



Canadian & US Bond Market Returns

The Canadian bond market returned 0.1% in Q1, according to the FTSE TMX Universe Bond Index, lofty in comparison to the US bond market which returned a disappointing -1.46% according to the Bloomberg Barclays US Aggregate Bond Index. US-Canada yield spreads widened by about 30 bps across the yield curve, continuing the widening that began during Q3 last year, when it became apparent that NAFTA negotiations would be anything but routine, and consequently the Bank of Canada would likely not follow the Fed’s aggressive rate hike strategy. The widening has taken place during a quarter which saw the Fed raise policy rates by 50 bps and the BoC by only 25 bps; and with forward guidance from the Fed projecting a path of 25 bps increases each quarter, while the BoC projecting mostly caution.

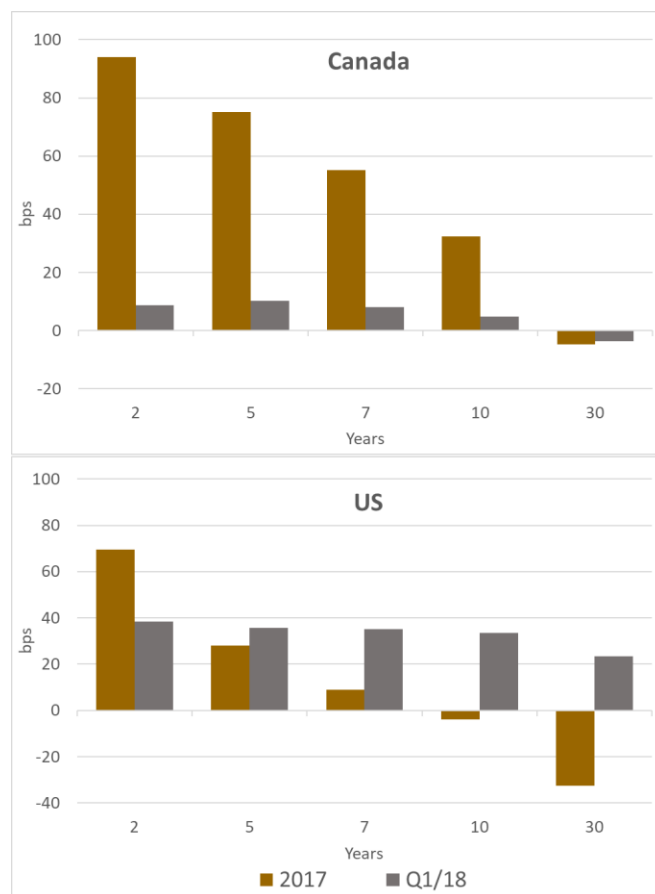
The graphs opposite in Figure 1 show the Canada and Treasury yield curve changes for 2017 and Q1. In 2017, both US and Canadian market (indexes as above) returns were positive: 3.54% and 2.52% respectively, despite both the Fed and the BoC having raised rates – the Fed by 75 bps en route to policy normalisation, and the BoC by 50 bps removing the insurance eases of several years before. Two-year yields rose by a substantial 69 bps in the US, but by an even more unanticipated 93 bps in Canada (suggesting little market preparation for hikes by the Bank). Further out the yield curve, yield movement was more contained resulting in substantial flattening of both US and Canadian yield curves, particularly in the long end where 10-long Treasuries and Canada’s curves flattened by 29 bps and 37 bps respectively. The flattening of the yield curves – often a characteristic of economies heading into a recession, is in our view premature.

Contributing to the positive bond returns in both the US and Canada last year, were declining credit spreads. US investment grade intermediate corporate yield spreads narrowed by an average of 25 bps, while Canadian investment grade mid-term corporate yield spreads narrowed by 20 bps. In contrast, this year, the

spreads have widened by 16 bps on average in the US and a very modest 5 bps on average in Canada. Mid-term provincial yield spreads also widened by an average of 8 bps in Q1.

Overall, the substantial rise in underlying Treasury yields across the curve combined with wider spreads, meant that running yield was no-where near enough to generate positive returns in the US during Q1. However, in Canada, the small rise of short and mid-term yields, a further fall in long-term yields and the modest widening of both provincial and corporate yield spreads combined to generate positive quarterly returns.

Figure 1: Canadas & Treasuries Yield Curve Changes: 2017 & Q1/18



Source: Bloomberg & Lorica Investment; March 2018



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Looking, simply at recent Canadian and US economic growth (2.9% vs. 2.6% yoy to Q4-17) and inflation (2.2% vs. 2.2% yoy to Feb-18), it would be difficult to predict the relative bond market performance during Q1. However, when we look at the divergence of forward guidance between the Fed and the Bank of Canada, relative market behaviour becomes clearer. US bond yields were up around 30 bps across the curve, while Canada rose more like 10 bps on average except for the long end where yields fell. In both countries, yield curves flattened, reflecting the demand for long bonds and the general complacency around inflation expectations.

Real Return Bonds

In Q1, the return for the FTSE TMX Canada Real Return Bond Index was 1.37% with an index modified duration of 15.39 years, while the return for the FTSE TMX Canada Non-Agency Long Term Bond Index was lower at 0.91% with a similar index modified duration of 15.21 years. In contrast, the 2017 returns of the real overall and nominal long Canada indices were much further apart at 0.51% and 2.59% respectively, despite almost identical index modified durations of 15.50 years and 15.53 years at year-end. Here is a chart of the two indices returns over the last four quarters:

Index	Q2-17	Q3-17	Q4-17	Q1-18	1 Year
RRB Canada	-1.36%	1.32%	3.81%	1.37%	3.29%
Long Canada Non-Agency	0.94%	3.01%	3.46%	0.91%	2.55%

So why the different return profiles for the real and nominal indices from one period to the next when they are both government of Canadas and the durations are so similar? Well first off, there is the obvious difference that the real index is sensitive to real yields, while the nominal index is sensitive to nominal yields. Second, the real index is sensitive to the entire yield curve, although more heavily weighted in the long end, while the long index is only sensitive to the long end of the yield curve.

The difference between nominal yields and real yields is a reasonable proxy for inflation expectations which is also know as the break-even inflation rate. Generally, the break-even inflation rates will differ slightly across the yield curve but will tend to move together. Over the last year, we saw an expansion of break-even rates across the yield curve, such that for 2021 and 2026 maturities, the rate rose by about 10 bps. However, we also saw a significant convergence last quarter, whereby the 2021 rate rose an additional 30 bps, such that the break-even rates for the 2021, 2026 and 2047 maturities converged at around 1.7% – see Figure 2. The overall move is consistent with an increase of inflation expectations resulting from wage growth, higher commodity prices and a weaker Canadian dollar, but still limited, due to confidence in the Bank of Canada to contain any inflation pressures.

Figure 2: Canada Break-even Inflation Rates



Source: Bloomberg & Lorica Investment Counsel Inc., March 2018.

Given the relatively small changes of break-even inflation rates, we can infer that relative movements in along the real yield curve would have had a more substantial impact on the relative movement in nominal yields. These changes in the shape of the real yield curve translate to the curve component of the relative performance of the RRB Canada and Long Canada Non-Agency indices returns, with the balance arising from changes to the long-term break-even inflation rate.



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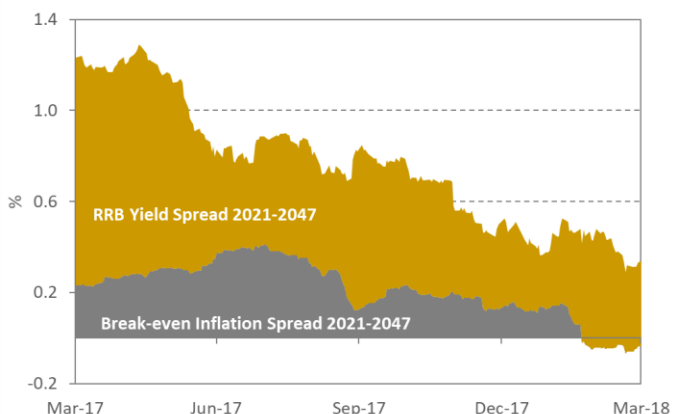
The graphs below – Figures 3 & 4 show the yields for Government of Canada's RRB's maturing in 2021, 2026 and 2047, as well as the nominal 2021-2047 yield spread divided into the real yield spread and inflation break-even rate. Notably, we have seen real yield increases in short and mid but not long-term RRB Canada's over the last year as shown. Consequently, we have seen a substantial flattening of the real yield curve – 65 bps over the last 12 months. Add in the extra 28 bps of inflation expectations in the short-term and we arrive at the 93 bps of nominal yield curve flattening we have seen over the last year.

Figure 3: Canada RRB Yields



Source: Bloomberg & Lorica Investment, March 2018

Figure 4: Canada Yield Curve (2021's-2047's) – Real Yields & Break-even Inflation Rate



Source: Bloomberg & Lorica Investment Counsel Inc., March 2018.

Given the concentration of long bonds in the Long Canada Non-Agency Index, we would have expected it to outperform the RRB Canada Index during the quarter, assuming inflation expectations remained constant. However, long-term inflation expectations rose by about 10 bps, and as a result, the Long Canada Non-Agency Index has underperformed the RRB Canada index by almost 75 bps. Note that the stronger performance of RRB's has been a combination of inflation indexing and higher inflation break-evens.

To us, flattening of the real yield curve is not so obvious, given overall higher inflation expectations, a decent environment for growth and a reticent Bank of Canada. But we have also seen flattening of the real yield curve in the US, where the TIPS curve has flattened by 67 bps, 2-30's. We suggest that while the BoJ and ECB continue with their QE programs, additional demand for long high-quality sovereign debt will persist maintaining the flatness in the curve.

Looking further ahead, we anticipate that the real yield curve will correct as the bid for longer maturities declines resulting from of a policy change by the ECB – we expect they will likely end QE sometime this summer. A steepening of the real yield curve would damage both real and nominal markets, although it would hurt the Long Bond Index more than the RRB index, given the concentration in long bonds. Our portfolios would be reasonably well insulated from the steepening, given little exposure to the long end of the yield curve. There is also a possibility that break-even inflation rates increase should wages overheat (the Fed and BoC are no-where near restrictive at this point) which would favour real return bonds.

Corporate Bonds

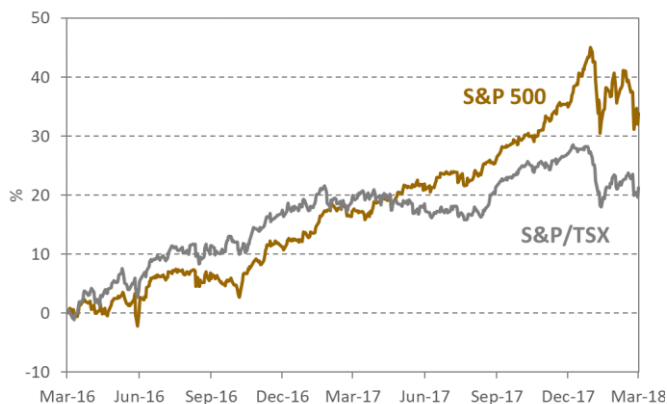
Equity markets were extremely volatile in Q1 in response to a variety of factors including: stretched valuations, rising policy rates, tech troubles and geopolitics – most notably trade relations. Figure 5 shows the cumulative returns of the S&P 500 and the S&P/TSX in local currency terms. Over the last two-year period, Canadian equities initially outperformed



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US equities in local currency terms. Then, last spring, the Canadian equity markets began to underperform as NAFTA and Canada-US trade started to become an issue. There was another surge in US outperformance in Q4-17 and this past January, led by consumer discretionary and technology stocks, and aggravated by the widening of the WTI-WCS spot price spread.

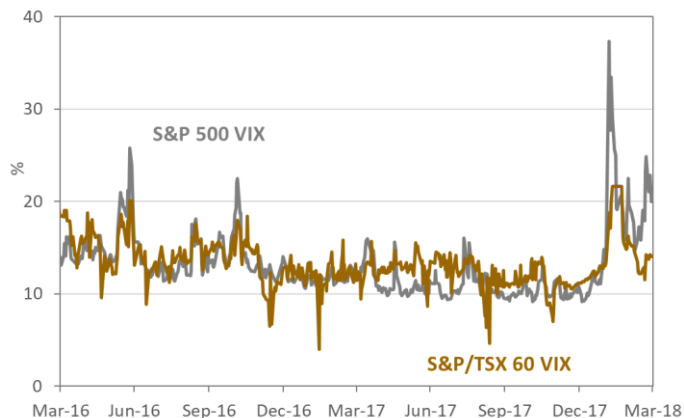
Figure 5: Canadian & US Equity Total Returns



Source: Bloomberg & Lorica Investment Counsel Inc., March 2018.

Figure 6 below show the VIX (Chicago Board Options Exchange SPX Volatility Index) and the VIXC (S&P/TSX 60 VIX Index) which are market estimates of future volatility of the S&P 500 and S&P/TSX 60 respectively.

Figure 6: Canadian & US Equity Volatility



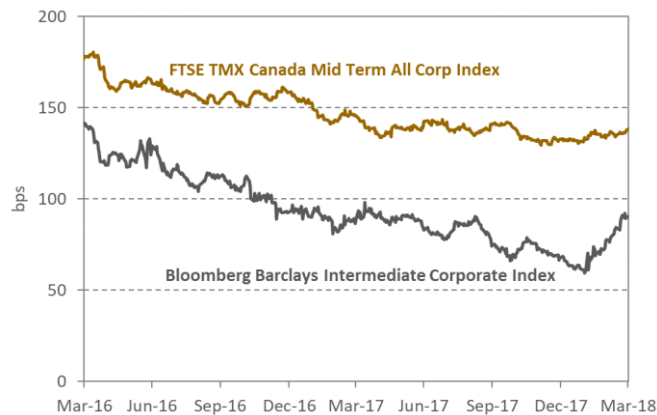
Source: Bloomberg & Lorica Investment Counsel Inc., March 2018.

You can see from the chart how market volatility has risen substantially from mostly low levels over the last

two years, and from the previous six months, in particular. In broader historical terms, the VIX volatility in January was the most since August 2015 (emerging market weakness – China & Brazil shocks), but significantly less than during the peak of the credit crisis. The VIXC volatility in January was the most since Q1 2016 when WCS prices fell to an historical low closing price of \$13.80.

Amidst the correction and volatility in equity prices, corporate yields spreads have also widened – see Figure 7 below for US and Canadian mid-term corporate yield spreads. However, the bond market has largely been spared the daily volatility that has plagued the equity markets. While corporate spreads clearly got carried away with the *risk-on* sentiment that drove US equities to the lofty January levels, the more recent volatility on the back of tech concerns and trade tensions has not, in our view, engulfed the corporate market to the same extent. While trade risks are clearly there, it seems to us that bond investors are adopting more of a “*wait-and-see*” attitude.

Figure 7: Canadian & US Mid Corporate Yield Spreads



Source: Bloomberg, PC Bond & Lorica Investment Counsel Inc., March 2018.