70	3.75
<b>Yield curve</b>												
5-year - 3-month	2.10	1.69	0.92	0.79	0.75	0.75	0.90	1.00	1.05	1.15	1.25	1.35
10-year - 2-year	2.70	2.72	1.66	1.64	1.65	1.75	1.85	2.00	2.05	2.10	2.15	2.20
30-year - 3-month	4.42	4.35	2.90	2.87	3.00	3.00	3.15	3.30	3.35	3.45	3.55	3.60

f: forecasts

Sources: Datastream and Desjardins, Economic Studies

**Table 5**  
**Canada: fixed income market**

End of period in %	2011				2012				2013			
	Q1	Q2	Q3	Q4	Q1f	Q2f	Q3f	Q4f	Q1f	Q2f	Q3f	Q4f
<b>Key rate</b>												
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
<b>Treasury bills</b>												
3-month	0.96	0.93	0.81	0.82	0.85	0.85	0.90	0.95	1.00	1.05	1.10	1.15
<b>Federal bonds</b>												
2-year	1.83	1.60	0.88	0.96	1.00	1.05	1.15	1.20	1.25	1.35	1.45	1.50
5-year	2.77	2.33	1.39	1.28	1.30	1.35	1.50	1.60	1.70	1.80	1.90	2.00
10-year	3.35	3.11	2.15	1.94	2.00	2.05	2.20	2.40	2.50	2.60	2.70	2.80
30-year	3.80	3.58	2.77	2.49	2.65	2.70	2.90	3.05	3.15	3.25	3.35	3.40
<b>Yield curve</b>												
5-year - 3-month	1.81	1.40	0.58	0.46	0.45	0.50	0.60	0.65	0.70	0.75	0.80	0.85
10-year - 2-year	1.52	1.51	1.27	0.98	1.00	1.00	1.05	1.20	1.25	1.25	1.25	1.30
30-year - 3-month	2.84	2.65	1.96	1.67	1.80	1.85	2.00	2.10	2.15	2.20	2.25	2.25
<b>Spreads (Canada - U.S.)</b>												
3-month	0.87	0.90	0.79	0.80	0.80	0.75	0.80	0.85	0.85	0.90	0.95	1.00
2-year	1.08	1.16	0.62	0.73	0.75	0.80	0.80	0.80	0.80	0.85	0.90	0.90
5-year	0.58	0.62	0.45	0.47	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
10-year	-0.10	-0.05	0.22	0.06	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00
30-year	-0.71	-0.80	-0.15	-0.40	-0.40	-0.40	-0.35	-0.35	-0.35	-0.35	-0.35	-0.35

f: forecasts

Sources: Datastream and Desjardins, Economic Studies