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STRATEGY

Government of Canada Bond Futures

MONTRÉAL EXCHANGE

Hedging the CTD

At the end of June, an investor wishes to hedge against a change in yield of the cheapest-to-deliver bond on the CGB September contract. The CTD is the Can 3.25% June 1, 2021, with a conversion factor of 0.8148.fair value.

Setting:

Conversion factor	0.8148
Relative price sensitivity	1
Nominal value of bonds to be hedged	$25,000,000
Nominal value of the futures contract	$100,000
Hedge ratio	0.8148
Number of contracts	**204**

Considering a hedge on $25 million face value of the CTD, the formula applies as follows:

$$\text{Number of contracts} = 0.8148 = \frac{\$25{,}000{,}000}{\$100{,}000}$$

$$\approx 203.70 \text{ or } 204 \text{ contracts}$$

Conversion factors may also be used for bonds other than the CTD. However, as the futures price tracks, and converges towards, the price of the CTD, the hedge will only be effective if both bonds react in the same way to interest rate changes.