

# GCC Price Banding

## Futures Price Banding

A Price Band Variation (PBV) is a static value that varies by product. It is symmetrically applied to both the upside (for bids) and downside (for offers) to determine the Price Band Variation Range (PBVR). With each price change the PBVR is recalculated and the new range is applied. The CME Globex platform rejects all bids and offers outside the PBVR.

Applying the PBV to a reference price determines the PBVR. The reference price depends on the market state and trading activity:

- During the Pre-Open and the Pre-Open/Non-Cancel period, the contract's Settlement Price is the reference price.
- Once the first [Indicative Opening Price \(IOP\)](#) is calculated, it becomes the reference price.
- During trading hours, the Last Price is the reference price.
- If no IOP or Last Price is established, the Settlement Price remains the reference price until a Last Price is established.
- In the event of a market emergency, when a market is placed in a non-trading mode during trading hours, the IOP serves as the reference price during the non-regular Pre-Open and Pre-Open/Non Cancel Period. If no IOP is available, the Last Price is the reference price.

Click the icon below to view a video for Futures Price Banding:



## Options Price Banding

Enhanced Options price banding is identical to futures price banding, with the following modifications:

For Outright Options - based on market conditions, the reference price is set to either the:

- Last Price of the option
- Theoretical Options Price based on well-established options pricing algorithms
- Last Price in combination with the Theoretical Options Price, if practical.

For Options Spreads (UDS) – the reference price is a theoretical value derived from the reference prices of the legs within the UDS. A change to the legs' reference prices will result in an updated reference price of the UDS. The Last Price or Bid/Offer of the UDS will not update the reference price. If a customer experiences issues entering orders due to price banding, contact the CME Global Command Center (GCC) to adjust price bands.

The width of the price bands is determined by one of the following:

- A fixed PBV for the entire option series, identical to the current price banding practice;
- A dynamic PBV based on the delta of the option, as estimated by the TOP calculation; or,
- A dynamic PBV based on a percentage of the TOP, where the percentage is based on the delta of the option.

Please note:

- If market conditions dictate a wider price band, for example, in a volatile market where prices are fluctuating rapidly, CME Group may elect to temporarily relax or suspend the price banding restriction.
- In addition to the PBVR, Daily Trading Limits may be in effect for certain products. Daily Trading Limits are always given priority over PBVR in rejecting orders with erroneous prices.
- PBVR are monitored throughout the day by the [CME Global Command Center \(GCC\)](#) and may be adjusted if necessary.

## Price Banding Rules

Different price banding rules apply to options and futures to reflect the differences between these markets.

- Although a series of options on a particular futures contract may trade frequently, any single option with a specific strike price may not trade or even be quoted regularly.
- The price of the underlying futures contract may change substantially subsequent to the option's Last Price, causing the market value of a formerly out-of-the-money option to increase substantially while the PBVR is locked in place.
  - In this situation, the Last Price on a specific option would be an unrepresentative reference price.
- Options with different strikes require different price band widths.
  - PBVRs for "out-of-the-money" options are narrower than those for "in-the-money" options to reflect the extent to which bids and offers departing from their fair market value may be considered erroneous.

Price banding is applied to each CME Globex product individually. A complete list of banding information for each electronically traded product is available at:



[CME Globex Product Reference Sheet](#)