

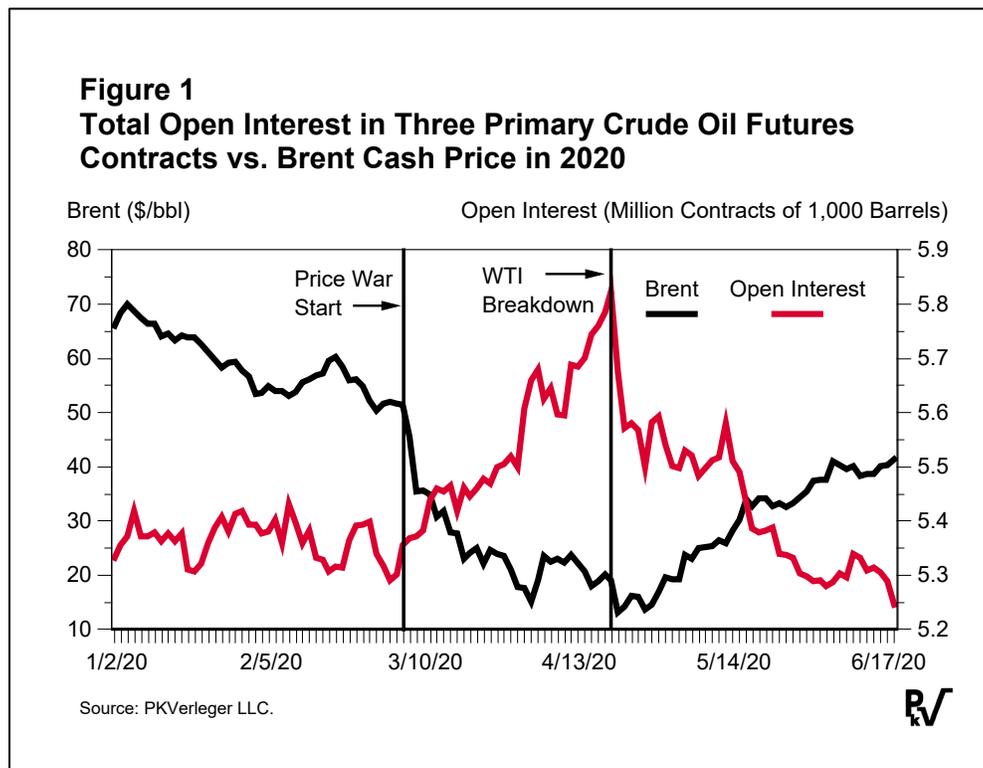
Our View: Hedging's Role in the Market's Turmoil and the Threat to Prices

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The pundits have had a field day describing the rise in oil prices. Some, ignoring all the bad news about the coronavirus, attribute it to higher consumption, others to OPEC+ actions. Some even see prices being boosted by US producers.

Two words, though, never appear in these explanations. They are gamma and delta. Yet it seems likely that the fall and rise in oil prices should be attributed to the anonymous computers struggling to keep the financial institutions that wrote puts to US oil firms hedged.

Figure 1 illustrates this conclusion clearly. This graph compares total open interest in the three key crude contracts (ICE Brent, CME WTI, and ICE WTI) by day to the Brent cash price. The vertical lines in the graph mark the outbreak of the price war in early March and the April 20 breakdown of the WTI market.



Note that open interest was stable from the beginning of January to March 4. The average over this period was 5.365 million contracts and the standard deviation a trivial thirty-six thousand contracts.

Then between March 6 and May 27, open interest rose from 5.3 million contracts to 5.8 million contracts before falling back to 5.3 million contracts. The standard deviation quadrupled as the computers desperately tried to maintain neutrality.

Since June 1, though, the computers and the market have gone back to sleep. Open interest again has averaged 5.3 million contracts. The standard deviation declined to twenty-two thousand contracts.

Meanwhile, US producers have hedged more oil. Their actions threaten oil-exporting countries, who last week issued veiled promises to boost production if the nations producing above quota do not cut output immediately. Such activities would almost certainly start a more vicious price decline.

Specifically, a production boost that started a price decrease would motivate the computers to resume selling crude futures, paying no attention to human pundits. Sales would depend on the rate of price decline and the structure of the hedges. Prices would likely fall faster because more oil is hedged. The computers might even cause a serious flash crash.

Oil-exporting countries, then, appear to have no choice but to coax and cajole countries like Nigeria and Iraq into bringing production into line. Figure 6 makes clear that the oil market today is driven by computers, not humans. The pundits at investment banks, consulting firms, Argus Media, Bloomberg, Platts, and Reuters can continue writing their drivel. The computers, meanwhile, will watch the changes in price, the delta, and the gamma.

Oil market behavior today is driven by artificial intelligence. Humans have become obsolete.