UNITED STATES OF AMERICA
Before the
SECURITIES AND EXCHANGE COMMISSION

SECURITIES ACT OF 1933
Release No. 10280 / January 13, 2017

SECURITIES EXCHANGE ACT OF 1934
Release No. 79790 / January 13, 2017

ADMINISTRATIVE PROCEEDING
File No. 3-17772

In the Matter of
Citadel Securities LLC
Respondent.

ORDER INSTITUTING
ADMINISTRATIVE AND CEASE-AND-DESIST PROCEEDINGS, PURSUANT TO
SECTION 8A OF THE SECURITIES ACT OF 1933 AND SECTION 15(b) OF THE
SECURITIES EXCHANGE ACT OF 1934, MAKING FINDINGS, AND IMPOSING
REMEDIAL SANCTIONS AND A CEASE-AND-DESIST ORDER

I.

The Securities and Exchange Commission ("Commission") deems it appropriate and in the
public interest that public administrative and cease-and-desist proceedings be, and hereby are,
instituted pursuant to Section 8A of the Securities Act of 1933 ("Securities Act") and Section 15(b)
Securities" or "Respondent").

II.

In anticipation of the institution of these proceedings, Respondent has submitted an Offer
of Settlement (the "Offer") that the Commission has determined to accept. Solely for the purpose
of these proceedings and any other proceedings brought by or on behalf of the Commission or to
which the Commission is a party, and without admitting or denying the findings here, except as to
the Commission’s jurisdiction over it and the subject matter of these proceedings, which are
admitted, Respondent consents to the entry of this Order Instituting Administrative and Cease-and-
Desist Proceedings Pursuant to Section 8A of the Securities Act of 1933 and Section 15(b) of the

III.

On the basis of this Order and Respondent’s Offer, the Commission finds that:

INTRODUCTION

1. A significant percentage of retail investors place orders to trade equity securities with retail broker-dealers. These retail broker-dealers often send these orders to other broker-dealers that specialize in handling such order flow.¹ These specialized broker-dealers, commonly referred to as “internalizers,” “OTC market makers,” or “wholesale market makers,” often make payments to the retail broker-dealers that send them these orders, payments that are known as “payment for order flow.”² The primary type of equity order that retail broker-dealers send to wholesale market makers are marketable orders from retail investors, which can be market orders or marketable limit orders (hereinafter, “marketable orders”).³

2. Many wholesale market makers largely handle marketable orders on a fully automated basis, using proprietary algorithms to determine whether to execute the order, in whole or in part, as a principal (i.e., internalize, or take the other side of the trade) or whether to attempt to fill all or part of the order on a riskless principal basis by sending orders to a variety of other trading centers, including exchanges, dark pools, and other wholesale market makers.

3. This proceeding concerns certain of Citadel Securities’ operations as Citadel Execution Services (“CES”), a wholesale market maker, and statements that CES made to certain of its retail broker-dealer clients from late 2007 through January 2010 (the “relevant period”) about its handling of marketable orders. The statements were misleading because of the manner in which

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¹ Concept Release on Equity Market Structure, 75 Fed. Reg. 3594, 3600 (January 21, 2010) (“A review of the order routing disclosures required by Rule 606 of Regulation NMS of eight broker-dealers with significant retail customer accounts reveals that nearly 100% of their customer orders are routed to OTC market makers”).

² Id. (“The review [of Rule 606 disclosures from eight retail brokers] also indicates that most of these retail brokers either receive payment for order flow in connection with the routing of orders or are affiliated with an OTC market maker that executes the orders”). See also OTC Trading: Description of Non-ATS OTC Trading in National Market System Stocks, Laura Tuttle, March 2014 (available at https://www.sec.gov/marketstructure/research/otc_trading_march_2014.pdf).

³ A marketable limit order is an order with a limit price set at a level that, based on current market conditions, appears to be eligible to execute, at least in part, immediately—such as an order to buy shares at prices up to a limit of $11.00 at a time when the national best offer for the security is $10.00.
two CES algorithms used various market data feeds. CES has since discontinued these two algorithms.

4. During the relevant period, CES received market data from (1) the consolidated public feeds (known as “SIP” feeds for the Securities Information Processors that transmit them) and (2) several data feeds sent directly by individual stock exchanges (known as “direct feeds”).

5. The SIPs disseminate the best-priced, round lot quotations (i.e., quotations in increments of at least 100 shares) from each exchange and calculate and identify the National Best Bid (“NBB”) and National Best Offer (“NBO”) (collectively the “NBBO”) from among those quotations. The SIPs do not disseminate odd lot quotations (i.e., quotations for less than 100 shares). The SIPs also distribute execution data via a separate feed.

6. Certain direct feeds include information about all displayed quotations, executions, and cancellations on the relevant exchange, and often convey this information by sending messages regarding each change to the order book (each new displayed order, each cancelled order, each execution, etc.). These data feeds are known as “depth of book” feeds because they include information about the full displayed limit order book of the exchange.

7. Market participants can use these depth of book feeds to construct their own view of the full displayed limit order book for the relevant exchange, including the best bid and offer at the exchange. Market participants also can consolidate multiple depth of book feeds. As described in more detail below, there are various reasons why the SIP NBBO may differ from the best overall prices determined from constructing and consolidating a set of depth of book feeds, including that the market data in the depth of book feeds is received sooner by market participants and includes odd lots.

8. During the relevant period, CES used algorithmic strategies in handling marketable orders. These algorithms generally used information from the depth of book feeds to inform CES’s view of market conditions which, in turn, often informed decisions regarding order handling. When it internalized shares, CES executed those shares at the SIP NBBO at the time of execution or better.

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4 Section 3(a)(22) of the Exchange Act defines the term “securities information processor” as “any person engaged in the business of (i) collecting, processing, or preparing for distribution or publication . . . information with respect to transactions in or quotations for any security . . . or (ii) distributing or publishing . . . on a current and continuing basis, information with respect to such transactions or quotations.”

5 See Regulation NMS Rule 600(b)(42) (defining NBBO for an NMS security as “the best bid and best offer for such security that are calculated and disseminated on a current and continuing basis by a plan processor pursuant to an effective national market system plan”).
9. During the relevant period, two of the algorithmic strategies CES used to handle marketable orders were triggered when differences existed between the SIP NBB or NBO, as applicable, and the best prices (i.e., best bid or best or offer, as applicable) from one or more depth of book feeds.

10. One strategy, known as FastFill, was triggered when the best price from one or more of the depth of book feeds that FastFill referenced was better than the best price disseminated by the SIP feed. Assuming all other eligibility conditions were met, FastFill immediately internalized a marketable order at the SIP NBB or NBO, as applicable, or better.

11. For example, if CES was handling a marketable order to buy shares, and the SIP best offer was $10.01, and the best offer from one or more of the depth of book feeds was $10.00, FastFill immediately internalized the order using the SIP offer of $10.01 per share. FastFill did not internalize at or seek to obtain through routing the better $10.00 price from the depth of book feeds.

12. The second strategy, known as SmartProvide, was triggered when the SIP NBB or NBO, as applicable, was better than the best price from at least one of the depth of book feeds. SmartProvide did not internalize at the SIP price, nor did it seek to obtain an execution at that price by sending an order to the market. Instead, assuming all other conditions for order handling by SmartProvide were met, SmartProvide would route a non-marketable order to the market.

13. For example, if CES was handling a marketable order to buy shares, and the SIP NBO was $10.01, and the best offer from one or more of the depth of book feeds was $10.02, SmartProvide would send a buy order to be displayed in the market at a price less than $10.01, such as $10.00. This order would be displayed for up to one to five seconds, depending on the size of the order. If this order received an execution, the customer order would benefit from the execution at the better price (i.e., the shares purchased by the customer would be at a price at least one penny better than the NBO). This occurred for approximately 18% of the shares handled by SmartProvide. If the order did not receive a full execution from this routing, CES’s algorithms reassessed the handling of the remaining shares, and could either internalize or seek to obtain an execution in the market. Some of the orders that CES internalized after SmartProvide displayed an order in the market on their behalf received a price that was worse than they otherwise would have received in the absence of SmartProvide.

14. During the relevant period, CES provided a written disclosure to certain of its retail broker-dealer clients that described a market order as an “[o]rder to buy (sell) at the best offer (bid)

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6 As described in greater detail below, CES generally gave such an order some amount of price improvement.
currently available in the marketplace,” and made other, similar representations to its clients.

15. These statements were materially misleading in light of the way FastFill and SmartProvide functioned. The statements suggested that CES would either internalize a marketable order at, or seek to obtain for that order through routing, the best price for that order that CES observed on the various market data feeds it referenced, which FastFill and SmartProvide did not do.

16. As a result of its conduct, Citadel Securities willfully7 violated Section 17(a)(2) of the Securities Act.

**FACTS**

A. **Respondent**

17. Citadel Securities LLC is a broker-dealer with its principal business offices in Chicago, Illinois, and has been registered with the Commission since 2002. Beginning in late 2005, Citadel Securities began a business unit known as Citadel Execution Services, which handles orders by either internalizing or routing them. CES receives orders from, among other sources, large retail broker-dealers. CES currently has approximately 200 broker-dealer clients and receives approximately 2.9 million equity orders on average per day, corresponding to an average daily quantity of approximately 1.7 billion shares. CES’s processing of these orders accounts on average for approximately 35% of the average daily volume of retail equity shares traded in the U.S. markets.

18. During the relevant period, CES had approximately 70 broker-dealer clients and received approximately 1.2 million equity orders on average per day, corresponding to an average daily quantity of approximately 2.3 billion shares. FastFill and SmartProvide handled a small portion of CES’s overall order flow, approximately 2.6% of the retail orders handled by CES’s algorithmic trading engine and 0.6% of CES’s overall order flow between June 2008 and January 2010.

B. **Background**

**The SIPs**

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7 A willful violation of the securities laws means merely “‘that the person charged with the duty knows what he is doing.’” *Wonsover v. SEC*, 205 F.3d 408, 414 (D.C. Cir. 2000) (quoting *Hughes v. SEC*, 174 F.2d 969, 977 (D.C. Cir. 1949)). There is no requirement that the actor “‘also be aware that he is violating one of the Rules or Acts.’” *Id.* (quoting *Gearhart & Otis, Inc. v. SEC*, 348 F.2d 798, 803 (D.C. Cir. 1965)).
19. Exchanges send their best-priced, round lot quotations on a continuous, real-time basis to SIPs for inclusion in consolidated data feeds. Among other things, a SIP consolidates all of the best-priced, round lot quotations from each exchange for each of their respective securities, calculates the NBBO for the security, and disseminates both the exchanges’ best quotations and the NBBO. The SIPs also disseminate execution data in a separate feed. The SIPs disseminate this market data to a wide range of market participants, including brokers or dealers, trading centers (such as exchanges, wholesale market makers, and dark pools), and media sources.

**Depth of Book Feeds**

20. Exchanges sell various market data products, including “top of book” and “depth of book” data feeds. Top of book data feeds provide the best-priced, round lot quotations at the relevant exchange. Depth of book feeds provide information about all displayed quotations, executions, and cancellations on the relevant exchange, and include information related to both round lot and odd lot orders. Some market participants, including some wholesale market makers, purchase depth of book feeds from some or all of the exchanges, develop algorithms to process this data, and use this data to inform order handling decisions. CES subscribed to a subset of exchanges’ depth of book feeds during the relevant period.

**Differences in Quotes Disseminated by the SIPs and Depth of Book Feeds**

21. The SIP NBBO at a given point in time will sometimes differ from the best quotes constructed from one or more of the depth of book feeds. Such differences can exist for various reasons.

22. For example, the SIP consolidates the data it receives from various exchanges before transmitting it. Because of the time required for this consolidation process and the additional physical distance that the information must travel between the exchange and the SIP processor, a market participant may be able to receive information from the direct feeds and process it before the market participant has received the same information from the SIP.

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8 See Rules 601 and 602 of Regulation NMS, 17 C.F.R. § 242.601 and .602. There are currently two SIPs for Regulation NMS stocks. One is operated by Nasdaq, which receives the best-priced, round lot quotations from each exchange for Nasdaq-listed securities. The other is operated by the Securities Information Automation Corporation (“SIAC”), a subsidiary of the New York Stock Exchange, LLC, which receives the best-priced, round lot quotations from each exchange in non-Nasdaq listed securities.

9 The Consolidated Tape Association and the UTP Plan publish metrics concerning the time required by the SIPs to consolidate the market data they receive from the exchanges. These statistics are available at: [www.ctaplan.com](http://www.ctaplan.com) and [www.utpplan.com](http://www.utpplan.com). According to these statistics, the average latencies of the consolidation process at the beginning of 2010 for the NYSE SIP and the Nasdaq SIP were 4.04 milliseconds and 5.42 milliseconds, respectively. As of the beginning of 2016, the average latencies for
23. In addition, as explained above, the SIPs do not include odd lot quotes. As a result, if the best quote displayed on an exchange is based on an odd lot, this information would not be included in the SIP NBBO. Market participants’ algorithms that process depth of book feeds may produce a different result than the SIP NBBO, for example, due to how odd lots are treated, how locked and crossed markets are resolved, and how market data errors are resolved.

24. Transmission or system issues also can cause discrepancies between the best prices displayed on the SIP and depth of book feeds.

25. Furthermore, a particular market participant’s determination of the best quote based on a consolidation of the depth of book feeds might differ from the SIP NBBO if that market participant references depth of book feeds for fewer than all of the exchanges. In those instances in which the best round-lot quotation for a security is displayed only on an exchange it does not reference, this quote will be reflected in the SIP NBBO but not in the consolidated view constructed by the market participant.

C. CES’s Order Handling

26. During the relevant period, CES used proprietary algorithms to decide whether to internalize a marketable order in whole or in part (referred to as having a “principal interest”) or whether to seek to fill the order in the market on a riskless principal basis. CES’s algorithms generally used information from the depth of book feeds to inform its view of market conditions, which, in turn, often informed decisions regarding order handling.

27. During the relevant period, when it internalized retail orders, CES executed those orders at the SIP NBB or NBO, as applicable, or better at the time of execution. CES often gave those orders price improvement by adjusting this price by a small amount. CES provided price improvement as part of its effort to maintain and attract volume from retail broker-dealer clients. CES generally determined the amount of price improvement it would give on a client- and order-specific basis. CES at times internalized orders for a quantity that was greater than that associated with the NBB or NBO, as applicable, which had the effect of improving those orders’ overall price.

the NYSE SIP and the Nasdaq SIP reported on the plan websites were 0.49 milliseconds and 0.92 milliseconds, respectively.

In general, a riskless principal trade occurs when a broker-dealer, after receiving a customer order to buy (or sell) a security, buys (or sells) the security for its own account from (or to) another person and then allocates the shares to the customer order in a contemporaneous offsetting transaction.

For example, if CES internalized a customer order to buy when the NBO was $10.00, CES might execute the order at $9.999 per share.
D. **CES’s Use of FastFill**

28. FastFill executed approximately 2.7 million retail orders between June 2008 and January 2010, which amounted to approximately 0.4% of CES’s overall order flow during that period.

**Triggering Event for FastFill**

29. As explained above, FastFill was triggered when the best bid or offer from one or more of the depth of book feeds was better than the SIP best bid or best offer, as applicable. For example, in the case of a marketable order to buy shares, FastFill could be triggered if the SIP NBO was $10.01, and the best offer from one or more of the depth of book feeds was $10.00. For approximately 20% of all orders internalized by FastFill, the triggering event was caused by an odd lot from one or more of the depth of book feeds.

**FastFill Operation**

30. If the FastFill triggering event existed at the time CES first began handling the order or arose while another strategy was handling the order, and all other eligibility conditions for internalizing by FastFill were met, FastFill immediately internalized the order (or remaining unexecuted quantity) using the SIP NBB or NBO, as applicable. FastFill did not internalize the order at the better bid or offer from one or more of the depth of book feeds, nor did FastFill seek to obtain that price through routing. As explained above, the order often received price improvement, but this amount often was not sufficient to equal the price difference that had triggered the strategy.

31. In a narrow set of circumstances, FastFill internalized the order even though CES did not have a principal interest in the order or internalization of the order would cause CES to exceed its position limit in the relevant security. In these situations, contemporaneous with determining to internalize the order at the SIP NBB or NBO, as applicable, FastFill sent a proprietary order to the market in an effort to execute for itself at a price better than the SIP NBB or NBO, as relevant. This routing was known as a “trade out attempt” and occurred with respect to less than 6.9% of the shares internalized by FastFill.\(^{13}\)

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\(^{12}\) As described above, CES typically attempted to execute a retail order in the market on a riskless principal basis if it determined that it did not have a principal interest in the order.

\(^{13}\) In the situations where FastFill determined to attempt a trade out, an additional eligibility criterion applied that required the share quantity of the proprietary order to be no greater than 90% of the quantity associated with the best bid or offer, as relevant, from one or more of the depth of book feeds. FastFill successfully executed these proprietary trade out attempt orders, in full or in part, approximately 55% of the time and did not receive any fill approximately 45% of the time.
32. When FastFill internalized an order, it filled the entire unexecuted portion of the order at the SIP NBB or NBO, as applicable, and did so (other than in the circumstances described in Paragraph 31), regardless of the number of shares associated with the SIP NBB or NBO or the best bid or offer from one or more of the depth of book feeds. Because of this feature, which provided a price benefit as compared to the liquidity displayed in the market and price improvement that CES added, FastFill improved the overall execution price for a substantial number of (predominantly larger) orders. However, a substantial number of smaller orders fared worse because of FastFill in that there was sufficient liquidity displayed in the market to fill all or most of such orders at a price better than the SIP NBB or NBO, as applicable.

E. CES’s Use of SmartProvide

33. CES began using SmartProvide in late 2007. During the period June 2008 through January 2010, SmartProvide handled approximately 690,000 marketable orders. Of those orders, approximately 490,000 orders were internalized following handling by SmartProvide.

Triggering Event for SmartProvide

34. SmartProvide was triggered when the SIP NBB or NBO, as applicable, was better than the best bid or offer from one or more depth of book feeds. SmartProvide referenced only one depth of book feed for many securities and fewer than all of the depth of book feeds for other securities. Accordingly, at times, SmartProvide was triggered when the SIP NBB or NBO, as applicable, was from an exchange whose depth of book feed SmartProvide did not reference. In addition, SmartProvide sometimes could be triggered when the difference existed between the SIP and only one of the depth of book feeds SmartProvide referenced, and not the others.

35. For example, in the case of a marketable order to buy shares, SmartProvide could be triggered if the SIP NBO was $10.01, and the best offer from one or more of the depth of book feeds was $10.02, even though the best offer on one or more of the depth of book feeds from one or more other exchanges was $10.01.

SmartProvide Operation

36. If triggered, and all other eligibility conditions for the strategy were met, SmartProvide routed a non-marketable order to be displayed in the market at a price that was less than the SIP NBO for a buy order or greater than the SIP NBB for a sell order. SmartProvide did not immediately internalize the marketable order at the SIP NBB or NBO, as applicable, or seek immediately to obtain shares at that price through routing.

37. For example, if SmartProvide was triggered to handle a marketable order to buy when the SIP NBO was $10.01, and the best offer from one or more of the depth of book feeds that SmartProvide referenced was $10.02, the strategy could route a buy order to be displayed in the
market at $10.00. If that order received an execution at $10.00, CES gave that better price to the retail order. Contemporaneous reports generated by CES indicated that approximately 18% of the shares handled by SmartProvide were filled in the market, indicating that they likely received a price better than the SIP NBB or NBO at the time of routing by at least one penny per share.

38. The order would be displayed for up to one to five seconds (depending on the size of the order) or until CES chose a new order handling strategy (which might be prompted by updates in market data). By doing so, SmartProvide likely delayed execution of some marketable orders (as compared to internalizing those orders immediately or routing the order at a marketable price).

39. For the shares that did not receive an execution in the market, CES would evaluate how to handle the order (or its remaining quantity), which might include displaying an order in the market using another strategy, routing an order to the market in an attempt to take liquidity, or internalizing the order. During this process, the market could change and/or the customer might cancel the order. Some of the orders CES internalized after SmartProvide displayed an order in the market on their behalf received a price that was worse than they would have received had CES immediately internalized at the SIP NBB or NBO, as applicable, or sent an order to the market at that price.

F. CES’s Order Handling Disclosures

40. During the relevant period, CES provided a written disclosure to certain retail broker-dealer clients that described a market order as an “[o]rder to buy (sell) at the best offer (bid) price currently available in the marketplace,” and made other, similar representations to its clients.14 As discussed above, these statements suggested that CES would either internalize the marketable order at, or seek to obtain through routing, the best bid or offer from the various market data feeds CES referenced. These statements were materially misleading in light of the way that FastFill and SmartProvide functioned.

IV.

VIOLATIONS

41. Section 17(a)(2) of the Securities Act prohibits “any person in the offer or sale of any securities . . . . [from] directly or indirectly . . . . obtain[ing] money or property by means of any untrue statement of a material fact or any omission to state a material fact necessary in order to make the statements made, in light of the circumstances under which they were made, not

14 CES did not have direct communications with the retail customers who placed orders with CES’s retail broker-dealer clients.
Scienter is not needed to prove a violation of Section 17(a)(2); a showing of negligence is sufficient. Aaron v. SEC, 446 U.S. 680, 697 (1980).

42. As a result of the conduct described above, Citadel Securities willfully violated Section 17(a)(2) of the Securities Act.

V.

In view of the foregoing, the Commission deems it appropriate and in the public interest to impose the sanctions agreed to in Respondent’s Offer.

Accordingly, pursuant to Section 8A of the Securities Act and Section 15(b) of the Exchange Act, it is hereby ORDERED that:

A. Respondent cease and desist from committing or causing any violations and any future violations of Section 17(a)(2) of the Securities Act;

B. Respondent is censured;

C. Respondent shall, within 14 days of the entry of this Order, pay disgorgement of $5,200,000, prejudgment interest of $1,465,268, and a civil money penalty of $16,000,000 to the Securities and Exchange Commission for transfer to the general fund of the United States Treasury, subject to Exchange Act Section 21F(g)(3). If timely payment of disgorgement and prejudgment interest is not made, additional interest shall accrue pursuant to SEC Rule of Practice 600, and if timely payment of the civil money penalty is not made, additional interest shall accrue pursuant to 31 U.S.C. § 3717. Payment must be made in one of the following ways:

1. Respondent may transmit payment electronically to the Commission, which will provide detailed ACH transfer/Fedwire instructions upon request;

2. Respondent may make direct payment from a bank account via Pay.gov through the SEC website at http://www.sec.gov/about/offices/ofm.htm; or

3. Respondent may pay by certified check, bank cashier’s check, or United States postal money order, made payable to the Securities and Exchange Commission and hand-delivered or mailed to:

Enterprise Services Center
Accounts Receivable Branch
HQ Bldg., Room 181, AMZ-341

Payments by check or money order must be accompanied by a cover letter identifying Citadel Securities as a Respondent in these proceedings, and the file number of these proceedings; a copy of the cover letter and check or money order must be sent to Robert A. Cohen, Co-Chief, Market Abuse Unit, Division of Enforcement, Securities and Exchange Commission, 100 F Street, NE, Washington, DC 20549.

Amounts ordered to be paid as civil money penalties pursuant to this Order shall be treated as penalties paid to the government for all purposes, including all tax purposes. To preserve the deterrent effect of the civil penalty, Respondent agrees that in any Related Investor Action, it shall not argue that it is entitled to, nor shall it benefit by, offset or reduction of any award of compensatory damages by the amount of any part of Respondent’s payment of a civil penalty in this action ("Penalty Offset"). If the court in any Related Investor Action grants such a Penalty Offset, Respondent agrees that it shall, within 30 days after entry of a final order granting the Penalty Offset, notify the Commission's counsel in this action and pay the amount of the Penalty Offset to the Securities and Exchange Commission. Such a payment shall not be deemed an additional civil penalty and shall not be deemed to change the amount of the civil penalty imposed in this proceeding. For purposes of this paragraph, a "Related Investor Action" means a private damages action brought against Respondent by or on behalf of one or more investors based on substantially the same facts as alleged in the Order instituted by the Commission in this proceeding.

By the Commission.

Brent J. Fields
Secretary