Economic Viewpoint

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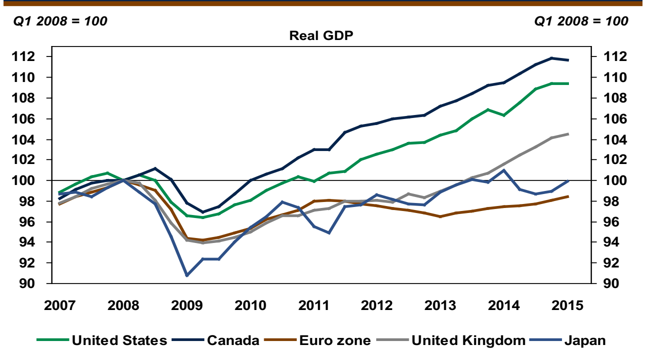
Negative interest rates: Will Canada be spared?

In the past year, many European central banks have chosen to push the boundaries of their key interest rates by venturing into negative territory. Those decisions have pulled many other interest rates below the zero threshold. Canada has not experienced this unusual situation so far, but what about the future? This *Economic Viewpoint* discusses the conditions in which key interest rates, and certain bond yields and retail interest rates might fall below zero in Canada. Although this is a possibility, it is important to note that the probability of all these conditions being fulfilled is very low.

VERY WEAK GROWTH AND INFLATION IN EUROPE

When we analyze the economic trends of the euro zone since the 2008 financial crisis, we are struck by how slow the economic recovery has been in that part of the world. Today, the euro zone's real GDP is still below where it stood in the first quarter of 2008 (graph 1). In comparison, Canada has pulled through much better: its real GDP has increased by 12% compared to the level recorded at the beginning of 2008.

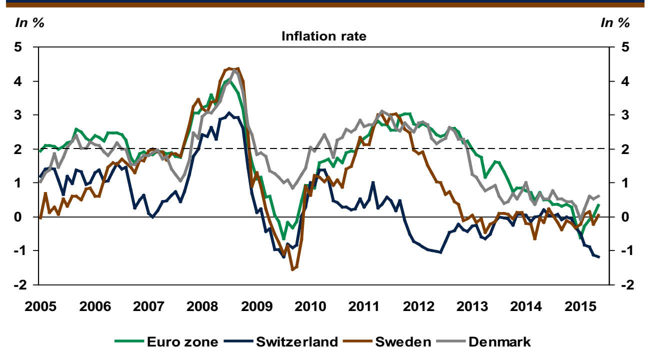
Graph 1 – The economic recovery has been particularly slow in the euro zone



Sources: Datastream and Desjardins, Economic Studies

The sovereign debt crisis that started shortly after the financial crisis took a heavy toll on the euro zone. Among other effects, it paralyzed the European financial system over an extended period. Today, the euro zone economy is still feeling the effects of this crisis; witness the situation in Greece. The limpness of the economic recovery has been accompanied by significant disinflationary, or even deflationary, pressures in the euro zone and in neighbouring countries (graph 2). The troubled economic and financial situation has forced the European Central Bank (ECB) to push the envelope in using unconventional monetary policy tools, including a negative interest rate for its deposit facility.[1]

Graph 2 – Inflation is very weak in Europe



Sources: Datastream and Desjardins, Economic Studies

THE ECONOMIC CONDITIONS IN CANADA DO NOT YET WARRANT EXTREME MEASURES

While the latest data on the Canadian economy are rather disappointing, it is standing on high ground compared with those of many European countries, and disinflationary pressures here are not as strong. Furthermore, should the need arise, the Bank of Canada (BoC) has some leeway available to it before it will have to resort to

[1] Since September 10, 2014, the ECB's interest rate for the deposit facility has been set at -0.20%. The interest rate for the main refinancing operations and that for the lending facility are still positive, at 0.05% and 0.30% respectively.

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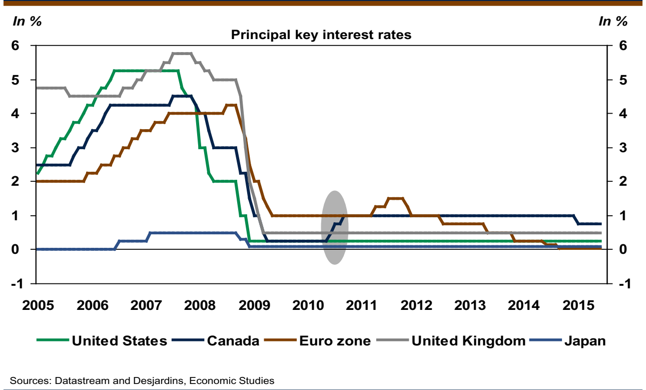
Note to readers: The letters **k**, **M** and **B** are used in texts and tables to refer to thousands, millions and billions respectively.

unconventional monetary policy tools. Thanks to the more sustained economic recovery that Canada enjoyed after the 2008 financial crisis, the BoC was able to raise its key interest rates slightly, which most of the other central banks in advanced countries could not do (graph 3). The ECB did raise its rates, but quickly reversed course afterwards.

Graph 3 – The Bank of Canada raised its key interest rates three times in 2010



Last fall's oil price collapse and the negative repercussions expected to ensue prompted the BoC to lower its main key interest rate in January, from 1.00% to 0.75%. Another cut of 25 basis points may be ordered in the near future, given that the probability of Canada recording a second straight contraction in its real GDP has increased. However, more pessimistic scenarios would have to take shape to warrant more substantial monetary easing measures.

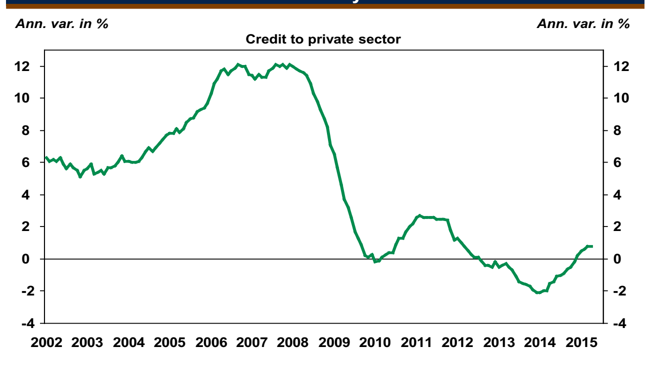
In its review of the financial system, the BoC identifies the main risks threatening the stability of Canada's financial system and its economy.[2] A sharp correction in home prices, an abrupt increase in long-term interest rates, a major crisis in the emerging countries and a resurgence of financial tensions from the euro zone are all scenarios that might require a significant intervention by the central bank. That said, however, resorting to negative key interest rates would not necessarily be the answer.

WE MUST CONSIDER THE EFFECTIVENESS OF THE VARIOUS MONETARY POLICY TOOLS

Choosing one monetary policy tool over another depends essentially on how effectively it will fulfill the desired objective. In a situation where households already have high debt loads, as is the case in Canada, lowering key interest rates into negative territory to stimulate the economy would probably not be the best option. First, doing so could create more instability in the medium and long terms. Furthermore, households might simply fail to react to the more favourable borrowing conditions if they felt they already had enough debt on their shoulders, or if new macroprudential measures were decreed to contain the risk of over-indebtedness. In either case, the monetary policy measure would not be very effective in stimulating the economy, at least not through the credit channel.

However, the same measure, applied in the euro zone, promises better results. Households there have lower debt loads, since credit growth plunged in 2008 (graph 4). The ECB had everything to gain by attempting to boost credit, and it appears to be succeeding, judging by the improvements seen in the past few quarters. By applying a negative interest rate to its deposit facility, the ECB penalizes financial institutions that prefer to hold onto large reserves of funds, rather than grant more loans. At the same time, the ECB is purchasing vast quantities of securities, which helps weaken some market rates and stimulate the economy.

Graph 4 – Credit growth has been sluggish in the euro zone for several years



AVOIDING A LOSS OF COMPETITIVENESS DUE TO THE EXCHANGE RATE

Boosting economic growth and inflation through the credit channel is not the only reason for lowering interest rates into negative territory. The Swiss National Bank (SNB) and the National Bank of Denmark (Danmarks Nationalbank) took that step to limit the appreciation of their respective currencies, since the euro's decline was threatening to affect their competitiveness within Europe. The exchange rate also has an impact on inflation. A strong currency generates disinflationary pressures by reducing prices of imports.

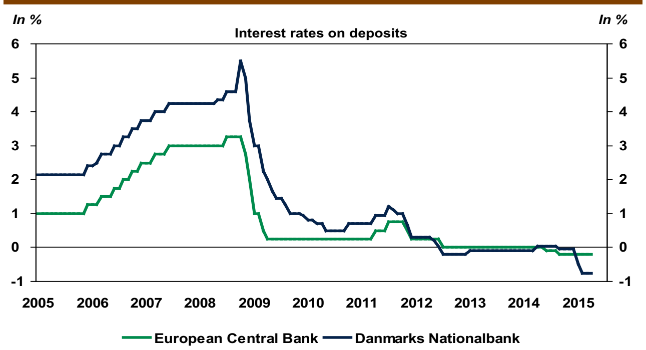
Denmark is a special case, because it maintains a fixed exchange rate against the euro.[3] This protects it from competitiveness shocks linked to the exchange rate, but

[2] Bank of Canada, *Financial System Review*, June 2015, 66 p., www.bankofcanada.ca/wp-content/uploads/2015/06/fsr-june2015.pdf.

[3] The Danmarks Nationalbank aims for an exchange rate of €1 for 7.46038 krone with a fluctuation band of ±2.25%.

it also means that the Danish central bank has to quickly adjust its key interest rates in response to decisions by the ECB and market pressures (graph 5). All things being equal, if interest rates become too attractive in Denmark compared with the euro zone, the krone will tend to appreciate. Therefore, the ECB's interest rate cut forced the Danmarks Nationalbank to follow suit. It did not adopt an asset purchase program, however, which may explain, in part, why the key interest rates had to be lowered a little further in Denmark.

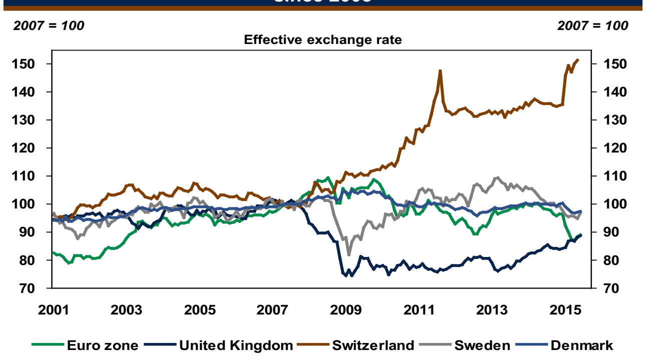
Graph 5 – The Danmarks Nationalbank is often obliged to move in the same direction as the European Central Bank



Sources: Datastream and Desjardins, Economic Studies

Switzerland does not have as firm a target as Denmark does, but the weak inflation generated by the appreciation of the exchange rate has prompted the SNB to take action (graph 6). Over a period of a few years it defended a floor exchange rate of 1.20 francs/€ by keeping interest rates low and intervening on the foreign exchange market (selling francs for foreign currencies). However, the latest decisions by the ECB and the strong depreciation of the euro that followed have complicated matters for the Swiss monetary authorities. In January 2015 the floor exchange rate was abandoned, but at the same time the SNB lowered its key interest rates deeper into negative territory, in order to limit the appreciation of the franc as much as possible. In concrete terms, the target for the 3-month LIBOR rate was set at -0.75%.

Graph 6 – The Swiss franc has appreciated substantially since 2008



Sources: Datastream and Desjardins, Economic Studies

The exchange rate issue could more easily justify negative interest rates in Canada. That said, the Canadian dollar has already depreciated considerably in the past two years. It currently stands at around US$0.79 and could lose more ground in the short term without the BoC adopting negative interest rates. The outcome would be different in a scenario where the U.S. economy was in trouble and the Federal Reserve (Fed) adopted negative interest rates. Faced with the weakening U.S. dollar that would ensue, the BoC could find itself forced to follow the same path, just as the Danish and Swiss central banks did after the ECB's decisions.

THE EXCHANGE RATE CAN ALSO BE WEAKENED BY ASSET PURCHASES

Negative key interest rates are not the only way to make a currency depreciate. For a few years now, the Bank of Japan (BoJ) has conducted massive asset purchases, which has been a major factor behind the weakening of the yen (graph 7). The Fed has also been an enthusiastic user of this monetary policy tool, which kept the U.S. dollar in retreat for a few years.

Graph 7 – The yen has depreciated sharply due to massive asset purchases by the Bank of Japan

Sources: Datastream and Desjardins, Economic Studies

The BoC might therefore prefer to embark on massive asset purchases, rather than adopt negative interest rates, if circumstances required that the exchange rate be reduced. This option appears all the more credible in that it would be surprising to see the Fed lower its interest rates below zero before carrying out another asset purchase program. In fact, Fed officials did examine the possibility of adopting negative interest rates, but they were apprehensive of the adverse effects such a measure might have. In November 2013, Janet Yellen told a Senate committee that even a slightly positive deposit rate would impair the money market.[4]

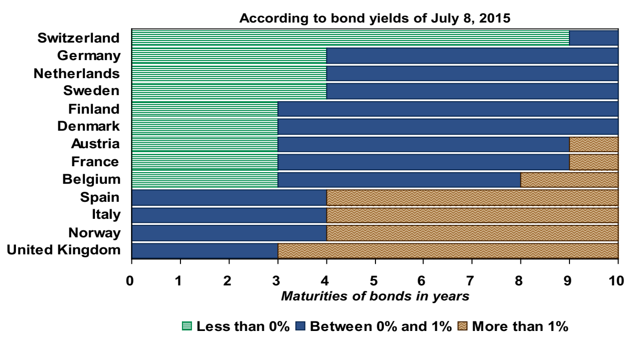
In a recently published *Economic Viewpoint*,[5] many potential costs linked with negative interest rates were discussed. These costs, even though they currently appear to be under control in Europe, would probably encourage the Fed and the BoC to use negative interest rates only as a last resort.

ASSET PURCHASES ARE NOT ENOUGH TO SEND BOND YIELDS BELOW ZERO

Massive asset purchases are effective at weakening bond yields, but it would seem that negative key interest rates are needed to really push them into negative territory. Incidentally, bond yields fell below zero in Switzerland and Denmark even though the central banks of those countries had not announced any asset purchase program.

By lowering their interest rates below zero, the central banks encourage financial institutions to find other outlets for their surplus funds. The institutions can grant more loans, or they can purchase financial securities, such as government bonds, to reduce the quantities of money they deposit with their central bank. This drives up demand for those securities, which can push certain bond yields into negative territory, as was the case in many European countries (graph 8). Even with a negative yield, a bond can be more attractive than a deposit with the central bank.

Graph 8 – In many European countries, bond yields have also crossed over into negative territory



Sources: Bloomberg and Desjardins, Economic Studies

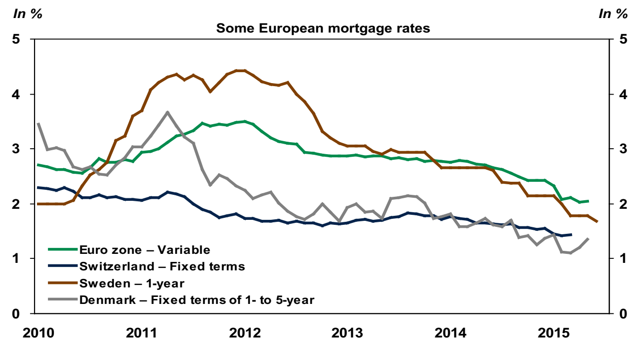
The Fed and the BoJ have both carried out massive asset purchase policies, but they never lowered their key interest rates below zero. Consequently, only a few money market interest rates headed briefly into negative territory in the United States, and never very far. The same thing has been observed in Japan so far, but with a slightly broader scope and for a few short-term bonds... nothing comparable to what has been observed in Europe in recent quarters.

In light of what has happened in Europe, at least two other conditions must be met for bond yields to move into negative territory. First, the risk rating of bonds must remain low. The European countries with a high risk have not seen their bond yields fall below zero. Second, low inflation expectations can help, especially for bonds with longer terms, where investors normally seek a return that will at least cover the loss of purchasing power linked to inflation. In fact, the growing inflation of recent months has been accompanied by rising bond yields in many countries.

NEGATIVE RETAIL INTEREST RATES ARE MUCH MORE RARE

It is even more difficult to meet the conditions for negative retail interest rates to exist. The official data on credit interest rates in Europe show that they are still well above zero (graph 9). A few exceptional cases have received much publicity, though, like that of a Danish lady who got an interest rate of -0.0172% for a 3-year loan[6], or companies that borrowed on the European bond market with a negative yield.

Graph 9 – Mortgage rates are still positive in Europe



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

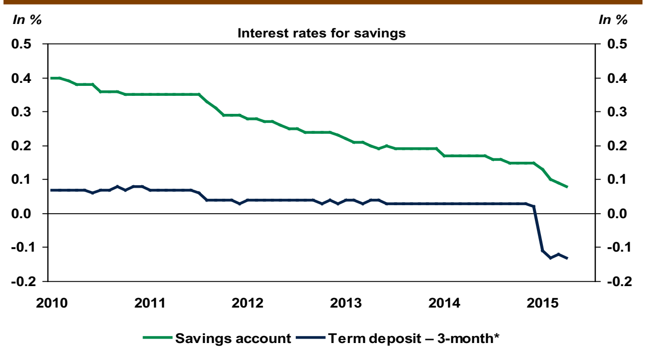
[4] Hearing of Janet Yellen before the Committee on Banking, Housing and Urban Affairs of the U.S. Senate on November 14, 2013, p. 18, www.gpo.gov/fdsys/pkg/CHRG-113shrg85910/pdf/CHRG-113shrg85910.pdf.

[5] Desjardins, Economic Studies, *Economic Viewpoint*, "What should we make of the negative interest rates that we now see in many countries?", May 27, 2015, www.desjardins.com/ressources/pdf/pv150527-e.pdf?resVer=1432733111000.

[6] Danny Hakim and Peter Eavis, *The New York Times*, "In Europe, Bond Yields and Interest Rates Go Through the Looking Glass", February 27, 2015, www.nytimes.com/2015/02/28/business/dealbook/in-europe-bond-yields-and-interest-rates-go-through-the-looking-glass.html?_r=0.

On the other hand, cases of individuals paying interest charges on their savings are a little more frequent. The official data on deposit rates in Switzerland clearly show this new reality (graph 10). The interest rates imposed by financial institutions are less onerous than the rate paid to the central bank, or those of the money market, however. And negative interest rates apply mainly to large deposits.

Graph 10 – Some savers in Switzerland pay interest on their deposits



* Deposit of 100,000 francs and more.
Sources: Datastream and Desjardins, Economic Studies

The Swiss example suggests that a central bank would have to be very aggressive with its key interest rates for certain retail interest rates to follow into negative territory. Not all central banks would be daring enough to test such low levels, due to the problems that might result. For one thing, negative retail interest rates could change the behaviour of savers, who would prefer to hold their assets in the form of bank notes, rather than pay interest. Obviously, this situation would be highly problematic for the stability of the financial system.

IN CONCLUSION, CANADA STILL SEEMS A LONG WAY FROM SEEING NEGATIVE INTEREST RATES

Canada's economic and financial conditions differ greatly from those of many European countries where negative interest rates are in effect. For the BoC to lower its key interest rates below zero, a series of events and steps would have to happen, making this scenario quite unlikely.

First of all, the BoC would have to use the freedom of action that is available to it. Its main key interest rate currently stands at 0.75%; this leaves some room for it to reduce key interest rates further within a traditional framework. After that, the economic situation would have to deteriorate considerably to warrant using unconventional monetary policy tools. In particular, the U.S. economy would have to be in serious trouble, which would push the Fed to take action again. Given the caution that it has already demonstrated with respect to negative interest rates, the Fed would probably take that route only as a last resort, i.e. after announcing a new program of asset purchases. Like the Swiss and Danish central banks, the BoC would go along for the ride with the Fed, mainly in order to prevent the Canadian dollar from appreciating against the U.S. dollar. Given the heavy debt burdens that Canadian households are carrying, a negative interest rate policy would probably not be terribly effective in stimulating the economy through the credit channel, but it could be more effective through the exchange rate channel.

Some bond yields would probably move into negative territory alongside the key interest rates, but there is no guarantee that retail interest rates would do likewise. The Swiss example suggests that the BoC would have to lower its key interest rates way below zero in order for that movement to be reflected in certain retail interest rates. However, the potentially high costs of lowering key interest rates that far, and the caution that the Fed has shown in the past about that policy, make this scenario even less likely for Canada.

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