December 2015

Generating Income from Fixed Income Securities

Interest rates in the news: a turning point?

On December 16 the US Federal Reserve decided to raise by 0.25 % the target range for the Federal Funds Rate, from 0.00-0.25% to 0.25-0.50%. As the old range had been in place since December 2008, this is seen as a major change of policy and the start of a tightening process that will see rates rise over the next few years as the US economy improves. The Feds' rate drives short-term interest rates in the US; it also impacts long-term rates which are the result of the compounding of the short-term rate plus a risk factor based on *current* expectations of *future* inflation.

Meanwhile, in Canada the Bank of Canada decided on December 2 to maintain its overnight rate at 0.50%, citing the need to keep supporting the country's "*complex and lengthy adjustment*". As "*complex and lengthy*" may take time, the likelihood is that Canadian short term rates will for the present remain low.

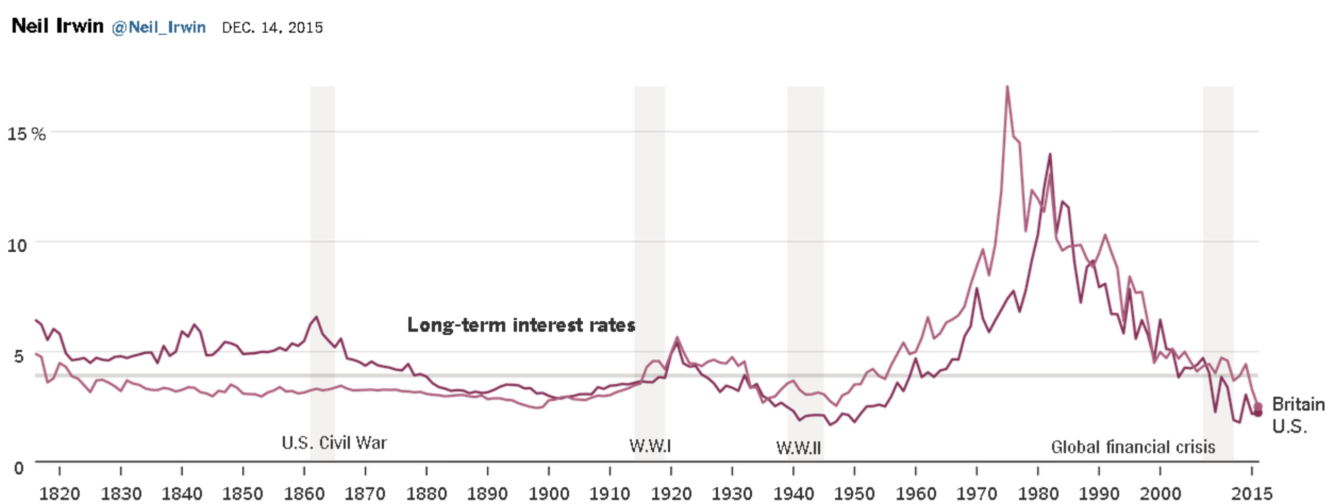
In this *Reflections* we look at the potential impact of these decisions on fixed income securities' returns, how the risks attached to these securities could be mitigated and how fixed income portfolios could be built to improve returns while controlling risks.

Quick historical background to current interest rates

With interest rates now at historical lows, the future of interest rates can only be to either remain low or rise. This is a very different environment than prevailed over the last 30 years, in which we had a long Fixed Income rally with steadily declining rates that kept adding capital gains[1] to portfolio returns. Now, with the prospect of rising rates, the concern of fixed income managers will be how to control (paper) capital losses as well as when to take advantage of higher rates (i.e. invest now or wait for higher rates later?) to maximize portfolio returns.

This really is a "game changer", about which the first question is: how high could rates go?

Long-term rates.



[1] The price of fixed income securities rises when rates fall, and conversely declines when rates increase, which generates either capital gains or losses in addition to the interest received. Also, the longer the maturity the greater the gain or the loss for a given change in interest rate.

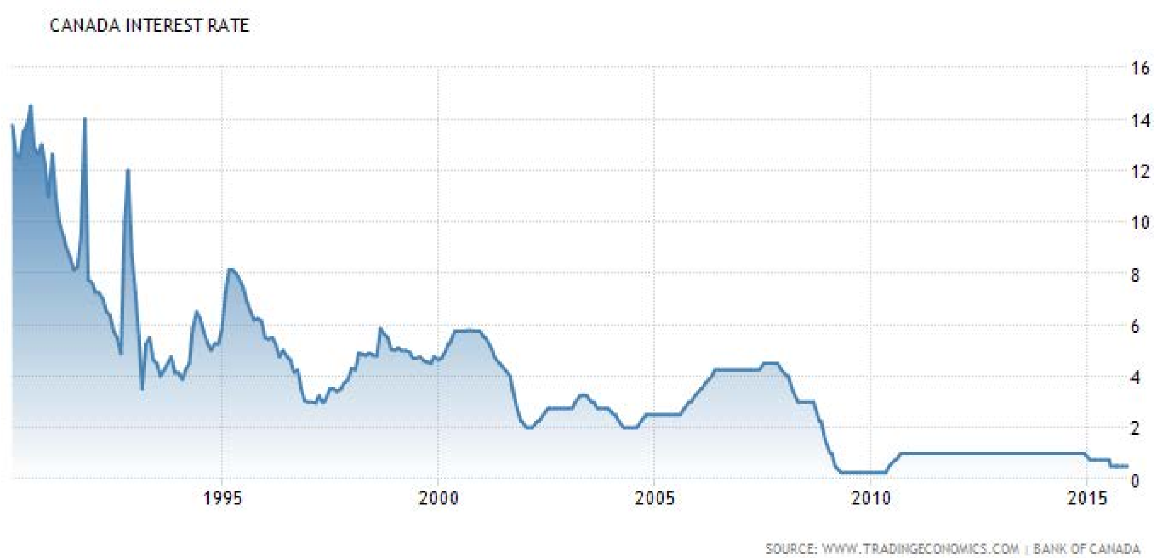
As the preceding graph shows, the last 60 years have been rather exceptional and coincide with a period of exceptional economic and human development – over this period, the Earth's population tripled from 2.5 to 7.3 billion which must have had an effect on demand and hence growth. Growth and possibly over-confidence in future growth led to a rise in inflation in the '70s. This pushed up long-term rates (fear of future inflation). As inflation was successfully fought and controlled, rates steadily declined:

Short term rates have been more volatile. They are used by central banks ("monetary policy") to either solely control inflation (European Central Bank, Canada[2]) or to control inflation *and* ensure full employment (US). Higher rates cool down the economy while lower rates stimulate it.

It was the severity of the 2008 financial crisis that led central banks to lower short term rates to basically zero to try and engineer a rebound in the economy. Unfortunately zero was not enough; other methods were tried but none were fully successful. Hence our long period of economic under-performance, characterized by a chronic lack of private demand from industry (capital investments) and individuals (consumption) and the reluctance of the public sector to compensate ("fiscal policy") for this lack of demand (especially after 2010) with for example spending on infrastructure, and other such public works.

In addition to lowering interest rates, in the immediate aftermath of the 2008 crisis most governments used fiscal stimuli (government spending) to relaunch their economies. China was especially aggressive, which extended the commodity boom and greatly helped commodity exporters like Canada to weather the crisis.

By 2010 all this had created a false sense of recovery; fiscal stimuli were withdrawn or strongly reduced and some central banks, fearing inflation, raised their rates. The result was economies plunging back into recession, from which they still have difficulty emerging, and central banks having to reverse their stance, lowering their rates again, which did not help their credibility (European Central Bank, Sweden). As an energy and commodity exporter Canada fared better but when oil and commodity prices declined the central bank rate had to lower its rate too:



[2] "The preamble to the Bank of Canada Act envisions a mandate "to control and protect the external value of the national monetary unit and to mitigate by its influence fluctuations in the general level of production, trade, prices and employment." But since 1991, federal finance ministers have instead ratified a narrow focus on inflation targeting to the exclusion of all other objectives." (Globe and Mail, Aug. 21, 2012)

Future rates: more increases to come? The current debate.

The US Feds decision to raise rates is not receiving unanimous approval. The Feds themselves have qualified their decision with many caveats as to when they could raise rates again. The major objection is that the Feds are risking slowing down the economy (by raising rates) while fighting a problem (inflation) that does not exist because:

- There are no signs of building inflation – the feds themselves have lowered their inflation forecast;
- While the unemployment rate has substantially declined (the reason for raising rates), wage pressures (which are what actually generates inflation) are not growing.

A valid counter argument is that a decision of *not* raising rates could have been interpreted as the Feds having *concerns* about the economy while by raising them they signal *confidence* that the economy is improving. This brings us back to Keynes' "animal spirits"[3], his expression for the confidence necessary for renewed demand to materialize and re-launch the economy through increased activity. Could it be that the fed's commitment to an interest rate rise was in fact an attempt to instill confidence that the US recovery is real and thereby release some "animal spirits"?

At this stage, the possibilities are either a slow increase in interest rates matching actual economic improvements, or should the economy show signs of renewed weakness a stop in rate raises or, worst case scenario, a return to lower rates.

Current interest rates and industry forecasts

To give a sense of the level of uncertainty affecting future rates (which will depend on your view of future economic developments), here are the current and forecasted rates of two institutions, A and B, in early December:

Bank of Canada Overnight Rate

	2015/Q4	2016/Q4	2017/Q4
A	0.50 %	0.50 %	1.00 %
B	0.50 %	1.00 %	2.00 %

US Fed Fund Rate

	2015/Q4	2016/Q4	2017/Q4
A	0.50 %	1.00 %	2.00 %
B	0.50 %	1.50 %	3.50 %

Government of Canada 10 yrs.

	2015/Q4	2016/Q4	2017/Q4
A	1.81 %	2.08 %	2.46 %
B	1.75 %	2.60 %	3.30 %

US Treasuries 10 yrs.

	2015/Q4	2016/Q4	2017/Q4
A	2.40 %	2.54 %	2.58 %
B	2.45 %	3.05 %	4.15 %

Government of Canada 30 yrs.

	2015/Q4	2016/Q4	2017/Q4
A	2.50 %	2.67 %	3.00 %
B	2.45 %	3.05 %	3.75 %

US Treasuries 30 yrs.

	2015/Q4	2016/Q4	2017/Q4
A	3.14 %	3.20 %	3.17 %
B	3.20 %	3.55 %	4.25 %

Institution A is seeing much slower economic growth in Canada, institution *B* expects stronger growth than *A* (requiring higher interest rates to fight inflation risk) and both expect US growth to be stronger than Canada's. Overall though, rates are expected to remain low by historical standards.

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[3] "Even apart from the instability due to speculation, there is the instability due to the characteristic of human nature that a large proportion of our positive activities depend on spontaneous optimism rather than mathematical expectations [...]. Most, probably, of our decisions to do something positive, the full consequences of which will be drawn out over many days to come, can only be taken as the result of animal spirits—a spontaneous urge to action rather than inaction" – Keynes (1936). *The General Theory of Employment, Interest and Money* pp. 161-162.

Looking for yield by increasing maturity and/or increasing risk.

The above rates are for government securities, assumed to be "riskless" from a credit risk perspective. With interest rates so low, investors have naturally been looking for higher yielding securities.

Securities with longer maturities offer higher returns, but only so much compared to short-term ones: in Canada a 30 year Canada Bond pays less than 2% more than a 3 month Treasury Bill. This is not very attractive as 30 year bonds quickly lose their value when rates rise: a 30 year bond with a 2.50% coupon yielding 2.50% is worth $100; if the required yield increases to 3.50%, its value drops to $81.50.

The other way to seek more yield is to increase credit risk, buying bonds from corporate issuers who need to pay more to obtain financing, the lower the quality the higher the yield. Often this increased risk comes with other types of additional risks: liquidity risk (impossibility to resell when conditions deteriorate) and at times currency risk, depending on the business.

As the table below shows, yield increases quickly as quality declines. The first line shows the current average yield of 7 year US corporate bonds of declining credit quality (AAA best). The second line shows how much (the "spread") this yield is over the yield of a comparable 7 year US government bond. Finally, the third line shows an average of the spread of Canadian corporate high yield bonds over comparable Government of Canada bonds:

		"Investment Grade"					"High Yield"		
	Rating	**AAA**	**AA**	**A**	**BBB**	**BBB-**	**BB**	**B**	**CCC**
US	**Yield**	2.61	3.00	3.62	3.87	4.66	5.27	7.20	10.07
	Spread	*0.71*	*1.10*	*1.72*	*1.97*	*2.76*	*3.37*	*5.30*	*8.17*
Canada	***Spread***					*3.50*	*4.50*	*6.75*	*9.00*

As can be seen, in theory there is much to be gained by investing in non-investment-grade bonds, from 3 to 8-9% more annually; it would be less for shorter term bonds, more for longer terms. Also, for a given rating the actually offered yield will vary greatly depending on the market's perception of the credit quality of the issuer.

With interest rates so low, since 2009 investors hungry for yield have flocked to the high yield bond market. In the US over 2009-2012 about US$100 billion was poured into high yield fixed income mutual funds bringing the total outstanding high yield debt to around 1.2 trillion (Goldman). Such demand was a rich bonanza for poor quality issuers who took advantage of it by issuing paper at lower rates and with weaker covenants than they could have otherwise. Influx of capital was a problem for fund managers too – the money had to be invested into what was available so as to produce the expected yields, leading to a lowering of overall quality.

As long as financing was easy, refinancing debt was not an issue. Now of course the concern with rising rates is that it may weaken some companies and refinancing may become more difficult. Already, Moody's expects corporate default rates to increase next year to 3.8% from 2.8% this year. All these concerns are pushing yields further up (lowering values), leading to redemption demands and already the closure of a few high yield funds. The same applies to Canada.

Creating returns from Fixed Income securities: investment choices:

Investors looking to generate income have a number of choices; unfortunately there is no perfect solution. Even if interest rates rise they will likely remain quite low for the foreseeable future.

Conservative Portfolio. Government of Canada securities offer the best capital protection but at the price of low returns. Currently, depending on the maturity of the portfolio, returns after tax and inflation are actually likely to be negative - and longer maturities carry a heightened interest rate risk. A safe option of debatable long-term value but useful for the safe short-term parking of funds to cover current needs.

Investment Grade Portfolio. Up to 2% more return may be gained by including investment grade corporate bond of medium maturity in a portfolio. Should interest rates rise only gradually and not much, the interest rate risk will be limited.

High Yield Portfolio. As explained above portfolios of high yield bonds are currently coming under pressure and we expect them to underperform as rates rise and refinancings come due (usually high yield bonds have maturities of 3 to 7 years). The key in these portfolios is selecting and managing for issuer credit quality.

Going beyond solely buying bonds. Markets in turmoil are a source of great opportunities for whoever has cash, patience and a keen sense of value. Panic selling, as is starting to occur in the high yield bond market, is usually indiscriminate. Facing bad results, investors “cannot take it anymore” and relieve themselves by throwing everything out, the good and the bad. Prices fall everywhere, indiscriminately. This is where discrimination pays off: by picking carefully, one can start to build a portfolio that has a decent yield and an acceptable credit risk quality. Furthermore, it is also possible to pick and choose the risks one accepts; this is what hedging (or arbitrage) is all about. Arbitrages can significantly reduce credit risks, and in some cases also allow one to take advantage of bad situations – where the likelihood of default is high.

This is what our Income and Arbitrage Portfolio seeks to achieve: 20 securities owned outright or hedged (arbitrage) depending upon their risk, selected for their potential to generate yield with an acute focus on individual credit risks to limit overall portfolio risk. For an example of an arbitrage transaction, see our ***video explanation***[*] of our recently completed Hedged Allied Nevada Bond trade.

Should you want to know more about this please just give us a call or email us or visit our ***website****. We will be pleased to answer your questions.

As always, please call if you have any questions.

J.-Dominique Sellier
December 21, 2015

[*] http://www.takota.ca/investments/a-choice-of-investments/income-and-arbitrage-account/