

The following text provides an explanation of **intra-commodity** spread trading for the Cboe® iBoxx® iShares® \$ High Yield Corporate Bond Index (“IBHY”) futures and Cboe® iBoxx® iShares® \$ Investment Grade Corporate Bond Index (“IBIG”) futures (collectively, “Corporate Bond Index” futures or “CB Index” futures). Intra-commodity spread trading refers to IBHY Nov. versus IBHY Dec., for example, not to be confused with **inter-commodity** spread trading, which would be IBHY Nov. versus IBIG Nov.

As with other Complex Instruments traded on Cboe Futures Exchange, LLC (“CFE”), CB Index futures B1:S1 calendar spreads are structured to Sell the Nearest Term and Buy the Furthest Term. When a “Buy” order is submitted to the CFE trading platform, the instrument’s structure determines the position effect for each leg of the spread. A “Buy” order will Sell the Nearest Term and Buy the Furthest Term. A “Sell” order will have the opposing position effect from how the spread is structured. A sell order will Buy the Nearest Term and Sell the Furthest Term. **Attention should be paid to the price levels of the outright future legs when entering spread orders in IBHY futures and IBIG futures.**

Prices for calendar spreads are net prices between the two outright futures that are part of the spread instrument’s structure. **These prices are entered as positive values when the nearest term is valued at a lower price than the furthest term (contango).**

**Example:** CB Index futures/L1 Outright Market: Bid 126.75 x Offer 126.76  
 CB Index futures/L2 Outright Market: Bid 127.25 x Offer 127.26

The implied bid for the CB Index futures/Sell L1(1): Buy L2(1) calendar spread on a 1:1 ratio is derived from the bid price of L2 less the offer price of L1.

$$\text{L2 Bid } 127.25 - \text{L1 Offer } 126.76 = .49$$

The implied offer for the CB Index futures/Sell L1(1): Buy L2(1) calendar spread on a 1:1 ratio is derived from the offer price of L2 less the bid price of L1.

$$\text{L2 Offer } 127.26 - \text{L1 Bid } 126.75 = .51$$

Implied Market for CB Index futures/Sell L1 (1): Buy L2 (1) = Bid .49 x Offer .51.

A buy order entered for this Spread for .48 is a penny away from the implied bid from the net prices of the two outright markets. A sell order priced at .50 is a penny better than the implied offer from the net prices of the two outright markets.

**When the nearest term outright future is valued at a higher price than the furthest term, order prices for Corporate Bond Index futures spreads are entered in negative values (backwardation).**

**Example:** CB Index futures/L1 Outright Market: Bid 128.45 x Offer 128.46  
 CB Index futures/L2 Outright Market: Bid 127.22 x Offer 127.23

The structure of the CB Index future/Sell L1 (1): Buy L2 (1) calendar spread on a 1:1 ratio remains the same on the CFE trading platform. The bid price is also derived in the same way, but is now a negative integer.

### L2 Bid 127.22- L1 Offer 128.46 = -1.24

The Buyer of the spread collects a \$1.24 credit.

The offer price is also now a negative number.

### L2 Offer 127.23- L1 Bid 128.45 = -1.22

The Seller of the spread pays \$1.22 for the spread.

Implied market for the CB Index futures/Sell L1(1): Buy L2(1) calendar spread in backwardation:  $-1.24 \times -1.22$

A buy order of -1.23(credit) is a penny better than the implied price of -1.24. A sell order of -1.21(debit) is a penny away from the better implied price of the spread.

## Additional Information

This document provides a high level summary of spread order pricing for CB Index futures and is not intended to be a comprehensive description.

*This information is current as of October 29, 2018 and is subject to change.*

For more information, please contact your Cboe Account Manager or the CFE Trade Desk at 312.786.8700 or [cfetradedesk@cboe.com](mailto:cfetradedesk@cboe.com).

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