

MARKET FORCES

High-Frequency Trading Comes Under Attack

With the financialization of oil markets over the past decade, non-traditional participants — so-called speculators — have come under scrutiny for artificially lifting prices and causing excess volatility. In the 2004-08 commodity price spike, the villains of the piece were passive investors who are long only, basically specialized funds that exclusively buy and hold positions. Now “high-frequency traders” are the ones on the hot seat for their role in commodity markets.

Most recently, researchers at the UN Conference on Trade and Development have argued that such players distort prices and have brought about a close link between equity and oil prices. “The financialization of commodity markets has an impact on the price determination process,” David Bicchetti and Nicolas Maystre wrote. “Recent price movements of commodities are hardly justified on the basis of changes of their own supply and demand.”

High-frequency traders use sophisticated black-box algorithms to trade across exchanges and international borders, linking asset classes throughout all markets (EC Oct.7’11). Recent tight correlation between equities — mostly the broad S&P 500 US index — and Nymex WTI futures is a curious phenomenon. Traditionally, oil prices and equities have tended to be negatively correlated, as higher energy costs hurt corporate profitability and the overall economy, while lower energy costs are an economic boon.

But algorithmic trading strategies have reversed that. A structural shift to electronic trading in derivatives throughout commodity markets has brought in new participants, many of which use only short-term trading strategies. The derivatives market dwarfs the physical market, with volumes some 20-30 times greater, while back in the 1990s financial investors accounted for only 25% of crude futures trading. Some 88% of all trading on CME platforms — which include Nymex — is electronic, with open outcry limited to the options market. Estimates put high-frequency or algorithmic trading at about one-third to one-half of all trades. The amount will probably continue to rise as commercial players become more comfortable with this trading style.

The authors of the UN report point out that the correlation between equities and oil has grown steadily since 2004, but took off in 2008. This correlation has been noted many times since, but Bicchetti and Maystre take their analysis a step further by looking at intraday price fluctuations over short periods ranging from one second to one hour in order to determine whether rapid-fire trades are responsible for the tighter correlations. They conclude that, since the collapse of Lehman Brothers in September 2008, oil prices have developed a stronger correlation with the S&P 500 at periods of one second to five minutes as a result of the growth of high-frequency trading.

This influence makes sense given high-frequency traders’ reliance on arbitrage deals both within and across numerous asset classes. Volatility in one market is transferred into another in a matter of seconds — or milliseconds. And they trade for the short-run, ending the trading day flat by not holding positions overnight.

Given that a growing portion of the trading on commodity exchanges is based on algorithms, markets can move sharply without new fundamental news or data, to destabilizing effects. An example occurred on May 5, 2011, when oil prices plunged by as much as \$13 per barrel in the absence of any major event or macroeconomic news.

Violent price swings are exacerbated by the tendency of most high-frequency traders to rely on similar aggressive and active strategies, meaning they herd and move abruptly in the same direction.

This provides ammunition to oil market analysts, regulators and politicians who claim that oil markets don’t reflect physical reality. “Commodity markets are more and more prone to events in global financial markets and likely to deviate from their fundamentals,” as a result of outside participants such as high-frequency traders, the UN study says. High-frequency traders and market analysts, however, take umbrage with the report, noting that the correlation between oil prices and equities reflects both markets being a barometer of economic growth. What’s more, markets have always been volatile, they say, a result of uncertainty, incomplete and untimely data, and human emotions such as “fear and greed.”

Can Regulators Regulate?

The role of high-frequency trading in financial markets came under fire after the May 6, 2010, flash crash that briefly erased almost \$1 trillion from the value of the US stock market. Now regulators are trying to catch up. The Commodity Futures Trading Commission (CFTC) is having a difficult time even coming up with a working definition of what high-frequency trading is. The commission is having a dialogue both internally and with the trading industry, other regulators and the public about how to regulate activity it has yet to fully understand.

One example of how far the CFTC is behind the markets: One of the biggest players on the CME is a high-frequency trader based in the Czech Republic. US regulators are having a difficult enough time tracking such players in the US. For overseas players, they have no authority. “It’s important to fully understand the situation before making strong policy recommendations,” Bicchetti and Maystre told *Energy Compass*. “There’s not enough information yet to make policy recommendations.” ■

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- **SIGNIFICANCE:** High-frequency traders, using sophisticated algorithms to execute trades, have brought a tight correlation between equities and oil markets, particularly since 2008. Their influence is likely to grow further as electronic trading becomes even more dominant.
- **CONTEXT:** The growing role of financial players has frustrated politicians, consumers, regulators and producers, who argue that high oil prices are not justified. A recent example is Saudi Oil Minister Ali Naimi’s public-relations push against high oil prices, which he maintains are disconnected from supply-demand fundamentals (EC Mar.23’12).
- **NEXT:** Regulators worldwide are trying to keep up with high-frequency traders, but many lack the technology or depth of knowledge to successfully monitor them. Even if regulators come up with a method for oversight of high-frequency trading, the markets are evolving so quickly that regulators will probably remain one step behind.