

The Information Content of the Limit Order Book

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Over the past decade agricultural commodity futures trading has migrated to the electronic platform from the traditional outcry system. Trades in the electronic platform are conducted through a computerized system where all traders submit their orders with their intended prices and number of contracts. The orders that match the best prevailing price from the opposite side are immediately executed and are called market orders. The orders that are not matched immediately are called limit orders and the system storing these orders is the limit order book (LOB). At any point in time, the LOB contains all the resting orders on the demand and supply sides at different price levels in descending and ascending order, respectively, beyond the best bid and best ask (BBA). Recent finance literature has found evidence that informed traders may submit limit orders instead of market orders as a part of their trading strategies. This means the levels of the LOB beyond the BBA may contain valuable information facilitating the price discovery process of these commodities. We reconstruct the LOB for five major agricultural commodities namely lean hogs, live cattle, corn, wheat, and soybeans as well as the CME E-mini S&P 500. Three information share metrics are computed. The results show that the contribution of the levels of the LOB beyond the BBA to price discovery of agricultural commodities is over thirty percent, more than that of E-mini S&P 500. Moreover, the results suggest that the levels of LOB beyond BBA have more information for grains than for meats.