OBSERVATION
TD Economics

February 18, 2015

BELOW ZERO

Are European-style negative interest rates headed to Canada?

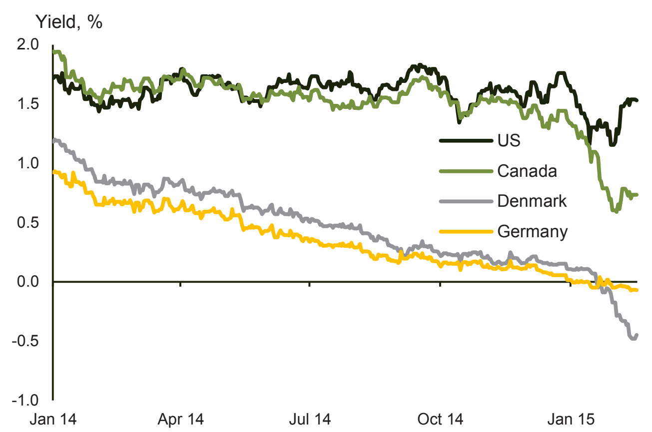
Highlights

- Increased monetary stimulus globally, along with reduced inflation expectations, has pushed bond yields to historic lows – and in the case of many European markets, bond yields are now negative.
- Reasons why investors would buy apparently money-losing investments include flight to safety, fears of deflation, speculation that yields will fall even further, a bet on currency appreciation, and policy constraints that favour fixed income. While most of these conditions are present in Europe, for the most part, they do not apply to Canada.
- TD Economics expects another 25 basis-point rate cut on March 4th, which would take the overnight rate to 0.50%. However, given the different economic fundamentals in Canada versus Europe, barring a recession in Canada, it remains very unlikely that Canadian market yields will drop below zero.

An uptick in Canadian and global interest rates is one forecast that economists have consistently got wrong since the recession ended. Instead, a mix of disappointing growth in many parts of the world economy, risk aversion, and most recently falling crude oil prices and growing deflation fears have all conspired to pull yields steadily lower. This has led many central banks globally to ramp up monetary stimulus, which has added fuel to the descent and pushed yields to historic lows (see Chart 1).

In what would have been unfathomable a decade ago, in many European countries bond yields have turned negative for highly rated sovereign debt and even some blue-chip corporate issues. With interest rates already so low in Canada, and a central bank which is clearly willing to be aggressive in the face of a potential worsening in the economic environment, investors may be wondering if these European trends are poised to cross the pond. Given the difference in economic fundamentals between Canada and Europe, barring a recession in Canada, it remains very unlikely that Canadian market yields will become negative.

CHART 1: 5-YEAR BOND YIELDS



Source: Bloomberg. At February 17, 2015.

RIP ZLB

When it comes to low bond yields, European yields are the lowest of the low. Five years of stagnant economic growth and fears of deflation led the European Central Bank (ECB) to cut interest rates to rock bottom levels back in June, with the deposit rate set below zero. However, the ECB was not the first central bank to breach the zero lower bound. Denmark actually introduced negative interest rates in 2012, in order to maintain its currency peg to the euro. Switzerland dropped its policy rate below zero in December to help maintain its euro-peg, and then further to -0.75% when it unpegged the franc. Sweden's Riksbank is the latest central bank

Derek Burleton, VP & Deputy Chief Economist, 416-982-2514
Leslie Preston, Economist, 416-983-7053

to go negative, dropping its repo rate to -0.10%, in addition to announcing quantitative easing. So much for the zero lower bound (ZLB). Not so long ago the ZLB for monetary policy was cited as a reason for outright asset purchases in order to put downward pressure on interest rates further out the yield curve.

Central banks led the way into negative yields, and the anticipation of outright quantitative easing by the ECB tipped bond yields farther out the curve in Europe into negative territory. European countries such as Germany, Denmark, The Netherlands, Sweden, Switzerland and Austria all have negative yields out to at least five year maturities, and out to 13 years in the case of Switzerland. But negative yields are not confined to sovereign bonds. Investors have to lock in a loss for the privilege of lending to high profile European companies like BMW, LVMH, BP and Nestlé.

Paying for Safety

Negative yields imply that an investor will get back less than they paid, even after interest is taken in to account, if they hold the bond to maturity. Investors are in effect paying to hold the bond. Why would rational and sophisticated institutional investors want to buy bonds like that? There are several reasons or conditions that would make buying bonds with a negative yield a reasonable bet:

1. **Caution/Risk aversion or heightened flight to safety** – if investors are highly risk averse they may decide it's worth accepting a negative yield to keep their money in a highly rated, relatively safe debt instrument. Essentially an investor is paying a fee as an insurance premium to keep their money in a safe and liquid investment, versus perhaps losing a lot more money in an alternative investment.
2. **Deflation** – real, or inflation-adjusted, yields are what matter to investors, so a negative nominal yield could still be positive in real terms. However, deflation does not necessarily lead to negative bond yields. Japan has had periods of deflation for more than 10 years and has only had negative yields in certain parts of the yield curve very recently.
3. **Speculation on further monetary easing** – This is related to deflation, as the fear of deflation would lead a central bank to ease further. But essentially if investors think that yields could go even more negative in the short-run, they could still make a return by locking in a capital gain through selling prior to maturity.
4. **Currency moves** – when an investor buys a bond, it is not only a bet on the debt, but also the currency that the debt is denominated in. Even if a yield is very low, if there is an expectation that the currency of the country is set to appreciate, an investor could still make money on that bond, if the expected move in the currency outweighs the negative yield.
5. **Policy constraints** – some investors like banks, insurance companies and pension funds, have to comply with asset allocation rules, leading them to buy bonds, whatever the cost.

Many of these conditions apply to the current situation in Europe. Worries that Greece could be forced out of the euro zone are heightened (please see Greece Cannot Be Allowed to Leave the Euro). Inflation for the euro zone as a whole is in negative territory and certain countries in the periphery are expected to experience deflation overall for this year (see Table 1). With the ECB set to begin outright asset purchases in March, investors may be making a bet that increased demand due to ECB buying will send yields further into the red, enabling them to still make money on these bonds. Or at least investors know that ECB purchases down the road helps ensure there is a ready buyer for their bonds.

Canada and the euro zone are oceans apart

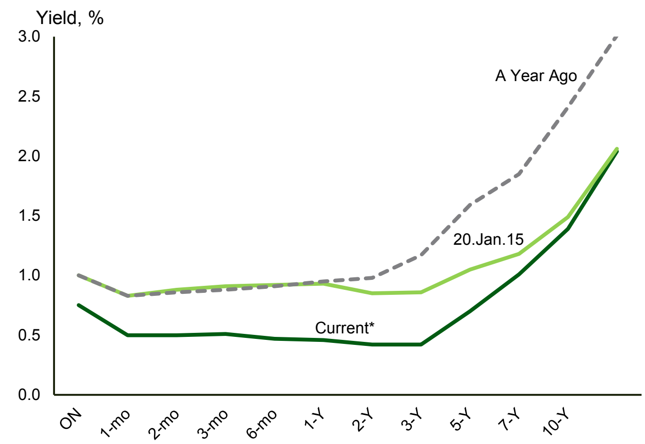
Canadian bond yields are in many cases at all-time lows.

Table 1. Inflation Measures Across Countries

	Consensus Economic Inflation Forecasts (Feb. 9th, 2015)		Latest Inflation Reading*	10-Year Breakeven**
	2015	2016		
Canada	**0.8**	**2.1**	**1.5**	**1.7**
U.S.	0.3	2.2	0.8	1.7
U.K.	1.6	2.4	0.5	2.4
Japan	0.9	1.2	2.4	0.9
Euro zone	**-0.1**	**1.1**	**-0.6**	
Germany	0.3	1.6	-0.5	0.9
France	0.1	1.1	0.1	1.0
Denmark	0.8	1.5	0.1	
Sweden	0.3	1.7	0.3	1.2
Switzerland	-1.3	-0.1	-0.5	
Spain	-0.9	1.1	-1.4	1.1
Greece	-0.6	0.6	-2.5	

Source: Bloomberg. *either December or January.
**Nominal yield on a 10-Yr Govt bond less the yield on a real return bond, Feb. 17, 2015

CHART 2: CANADIAN YIELD CURVE



Source: Bank of Canada, Haver Analytics.
*February 12, 2015

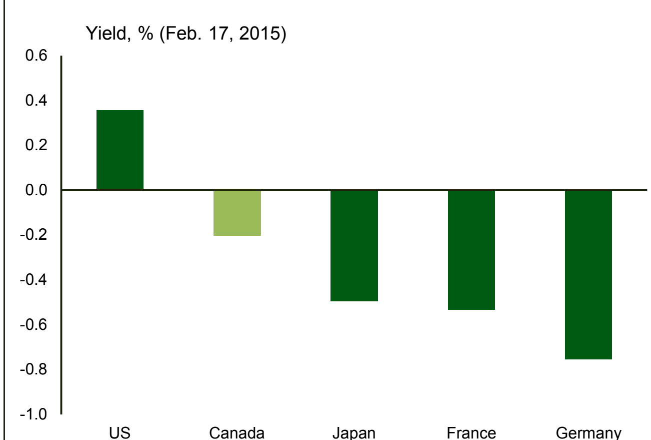
While longer-term bond yields fell over the past year in line with moves in global bond markets, the Bank of Canada's surprise rate cut on January 21st sent short and medium-term yields much lower (see Chart 2). The 2-Year Government of Canada Bond started the year around 1%, and is now more than 50 basis points lower. The 5-Year yield has dropped by a similar amount. What would it take for the yield to tip into negative territory?

Looking at the list of potential conditions in the previous section for why yields could go negative, Canada doesn't meet any of the prerequisites.

1. **Caution/Risk aversion or heightened flight to safety** – Despite a AAA rating, Canadian government debt is not a safe haven asset. Unlike the relatively stronger European economies like Germany, which are experiencing flight-to-safety flows within the euro zone, the Canadian government debt market is too small to be a flight-to-safety asset.
2. **Deflation** – Canada's economy is further away from a European-style deflation fear scenario. While market-based measures of inflation expectations have fallen in recent months, they remain well above (70-90 basis points) similar measures in euro zone countries like France and Germany (see Table 1). While the oil price collapse will lower headline inflation in both Canada and the euro zone, the euro zone is starting from a much lower base. Core inflation in the euro zone has been trending down and was at only 0.6% year-on-year in January. Definitions differ, but core inflation in Canada has recently been above 2%.
3. **Speculation on further monetary easing** – The Bank of Canada's overnight rate is still at 75 basis points, much higher than the equivalent interest rate at the ECB, the refi rate, currently at 0.05%. Canada still has room to lower rates further before it gets close to zero. And, while we expect the Bank to cut again in March, this is largely priced in by the market. Markets are pricing in a roughly 30% chance of a third rate hike later this year. Even that degree of market pessimism on monetary policy has not tipped short-term nominal yields into negative territory. If the Bank were to ease further than we or the market expects, it is plausible that Canadian yields could also tip into negative territory. However, a likely precursor for this scenario would be an unexpectedly sharp deterioration in Canada's economic performance, which would in turn trigger fears about a sustained bout of deflation. That is certainly not our base case scenario.
4. **Currency moves** – With markets almost universally bearish on the loonie, investors are unlikely to flock to Canadian debt for currency gains. TD expects the Canadian dollar to weaken further to around 75 U.S. cents in the coming quarters, muting the lure of Canadian dollar-denominated assets.
5. **Policy constraints** – we don't see this as a big issue in Canada.

More generally on the likelihood of deflation in Canada, it is true that Canada's economy has been dealt a blow by lower oil prices (please see our Updated Canadian Economic Forecast). But, our economic fundamentals are arguably much stronger than the euro zone, supporting a better economic growth outlook over the medium term. Starting with longer-term fundamentals, the first more supportive

CHART 3: REAL 10-YEAR YIELDS NEGATIVE



Source: Bloomberg, TD Economics.

TABLE 2. CANADIAN INTEREST RATE OUTLOOK												
	2014				2015F				2016F			
	Q1	Q2	Q3	Q4	Q1F	Q2F	Q3F	Q4F	Q1F	Q2F	Q3F	Q4F
CANADA												
Overnight Target Rate	1.00	1.00	1.00	1.00	0.50	0.50	0.50	0.50	0.50	0.50	0.50	1.00
3-mth T-Bill Rate	0.90	0.94	0.92	0.91	0.45	0.45	0.45	0.45	0.45	0.45	0.75	0.95
2-yr Govt. Bond Yield	1.07	1.10	1.13	1.01	0.50	0.55	0.60	0.85	1.05	1.20	1.35	1.65
5-yr Govt. Bond Yield	1.71	1.53	1.63	1.34	0.80	0.95	1.10	1.35	1.55	1.75	1.90	2.10
10-yr Govt. Bond Yield	2.46	2.24	2.15	1.79	1.35	1.65	1.70	1.90	2.05	2.20	2.30	2.40
30-yr Govt. Bond Yield	2.96	2.78	2.67	2.33	2.00	2.25	2.30	2.45	2.55	2.65	2.70	2.80
10-yr-2-yr Govt Spread	1.39	1.14	1.02	0.78	0.85	1.10	1.10	1.05	1.00	1.00	0.95	0.75

F: Forecast by TD Bank Group as at January 2015; All forecasts are end-of-period; Source: Bloomberg, Bank of Canada, Federal Reserve.

factor is demographics; Canada's labour supply is expected to grow by roughly 0.6% over the medium term, while the euro zone's is likely to languish closer to 0.2%, a third of the pace of Canada's. Better growth in the labour supply helps set a higher baseline for potential growth.

Canada's financial system is not facing the same challenges as the euro zone, and credit is flowing freely. Canada's government debt and overall fiscal situation is less onerous than Europe, implying milder economic headwinds from austerity. Canada also benefits from the fact that 75% of our exports head to the United States. The U.S. economy continues to gather steam, which along with a weaker Canadian dollar should provide a boost to Canadian exports. Moreover, Canada's economy is much more diversified than many other oil producing nations, and while the hit from lower oil prices will be severe in parts of the country, it is unlikely to push the economy into a recession.

That said, real yields in Canada have gone negative on longer-term bonds. Short and medium-term real yields have been negative for quite some time, but the yield on the 10-Year real return bond in Canada was -0.27% as of February 12th, having dropped below zero the day the Bank of Canada cut interest rates. Real yields in Canada are still less negative than in certain euro zone countries or Japan, but stand in contrast to the U.S. where longer-term real yields remain in positive territory (see Chart 3).

The Bottom line

Add it all up and the forces that have led to negative yields in Europe, and to a lesser extent Japan, look unlikely to cross the pond. Europe's experience has thrown the assumption that zero is the lower bound for yields out the window. But, it is highly unlikely that Canada is going to follow suit. If economic conditions worsen, the Bank of Canada has plenty of room to cut rates and still keep the overnight rate in positive territory. Our forecast is for one more 25-basis point insurance policy cut by the Bank in March, and that government bond yields will start to rise towards the middle of the year (see Table 2). Our medium term forecast for Canadian bond yields remain low by historic standards. Financial markets are global, and many of the forces that have weighed on yields abroad will also weigh on Canada, but we continue to expect yields to rise over the next two years.

Derek Burleton, VP & Deputy Chief Economist
416-982-2514

Leslie Preston, Economist
416-983-7053