L|G|B™

Yield Curve Spread 2-Year/30-Year

Government of Canada

An investor expects the Government of Canada (GoC) yield curve to continue to steepen in the future. Supporting the outlook is the anticipation of more rate cuts by the Bank of Canada due to a sluggish Canadian economy, as the output gap remains larger than expected as well as the adverse effects of the Canadian dollar's sharp appreciation on the export sector. The investor expects the front end of the yield curve to continue to be pressured to the downside as the yield spread between the benchmark 2-year and 30-year GoC bonds continues to widen.

With the expectations of further steepening in the yield curve, the investor can capitalize on this outlook by buying the yield curve using 2-Year and 30-Year Government of Canada Bond Futures (CGZ and LGB, respectively). A yield curve spread strategy that uses bond futures contracts implies that one buys or sells the yield curve in terms of what one does with the shorter-maturity bond futures contracts. Thus, if one anticipates a steeper yield curve (that is, a widening yield spread), then one would buy the curve by buying the CGZ and selling the LGB. Conversely, if one expects the yield curve to flatten (that is a narrowing yield spread), one would sell the curve by selling the CGZ and buying the LGB.

SETTING:

Price of the CGZ	99.515
Cheapest-to-deliver bond	CAN 5.5% June 1st, 2010
DV01 of the CGZ	$24.50
Price of the LGB	93.74
Cheapest-to-deliver bond	Can 5% June 1st, 2037
DV01 of the LGB	$151.90
Current 2-yr/30-yr GoC yield spread ("Thirties under Twos")	34 basis points

DV01 refers to the dollar value of a basis point.

The investor buys the spread by buying the CGZ and selling the LGB with gains or losses on the spread dependent on the result of changes in the yield curve as opposed to changes towards interest rates. To neutralize the directional changes of interest rates, a yield curve ratio (hedge ratio) is determined by using the DV01 for each contract. As a result, the investor is assured that each leg will respond equally, in dollar terms, to a given yield change.

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

$$\frac{\text{LGB DV01}}{\text{CGZ DV01}} = \frac{\$151.90}{\$24.50} = 6.2 \text{ contracts}$$

Therefore, to establish a duration neutral spread trade, the investor buys 6.2 CGZ for every 1 LGB sold. This yield curve strategy results in a gain only if the yield curve steepens (that is, the 2-year/30-year spread widens). However, the strategy will generate a loss if the yield curve flattens (that is, the 2-year/30-year spread narrows).

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