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STRATEGY

CGZ Two-Year Government of Canada Bond Futures

MONTRÉAL EXCHANGE

Yield Curve Spread Canada–U.S.

Situation

An investor expects Canadian economic activity to weaken relative to that of the U.S. economy. In addition, the investor believes that increasing signs of U.S. job growth and Treasury issuance, combined with a weakening U.S. dollar and high current account deficit to GDP ratio, will drive U.S. yields higher with the 2-year yield curve sector themost affected. The outlook is expected to result in U.S. 2-year Treasury yields to rise relative to 2-year Government of Canada bond yields.

Strategy

The investor can act on this view by buying 2-year Government of Canada bond (CGZ) futures contracts and selling 2-year U.S. Treasury Note (TU) futures contracts with the goal to structure a trade that will respond only to changes in the Canada–U.S. 2-year yield spread.

Setting:

CGZ futures DV01	C$22.20*
TU futures DV01	US$45.58
CAN-U.S. dollar exchange rate	C$1.3200 per U.S. dollar

* One basis point (bp) decrease in yields will increase the value of one CGZ futures by $22.20.

The hedge ratio, expressed in terms of CGZ futures per TU futures, is determined as follows:

$$\frac{\text{(TU futures DV01) x (CAD per U.S. dollar)}}{\text{CGZ futures DV01}} = \frac{\$45.58 \times 1.3200}{\$22.20} = 2.71 \text{ futures}$$

To establish a duration neutral spread trade, the investor buys 2.71 CGZ futures for every 1 TU futures sold. To demonstrate that this spread position is essentially duration neutral, one simply multiplies the currencyadjusted TU futures DV01 by 1 and the CGZ futures DV01 by 2.71.

TU futures DV01 (currency adjusted): **$45.58 x 1.3200 = $60.17**

CGZ futures DV01: **$22.20 x 2.71 = $60.17**

Therefore, a one basis point yield shift results in the same dollar change in both legs of the spread.

The spread trade will generate gains when the Canada–U.S. 2-year yield spread narrows (i.e. when Canadian 2-year yields fall relative to U.S. 2-year yields). For example, U.S. yields can rise while Canadian yields fall. Or, both yields can fall with Canadian yields falling more, or both yields can rise with U.S. yields rising more. All these scenarios will positively impact the spread described above. However, this spread will generate losses any time the spread widens.