Trade Your Idea: Futures Yield Spreads

Manage Your Duration and Convexity Risk

BLOOMBERG TRADEBOOK ® releases yield and duration spread trading.

Using futures to trade the yield curve or take advantage of yield differentials between two sovereign nations can be risky business. The problem- trading platforms are not fully integrated with the market data and analytics needed to nourish comprehensive trade ideas like: “I want to pick up 61 basis points or better between the Bund and the Note.” Convexity's affect on futures prices, as opposed to yield, can quickly undermine P&L, while tedious calculations needed to duration weight each trade can cost valuable time. With the developments of both yield trading and imbedded duration calculations Tradebook Futures **MTRX<Go>** will help you execute a comprehensive yield based strategy in one ticket. No more babysitting your order, you can move on to the next idea…

Smart Depth

Yield = (TYH0 Yield) - (RXH0 Yield)

Buy TYH0/Sell RXH0		Sell TYH0/Buy RXH0	
178	0.6150	0.6120	125
255	0.6160	0.6110	735
250	0.6170	0.6100	483
253	0.6180	0.6090	150
196	0.6190	0.6070	728

The **MTRX<Go>** function enables you to select a futures bond spread, convert it to yield, and then monitor the spread depth. The size displayed in the depth is smart, taking into account a duration hedge. For example, the 178 spread bid really represents 178 Bunds to 323 Notes available at a yield spread of .615 basis points, The duration calculations are the same as those used in Bloomberg's **PDH2<Go>** function. These calculations are based on a proxy issue, usually the cheapest to deliver.

Yield Calculation Method

When calculating yield we chose to use notional yield over the cheapest to deliver yield for two reasons: from technological stand point the notional calculation relies less on the congruency between multiple pricing sources, adding to speed and reliability within the algorithm. Secondly the variability of a CTD calculation on multiple levels including the potential of an intraday change in underlying can create inconsistency. The notional calculation looks to provide predictable P&L movements. Whereas CTD yield would be more apt to become inconsistent when needed the most, during very volatile markets.

A notional yield is determined by first creating a synthetic bond with exact specifications of the idealize deliverable, for example the US Ten year futures notional bond is a 6% coupon with ten years to expiration. We then place this synthetic bond-structure into a yield calculator and input the current futures price to determine yield. These yields feeds both our monitors and our algorithms in real-time.

Executing Your Trade Idea:

“I want to pick up 61 basis points between the Bund and the Note.”

1 **Spread Price:** Is the Yield Spread target of the algorithm in basis points.

2 **Size:** Total size of duration weighted order. Tradebook defaults enable you to enter one leg of the order to calculate the duration neutral size of the other.

The LEG Algorithm

The trade off of any spread algorithm is between how fast the order is filled relative to both the order's market impact and the orders leg risk (the risk of a spread imbalance). The more aggressive the algorithm the faster the order fills but also the more likely it is to impact the market and be legged, adversely affecting execution quality. Every trader and every trade is different, so Tradebook provides its users the ability to configure their aggression, in a simple ticket. The Leg Algorithm has configurable tools that focus on two main areas: Tools that minimizing both leg risk and market impact and Tools that react after leg risk occurs.

Leg Risk/ Market Impact Minimization Tools:

3 **Show:** Reduces leg risk by enabling you to choose which leg to display to the market first. You can also display both legs simultaneously.

4 **Slice:** Constrains the maximum displayed volume to essentially “iceberg” the spread (the process by which an algorithm slices a large order in to several smaller sub orders).

5 **% Participation:** Limits the size of sub orders based on the amount of volume that can be immediately offset in the opposing order. This feature will both randomize and aggressively seek out liquidity by sizing down in order to participate at the spread target price as much as possible.

Reactive Leg Risk Tools:

6 **Discretion:** Seeks to balance a legged spread by revising price of the legged order to a more marketable limit. This feature is extremely configurable allowing you to both choose how long to wait and how many ticks to change the current limit price.

7 **Alert:** If discretion is unable to balance the order, the alert feature will notify you of a “Legged” situation and allow you to take control of the remainder of the unbalanced order.

8 **Mkt Offset:** If discretion is unable to balance the order, the algorithm will take the remaining unbalanced amount and send it to market.