

UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION

U.S. COMMODITY FUTURES TRADING COMMISSION,)	Case No. 15-cv-3398
Plaintiff,	
)	Hon. Andrea R. Wood
v.)	
NAV SARAO FUTURES LIMITED PLC AND) NAVINDER SINGH SARAO,)	
Defendants.	

CONSENT ORDER OF PERMAMENT INJUNCTION, CIVIL MONETARY PENALTY, AND OTHER EQUITABLE RELIEF AGAINST NAVINDER SINGH SARAO

I. INTRODUCTION

On April 17, 2015, Plaintiff U.S. Commodity Futures Trading Commission (the Commission or CFTC) filed its Complaint for Injunctive Relief, Civil Monetary Penalties and Other Equitable Relief (Complaint) against Nav Sarao Futures Limited PLC (Sarao Futures) an Navinder Singh Sarao (Sarao) (collectively, Defendants) (Dkt. #1) for violations of Sections 4c(a)(5)(C), 6(c)(1) and (3), and 9(a)(2) of the Commodity Exchange Act (Act), 7 U.S.C. §§ 6c(a)(5)(C), 9(1) & (3), and 13(a)(2) (2012), and Commission Regulations (Regulations) 180.1 and 180.2, 17 C.F.R. § 180.2 (2014). Simultaneously, Plaintiff filed an *ex parte* Motion for Statutory Restraining Order and Preliminary Injunction seeking, among other things, an order prohibiting Defendants from withdrawing or dissipating funds and assets, granting Plaintiff access to Defendants' books and records, and requiring Defendants to appear and show cause

¹ Section 6(c)(1) and (3) of the Act became effective on August 15, 2011. Prior to that date, Defendants' conduct violated Section 6(c) of the Act, 7 U.S.C. §§ 9, 15 (2008).

why a preliminary injunction should not be issued against them. (Dkt. #7). That same day, this Court issued an order granting the *ex parte* relief requested by Plaintiff. (Dkt. #13).

On June 29, 2015, the Court entered a Consent Preliminary Injunction that, among other things, prohibited Sarao from trading on or subject to the rules of any registered entity (as that term is defined in Section 1a(40) of the Act, 7 U.S.C. § 1a(40) (2012)) or from entering into any transactions involving "commodity interests" (as that term is defined in Regulation 1.3(yy), 17 C.F.R. § 1.3(yy) (2014)) and modified this Court's previously issued asset freeze. (Dkt. # 46). On August 12, 2015, this Court entered a Default Order of Preliminary Injunction against Sarao Futures, imposing similar preliminary relief. (Dkt. # 55).

II. CONSENTS AND AGREEMENTS

To effect settlement of all charges alleged in the Complaint against Sarao without a trial on the merits or any further judicial proceedings, Sarao:

- Consents to the entry of this Consent Order for Permanent Injunction, Civil
 Monetary Penalty and Other Equitable Relief Against Navinder Singh Sarao (Consent Order);
- 2. Affirms that he has read and agreed to this Consent Order voluntarily, and that no promise, other than as specifically contained herein, or threat, has been made by the Commission or any member, officer, agent or representative thereof, or by any other person, to induce consent to this Consent Order;
 - 3. Acknowledges service of the summons and Complaint;
- 4. Admits the jurisdiction of this Court over him and the subject matter of this action pursuant to Section 6c of the Act, as amended, 7 U.S.C. § 13a-1 (2012);
- 5. Admits the jurisdiction of the Commission over the conduct and transactions at issue in this action pursuant to the Act, 7 U.S.C. § 13a-1 (2012);

6. Admits that venue properly lies with this Court pursuant to Section 6c(e) of the Act, as amended, 7 U.S.C. § 13a-1(e) (2012);

7. Waives:

- any and all claims that he may possess under the Equal Access to Justice Act, 5 U.S.C. § 504 (2012) and 28 U.S.C. § 2412 (2012), and/or the rules promulgated by the Commission in conformity therewith, Part 148 of the Regulations, 17 C.F.R. §§ 148.1 et seq. (2014), relating to, or arising from, this action;
- (b) any and all claims that he may possess under the Small Business Regulatory Enforcement Fairness Act of 1996, Pub. L. No. 104-121, §§ 201-253, 110 Stat. 847, 857-868 (1996), as amended by Pub. L. No. 110-28, § 8302, 121 Stat. 112, 204-205 (2007), relating to, or arising from, this action;
- (c) any claim of Double Jeopardy based upon the institution of this action or the entry in this action of any order imposing a civil monetary penalty or any other relief, including this Consent Order; and
- (d) any and all rights of appeal from this action.
- 8. Consents to the continued jurisdiction of this Court over him for the purpose of implementing and enforcing the terms and conditions of the Consent Order and for any other purpose relevant to this action, even if he now or in the future resides outside the jurisdiction of this Court;
- 9. Agrees that he will not oppose enforcement of this Consent Order on the ground, if any exists, that it fails to comply with Rule 65(d) of the Federal Rules of Civil Procedure and waives any objection based thereon;
- 10. Agrees that neither he nor any of his agents or employees under his authority or control shall take any action or make any public statement denying, directly or indirectly, any allegation in the Complaint or the Findings of Fact or Conclusions of Law in this Consent Order, or creating or tending to create the impression that the Complaint and/or this Consent Order is without a factual basis; provided, however, that nothing in this provision shall affect his:

- (a) testimonial obligations, or (b) right to take legal positions in other proceedings to which the Commission is not a party. Sarao shall undertake all steps necessary to ensure that his agents and employees under his authority or control understand and comply with this agreement;
- 11. Agrees to provide immediate notice to this Court and the Commission by certified mail, in the manner required by this Consent Order, of any bankruptcy proceeding filed by, on behalf of, or against any of them, whether inside or outside the United States;
- 12. Agrees that no provision of this Consent Order shall in any way limit or impair the ability of any other person or entity to seek any legal or equitable remedy against Sarao in any other proceeding;
- 13. Admits to all the allegations in the Complaint and to all the Findings of Facts and all the Conclusions of Law in this Consent Order. Further, among other things, Sarao acknowledges that the allegations contained in the Complaint and all of the Findings of Fact and Conclusions of Law contained in this Consent Order shall be taken as true and correct and be given preclusive effect, without further proof, in the course of: (a) any current or subsequent bankruptcy proceeding filed by, on behalf of, or against Defendants; (b) any proceeding pursuant to Section 8a of the Act, 7 U.S.C. 12a (2012), and/or Part 3 of the Regulations, 17 C.F.R. §§ 3.1, et seq. (2014); (c) any proceeding to enforce the terms of this Consent Order; and/or (d) any other proceeding to which the Commission is a party.

III. FINDINGS AND CONCLUSIONS

The Court, being fully advised in the premises, finds that there is good cause for the entry of this Consent Order and that there is no just reason for delay. The Court therefore directs the entry of the following Findings of Fact, Conclusions of Law, permanent injunction, civil monetary penalty and equitable relief pursuant to Section 6c of the Act, 7 U.S.C. § 13a-1 (2012), as set forth herein.

THE PARTIES AGREE AND THE COURT HEREBY FINDS:

A. Findings of Fact

1. Parties to this Consent Order

- 14. Plaintiff U.S. Commodity Futures Trading Commission is an independent federal regulatory agency that is charged by Congress with the responsibility for administering and enforcing the Act, 7 U.S.C. §§ 1-26 (2012), and the Regulations promulgated thereunder, 17 C.F.R. §§ 1.1-190.10 (2014). One of its core responsibilities is to protect the public interest by deterring and preventing price manipulations of the commodities or futures markets or other disruptions to market integrity. *See* 7 U.S.C. § 5(b) (2012).
- 15. Defendant Navinder Singh Sarao resides in London, England and is the owner and sole employee and trader of Sarao Futures. Sarao was responsible for trades on behalf of Sarao Futures at all times relevant to this Consent Order. Sarao has been a member of the CME since May 2008. Sarao has never been registered with the Commission.

2. Defendants' Futures Trading

16. From at least April 2010 to January 2012; July 2012 to June 2014; and September 2014 to April 17, 2015 (Relevant Period), Defendants principal business was trading futures contracts—primarily very high volumes in the Chicago Mercantile Exchange's (CME's) E-mini S&P 500 futures near month contract (E-mini S&P). From April 2010 to September 2014, all

Sarao Futures's E-mini S&P trading was done by Sarao, its sole employee. Beginning in October 2014, Sarao began trading E-mini S&P contracts in a personal account in a manner similar to Sarao Futures's prior trading. On most days, Defendants traded tens of thousands of E-mini S&P contracts (worth billions of dollars in notional value), but typically maintained open positions for a very short time in an attempt to quickly take advantage of small price movements.

- 17. During the Relevant Period, Defendants utilized a combination of automated and manual trading systems to place, modify, and cancel orders, resulting in a very high number of orders, modifications, cancelations, and transactions, especially compared to other E-mini S&P market participants. Defendants actively traded in the E-mini S&P market on more than 800 days during the Relevant Period.
- 18. Generally, during the Relevant Period, Defendants employed a high-frequency, day-trading strategy in the E-mini S&P market. Accordingly, during the Relevant Period, Defendants frequently would establish large, short-term positions on either side of the market throughout the day and quickly trade out of those positions. Defendants typically repeated this cycle many times a day, but would normally begin and end each day flat, holding no positions.
- 19. For example, on May 4, 2010, Defendants had established a long position of over 2,000 E-mini S&P contracts, and over a 40-minute period, then proceeded to repeatedly sell and buy E-mini S&P contracts such that, at the end the 40-minute period, Defendants had established a short position of over 1,500 contracts. This cycle was repeated several times during the day, and Defendants ultimately ended the day flat, profiting \$876,823 from this trading. On that day, Defendants had the fifth-highest trading volume in the E-mini S&P, trading 130,030 E-mini S&P contracts.

3. The E-mini S&P Market

- 20. Trading in the E-mini S&P is conducted electronically via the CME's Globex electronic trading system. Globex traders have the ability to enter, modify, and cancel bids and offers in a matter of milliseconds through a computer portal to the Globex platform.
- 21. When a "buy" or "sell" order is placed on Globex, the order becomes part of the order book. The order book displays the total order volume ten ticks deep on both the bid and ask sides. Individual orders are aggregated at each tick so it is typically not possible for market participants to identify individual orders within the order book. Globex functions such that the best available bid or ask price must be taken ("hit" or "lifted") by the market for a trade to occur, before the next available best bid or ask price can be taken. The best bid price is the highest available price for buy orders that are posted in the market. The best ask price is the lowest available price for sell orders that are posted in the market.
- 22. Many market participants, relying on the information contained in the order book, consider the total relative number of bid and ask offers in the order book when making trading decisions. For instance, if the total number of sell orders significantly outweighs the total number of buy orders, market participants may believe a price drop is imminent and trade accordingly. Similarly, if the balance of buy and sell orders changes abruptly, market participants may believe the new orders represent legitimate changes to supply and demand and therefore trade accordingly. Further, many market participants utilize automated trading systems that analyze the market for these types of order imbalances and use that information to determine trading strategies. Consequently, actions in the order book can, and do, affect the price of the Emini S&P.

4. Defendants' Manipulative Scheme

- 23. During the Relevant Period, Defendants engaged in a scheme to manipulate the price of the E-mini S&P utilizing a variety of manual and automated spoofing tactics in the E-mini S&P order book designed to cause price swings that Defendants could exploit through their trading.
- 24. More specifically, Defendants placed thousands of orders to buy or to sell E-mini S&P futures contracts that they did not intend to execute at the time the orders were placed (Spoof Orders). Defendants' intent in placing these Spoof Orders was to create a materially false and misleading impression of supply (when placing sell-side Spoof Orders) and demand (when placing buy-side Spoof Orders) in order to induce other market participants to react to the false Spoof Order information and to buy or sell E-mini S&P futures contracts at prices, quantities, and/or times that, but for Defendants' Spoof Orders, they would not otherwise have traded.
- 25. In thousands of instances, Defendants were able to induce other market participants into buying or selling E-mini S&P futures contacts by placing the Spoof Orders, which had the additional purpose and effect of artificially depressing (in the case of sell-side Spoof Orders) or artificially inflating (in the case of buy-side Spoof Orders) the price of E-mini S&P futures contracts when the Spoof Orders were active. After causing artificial prices in the E-mini S&P futures market, Defendants frequently executed real, genuine orders (Genuine Executed Orders) to buy (typically at artificially low prices) or sell (typically at artificially high prices) E-mini S&P futures contracts.
- 26. Defendants frequently were able to generate significant trading profits from buying and selling the Genuine Executed Orders in close temporal proximity to the placement of the Spoof Orders by either exiting from pre-existing positions that Defendants established before

placing the Spoof Orders or quickly placing and executing Genuine Executed Orders while the Spoof Orders were active.

- a) Defendants' Automated Manipulative/Spoofing Techniques
- 27. In late 2008, Defendants began utilizing the services of computer programmers to assist in developing automated spoofing functionality. Ultimately, with the assistance of programmers, Defendants created and utilized at least two different automated programs to generate, modify, and cancel Spoof Orders—the "Dynamic Layering Program" and the "Back-of-Queue Program." Defendants activated these automated programs by Sarao clicking his mouse on pre-programmed "buttons" and deactivated the programs by Sarao clicking his mouse on the "buttons" again.
- 28. In working with the computer programmers to create and perfect the automated trading programs, Defendants demonstrated an intent to use the programs to place orders (1) with no intention of executing those orders; and (2) with an intention to affect E-mini S&P market prices.
- 29. For instance, on January 26, 2009, Sarao emailed a programmer, indicating he had a prototype of an automated program running and that "[w]e now need to make it workable in terms of me moving the market like we discussed." A week later, Sarao emailed the same programmer indicating that when he was "short," he wanted to "spoof [the market] down."
- 30. On February 24, 2009, Sarao emailed the same programmer asking that the program be designed so that "it is very easy for me to enter orders of varying different amounts. That's what I need. If I keep entering the same clip sizes, people will become aware of what I am doing, rendering my spoofing pointless." Three days later, Sarao emailed the same programmer, demanding tweaks to the automated functionality and indicating he was "getting hit on my spoofs all the time and it's costing me money."

- 31. Subsequently, Sarao continued attempting to perfect the automated trading programs. Beginning in June 2009, Sarao sought assistance from another programmer employed by the company that designed and sold his off-the-shelf trading platform. In that email, Sarao indicated that he wanted the trading program to be altered to have numerous additional functions, including, among other things:
 - a "cancel if close function";
 - the ability to "alternate the closeness ie one price away or three prices away";
 - "a facility to be able to enter multiple orders at different prices using one click";
 - "[t]he ability for my orders to rest on particular size, ie my order will be
 pulled if there are not x amount of orders beneath it"; and
 - "[t]he ability for my orders to only allow 1 clip to go into them. Hence, if
 I am working 500 lot and a 2 lot trades, the 498 balance is removed
 immediately."
- 32. In November 2009, Sarao emailed a representative of the trading platform company thanking him for assisting in modifying the trading platform and noting that he "found [the modified platform] really useful." Sarao further indicated that

[t]he system you set up was basically one whereby I turn the [trading platform] on or off and when it was turned on it would put offers a specific value and quantity away from the best offer. In the version you set up, we always had offers 3, 4, 5 and 6 prices away from the best offer.

Sarao went on to request that the trading system company representative give Sarao the code directly so that Sarao could "play around with creating new versions" of the modified platform.

- (1) Defendants' Use of the Dynamic Layering Program
- as. Defendants routinely used the Dynamic Layering Program to place 4 to 6 exceptionally large sell orders into the order book, each one tick from the next, generally beginning at least three or four ticks from the best asking price. As the market price moved, the Dynamic Layering Program automatically and simultaneously modified the large layered sell orders at the various price levels, resulting in Defendants' orders generally remaining at least three or four ticks from the best asking price in the order book. These large layered orders were modified hundreds of times to keep them from resulting in executed trades, before eventually being canceled.
- 34. During the Relevant Period, Defendants activated the Dynamic Layering Program 3,653 times, resulting in the placement of 19,888 layered orders of various lot sizes.
 - 35. During the Relevant Period, on average:
 - it took only 500 milliseconds for the Dynamic Layering Program's layered sell orders to move in unison and in symmetry with the market price after a change (either up or down) in market price.
 - Defendants' layered sell orders contained approximately 2,000 sell orders
 (at multiple price levels), with a combined average face value of
 approximately \$128,615,160.
 - the Dynamic Layering Program was active approximately 7 minutes at a time, and, when active, the E-mini S&P prices dropped, on average, more than 1 tick.

- Defendants' Genuine Executed Orders were at least 1.7 times more
 profitable per contract traded when the Dynamic Layering Program was
 active than when no Spoof Orders were active.
- 36. During the Relevant Period, only 90 of the Defendants' 19,888 layered sell orders were even partially executed.
- 37. During the Relevant Period, Defendants profited at least \$9,667,258.22 as a result of the Dynamic Layering Program.
- 38. During the Relevant Period, Defendants' purpose and intent in using the Dynamic Layering Program was to place layered sell orders (i.e., Spoof Orders) into the E-mini S&P market to create a false sense of supply, induce other market participants to react to this false sense of supply, and create an artificial price in the E-mini S&P futures contracts—all so that Defendants could profit, mitigate potential losses, and/or liquidate positions at more favorable prices than were otherwise available without the use of the Dynamic Layering Program.
 - (2) Defendants' Use of the Back-of-Queue Program
- 39. Defendants used the Back-of-Queue Program to place Spoof Orders at various price levels of the visible order book, including at the best ask or bid. The purpose of the Back-of-Queue orders was to place large orders in the visible E-mini S&P order book to affect prices, but minimize the chances that such orders would result in executed trades.
- 40. The Back-of-Queue Program minimized the chance of Defendants' orders being executed by taking advantage of the CME's "first in, first out" order matching functionality.

 This functionality placed orders at the same price level in a queue, arranged from first received to last received, meaning orders later in the queue were less likely to result in executed trades.

 Further, the CME's order matching functionality dictated that if an order quantity was increased

(but not if it was decreased), that order would be moved to the back of the queue at that price level, as if it were an entirely new order.

- 41. Defendants' Back-of-Queue Program took advantage of this CME matching functionality by modifying the quantity of Defendants' Spoof Orders up by one contract if other market participants entered an order of a certain size at the same price level after Defendants Back-of-Queue Program orders were placed. Thus, when active, Defendants' Back-of-Queue Program continually moved Defendants' Spoof Orders to the back of the queue at a particular price level as new orders entered the market and greatly minimized the chances of that order resulting in an executed trade.
- 42. Defendants placed at least 2,136 Back-of-Queue Program orders from January 2012 to October 2013. On average:
 - Defendants utilized 2.2 Back-of-Queue Program orders at any one time,
 with an aggregate combined size of 795 lots, for an average combined face
 value of \$59,348,904.
 - the Back-of-Queue Program was active approximately 3 minutes at a time, and, when active, the E-mini S&P price moved by more than half a tick.
 - the percentage of Back-of-Queue Program order lots (which were typically orders at the best bid or ask or within two price points from the price) that were filled was 3.5 percent.
 - Defendants' Genuine Executed Orders were at least 3.2 times more
 profitable per contract traded when his Back-of-Queue Program orders
 were active than when no Spoof Orders were active.

- 43. During the Relevant Period, Defendants profited at least \$1,319,791.54 as a result of the Back-of-Queue Program.
- 44. During the Relevant Period, Defendants' purpose and intent in using the Back-of-Queue Program was to place the Back-of-Queue orders (i.e., Spoof Orders) into the E-mini S&P market to create a false sense of supply and/or demand, induce other market participants to react to this false sense of supply, and create an artificial price in the E-mini S&P futures contract—all so that Defendants could profit, mitigate potential losses, and/or liquidate positions at more favorable prices than were otherwise available without the use of the Back-of-Queue Program.
 - b) Defendants' Manual Manipulative/Spoofing Techniques
- 45. In addition to the automated spoofing programs, Defendants engaged in at least two manual spoofing techniques—"Flash 2,000-Lot Spoofing" and "Resting Spoof Orders."
 - (1) Defendants' Use of Flash 2,000-Lot Spoofing
- 46. Defendants frequently placed a 2,000-lot order at the best bid or offer and traded a Genuine Executed Order on the opposite side while his 2,000-lot order was active or within 1 second of canceling his 2,000-lot order (Flash 2,000-Lot Orders).
- 47. Defendants mitigated the risk of the Flash 2,000-Lot Orders being executed in two ways. First, often the placing of the Flash 2,000-Lot Orders caused the prevailing market price to move one or more ticks away from the order, meaning the Flash 2,000-Lot Order was no longer at the best ask or bid and, thus, not likely to result in execution. Second, if the prevailing price did not move away from the Flash 2,000-Lot Order, Defendants nearly always successfully canceled the Flash 2,000-Lot Order prior to any execution. When Defendants' Genuine Executed Orders were fully filled opposite the Flash 2,000-Lot Orders, Defendants typically cancelled the Flash 2,000-Lot Order within 2 seconds of fully filling his Genuine Executed Orders. Approximately 98% of the Flash 2,000-Lot Orders were canceled prior to execution.

- 48. During the Relevant Period, Defendants placed approximately 800 Flash 2,000-Lot Orders. On average:
 - Defendants' Genuine Executed Orders that traded opposite Defendants'
 Flash 2,000-Lot Order were significantly smaller—only 185.5 lots;
 - despite being placed at the best bid or ask, only 2.1% (or approximately
 0.4% by lot) of the Flash 2,000-Lot Orders were filled; and
 - Defendants' Genuine Executed Orders that traded opposite Defendants'
 Flash 2,000-Lot Orders were more than 16 times more profitable per contract traded than his other Genuine Executed Orders.
- 49. During the Relevant Period, Defendants profited at least \$1,884,537.50 as a result of their Flash 2,000-Lot Orders.
- 50. During the Relevant Period, Defendants' purpose and intent in using the Flash 2,000-Lot Orders was to place the Flash 2,000-Lot Orders (i.e., Spoof Orders) into the E-mini S&P market to create a false sense of supply and/or demand, induce other market participants to react to this false sense of supply, and create an artificial price in the E-mini S&P futures contract—all so that Defendants could profit, mitigate potential losses, and/or liquidate positions at more favorable prices than were otherwise available without the use of the Flash 2,000-Lot Orders.

(2) Defendants' Use of Resting Spoof Orders

51. Another manual technique Defendants regularly used was to place resting Spoof Orders in large quantities, at least one or two levels away from the best bids or offers (Resting Spoof Orders). Defendants often placed these Resting Spoof Orders in combination with other Spoof Orders and would trade Genuine Executed Orders opposite and in close temporal

proximity to the Resting Spoof Orders. Defendants typically canceled the Resting Orders in close temporal proximity to the execution of the Genuine Executed Orders and before the Resting Spoof Orders were executed.

- 52. For instance, on May 5, 2010, from 11:22 a.m. CT to 12:30 p.m. CT, Defendants used the Dynamic Layering Program to place 5 orders totaling 2,500 contracts with a notional value of \$146.3 million. The orders were 1 tick apart, starting 2 ticks from the best asking price. During this hour-long period, Defendants added 107 188-lot and 289-lot sell-side Resting Spoof Orders. These Resting Spoof Orders amounted to 25,267 contracts. All but four of these orders were canceled before any execution and the median cancelation time was less than a second.
- 53. During the Relevant Period, the purpose and intent motivating Defendants' placement of Resting Spoof Orders was to introduce the orders into the E-mini S&P market to create a false sense of supply and/or demand, induce other market participants to react, and create an artificial price in the E-mini S&P futures contract—all so that Defendants could profit, mitigate potential loss, or liquidate positions at more favorable prices than were otherwise available without the use of the Resting Orders.

5. Defendants' Actions on the 2010 Flash Crash Day

- 54. Defendants aggressively used the Dynamic Layering Program and Resting Spoof Orders on May 6, 2010, the 2010 Flash Crash Day. On that day, Defendants used the Dynamic Layering Program for a cumulative time of over 4 hours and 25 minutes, typically placing 6 orders at one time, averaging 2600 contracts. Cumulatively, these orders were modified over 81,000 times, with only 81 lots resulting in executed trades.
- 55. More specifically, at 11:17 a.m. CT, Defendants turned the Dynamic Layering Program on for more than 2 consecutive hours, until 1:40 p.m. CT. This was an unusually long continuous use of the Dynamic Layering Program during the Relevant Period. During this time

period, Defendants utilized the Dynamic Layering Program to place 5 orders, totaling 3,000 contracts. A sixth order was added at around 1:13 p.m. CT, increasing the total to 3,600 contracts.

- 56. These orders represented approximately \$170 million to over \$200 million worth of persistent downward pressure on the E-mini S&P price and, over the next 2 hours, represented 20-29% of the entire sell-side of the order book. The orders were replaced or modified more than 19,000 times before being canceled at 1:40 p.m. CT. At that time, the order book was severely imbalanced, and Defendants' 3,600 Dynamic Layering Program orders were almost equal to the entire buy-side of the Order Book.
- 57. Further, Defendants exacerbated the effects of the Dynamic Layering Program that day by simultaneously using Resting Spoof Orders. Between 12:33 p.m. CT–1:45 p.m. CT, Defendants placed a total of 135 orders with 188 or 289 lots on the sell-side of the Order Book, totaling 32,046 contracts. Of these 135 188/289-lot orders, 132 orders were canceled without resulting in execution.
- 58. May 6, 2010 represented one of Defendants' most consistent, numerous and aggressive use of Spoof Orders during the Relevant Period.
- 59. On May 6, 2010, Defendants' actions contributed to an extreme order book imbalance in the E-mini S&P market. In their Preliminary Findings Regarding the Events of May 6, 2010, the CFTC and the Securities and Exchange Commission noted that a significant imbalance between sell orders and buy orders contributed to a sudden loss of liquidity in the E-mini S&P market. The report further stated that this loss of liquidity, in conjunction with other market events, directly contributed to the E-mini S&P price crash.

60. At multiple times on May 6, 2010, Defendants successfully used Spoof Orders to affect the E-mini S&P price, causing and creating artificial prices.

6. Other Perfected Manipulation Days

61. Defendants successfully used Spoof Orders to affect the E-mini S&P price, causing and creating artificial prices throughout the Relevant Period, including multiple times on at least the following days: April 27, May 4, 5, and 10, 2010; January 28, February 22, March 4, May 2, July 29, and August 4, 2011; and March 10, 2014.

B. Conclusions of Law

1. Jurisdiction and Venue

- 62. This Court has jurisdiction over this action pursuant to Section 6c of the Act, 7 U.S.C. § 13a-1 (2012), which provides that whenever it shall appear to the Commission that any person has engaged, is engaging, or is about to engage in any act or practice constituting a violation of any provision of the Act or any rule, regulation, or order promulgated thereunder, the Commission may bring an action in the proper district court of the United States against such person to enjoin such act or practice, or to enforce compliance with the Act, or any rule, regulation or order thereunder.
- 63. Venue properly lies with this Court pursuant to Section 6c(e) of the Act, 7 U.S.C. § 13a-1(e) (2012), because Defendants transacted business in this District and certain transactions, acts, and practices alleged in the Complaint and described herein, occurred within this District.

- 2. Sarao Manipulated the E-mini S&P in Violation of Sections 6(c) and 9(a)(2) of the Act for the Period Prior to August 15, 2011 and Sections 6(c)(3) and 9(a)(2) of the Act and Regulation 180.2 for the Period August 15, 2011 to April 17, 2015
- 64. As referenced in the Findings of Fact, Sarao violated Sections 6(c) and 9(a)(2) of the Act from at least April 2010 to August 15, 2011, and Sections 6(c)(3) and 9(a)(2) of the Act and Regulation 180.2 from August 15, 2011 to April 17, 2015, because, among other things: (1) he had the ability to affect or influence E-mini S&P market prices; (2) he specifically intended to do so through his Spoof Orders; (3) artificial prices in the E-mini S&P were created on at least the following days during the Relevant Period—April 27, May 4-6, and May 10, 2010; January 28, February 22, March 4, May 2, July 29, and August 4, 2011; and March 10, 2014; and (4) he caused these artificial prices in the E-mini S&P.
 - 3. Sarao Attempted to Manipulate the E-mini S&P in Violation of Sections 6(c) and 9(a)(2) of the Act for the period prior to August 15, 2011 and Sections 6(c)(3) and 9(a)(2) of the Act and Regulation 180.2 for the period August 15, 2011 to April 17, 2015
- 65. By the conduct described in the Findings of Fact, Sarao violated Sections 6(c) and 9(a)(2) of the Act from at least April 2010 to August 15, 2011, and Sections 6(c)(3) and 9(a)(2) of the Act and Regulation 180.2 from August 15, 2011 to April 17, 2015, because, among other things: (1) he intended to affect or influence E-mini S&P market prices throughout the Relevant Period; and (2) he committed over acts (namely, tens of thousands of Spoof Orders) in furtherance of that intent.
 - 4. Sarao Spoofed the E-mini S&P in Violation of Section 4c(a)(5) of the Act.
- 66. By the conduct described in the Findings of Fact, Sarao violated Section 4c(a)(5) of the Act from July 16, 2011 to April 17, 2015, because, among other things, he placed tens of

thousands of bids and offers for the E-mini S&P contract with the intent of cancelling those bids and offers before execution (i.e., Spoof Orders) throughout that period.

- 5. Sarao Employed a Manipulative Device, Scheme or Artifice to Defraud in Connection with Commodity Futures in Violation of Section 6(c)1) of the Act and Regulation 180.1
- 67. By the conduct described in the Findings of Fact, Sarao violated Section 6(c)(1) of the Act and Commission Regulation 180.1(a) from August 15, 2011 to April 17, 2015, because, among other things: (1) he employed or attempted to employ, a manipulative device, scheme, or artifice to defraud or engaged in an act, practice, or course of business, which operated as a fraud or deceit upon E-mini market participants, through his tens of thousands of Spoof Orders (as described above); (2) either intentionally or recklessly; (3) in connection with the E-mini S&P, a futures contract on or subject to the rules of a registered entity.

6. Sarao Controlled Sarao Futures

68. Sarao controlled Sarao Futures directly or indirectly, and did not act in good faith or knowingly induced, directly or indirectly, the acts of Sarao Futures that constitute the violations alleged in the Complaint and set forth herein; therefore, pursuant to Section 13(b) of the Act, Sarao is liable as a controlling person for the violations by Sarao Futures of the Act and Regulations.

IV. PERMANENT INJUNCTION

IT IS HEREBY ORDERED THAT:

- 69. Based upon and in connection with the foregoing conduct, pursuant to Section 6c of the Act, 7 U.S.C. § 13a-1 (2012), Sarao is permanently restrained, enjoined and prohibited from directly or indirectly:
 - (a) manipulating or attempting to manipulate the price of any futures contract or commodity in interstate commerce, or for future delivery on or subject

- to the rules of any registered entity, including any contract market, in violation of Sections 6(c)(3) and 9(a)(2) of the Act and Regulation 180.2;
- (b) engaging in any trading practice, or conduct on or subject to the rules of a registered entity that is, is of the character of, or is commonly known to the trade as, "spoofing" (bidding or offering with the intent to cancel the bid or offer before execution), in violation of Section 4c(a)(5)(C) of the Act, 7 U.S.C. § 6c(a)(5)(C) (2012); and
- (c) employing, or attempting to use or employ any manipulative device, scheme, or artifice to defraud in connection with a contract for future delivery on a registered entity, in violation of Section 6(c)(1) of the Act, 7 U.S.C. § 9(1) (2012), and Regulation 180.1, 17 C.F.R. § 180.1 (2015).
- 70. Sarao is also permanently restrained, enjoined, and prohibited from directly or indirectly:
 - trading on or subject to the rules of any registered entity (as that term is defined in Section 1a(40) of the Act, 7 U.S.C. § 1a(40) (2012));
 - (b) entering into any transactions involving "commodity interests" (as that term is defined in Regulation 1.3(yy), 17 C.F.R. § 1.3(yy) (2014)) for his own personal account or for any account in which he has a direct or indirect interest;
 - (c) having any commodity interests traded on his behalf;
 - (d) controlling or directing the trading for or on behalf of any other person or entity, whether by power of attorney or otherwise, in any account involving commodity interests;
 - (e) soliciting, receiving or accepting any funds from any person for the purpose of purchasing or selling any commodity interests;
 - (f) applying for registration or claiming exemption from registration with the Commission in any capacity, and engaging in any activity requiring such registration or exemption from registration with the Commission, except as provided for in Regulation 4.14(a)(9), 17 C.F.R. § 4.14(a)(9) (2014); and/or
 - (g) acting as a principal (as that term is defined in Regulation 3.1(a), 17 C.F.R. § 3.1(a) (2014)), agent or any other officer or employee of any person (as that term is defined in Section 1a(38) of the Act, 7 U.S.C. § 1a(38) (2012)), registered, exempted from registration or required to be registered with the Commission except as provided for in Regulation 4.14(a)(9), 17 C.F.R. § 4.14(a)(9) (2014).

V. DISGORGEMENT AND CIVIL MONETARY PENALTY

A. DISGORGEMENT

- 71. Sarao shall pay disgorgement in the amount of \$12,871,587.26 (Disgorgement Obligation), plus post-judgment interest. Post-judgment interest shall accrue on the Disgorgement Obligation beginning on the date of entry of this Consent Order and shall be determined by using the Treasury Bill rate prevailing on the date of entry of this Consent Order pursuant to 28 U.S.C. § 1961 (2012).
- 72. Sarao's initial disgorgement payment shall be made within 10 days of issuance of this Consent Order and shall consist of all money in the escrow account, located at HSBC Bank USA, Account name Kobre LP IOLA Account, Number -0009, in the amount of \$6,960,102.60 (the Frozen Funds).
- 73. Sarao is currently the defendant in a criminal action charging him for the misconduct that is at issue in this matter. See United States of America v. Navinder Singh Sarao, Case No. 15-00075, U.S. District Court for the Northern District of Illinois (Criminal Action). For amounts disbursed to the United States as a result of satisfaction of any disgorgement ordered in the Criminal Action, Sarao shall receive a dollar-for-dollar credit against the Disgorgement Obligation.
- 74. Sarao shall pay his Disgorgement Obligation 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:

Commodity Futures Trading Commission
Division of Enforcement
ATTN: Accounts Receivables
DOT/FAA/MMAC/AMZ-341
CFTC/CPSC/SEC
6500 S. MacArthur Blvd.
Oklahoma City, OK 73169
(405) 954-7262 office
(405) 954-1620 fax
nikki.gibson@faa.gov

If payment by electronic funds transfer is chosen, Sarao shall contact Nikki Gibson or her successor at the address above to receive payment instructions and shall fully comply with those instructions. Sarao shall accompany payment of the Disgorgement Obligation with a cover letter that identifies Sarao and the name and docket number of this proceeding. Sarao 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, NW, Washington, D.C. 20581.

B. CIVIL MONETARY PENALTY

- 75. Sarao shall pay a civil monetary penalty in the amount of \$25,743,174.52 (CMP Obligation), plus post-judgment interest, within ten (10) days of the entry of this Consent order. If the CMP Obligation is not paid in full within ten (10) days of the date of the entry of this Consent Order, then post-judgment interest shall accrue on the CMP Obligation beginning on the date of entry of this Consent Order and shall be determined by using the Treasury Bill rate prevailing on the date of entry of this Consent Order pursuant to 28 U.S.C. § 1961 (2012).
- 76. Sarao shall pay his CMP Obligation 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:

Commodity Futures Trading Commission Division of Enforcement ATTN: Accounts Receivables DOT/FAA/MMAC/AMZ-341 CFTC/CPSC/SEC 6500 S. MacArthur Blvd. Oklahoma City, OK 73169 Telephone: (405) 954-7262 nikki.gibson@faa.gov

If payment by electronic funds transfer is chosen, Sarao shall contact Nikki Gibson or her successor at the address above to receive payment instructions and shall fully comply with those instructions. Sarao shall accompany payment of the CMP Obligation with a cover letter that identifies Sarao and the name and docket number of this proceeding. Sarao 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, NW, Washington, D.C. 20581.

77. Partial Satisfaction: Acceptance by the Commission of any partial payment of Sarao's CMP Obligation shall not be deemed a waiver of their obligations 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.

VI. MISCELLANEOUS PROVISIONS

- 78. On April 17, 2015, the Court entered an asset freeze order prohibiting the transfer, removal, dissipation and disposal of Defendants' assets (Asset Freeze Order). After payment of the Frozen Funds, the court hereby lifts the Asset Freeze Order.
- 79. Sarao shall cooperate fully and expeditiously with the Commission/CFTC, including the Commission/CFTC's Division of Enforcement, and any other governmental agency in this action, and in any investigation, civil litigation, or administrative matter related to

the subject matter of this action or any current or future Commission investigation related thereto.

- 80. Injunctive and Equitable Relief Provisions: The injunctive and equitable relief provisions of this Order shall be binding upon Sarao, upon any person under the authority or control of any of the Sarao, and upon any person who receives actual notice of this Order, by personal service, email, facsimile or otherwise insofar as he or she is acting in active concert or participation with Defendants.
- 81. Notice: All notices required to be given by any provision in this Order shall be sent certified mail, return receipt requested, as follows:

Notice to Commission:

Charles Marvine
Deputy Director
Division of Enforcement
Commodity Futures Trading Commission
4900 Main Street; Suite 500
Kansas City, Missouri 64112

All such notices to the Commission shall reference the name and docket number of this action.

- 82. Change of Address/Phone: Until such time as Sarao satisfies in full his

 Disgorgement and CMP Obligations, as set forth in this Order, Sarao shall provide written notice
 to the Commission by certified mail of any change to their telephone number and mailing
 address within ten (10) calendar days of the change.
- 83. Entire Agreement and Amendments: The Consent Order incorporates all of the terms and conditions of the settlement among the parties hereto to date. Nothing shall serve to amend or modify this Consent Order in any respect whatsoever, unless: (a) reduced to writing; (b) signed by all parties hereto; and (c) approved by order of this Court.

- 84. Invalidation: If any provision of this Order or if the application of any provision or circumstance is held invalid, then the remainder of this Order and the application of the provision to any other person or circumstance shall not be affected by the holding.
- 85. Waiver: The failure of any party to this Consent Order at any time to require performance of any provision of this Consent Order shall in no manner affect the right of the party at a later time to enforce the same or any other provision of this Consent Order. No waiver in one or more instances of the breach of any provisions contained in this Consent Order shall be deemed to be or construed as a further or continuing waiver of such breach or waiver of the breach of any other provision of this Consent Order.
- 86. Continuing Jurisdiction of this Court: This Court shall retain jurisdiction of this action to ensure compliance with this Order and for all other purposes related to this action, including any motion by the Sarao to modify, or for relief from, the terms of this Order.
- 87. Counterparts and Facsimile Execution: This Consent Order may be executed in two or more counterparts, all of which shall be considered one and the same agreement and shall become effective when one or more counterparts have been signed by each of the parties hereto and delivered (by facsimile, e-mail, or otherwise) to the other party, it being understood that all parties need not sign the same counterpart. Any counterpart or other signature to this Consent Order that is delivered by any means shall be deemed for all purposes as constituting good and valid execution and delivery by such party of this Consent Order.
- 88. Contempt: Sarao understands that the terms of the Consent Order are enforceable through contempt proceedings, and that, in any such proceedings they may not challenge the validity of this Consent Order.

89. Agreements and Undertakings: Sarao shall comply with all of the undertakings and agreements set forth in this Consent Order.

SO ORDERED, at Chicago, Illinois on this uday of Nov., 2016

Andrea R. Wood

UNITED STATES DISTRICT JUDGE

CONSENTED TO:

Navinder Singh Sarao

APPROVED AS TO FORM:

By: /s/ Roger Burlingame
Roger Burlingame
Kobre & Kim LLP
800 Third Avenue, 6th Floor
New York, NY 10022
(212) 488-1200
Roger.Burlingame@kobrekim.com

U.S. Commodity Futures Trading Commission,

By: /s/ Jeff Le Riche
Jeff Le Riche
Chief Trial Attorney
Division of Enforcement
Commodity Futures Trading
Commission
4900 Main Street; Suite 500
Kansas City, Missouri 64112
(816) 960-77437745
cmarvine@efte.gov

Dated: 1/8, 2016