

MONTREAL EXCHANGE

Canada-Europe Cross-Currency Opportunity

With the upcoming move to open BAX and CGB contracts at 2 a.m. Eastern Standard Time (7 a.m. in London), the window of liquidity for all Portfolio Managers (PM) to transact cross-currency opportunities between Canada and other countries, especially Europe, will be widened.

Cross-Currency Trades Overview

A Portfolio Manager willing to take on “macro risk” rather than focusing exclusively on relative valuation of same-currency opportunities can choose to be long/short bonds or other securities in one country relative to a similarly sized hedge in another. Such trades can be constructed in bonds or other cash securities but then require a time-consuming repo/reverse repo program in other currencies and can create large foreign exchange risk which should, barring a strong view on the currency as well, be hedged at additional time and expense.

A cleaner method is to construct the trade in derivatives such as swaps and futures. While utilizing swaps neutralizes the initial foreign exchange risk and eliminates the need for funding a cash position regularly, it exposes the investor to swap spreads which introduces an additional risk variable. Fortunately, investors can construct much cleaner cross-currency interest rate trades using futures contracts; a method which eliminates the initial foreign exchange risk¹ as well as the spread risk associated with swap curves.

In futures, one can easily construct cross-currency bond and short term interest rate (STIR) trades by transacting on various exchanges, sometimes electronically or using contingent orders. Intercontinental Exchange, Eurex Exchange, Chicago Mercantile Exchange and Montréal Exchange (MX) cover the European, US, and Canadian space respectively, all of which can be traded against each other.

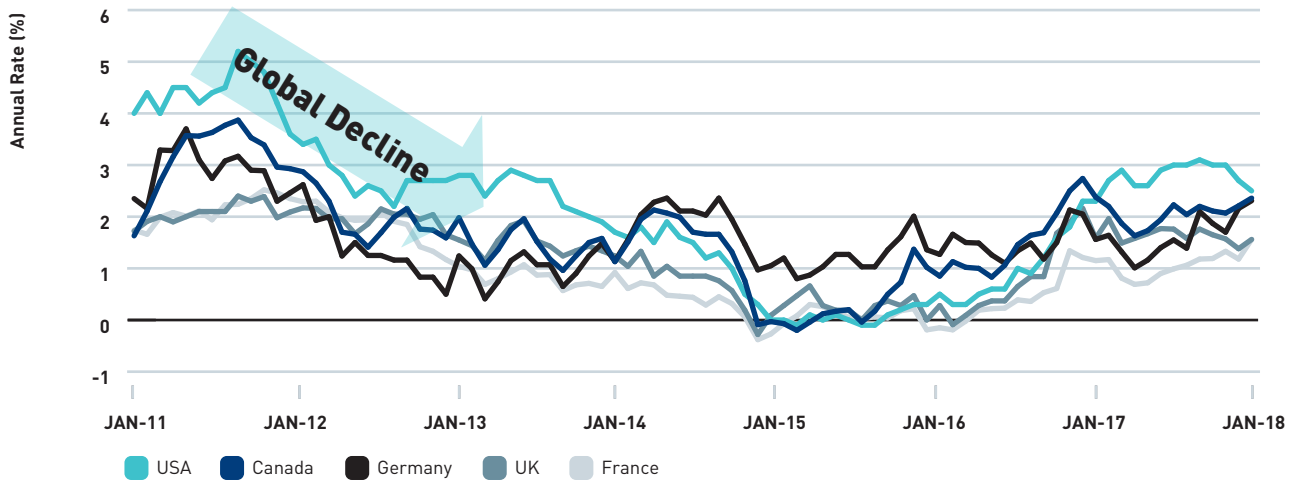
Theory: Economic Integration via Globalism

By some measures, international trade increased by 200% between 1975 and 1995 and by an additional 60% in the last 20 years. The introduction of new technologies, particularly in communication, and a focus on services rather than goods has generally resulted in a much closer integration of world economies today than in prior decades despite political rhetoric against global integration in recent years. This close integration means that global economies have tended towards greater and greater correlation over time. While arguments swirl constantly in political circles about the benefits of such integration, the fact that it exists is an important consideration for cross-currency opportunities since, over medium and long terms, it is now unlikely that any developed economy can sustain either relative strength or relative weakness vis-à-vis its trading partners.

Perhaps the best anecdotal evidence of the integration of global economies is shown by the inflation experience over the past eight years or so. As shown in Figure 1, inflation declined in developed economies in tandem between 2010 and 2014, regardless of domestic monetary and fiscal policies or political instability. Countries that suffered the most in the post-Crisis environment and experienced extreme political instability (i.e. Europe) saw similar declines in inflation to those that were already recovering or lacked political instability (i.e. Canada and the USA).

1. For most investors, the foreign exchange exposure for a futures contract is equal to the market value of the position.

FIGURE 1
Domestic Inflation Rates Since 2010



Source: OECD (2018), Inflation (CPI) [indicator]. doi: 10.1787/eee82e6e-en (Accessed on 19 May 2018)

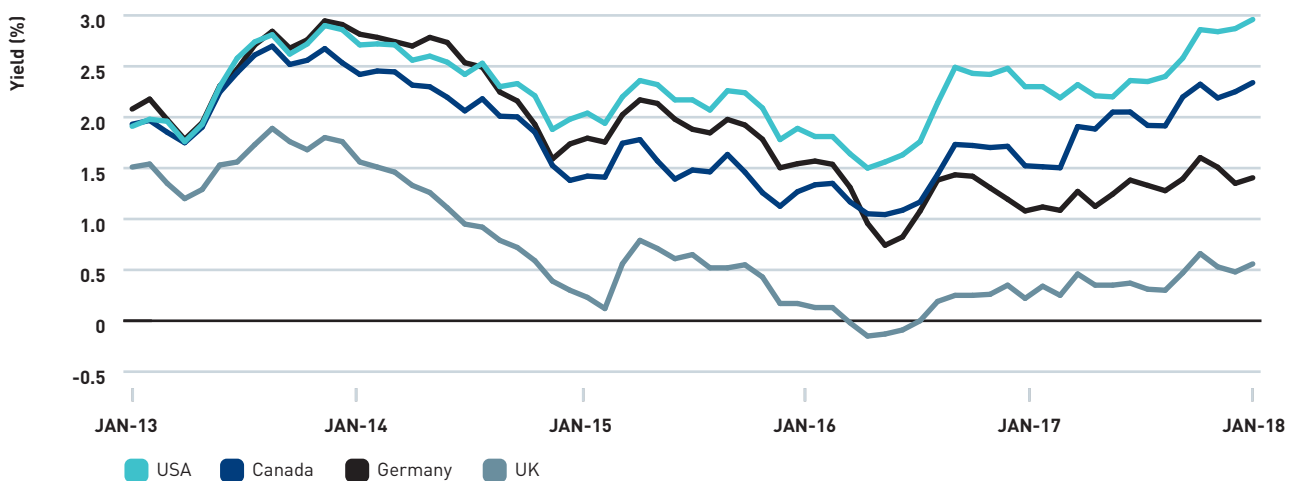
No developed country is an island any longer. Each central bank monitors, at least in some capacity, the economic and political developments of many countries rather than just their own and is forced to contend with and forecast these international developments. As a result, most central banks are reacting to similar developments which should ensure close integration of monetary policy and, via the economic links described above, short and long-term interest rates.

Practice: Whither Europe?

International markets rarely observe theory in the short term but, assuming the trend of globalization and economic integration of the past four decades continues, it would seem unlikely that any economic bloc could deviate from the trend for lengthy periods of time. However, there is currently an anomaly in the Eurozone market that appears to defy this logic which some risk takers may choose to investigate.

After the third quarter of 2016, rock-bottom bond yields began to rise in fits and starts throughout western economies as shown in Figure 2. Although starting from different levels and certainly not entirely correlated in the short term, this trend has continued to today. Note that even Europe², which has arguably suffered the most since the end of the Crisis, has experienced rising 10-year yields.

FIGURE 2
10-year Bond Yields Since 2013

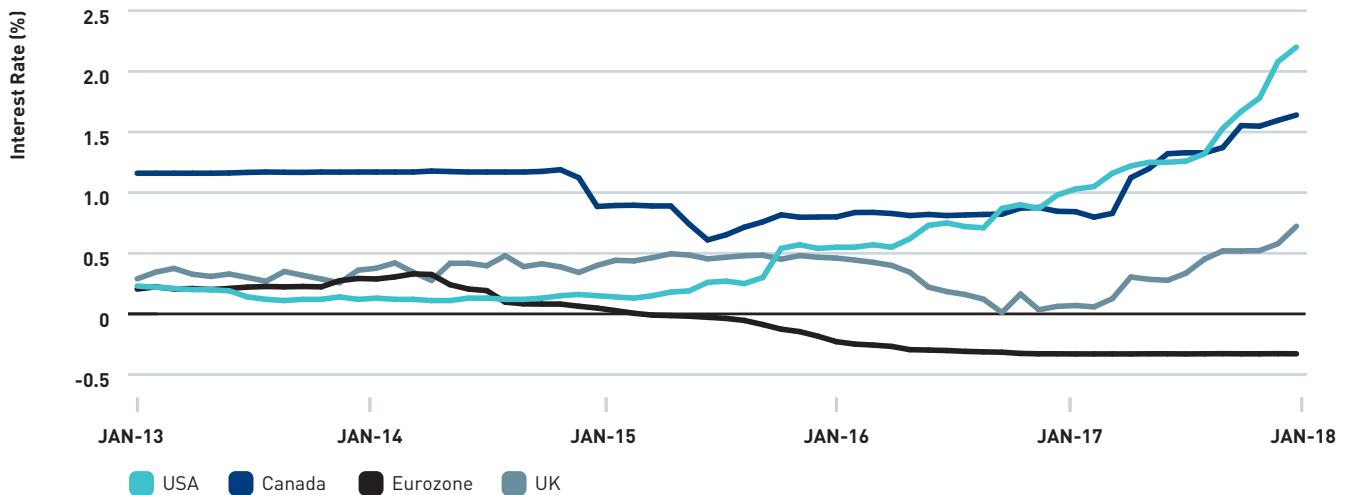


Source: OECD (2018), Long-term interest rates [indicator]. doi: 10.1787/662d712c-en (Accessed on 19 May 2018)

2. Represented here by German bunds

However, while long-term yields appear to have moved in tandem, albeit with different magnitudes, short-term rates in one economic bloc have resisted any pressure to move at all. In Figure 3, one can see that 90-day Euribor rates have failed to move higher and remain significantly negative in sharp contrast to US, Canadian, and even “post-Brexit decision” UK 90-day rates. While EU inflation has increased by nearly 1.5% from lows of 0% in mid-2016, the European Central Bank (ECB) has continued to hold short-term rates at negative levels, defying the general trend. If the theory of global integration holds, one would expect the ECB to follow other central banks in the medium term.

FIGURE 3
90-day Interest Rates Since 2013

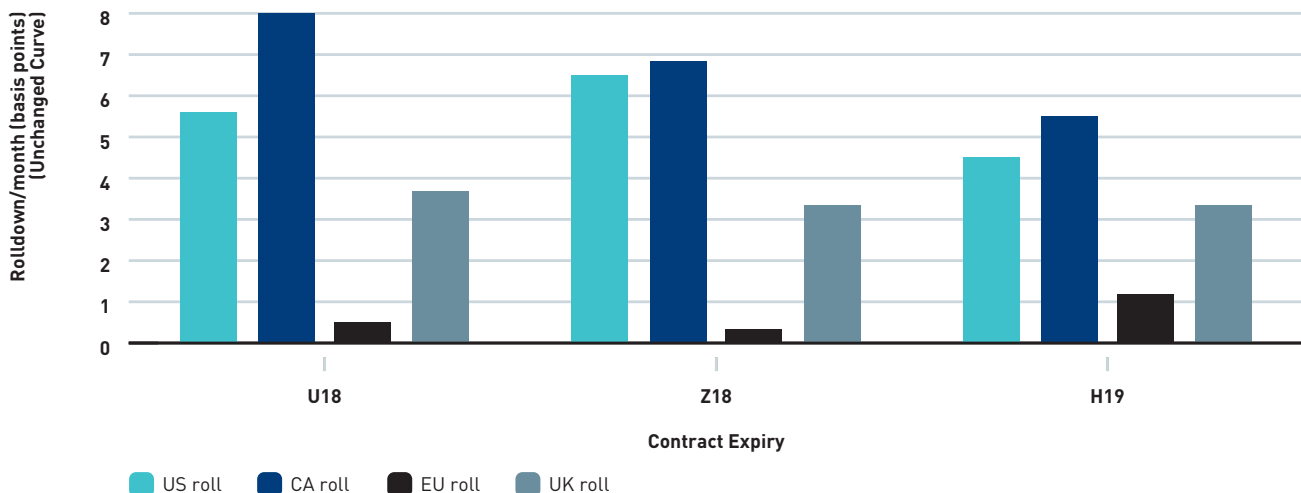


Source: OECD (2018), Short-term interest rates (indicator). doi: 10.1787/2cc37d77-en (Accessed on 19 May 2018)

Opportunities

Portfolio Managers and Traders who buy into this economic view could construct several potential trades. However, one could argue that normalization may be months or years away and a good trade construction is one that has the potential to make profits, or at least not lose much, in multiple scenarios. In this context, buying BAZ18 while selling the equivalent 90-day futures in Euribor makes some sense given that the BAX contracts currently have the most implied “rolldown.” As shown in Figure 4, should future moves by the central bank that are implied by the current short term interest rate contracts turn out to be unfounded, BAX holders will benefit from a collapse in implied interest rates on these instruments while Euribor short positions should remain relatively unharmed.

FIGURE 4
Monthly Rolldown



Source: International Exchange, MX, Chicago Mercantile Exchange

If a manager looks for some protection in the event of a global catastrophe, it could also be argued that the Bank of Canada (BoC) has room to reverse past rate moves while the ECB might be hard-pressed or slower to implement additional moves to more negative short-term rates. Of course, if the BoC continues its monetary policy withdrawal while the ECB continues to resist in the face of rising inflation, the trade will lose money. A PM reluctant to take on the binary outcome risk of front-end rates could create a similar trade, although less convincing given the move experienced already in bund yields, using the 10-year futures contracts in both countries.

Example Structures

Portfolio Managers comfortable with front-end risk and anticipating binary moves by central banks can structure the above trade neutral to overall rate moves³ in short-term interest rate futures as shown in Figure 5.

FIGURE 5
Trade: Long BAX, Short Euribor for Global Macroeconomic Convergence

| | Position | Instrument | Contract | Instrument Local DV01 | Total Local DV01 | Total DV01 in CAD |
|------|----------|------------|----------|-----------------------|------------------|-------------------|
| Buy | 400 | BA | Z18 | 0.25 | 10,000 | 10,000 |
| Sell | -264 | Euribor | Z18 | 0.25 | -6,600 | -10,008 |
| | | | | | | -8 |

Source: International Exchange, MX

Portfolio Managers seeking the same convergence to “normal” interest rate regimes in Europe can also structure the trade in the 10-year contracts offered in each currency as shown in Figure 6⁴, although bund contracts now replace a direct play on Euribor levels and the “rolldown/global negative event” story is no longer as attractive.

FIGURE 6
Trade: Long CGB, Short Bund Contract for Global Rate Convergence

| | Position | Instrument | Contract | Instrument Local DV01 | Total Local DV01 | Total DV01 in CAD |
|------|----------|------------|----------|-----------------------|------------------|-------------------|
| Buy | 100 | CGB | U18 | 11.3 | 11,306 | 11,306 |
| Sell | -56 | Bund | U18 | 13.3 | -7,452 | -11,299 |
| | | | | | | 6 |

Source: Eurex Exchange, MX

In summary, looking at cross-market opportunities increases the available universe of opportunities for all investors. These opportunities can be exploited in futures more cleanly than in other instruments, and the extended hours introduced for CGB and BAX contracts will make it easier than ever to trade Canadian futures against other developed markets.

3. Cross-currency rate neutrality is vastly different from same-currency rate neutrality. Same-currency rates at different curve points are far more likely to be correlated, ensuring some protection from directional rate moves. Cross-currency rates, especially in the short end of the yield curve, are often uncorrelated or even negatively correlated over short periods of time. All good VaR models will recognize this and deem cross-currency rate neutral trades to be riskier than same-currency rate neutral trades.

4. Figure 6 utilizes estimated hedge ratios for contracts that won't become the active contract for several days as of this writing. These hedge ratios are based on current yields and the DV01 of expected cheapest-to-deliver bonds. Hedge ratios will vary with foreign exchange rates, yields, and even changes in the delivery basket, although the latter is unlikely due to low interest rates, and should be recalculated and verified before trading.



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