Would New Position Limits Prevent WTI Meltdown?
CFTC rules set to damp speculation in 2022.

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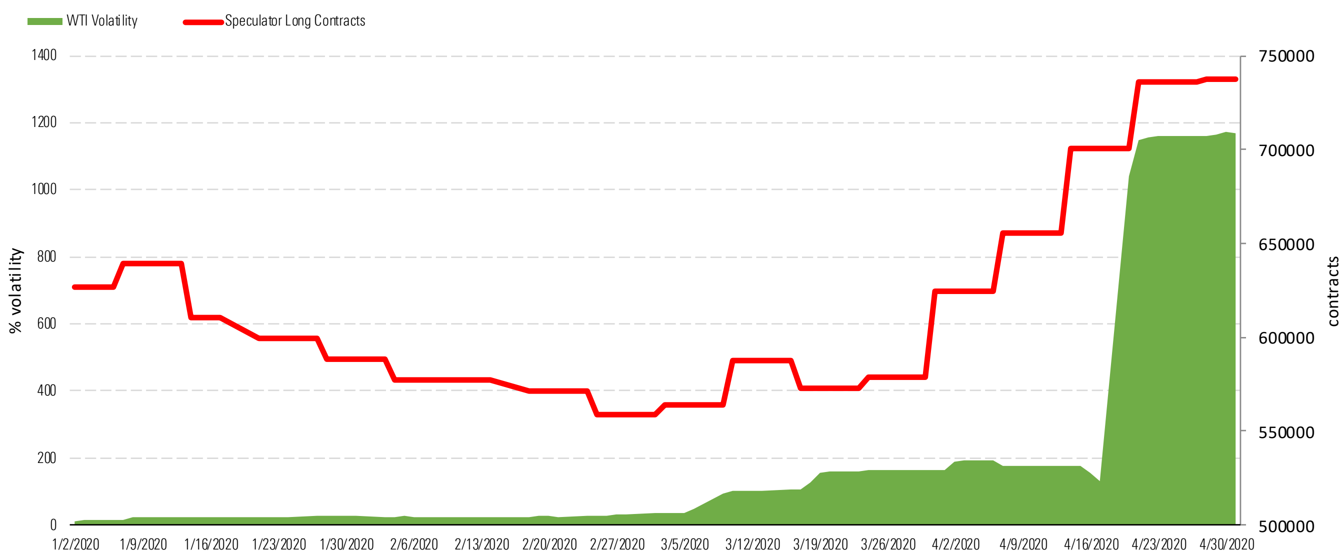
First for Energy

On Oct. 15, the federal Commodity Futures Trading Commission approved (subject to technical corrections and publication in the Federal Register) a final rule regulating speculative position limits in various commodity futures, options, and derivative markets, including energy. The regulations finalize requirements identified a decade ago in the 2010 Wall Street Transparency and Accountability Act (also known as the Dodd-Frank Act). Position limits regulate how many contracts speculators can hold in certain commodity futures markets. If the new rules take effect as planned in January 2022 for futures exchanges and January 2023 for derivative facilities, they'll mark the first such federal regulation of energy commodities, although individual exchanges already impose position limits. The regulations postdate an April 2020 meltdown in CME Group West Texas Intermediate crude futures when prices turned negative for the first time. This note reviews the new rules and whether they could have prevented April's WTI price collapse.

Meltdown

In a note published immediately following the April 20 price collapse in WTI futures, we described the wide impact that event had on the domestic crude market (see Crushing Cushing: Wider Impact of Negative Crude). In a follow-up note (see Fear of Negative Consequences), we detailed some of the underlying causes of this tumultuous event, including the high volume of speculative long positions in the May 2020 WTI crude delivery contract that was about to expire on April 21 and the lack of available storage capacity at the Cushing, Oklahoma, delivery point for the futures contract. Those factors made it nearly impossible for the longs to close out positions in an orderly fashion to avoid delivery of physical crude. The resulting squeeze forced sellers to accept negative prices—in effect, to pay buyers to take their contracts from them to avoid taking delivery. Prices for the May contract settled at negative $37.63/barrel on April 20, nearly $56/barrel below their prior close on April 19. Exhibit 1 shows the growth of speculative positions and price volatility in the lead-up to and during this classic market squeeze.

Exhibit 1 WTI 21-Day Historical Price Volatility and Long Speculator Positions



Source: CFTC, CME Group, Morningstar.

Victim

Bloomberg analysis after the April WTI meltdown provided anecdotal evidence suggesting that a major victim of the price collapse was the Bank of China. The bank sold interests in its Crude Oil Treasure fund to thousands of Chinese investors, allowing them exposure to U.S. crude prices without owning an offshore account. The strategy used investor funds to purchase long positions in WTI futures. On April 20, the fund was long approximately 1,464 WTI futures contracts for May delivery. Since April 20 was the last trading day before the May 2020 delivery contract expired, the Bank of China fund needed to roll its long May positions into the June 2020 contract by selling May and buying June on that day. Its preferred mechanism to accomplish the rollover was to place trade-at-settlement orders. TAS orders guarantee the buyer or seller the market price at close plus or minus a small fixed differential. This trade type avoids trying to time the market during the day with large buy and sell orders.

On that fateful day, TAS was possibly the worst strategy for Crude Oil Treasure investors, since it resulted in the fund automatically selling 1,464 May contracts and buying 1,464 June contracts at the April 20 settlement prices, when May contracts were worth negative $37.63/barrel and June contracts $20.43/barrel. The Bank of China fund rollover therefore incurred a loss of negative $37.63 minus $20.43, or $58.06/barrel on each 1,000-barrel contract, amounting to a roughly $85 million total loss for the 1,464 contracts.

On the other side of these transactions and making money, not losing it, were trading companies with short positions in the May contract or access to Cushing storage to take delivery. Two companies, BB Energy and Trafigura, have been mentioned in press reports as profiting from such trades, but there is no specific evidence of their activity.

Arguably it is exactly this kind of disorderly meltdown in pricing and the futures delivery mechanism that the Dodd-Frank Act had in mind when prescribing increased regulation of futures and derivatives markets and specifically the imposition of position limits for commodity derivative trades. At a high level, Dodd-Frank seeks to limit futures market volatility and disruption by speculators in order to preserve orderly market function for physical hedgers.

CFTC Position Limits

If the CFTC's latest final rule is published as expected in the Federal Register and comes into effect 60 days later, then the regulations will include new and amended federal spot-month limits for 25 physical commodity core referenced futures contracts from Jan. 1, 2022, as follows:

1. Legacy Agriculture
    a. CBOT Corn (C)
    b. CBOT Oats (O)
    c. CBOT Soybeans (S)
    d. CBOT Wheat (W)
    e. CBOT Soybean Oil (SO)
    f. CBOT Soybean Meal (SM)
    g. MGEX Hard Red Spring Wheat (MWE)
    h. ICE Cotton No. 2 (CT)
    i. CBOT KC Hard Red Winter Wheat (KW)
2. Nonlegacy Agriculture
    a. CBOT Rough Rice (RR)
    b. ICE Cocoa (CC)
    c. ICE Coffee C (KC)
    d. ICE FCOJ-A (OJ)
    e. ICE U.S. Sugar #11 (SB)
    f. ICE U.S. Sugar #16 (SF)
    g. CME Live Cattle (LC)
3. Metals
    a. COMEX Gold (GC)
    b. COMEX Silver (SI)
    c. COMEX Copper (HG)
    d. NYMEX Platinum (PL)
    e. NYMEX Palladium (PA)
4. Energy
    a. NYMEX Natural Gas (NG)
    b. NYMEX Crude (CL)
    c. NYMEX Ultra Low Sulfur Diesel (HO)
    d. NYMEX Reformulated Gasoline (RB)

The position limits also apply to any futures, options, or derivative contracts linked to these core referenced contracts. That means any contract directly or indirectly linked to the price of a core referenced futures contract or directly or indirectly linked to the price of the underlying commodity behind the core referenced contract.

Swaps

Notably, the term "referenced contract" also includes "economically equivalent swaps" defined as swaps with identical material contractual specifications, terms, and conditions to a referenced contract. For the first time, this regulates positions in the over-the-counter derivative swaps market as well as futures, although swaps position limits won't come into effect until January 2023.

Limits

For all the ballyhoo about these regulations, including 10 years of foot-dragging by the futures exchange industry that has delayed implementation, the actual limits don't amount to much on paper and in many cases simply replicate existing exchange-set position limits. Exhibit 2 lists the energy core futures contracts and position limits we're focusing our analysis on. The four core contracts are traded on the CME NYMEX Exchange but have linked futures and options contracts on the ICE and Nodal exchanges as well as economically equivalent swaps contracts.

For these energy contracts, federal position limits only apply to the spot month, meaning the final month before expiration, and within that month, only to the final three days prior to expiration. In the case of crude oil, the limits are stepped down over the final three days, meaning customers can hold 6,000 contracts or fewer on the third day prior to expiry, 5,000 contracts on the second day prior, and 4,000 contracts on expiration day. The rightmost column in Exhibit 2 shows the equivalent existing exchange spot month limits set by the NYMEX. Similar spot month position limits for referenced contracts are set by the ICE and Nodal exchanges. Except for natural gas, the federal limits in Exhibit 2 apply in the aggregate across exchanges and derivative swap markets. The natural gas limits apply on a per exchange basis.

Exhibit 2 CFTC Energy Contract Proposed Position Limits

Exchange	Core Referenced	Symbol	2020 Final Rule Spot Month	Existing Exchange Spot Limit
NYMEX	Natural Gas	NG	2000	1000
NYMEX	Crude	CL	6000/5000/4000	3000
NYMEX	ULSD New York	HO	2000	1000
NYMEX	RFG New York	RB	2000	1000

Source: CFTC, CME Group, Morningstar.

Exemptions

There is one exemption from federal position limits set by the CFTC, which is the bona fide hedge recognition. This exemption distinguishes between futures and derivative market participants engaged in hedging activity and speculators. Hedging activity pursued by physical market participants to reduce their exposure to price risk is considered good. As long as it is bona fide, according to a complicated definition ensuring that the use case is genuine hedging, then it's exempt from position limits. Any positions not exempted as a bona fide hedge are considered speculative and subject to limits. As we noted, for energy futures, position limits are restricted to the final three days before a contract expires and therefore specifically targeted against disruptions to pricing around the physical delivery mechanism.

No Impact

In the case of the April WTI meltdown, the extreme price volatility and negative settlement occurred despite existing exchange-set position limits. We expect the full story of who was affected and who was potentially culpable for the April event to emerge in due course. Based on the example we described earlier—the Bank of China Crude Oil Treasure fund—neither the existing exchange-set position limits nor the proposed federal limits would have affected that participant because it owned only 1,464 contracts in the spot month at the time, less than half the CME limit of 3,000 contracts and about 29% of the CFTC proposed limit, which would have been 5,000 crude contracts on the day before expiration.

Since the April WTI event, the CME NYMEX and ICE have increased their oversight of market participants, particularly exchange-traded commodity funds like U.S. Oil (USO), which is designed to track WTI futures. That fund didn't have spot month exposure in May 2020 WTI contracts because it rolled its positions earlier in April before the meltdown. Both CME and ICE subsequently instructed it to reduce and remove open positions in spot month WTI and related contracts and have subjected USO to accountability rules that require it to report positions daily. These conditions have been imposed by the exchanges after the horse has bolted, and the CFTC limits would have had little bearing.

Striking a Balance

The lengthy implementation of futures market position limits by the CFTC could finally result in actual rules in January 2022, followed by potentially far more complex accounting for economically equivalent swaps traded over the counter in January 2023. These regulations benefit orderly markets but struggle to strike a balance between free-market chaos and necessary oversight. Based on the evidence of the April WTI futures meltdown, the latest final CFTC proposals fall short of requirements to preserve an orderly market.

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