

# Special Report

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## Negative Rates: Europe's Lessons For Canada

The Bank of Canada has been using communication tools to talk up the option of additional monetary policy easing if needed. It is doing so by way of pursuing a research agenda pointed in this direction and commenting publicly on such options. This follows two rate cuts this year that brought the central bank closer to what used to be thought of as the lower zero bound on nominal rates given that the BoC's policy rate now stands at 0.5%. Such efforts are within the context of ongoing risks facing the economic outlook stemming from the energy sector, non-resource exports and inflated nationwide housing markets that raise the concern that the central bank's current policy stance may make it less able to counter downside risks in future should they arise. The aim in this paper is not to assess those macro risks; rather it is to evaluate the European experience with negative rates and relate it to the Canadian market.

On balance, we don't presently see Europe's criteria being replicated in Canada. What's more, the early European experiment to date lends caution to viewing negative rates as a powerful policy option for Canada.

### 1. Where Negative Rates Have Been Introduced And Why

Four European central banks presently have policy rates set below zero. They are the European Central Bank, Sweden's Riksbank, the Swiss National Bank (SNB) and Denmark's Danmarks NationalBank (DNB).

- The **Riksbank** first drove its deposit rate negative in July 2009 until September 2010, and then cut it again in July 2014 before moving on to drive its main policy repo rate negative in February 2015.
- The **SNB** went negative on its 3 month LIBOR target rate in December 2014. Only the SNB and the Riksbank went negative on their core policy rates in addition to their deposit rates.
- **Denmark's** rate of interest on CDs went negative in July 2012 until April 2014 and again in September 2014.
- The **ECB** moved its deposit rate negative in June 2014 but not its main refi rate, and it cut again three months later. It may move further on negative rates at its upcoming policy meeting on December 3rd.

Useful overviews of the policy motivations and potential effects of negative rates can be found in [this](#) article from the World Bank earlier this year, [this](#) article by the NY Federal Reserve, [this](#) piece also by the NY Federal Reserve, and [this](#) fresh review from the Bank of Canada, among others.

On balance, these central banks pursued negative rates for one or several of the following reasons.

- To lower the real cost of borrowing.** Several adopting central banks faced low headline and core inflation and thus higher inflation-adjusted borrowing costs before they moved to negative rates. That includes Sweden where the core rate of inflation fell to zero in March 2014. Lowering the real cost of borrowing should, in theory, incite higher borrowing, and faster growth in money supply.
- To deploy idle cash.** Charging a penalty for holding deposits is thought to encourage deployment of idled liquidity into various elements of the risk trade and through lending channels.
- To debase the currency.** If the *prima facie* objective of negative rates succeeds by stimulating borrowing activity and risk taking and hence underlying growth as a driver of core inflation, then currencies could strengthen over time

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or depreciate at a less rapid pace than otherwise. If this goal fails, then the currency is fully a one-way debasement carry-trade out of the currency that is penalizing hot money flows with negative rates and more toward other positive yielding currencies.

**d. To export disinflationary pressures.** Rival central banks are attempting to return inflation to target through raising import prices on the back of currency depreciation or to counter what would otherwise be appreciating currencies in the absence of negative rates.

## 2. Are Negative Rates Working In Europe?

A stylized facts approach concludes that constructive evidence of policy success surrounding negative policy rates in Europe is limited at best. An interesting concept in central banking circles is in search of much greater supporting macroeconomic evidence and with possibly unintended adverse consequences. A caveat is that it may still be early to evaluate the consequences of negative rates given their fairly recent introduction and the fact that they are almost completely unprecedented with the exception of Switzerland's measures in 1972 to fend-off recycled petro-flows; they existed neither during the 2008-09 crisis nor the Great Depression. Another caveat that always hangs over the social sciences is that we can never observe the alternate state of reality by way of what might have happened in the absence of negative rates.

### a. Borrowing

Charts 1 and 2 show growth in household borrowing (usually lumped together with 'not for profits' as a small component in the available data) and business borrowing in each of the regions that have adopted negative rates. A steady, sustained trend-break in credit growth across these regions is difficult to discern.

There are several possible reasons for this in addition to the possibility that more time may be needed for success.

One is that banks may suffer margin erosion on their loans as a direct by-product of negative interest rates and thus become less willing to lend. Banks may pay to hold deposits at central banks — at a cost that diminishes profitability — but may not pass through negative deposit rates to their clients as they are not in Europe. Lending rates are more likely to be driven lower in a negative deposit rate environment and thus lending spreads narrow. There is some evidence for this already but mixed alongside longer-lived influences (chart 3). Tighter spreads may lessen the willingness of lenders to lend and, as such, negative rates can exacerbate deleveraging.

A second reason is that paying a slight penalty for holding idle deposits at the central bank may be viewed by banks as the least unpalatable option compared to lending out funds only to potentially lose the loan. Attractive credit opportunities are required, and these may be hard to come by in an environment marked by the perceived necessity of extreme policy measures.

A third possibility is that negative rates serve a negative signaling effect to borrowers that dampens borrower confidence.

Another possible reason is that if clients expect to have to pay banks for deposits, they may balk at this and choose to either hoard cash and thus reduce funding to lenders, or use deposits to pay off higher cost loans — thus exacerbating deleveraging.

Chart 1

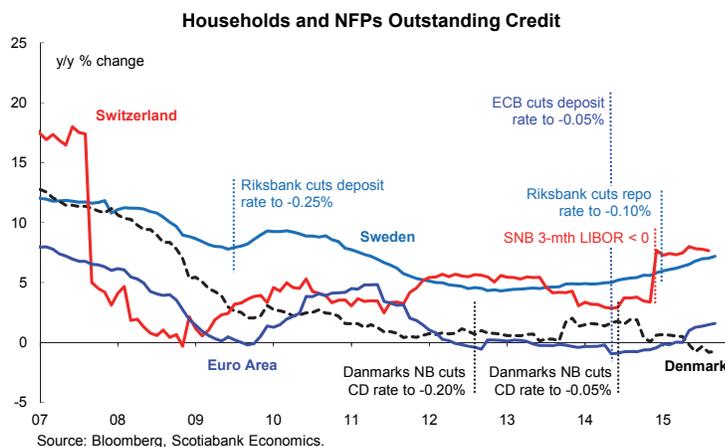


Chart 2

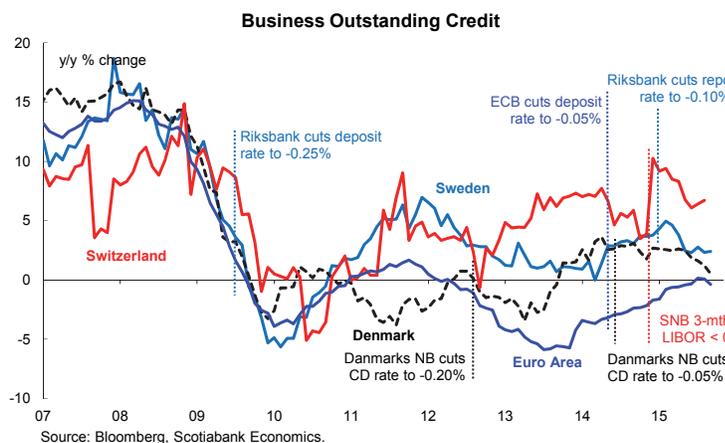
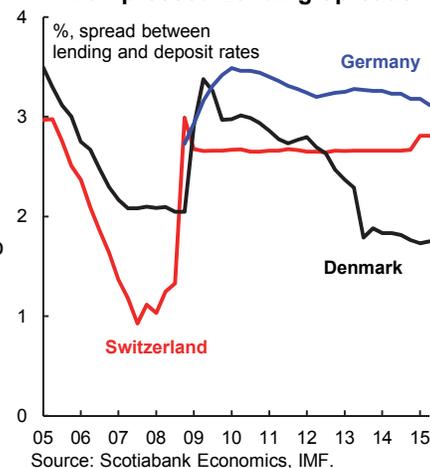


Chart 3 Compressed Lending Spreads



A fifth possibility is that banks are reticent to pass through negative deposit rates that would require their depositors to pay banks. Doing so could harm client relations and run the risk of deposits migrating toward banks and nonbanks that are unwilling to push deposit rates negative. Thus, banks may pay negative deposit rates through central banks but transmission to clients is blocked.

**b. Risk Trade**

As chart 4 depicts, most of Europe's equity bourses have gained since the ECB introduced negative rates two summers ago. The DAX and CAC40 have been beaten by some, while Spain and Italy have lagged alongside London. A caution is that this is expressing the returns in local currency terms. Converted to US dollars from the standpoint of a US-domiciled investor, however, would yield even less supporting enthusiasm toward the influence of ECB policy. It is possible, however, that ECB actions lifted global markets in general.

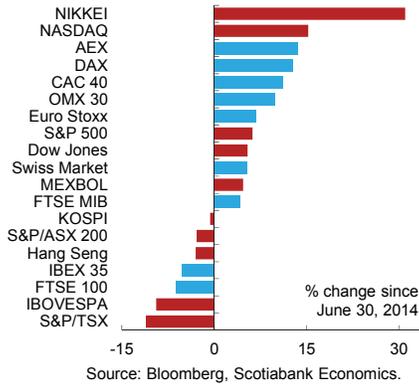
**c. Inflation**

Here too the evidence is at best mixed so far. It's unclear whether negative rates have done much to alter the trajectory of market-based inflation expectations in any meaningful way. Chart 5 demonstrates that since the ECB went negative in the summer of 2014, market inflation expectations have been volatile and more to do with commodity prices than any clear trend related to ECB policy. Chart 6 shows core inflation measures in each of the Eurozone, Sweden, Denmark and Switzerland following the decisions to introduce negative rates. At least thus far, if the policy aim of negative rates was to lift core inflation, then the policy has failed in the face of other risks. We stress we don't know what might have happened otherwise, and monetary policy acts with long lags on inflation.

**d. Currency debasement**

Charts 7-11 contain event-studies showing the response of currencies in the affected countries around the time that their central banks went negative on one or more policy rates. As a whole they are not overwhelmingly convincing. The euro began depreciating versus the USD several weeks after the ECB cut to a negative rate and has continued to depreciate since and partly also on expectations that US monetary policy was turning less accommodative going forward which mixes the

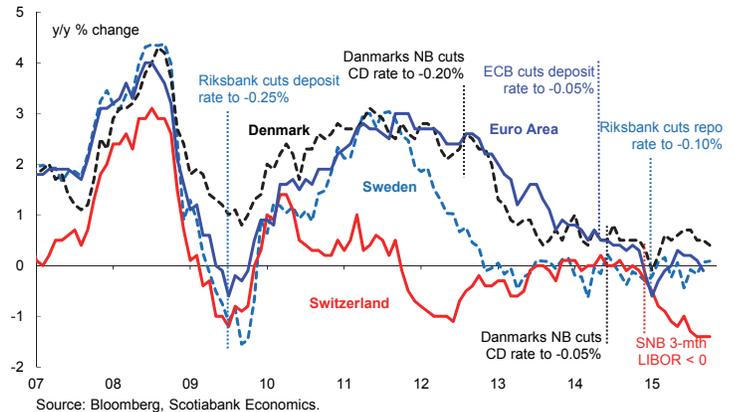
**Chart 4**  
Europe's Relative Stock Performance Under Negative Rates



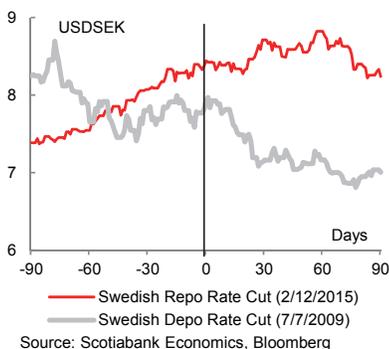
**Chart 5**  
Eurozone Inflation Expectations



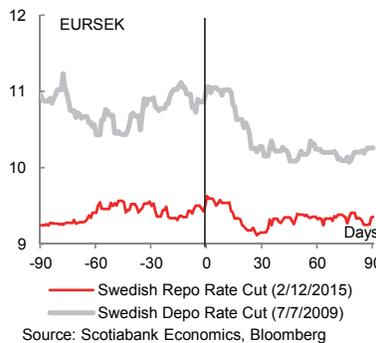
**Chart 6**  
Inflation



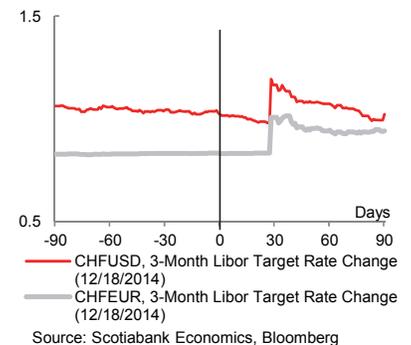
**Chart 7**  
SEKUSD  
Price Action Around Negative Rate Announcements



**Chart 8**  
SEKEUR  
Price Action Around Negative Rate Announcements



**Chart 9**  
CHF  
Price Action Around Negative Rate Announcements



influences. In the cases of the Riksbank, SNB, and DNB, all were trying to defend against a depreciating euro when they cut to zero.

### 3. Canadian Differences

Canada offers a different backdrop than Europe on multiple fronts. At least to this point, several differences on balance should lend themselves to dismissing negative rates as a necessary policy option notwithstanding at best mixed evidence in Europe.

#### a. Real rates are already very low to negative in Canada.

Inflation has generally not been subject to as large and diverse downward pressure as in Europe. The 10 year inflation breakeven rate sits at about 1 ½% compared to the BoC's overnight rate of 0.5%. This could change in, say, a scenario of significant domestic turmoil such as household sector weakness.

**b. The floating Canadian dollar has already done much of the adjustment** and its main trading partner is not presently attempting to debase its own currency. In fact, we are forecasting further gains in the USD as the Federal Reserve raises rates. Note that this stands in stark contrast to the efforts of Denmark and Switzerland with managed currencies as opposed to Canada's floating exchange rate.

**c. Borrowing channels are already quite strong in Canada** without the borrower deleveraging and lender challenges elsewhere (chart 12).

**d. Idled liquidity.** Former Governor Mark Carney often commented on corporate Canada's cash balances and some saw it differently. Thus the validity of this argument as a need for negative rates to force redeployment of liquidity is controversial at best.

**e. Commodities reliance.** Canada is also different in part due to greater average reliance upon the commodities picture than the European central banks that have pursued negative rates, and a central bank whose reaction function is accommodative.

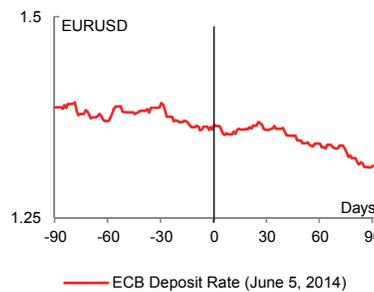
### 4. Risks Associated With Negative Rates.

There is a growing literature in a nascent phase of development with respect to the risks associated with negative rates, the potential need for changed contracts and the broad legal framework, and the potential for behavioural changes oriented toward mitigating or entirely avoiding the effects of negative rates. The earlier-cited papers contain a number of references to such complicating factors. Two more that are specific to the Canadian context are offered here:

First is financial stability. In the context of already elevated house prices in Canada (chart 13), further downward pressure upon borrowing costs could add to concerns of housing excesses as they have tended to do in Sweden and Denmark.

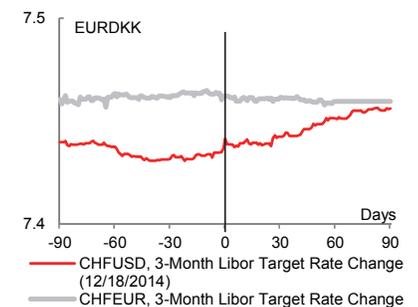
Second is the impact upon foreign market confidence in Canada. While currency debasement can be a goal of negative rates, the cost for a country that is significantly dependent upon foreign appetite for its borrowing needs can be reduced appetite for some types of bonds in such fashion as to widen borrowing spreads. This may be Canada's challenge now in that wide spreads on Canada Mortgage Bonds and provincial bonds may exist in part because of foreign buyer reticence in the face of ongoing chatter of policy easing and the currency implications. In recent meetings with our clients on a swing through Asia, I often heard concern about the outlook for the currency and the bottom for base yields as a mitigating factor operating against appetite for some Canadian debt instruments. For a country with a small weighting in global portfolios, risk aversion in the face of such uncertainty tends to dominate in favour of greater emphasis placed upon other options.

**Chart 10**  
**EURUSD**  
Price Action Around Negative Rate Announcements



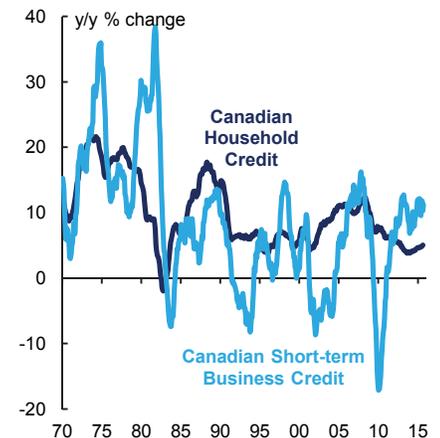
Source: Scotiabank Economics, Bloomberg

**Chart 11**  
**DKK**  
Price Action Around Negative Rate Announcements



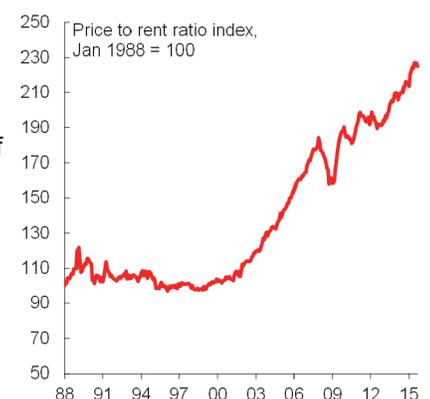
Source: Scotiabank Economics, Bloomberg

**Chart 12**  
**Canadian Loan Growth**



Source: Bank of Canada, Scotiabank Economics.

**Chart 13**  
**Canadian Price to Rent Ratio**



Source: Scotiabank Economics, Statistics Canada, MLS.