

UNITED STATES OF AMERICA
Before the
COMMODITY FUTURES TRADING COMMISSION

In the Matter of:

Interactive Brokers LLC,

Respondent.

CFTC Docket No. 21-19

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Office of Proceedings
Proceedings Clerk

1:30 pm, Sep 28, 2021

**ORDER INSTITUTING PROCEEDINGS PURSUANT TO
SECTION 6(c) AND (d) OF THE COMMODITY EXCHANGE ACT,
MAKING FINDINGS, AND IMPOSING REMEDIAL SANCTIONS**

I. INTRODUCTION

The Commodity Futures Trading Commission (“Commission”) has reason to believe that from at least early-April 2020 through April 22, 2020 (“Relevant Period”), Interactive Brokers LLC (“Interactive Brokers”), a registered futures commission merchant (“FCM”), violated Commission Regulation (“Regulation”) 166.3, 17 C.F.R. § 166.3 (2020). Therefore, the Commission deems it appropriate and in the public interest that public administrative proceedings be, and hereby are, instituted to determine whether Interactive Brokers engaged in the violations set forth herein and to determine whether any order should be issued imposing remedial sanctions.

In anticipation of the institution of an administrative proceeding, Interactive Brokers has submitted an Offer of Settlement (“Offer”), which the Commission has determined to accept. Without admitting or denying any of the findings or conclusions herein, Interactive Brokers consents to the entry of this Order Instituting Proceedings Pursuant to Section 6(c) and (d) of the Commodity Exchange Act, Making Findings, and Imposing Remedial Sanctions (“Order”) and acknowledges service of this Order.¹

II. FINDINGS

The Commission finds the following:

¹ Interactive Brokers consents to the use of the findings of fact and conclusions of law in this Order in this proceeding and in any other proceeding brought by the Commission or to which the Commission is a party or claimant, and agrees that they shall be taken as true and correct and be given preclusive effect therein, without further proof. Interactive Brokers does not consent, however, to the use of this Order, or the findings or conclusions herein, as the sole basis for any other proceeding brought by the Commission or to which the Commission is a party or claimant, other than: a proceeding in bankruptcy or receivership; or a proceeding to enforce the terms of this Order. Interactive Brokers does not consent to the use of the Offer or this Order, or the findings or conclusions in this Order, by any other party in any other proceeding.

A. SUMMARY

During the Relevant Period, Interactive Brokers failed to diligently supervise its FCM activities with respect to its electronic trading system's preparedness for and ability to handle negative crude oil futures prices on April 20, 2020. Interactive Brokers' supervisory failures violated Regulation 166.3, 17 C.F.R. § 166.3 (2020).

Interactive Brokers' supervisory failures came to light on April 20, 2020, when the benchmark West Texas Intermediate light, sweet crude oil ("CL") futures contract on the CME Group Inc.'s ("CME Group") New York Mercantile Exchange ("NYMEX") traded into negative prices, settling at negative \$37.63 per barrel for the May contracts set to expire the following day. This price was the basis for determining the settlement price for certain cash-settled contracts, including the E-mini crude oil ("QM") futures contract on the NYMEX and the West Texas Intermediate light, sweet crude oil ("WTI") futures contract on the Intercontinental Exchange Europe ("ICE Europe"). Because the QM and WTI contracts settle based on the trading of the CL contract in the settlement window, both contracts settled at negative \$37.63 per barrel. Interactive Brokers customers held long positions in the May QM and WTI contracts on April 20, 2020 and experienced trading losses on those positions.

Although Interactive Brokers was on notice of the possibility of negative oil futures prices prior to April 20, 2020, it did not adequately prepare and configure its electronic trading system for negative prices, impacting hundreds of its customers on April 20, 2020. Specifically, Interactive Brokers failed to enable its system to accept negative pricing in QM and WTI futures contracts, and its margin system failed to charge customers appropriate initial margin for WTI contracts. These issues impacted hundreds of customer accounts, and customers holding long positions in the May QM and WTI contracts² experienced losses estimated by the firm at the time to exceed \$82.57 million on April 20, 2020. By virtue of this conduct, Interactive Brokers violated Regulation 166.3, which requires FCMs to diligently supervise the handling of their customer accounts.

Interactive Brokers represents that it has already proactively compensated 272 customers for losses exceeding \$82.57 million.

* * *

In accepting Respondent's Offer, the Commission recognizes the substantial cooperation of Interactive Brokers with the Division of Enforcement's ("Division") investigation of this matter. The Commission also acknowledges Respondent's representations concerning its remediation in connection with this matter. The Commission's recognition of Respondent's substantial cooperation and appropriate remediation is further reflected in the form of a reduced civil monetary penalty.

² Interactive Brokers had no customers with positions in the CL contract on the NYMEX because, like many FCMs, it does not allow customers to carry the contract close to settlement.

B. RESPONDENT

Interactive Brokers LLC is registered with the Commission as an FCM that maintains its principal place of business at One Pickwick Plaza, Greenwich, Connecticut 06830. Interactive Brokers has been registered with the Commission since December 2, 1994. Interactive Brokers is also a Forex Dealer Member of the National Futures Association.

C. FACTS

1. Interactive Brokers Failed to Adequately Supervise its Electronic Trading System for Receiving Negative Prices and Calculating Margin in Customer Accounts

Prior to April 20, 2020, CME Group issued a series of advisory notices warning of potential negative oil futures pricing.³ Although Interactive Brokers had taken steps to prepare for negative oil prices, it had not changed its system's market rule configuration for crude oil futures contracts to make them "negative-capable" on or before April 20, 2020. As a result of Interactive Brokers' failure to deploy the necessary system changes before negative prices occurred, it encountered two significant systems issues on April 20, 2020: (1) negative prices were not displayed to customers and customers were unable to place orders with negative-priced limit orders to buy or sell; and (2) internal minimum margin requirements were not correctly enforced prior to trade execution for trades in the WTI contract. These two issues impacted hundreds of customer accounts that held long QM or WTI futures positions into settlement, and those customers experienced trading losses estimated by the firm at the time to exceed \$82.57 million.

a. Interactive Brokers' System Did Not Recognize Negative Prices for QM and WTI Contracts

The first issue concerned the price feed and order entry issues experienced by customers on April 20, 2020. Although Interactive Brokers was in the process of making the necessary coding changes for negative prices pursuant to its own internal procedures and had begun testing those changes, it had not changed the market rules on crude oil futures to make them "negative-capable" as of April 20, 2020. Interactive Brokers' "Ticker Farm" system, which provides customer-facing interfaces and internal systems with real-time market data, rejected negative prices for the QM and WTI contracts that it perceived to be erroneous. As a result, Interactive Brokers' customer-facing platforms did not properly display negative prices when the QM and WTI contracts traded below zero. In addition, customers were unable to place negative-priced

³ See CME Globex and Market Data Customer Notice No. 20200403, *Changes to Price and Strike Eligibility Flags for Certain Energy Products* (Apr. 3, 2020), available at <https://www.cmegroup.com/notices/electronic-trading/2020/04/20200403.html>; CME Group Advisory Notice No. 20-152, *CME Clearing Plan to Address the Potential of a Negative Underlying in Certain Energy Options Contracts* (Apr. 8, 2020), available at <https://www.cmegroup.com/notices/clearing/2020/04/Chadv20-152.pdf>; CME Group Advisory Notice No. 20-160, *Testing Opportunities in CME's "New Release" environment for negative prices and strikes for certain NYMEX energy contracts* (Apr. 15, 2020), available at <https://www.cmegroup.com/notices/clearing/2020/04/Chadv20-160.html>.

limit orders to buy or sell⁴ and were unable to enter orders liquidating long positions for the QM and WTI contracts after the price fell below zero on April 20, 2020. Finally, Interactive Brokers' credit system did not receive negative prices and was therefore unable to properly value accounts. The credit system overstated the value of accounts with long positions in the QM and WTI contracts and did not attempt to auto-liquidate positions in accounts that would have been in margin deficit if correctly marked-to-market.⁵ According to Interactive Brokers, by April 22, 2020, it had resolved enough of its systems issues that, had oil derivative futures prices turned negative again, customers would have been able to enter orders and see negative prices.

b. Interactive Brokers' Margin System Failed to Enforce Initial Margin Requirements for WTI Contracts

The second issue concerned Interactive Brokers' internal "Credit Manager" system which calculates margin requirements and customer account value to determine if an order is authorized using real-time market data. Generally, the system will not accept orders unless customers have sufficient excess liquidity in their accounts to meet house initial margin requirements. While reviewing trade records from April 20, 2020, Interactive Brokers discovered a latent flaw in its margin system that permitted customers to establish WTI positions on April 20, 2020, before they posted the requisite capital. Interactive Brokers determined that the Credit Manager system had calculated the initial margin required to open a long position in the WTI contract to be capped at the lesser of: (1) the notional value of the contract; or (2) Interactive Brokers' house margin requirement for the day. On April 20, 2020, the initial house margin for long WTI was \$8,462.50 per contract. As the price of the WTI contract fell and the contract's notional value became lower than the house margin requirement, Interactive Brokers' margin system required customers to have excess liquidity equal to only the notional value of the contract to open a long position. As a result, customers were able to open more than three times as many WTI contracts than they would have been able to open if Interactive Brokers had required the pre-trade initial margin it normally requires. According to Interactive Brokers, it deployed a coding change to remediate the initial margin issue on April 21, 2020, for trade date April 22, 2020.

⁴ According to Interactive Brokers, customers may have been able to enter market orders in some instances (*e.g.*, if the order was placed when the price was above zero), but if the price fell below zero after order entry and before the order was routed to the exchange, Interactive Brokers' system would have indicated to the customer that the order was not routed to the market. In some instances, customers were able to place buy orders that were filled at negative prices.

⁵ When an account has a margin deficit, Interactive Brokers generally liquidates on an automated, real-time basis, although it is not obligated to do so.

2. **Interactive Brokers' Reporting, Cooperation, Customer Compensation, and Systems Remediation**

Interactive Brokers reported its system issues to the Division on or about April 21, 2020, and cooperated with the Division's investigation.⁶ As part of that cooperation, Interactive Brokers voluntarily produced documents and provided important information and analysis at the Division's request. Interactive Brokers' cooperation expedited the completion of the Division's investigation.

Interactive Brokers represents that it has engaged in substantial customer compensation and systems remediation efforts. Interactive Brokers also represents that it has restored more than \$82.57 million to accounts impacted by the system issues described above, by forgiving unsecured debts owed to Interactive Brokers and crediting lost customer positive equity.⁷ Following the market events of April 20, 2020, Interactive Brokers promptly implemented substantial system remediation changes to enable negative prices for oil futures products and to ensure that its margin system charges appropriate initial margin for futures products. Interactive Brokers also instituted an early close-out period for cash-settled futures similar to the restrictions already in place on physically-settled futures, including preventing customers from opening new positions within five trading days before the futures' last trade date.

The Commission's recognition of Interactive Brokers' substantial cooperation and systems remediation is reflected in the form of a reduced civil monetary penalty.

III. **LEGAL DISCUSSION**

Interactive Brokers Failed to Supervise Diligently the Handling of its Customer Accounts in Violation of Regulation 166.3

Regulation 166.3, 17 C.F.R. § 166.3 (2020), imposes on every Commission registrant (except associated persons who have no supervisory duties) an affirmative duty to "diligently supervise the handling by its partners, officers, employees and agents . . . of all commodity interest accounts carried, operated, advised or introduced by the registrant and all other activities of its partners, officers, employees and agents . . . relating to its business as a Commission registrant." A violation of Regulation 166.3 is an independent violation for which no underlying violation is necessary. *See, e.g., In re Collins*, CFTC No. 94-13, 1997 WL 761927, at *10 (Dec. 10, 1997) ("It is well settled that a violation under Rule 166.3 is 'an independent and primary violation for which no underlying violation is necessary.'" (citation omitted)); *In re GNP*

⁶ Interactive Brokers also reported its system issues to the CFTC's Market Participants Division, previously known as the Division of Swap Dealer and Intermediary Oversight (DSIO), on or about April 22, 2020.

⁷ Interactive Brokers compensated customers who held long positions in QM and/or WTI through settlement and were logged into the relevant account during some or all of the time that prices were trading negative (between 2:08 pm and 2:30 pm EDT on April 20, 2020). Interactive Brokers represents that it offered to compensate customers the full amount of each such customer's losses resulting from the difference between WTI and QM settling at \$0.00 and WTI and QM settling at -\$37.63.

Commodities, Inc., CFTC No. 89-1, 1992 WL 201158, at *17 n.11 (Aug. 11, 1992) (“Rule 166.3 establishes failure to supervise as an independent and primary violation . . .” (citation omitted)), *aff’d in part and modified sub nom. Monieson v. CFTC*, 996 F.2d 852 (7th Cir. 1993).

For a registrant to fulfill its duties under Regulation 166.3, it must both design an adequate program of supervision and ensure that the program is followed. *See GNP Commodities*, 1992 WL 201158, at *17-19 (providing that, even if an adequate supervisory system is in place, Regulation 166.3 can still be violated if the supervisory system is not diligently administered). As a result, a violation of Regulation 166.3 “is demonstrated by showing either that: (1) the registrant’s supervisory system was generally inadequate; or (2) the registrant failed to perform its supervisory duties diligently.” *In re FCStone, LLC*, CFTC No. 15-21, 2015 WL 2066891, at *3 (May 1, 2015) (consent order) (citing *In re Murlas Commodities, Inc.*, CFTC No. 85-29, 1995 WL 523563, at *9 (Sept. 1, 1995)). “[A] showing that the registrant lacks an adequate supervisory system can be sufficient to establish a breach of duty under Regulation 166.3.” *Collins*, 1997 WL 761927, at *10. Evidence of violations that “should be detected by a diligent system of supervision, either because of the nature of the violations or because the violations have occurred repeatedly[,]” is probative of a failure to supervise. *In re Paragon Futures Ass’n*, CFTC No. 88-18, 1992 WL 74261, at *14 (Apr. 1, 1992).

Pursuant to Regulation 166.3, 17 C.F.R. § 166.3 (2020), registrants have a duty to supervise their officers, employees, and agents who are responsible for establishing, monitoring, maintaining, and controlling electronic trading platforms and systems. *See, e.g., In re FXDirectDealer*, CFTC No. 13-34, 2013 WL 5295802, at *2 (Sept. 18, 2013) (consent order) (finding supervision failures for FCM’s failure to “supervise diligently its officers’, employees’, and agents’ handling of customer accounts that traded on FXDDs MT4 platform by allowing these officers, employees, and agents to establish and maintain asymmetrical slippage parameters on the MT4 system, to the detriment of FXDD’s customers”); *In re Open E Cry LLC*, CFTC No. 12-24, 2012 WL 10259805, at *2, *4-5 (June 7, 2012) (consent order) (finding FCM failed to supervise its employees’ handling and oversight of customer accounts, where one customer was able to take advantage of a flaw in FCM’s customized trading software by engaging in a pre-arranged trading scheme that exploited a systematic price miscalculation associated with Russian ruble futures contract); *In re Forex Capital Markets LLC*, CFTC No. 12-01, 2011 WL 4689390, at *2 (Oct. 3, 2011) (consent order) (finding FCM’s officers, employees, and agents responsible for its trading platforms “failed to establish a system that prevented asymmetrical slippage on market orders and market liquidation orders”).

During the Relevant Period, with respect to ensuring the transmission of accurate pricing information to customers and allowing negative-priced order entry on its trading platforms, Interactive Brokers failed to perform its supervisory duties diligently in violation of Regulation 166.3, 17 C.F.R. § 166.3 (2020). Specifically, Interactive Brokers was required to ensure the integrity of all trades on its trading platforms. *See In re Forex Capital Markets*, 2011 WL 4689390, at *4 (“Because trade execution is such a critical function, FXCM should have monitored more closely its officers, employees, and agents responsible for establishing an adequate system to ensure trade integrity and for policing its platforms to detect inequities with its execution practices.”). Interactive Brokers’ officers, employees, and agents charged with

monitoring and maintaining its trading platforms were made aware of the possibility of negative crude oil futures prices prior to April 20, 2020. However, these individuals failed to manage the risks associated with the possibility of negative prices, including by failing to adequately configure Interactive Brokers' electronic trading system to accept negative prices prior to April 20, 2020.

IV. FINDINGS OF VIOLATION

Based on the foregoing, the Commission finds that, during the Relevant Period, Interactive Brokers failed to adequately supervise its officers, employees, and agents in violation of Regulation 166.3, 17 C.F.R. § 166.3 (2020).

V. OFFER OF SETTLEMENT

Interactive Brokers has submitted the Offer in which it, without admitting or denying the findings and conclusions herein:

- A. Acknowledges service of this Order;
- B. Admits the jurisdiction of the Commission with respect to all matters set forth in this Order and for any action or proceeding brought or authorized by the Commission based on a violation of or enforcement of this Order;
- C. Waives:
 - 1. The filing and service of a complaint and notice of hearing;
 - 2. A hearing;
 - 3. All post-hearing procedures;
 - 4. Judicial review by any court;
 - 5. Any and all objections to the participation by any member of the Commission's staff in the Commission's consideration of the Offer;
 - 6. Any and all claims that it may possess under the Equal Access to Justice Act, 5 U.S.C. § 504 (2018) and 28 U.S.C. § 2412 (2018), and/or the rules promulgated by the Commission in conformity therewith, Part 148 of the Commission's Regulations, 17 C.F.R. pt. 148 (2020), relating to, or arising from, this proceeding;
 - 7. Any and all claims that it may possess under the Small Business Regulatory Enforcement Fairness Act of 1996, Pub. L. No. 104-121, tit. II, §§ 201-253, 110 Stat. 847, 857-74 (codified as amended at 28 U.S.C. § 2412 and in scattered sections of 5 U.S.C. and 15 U.S.C.), relating to, or arising from, this proceeding; and

8. Any claims of Double Jeopardy based upon the institution of this proceeding or the entry in this proceeding of any order imposing a civil monetary penalty or any other relief, including this Order;
- D. Stipulates that the record basis on which this Order is entered shall consist solely of the findings contained in this Order to which Interactive Brokers has consented in the Offer;
- E. Consents, solely on the basis of the Offer, to the Commission's entry of this Order that:
1. Makes findings by the Commission that Interactive Brokers violated Regulation 166.3, 17 C.F.R. § 166.3 (2020);
 2. Orders Interactive Brokers to cease and desist from violating Regulation 166.3;
 3. Orders Interactive Brokers to pay restitution in the amount of eighty-two million, five hundred seventy thousand dollars (\$82,570,000). Respondent is credited the full amount due to its previous payment of compensation to its customers, such that no further payment is owed.
 4. Orders Interactive Brokers to pay a civil monetary penalty in the amount of one million, seven hundred fifty thousand dollars (\$1,750,000), plus post-judgment interest, within ten days of the date of entry of this Order; and
 5. Orders Interactive Brokers and its successors and assigns to comply with the conditions and undertakings consented to in the Offer and as set forth in Part VI of this Order.

Upon consideration, the Commission has determined to accept the Offer.

VI. ORDER

Accordingly, IT IS HEREBY ORDERED THAT:

- A. Interactive Brokers and its successors and assigns shall cease and desist from violating Regulation 166.3, 17 C.F.R. § 166.3 (2020).
- B. Interactive Brokers shall pay restitution in the amount of eighty-two million, five hundred seventy thousand dollars (\$82,570,000) ("Restitution Obligation"). Respondent is credited the full amount due to its previous payment of compensation to its customers, such that no further payment is owed to satisfy the Restitution Obligation.
- C. Interactive Brokers shall pay a civil monetary penalty in the amount of one million, seven hundred fifty thousand dollars (\$1,750,000) ("CMP Obligation") within ten days of the date of the entry of this Order. If the CMP Obligation is not paid in full within ten days of the date of entry of this Order, then post-judgment interest shall accrue on the CMP Obligation beginning on the date of entry of this Order and shall be determined by using the Treasury Bill rate prevailing on the date of entry of this Order pursuant to 28 U.S.C. § 1961 (2018).

Interactive Brokers shall pay the CMP Obligation and any post-judgment interest by electronic funds transfer, U.S. postal money order, certified check, bank cashier's check, or bank money order. If payment is to be made other than by electronic funds transfer, then the payment shall be made payable to the Commodity Futures Trading Commission and sent to the address below:

CFTC
C/O ESC/AMK-326; RM 265
6500 S. MacArthur Blvd.
Oklahoma City, OK 73169
(405) 954-6569 office
(405) 954-1620 fax
9-AMC-AR-CFTC@faa.gov

If payment is to be made by electronic funds transfer, Interactive Brokers shall contact Marie Thorne or her successor at the above address to receive payment instructions and shall fully comply with those instructions. Interactive Brokers shall accompany payment of the CMP Obligation with a cover letter that identifies Interactive Brokers as the payer and the name and docket number of this proceeding. Interactive Brokers shall simultaneously transmit copies of the cover letter and the form of payment to the Chief Financial Officer, Commodity Futures Trading Commission, Three Lafayette Centre, 1155 21st Street, N.W., Washington, DC 20581.

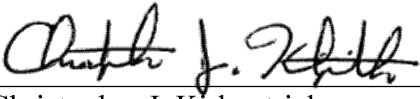
- D. Interactive Brokers and its successors and assigns shall comply with the following conditions and undertakings set forth in the Offer:
1. Public Statements: Interactive Brokers agrees that neither it nor any of its successors and assigns, agents or employees under its authority or control shall take any action or make any public statement on behalf of Interactive Brokers denying, directly or indirectly, any findings or conclusions in this Order or creating, or tending to create, the impression that this Order is without a factual basis; provided, however, that nothing in this provision shall affect Interactive Brokers': (i) testimonial obligations; or (ii) right to take legal positions in other proceedings to which the Commission is not a party. Interactive Brokers and its successors and assigns shall comply with this agreement, and shall undertake all steps necessary to ensure that all of its agents and/or employees under its authority or control understand and comply with this agreement.
 2. Cooperation, In General: Interactive Brokers shall cooperate fully and expeditiously with the Commission, including the Division, in this action, and in any current or future Commission investigation or action related thereto ("Commission Related Matters"). Interactive Brokers shall also cooperate in any investigation, civil litigation, or administrative matter related to, or arising from, the subject matter of this action ("Subject Related Matters"). Interactive Brokers' cooperation shall continue for a period of five years from the date of the entry of

this Order, or until any Commission Related Matters or Subject Related Matters are concluded, whichever is longest.

3. Partial Satisfaction: Interactive Brokers understands and agrees that any acceptance by the Commission of any partial payment of Interactive Brokers' CMP Obligation or Restitution Obligation shall not be deemed a waiver of its obligation to make further payments pursuant to this Order, or a waiver of the Commission's right to seek to compel payment of any remaining balance.

The provisions of this Order shall be effective as of this date.

By the Commission.



Christopher J. Kirkpatrick
Secretary of the Commission
Commodity Futures Trading Commission

Dated: September 28, 2021