In the
UNITED STATES COURT OF APPEALS
for the Seventh Circuit

No. 16-3017

UNITED STATES OF AMERICA,

Plaintiff-Appellee,

v.

MICHAEL COSCIA,

Defendant-Appellant.

On Appeal from the United States District Court
for the Northern District of Illinois, Eastern Division.
No. 14 CR 551 — Harry D. Leinenweber, *Judge*.

BRIEF AND SHORT APPENDIX OF THE UNITED STATES

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JURISDICTIONAL STATEMENT

Defendant-appellant's jurisdictional statement is complete and correct.

ISSUES PRESENTED FOR REVIEW

1. Whether the anti-spoofing provision of the Commodity Exchange Act ("CEA"), 7 U.S.C. §§ 6c(a)(5)(C) and 13(a)(2), is unconstitutionally vague as applied to defendant.

2. Whether the evidence, viewed in the light most favorable to the government, supported the jury's verdict on the spoofing counts.

3. Whether the evidence, viewed in the light most favorable to the government, supported the jury's verdict on the commodities fraud counts.

4. Whether the district court clearly erred in applying a 14-level enhancement pursuant to Guideline § 2B1.1(b), calculated by reference to defendant's $1.4 million gain, where it found that defendant's counterparties had suffered losses that could not reasonably be determined.

STATEMENT OF THE CASE

Offense Conduct

Defendant is a commodities futures trader, was registered as a floor trader with the Commodities Futures Trading Commission ("CFTC") beginning in 1988, and was the manager and sole owner of a trading company

called Panther Energy Trading, LLC, which he formed in 2007.[1] Tr. 251-52, 354-55, 437-39. This case stems from defendant's use of a fraudulent high-frequency trading strategy in which he entered large-volume commodities futures orders that he intended to cancel before they could be filled, in an effort to trick other traders into buying and selling smaller orders at prices that did not exist in the market at the time he placed those orders.[2] As a result of that conduct, defendant was convicted of spoofing and commodities fraud. App. 1.

The evidence at trial showed that, for approximately 10 weeks between August and October 2011, defendant used two electronic computer programs to, in short, rapid-fire bait and switch other traders.

The scheme worked as follows: First, defendant placed a small order he wanted to trade at a price that, at that time, did not exist in the market. Tr. 781-826. An order is simply a request to trade at a particular price. For the

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[1] Citations to the Original Electronic Record on Appeal are designated as "R.," followed by the document number. The trial transcript is cited as "Tr." Defendant's brief is cited as "Br." and his appendix is cited as "App." The government's appendix is cited as "G. App." The Presentence Investigation Report, dated March 23, 2016, is cited as "PSR." Each is accompanied by page numbers.

[2] Commodities futures trading is the buying and selling of contracts for the future delivery of basic or raw goods, such as metals (gold, copper), agricultural products (corn, soybeans), and energy (crude oil, heating oil), and also may include currency or market-index contract trading. Tr. 204-06, 246. The contracts are bought and sold on exchanges, such as the Chicago Mercantile Exchange ("CME"). Tr. 196. High-frequency trading is a type of automated trading that uses computer programs to transact a large number of orders at very fast speeds. Tr. 215-16. The computer programs utilize mathematical models and algorithms to allow traders, like defendant, to rapidly trade commodities futures contracts (among other products). Tr. 216-18.

order to be filled, and the trade executed, someone on the opposite side of the market must agree to the price. Tr. 222, 340-41. For these small orders, if defendant was buying, his price was lower than the market; if defendant was selling, his price was higher than the market. Tr. 781-826. In an effort to fill these small orders at favorable prices, defendant duped other traders into thinking that prices were falling (if he was on the buy side) or rising (on the sell side). Tr. 260-62, 653-54, 781-826.

Defendant did this by creating illusory supply and demand. Tr. 196-99, 653-54, 700-01. Immediately after placing his small trade order, defendant next entered a series of large-volume orders, called quote orders, on the opposite side of the market from the small order. Tr. 254, 258-61, 264, 377-78, 781-826. Defendant typically used three sets of quote orders at a time. Tr. 781-810. For example, as charged in Counts 6 and 12 of the indictment, defendant placed a small trade order to sell five copper futures contracts, immediately after which he entered three quote orders, each to buy 50 or more copper futures contracts. R. 177-24.[3]

[3] After filing his notice of appeal, defendant filed copies of both parties' trial exhibits on the docket in the district court (but did not move to supplement the record). R. 175, 177. All but one of those exhibits appear to be the exhibits admitted at trial. The exhibit purporting to be Government Exhibit ICE Summary Chart 6, filed by defense as R. 177-35, is not the correct document. The government has moved to supplement the record in the district court with the correct ICE Summary Chart 6. With respect to the remainder of the government's exhibits, for ease of reference, the government cites the exhibits by district court docket number.

Typically, defendant's large orders were larger than the total number of contracts active in the market at the time, with defendant at times risking as much as $50 million. Tr. 274, 349, 402-03, 699, 781-82, 1042-43. In some of the markets in which he traded (*e.g.*, copper, gold, crude oil), defendant entered more large orders than all other market participants put together. Tr. 1097-98. In addition, defendant placed his large orders at progressively improving price levels, moving toward the small order that he placed as part of the first step in his scheme. Tr. 254, 477-79, 781-826. For example, in the copper futures example above, defendant's small sell order was at a price of 32755, which was higher than the best bid (buying price) in the market at the time. Tr. 820-22; R. 177-24. Defendant placed his large buy orders on the opposite side of the market at increasing prices: 32740, 32745, 32750. Tr. 821-22.

Significantly, defendant did not intend to trade the large orders. Defendant designed his trading algorithm to immediately (within about 250 milliseconds) cancel the large orders as soon as the small order was filled. Tr. 263, 282, 379, 467, 472-80, 785-826. He also designed the algorithm to cancel the entirety of his large orders if any part of the large orders (even a single contract) was traded or executed. Tr. 566-67. Although his large orders did remain on the market for a short period of time and theoretically could have been filled, in practice they most often were not because defendant's price levels intentionally were above (if he was selling) or below (if he was buying)

where the market was trading. Tr. 254, 260, 289.

Instead, the large orders—and the flurry of activity in the market they induced—served a different purpose: to create the illusion of significant interest in buying or selling that particular product, so that the market would move towards the price at which his small order was waiting to be filled. Tr. 274-75, 699-700, 706, 797-817. And that is precisely what frequently happened: Defendant's large orders caused a shift in market prices, allowing him to fill his small orders. Tr. 781-825. Again, using the copper example above, defendant had offered a copper futures contract for sale at 32755, a price that no buyer was willing to meet at the time he placed that order, yet that small order was filled at that price within 250 milliseconds of defendant placing his large orders; then, 26 milliseconds after the fill, his large orders were cancelled. Tr. 822-23; R. 177-24.

In short, defendant's large orders were deceptive bait orders that defendant had no intent to trade. They were designed to create the false impression that the market was headed up or down, with significant market activity at increasing or decreasing prices. Tr. 652-53. The appearance of oversupply fraudulently induced other market participants to react, allowing defendant to fill his small orders at prices previously not available in the market. Tr. 262-65, 700-01, 781-826.

What has been described above was one-half loop in defendant's trading

cycle. After filling a small order on one side of the market, defendant pivoted and repeated his strategy on the opposite side of the market to obtain profits, buying low and selling high. Tr. 254, 262, 266, 380, 468-69, 783-826. For example, in the copper futures example, the result of defendant filling his small sell order and cancelling his large buy orders was that defendant held a short position of five contracts, so he wanted to buy the contracts back at a profit. He therefore flipped to the opposite side of the market, placing an order to buy five copper futures contracts for 32750, 5 ticks below the best price in the order book—the price at which he had just sold. Defendant immediately placed three large orders on the opposite side of the market, to sell a total of 184 contracts, at progressively improving prices (32770, 32770, and 32765), which resulted in the small buy order being filled. In other words, defendant bought low and sold high, resulting in a small profit. Defendant then cancelled his large sell orders before they could be filled.[4] Tr. 823-24; R. 177-24.

A full loop of defendant's trading scheme took about 2/3rds of a second, and he employed the scheme tens of thousands of times, with over 450,000 large orders, resulting in profits of more than $1.4 million. Tr. 1088.

Indictment

On October 1, 2014, the grand jury returned an indictment charging

[4] The copper futures trading scenario discussed here is depicted in the form of a bar chart at R. 177-22.

defendant with six counts of commodities fraud, in violation of 18 U.S.C. § 1348(1) (Counts 1 through 6), and six counts of spoofing, in violation of 7 U.S.C. §§ 6c(a)(5)(C) and 13(a)(2) (Counts 7 through 12). R. 1.

Motion to Dismiss

Prior to trial, defendant moved to dismiss the indictment. R. 27-1, 28, 33. Defendant argued that the anti-spoofing statute, 7 U.S.C. §§ 6c(a)(5)(C) and 13(a)(2), is unconstitutionally vague because its "core term—'spoofing'—ha[s] no accepted meaning or understanding in the futures industry," creating the potential to capture entirely lawful conduct. R. 28 at 1.

With respect to the commodities fraud counts, defendant contended, among other arguments not pertinent to this appeal, that he did not engage in a scheme to defraud as a matter of law. R. 28 at 28-32. According to defendant, he could not have deceived other traders because his trading was open and at arm's length. *Id.*

The district court rejected defendant's challenges. G. App. 1-17. As to the anti-spoofing statute, the court began with the established rule that vagueness challenges to criminal statutes that do not implicate First Amendment freedoms must be examined as applied to defendant's conduct, not as a facial challenge to the statute or its application to hypothetical conduct. G. App. 6, 9-10. As applied, the court held that the anti-spoofing statute is not vague:

> Turning to the allegations of the Indictment, which the Court must accept as true for the purposes of this Motion, Coscia "entered large-volume orders that he intended to immediately cancel before they could be filled by other traders." Coscia had no intention of filling the orders, but instead "devised [his] strategy to create a false impression regarding the number of contracts available in the market, and to fraudulently induce other market participants to react to the deceptive market—'information that he created.'" Without question, this conduct tracks the language of the statute, and constitutes "spoofing" as the statute defines that term: "bidding or offering with the intent to cancel the bid or offer before execution." 7 U.S.C. § 6c(a)(5)(C).

G. App. 10 (record citations omitted). The court also held that the statute's intent and knowledge requirements "do much to destroy any force in the argument that application of the statute would be so unfair that it must be held invalid." G. App. 11 (internal marks omitted).

With respect to the commodities fraud counts, the district court held that 18 U.S.C. § 1348(1) prohibits (1) a scheme to defraud; (2) with intent to defraud; and (3) a nexus with a commodity. G. App. 15-16 (citing *United States v. Mahaffy*, 693 F.3d 113, 125 (2d Cir. 2012)). While leaving for trial the issue of whether the government could prove that defendant misled other traders through his use of large quote orders, the court held that the fraudulent conduct alleged in the indictment—including that defendant placed "fraudulent and misleading quote orders," "created a false impression regarding the number of contracts available in the market," "induced other market participants to react to the deceptive market information," and "tricked others into reacting to the false price volume information he created"—was

sufficient to survive a motion to dismiss. G. App. 14-16.

Trial

The case proceeded to trial on October 26, 2015. Tr. 1. At the seven-day trial, the government presented evidence that included testimony about the computer programs defendant designed to execute his trading strategy; data that showed defendant's pattern of trading and disparate cancellation rates for large and small orders; and testimony and evidence about the effect of defendant's trading on market prices and other market participants.

Specifically, the trial evidence included the following:

Defendant's Computer Programs

Jeremiah Park, defendant's computer programmer, testified that, in 2011, at defendant's direction, he created two computer trading programs called Flash Trader and Quote Trader. Tr. 450-56. Park was not a trader; defendant was responsible for the trading strategy and for setting the trading programs' daily parameters. Tr. 355, 451-56, 919, 999.

Flash Trader and Quote Trader were the mechanisms by which defendant committed his fraud. The programs were designed to place a small order, to place large orders on the opposite side of the market at prices that moved progressively towards the small order, and to cancel immediately all large orders once the small order traded, any part of the large order traded (even a single contract), or a specified amount of time (typically 250

milliseconds, or a 1/4th of a second) passed without any orders being filled. Tr. 255, 263, 282, 379, 465-67, 472-80.

Park testified that the orders' short duration on the market, coupled with the setting that cancelled all large orders if a portion of the order was filled, was intended by defendant to reduce the risk that the large orders would be filled, and that, after cancellation, the program would "reverse the side of the quote and trade." Tr. 468-69, 503.

While designing Flash Trader and Quote Trader, defendant and Park corresponded by email and in person, and Park's notes from the in-person meetings were introduced at trial. Tr. 498-503. Park testified from his notes that, during one meeting, defendant told him that the large quote orders were to act "[l]ike a decoy." Tr. 498; R. 177-39 at 1. During another meeting, defendant told Park that the large quote orders were to be "[u]sed to pump the market," which Park understood meant "get a reaction from the other algorithms." Tr. 502; R. 177-39 at 3. Likewise, in an email exchange, Park confirmed with defendant the purpose of each of the orders, small and large, including that the large quote orders were "sizeable order[s] used to move the market." Tr. 475; R. 177-41.

Defendant's Trading Activity

Electronic trading is anonymous. Tr. 214-15, 363, 618, 634. But exchanges maintain an audit trail of electronic orders, which can be used to trace an individual's or firm's trading activity based on unique operator identifiers like the Tag 50. Using these identifiers, the government introduced testimony about and summaries of defendant's trading activity, including data that showed spoofing during the 10 weeks in question. *E.g.,* Tr. 254-82, 358, 378-383, 776-826.

ICE Futures Europe

John Redman, a director of compliance for Intercontinental Exchange, Inc. ("ICE") Futures Europe, testified that he culled and examined defendant's trading activity on the exchange, and observed that defendant repeatedly

> would place a small buy or sell order in the market, and then immediately after that, he would place a series of much larger opposite orders in the market, progressively improving price levels toward the previous order that he placed. That small initial order would trade, and then the large order would be canceled and be replaced by a small order, and the large orders in the opposite direction will have previously taken place.

Tr. 254-55. This pattern repeated itself approximately 14,000 times, with each

cycle occurring in 300 to 400 milliseconds.[5] Tr. 255.

The exchange's data revealed numerous examples. Tr. 260-66, 272-82, 653; R. 177-30 to 35. In each example, defendant's small order was placed at a price that no one in the market was willing to meet; if defendant was buying, his bid was lower than the best ask price, vice versa if he was selling. *Id*. As a result, the small order would not trade unless market conditions changed. *Id*. Defendant's large successive orders on the opposite side of the market created artificially-inflated demand (on the buy side) or supply (on the sell side), so that his small order traded; then, after cancelling the large orders, he flipped sides of the market and repeated the process. *Id*.

Defendant's trading on ICE Futures Europe created "a grossly excessive amount of volume on one side or the other" of the market, beyond an "imbalance within reason." Tr. 348. "[F]or an instant in time, it looked like there was a great deal[ ] of buying pressure or selling pressure." *Id*.

CME Group Exchanges

Ryan Cobb, a data scientist with the CME Group, analyzed defendant's trading activity on the exchanges run by the CME Group, which include the

[5] Defendant acknowledged during his trial testimony that he set Flash Trader and Quote Trader to cancel large orders at between 100 and 400 milliseconds (instead of using a shorter duration) so that the orders had time to influence the market. Tr. 1017-18, 1083. According to defendant, the large orders were designed to show strength in the market. Tr. 1069.

CME, the Chicago Board of Trade, the New York Mercantile Exchange, and Commodity Exchange, Inc. Tr. 356-435. Based on that activity, Cobb found that, across multiple markets, defendant engaged in a common "pattern of activity" in which he entered a small order on one side of the market, coupled with larger orders on the other side of the market; filled the small order; and cancelled the large orders. Tr. 378-382, 408; R. 177-1 to 6.

Disparate Cancellation Rates

In addition to introducing evidence about defendant's trading patterns generally, the government presented data about defendant's cancellation rates for the two different sizes of orders, large and small, he regularly placed. *See, e.g.,* Tr. 287-88.

On ICE Futures Europe, for example, defendant placed 24,814 large orders between August and October 2011, but only traded one-half of 1% of those orders, while cancelling the remaining 99.5%. Tr. 289; R. 177-31. By contrast, defendant placed 6,782 small orders on the exchange during the same period, and approximately 52% of those orders were completely filled. Tr. 290-91; R. 177-31. In other words, defendant's small orders were 100 times more likely to be filled than his large orders. Tr. 291.

This discrepancy in cancellation rates between large and small orders is not common or routine in commodities futures markets. Tr. 292-98; *see also* Tr. 292 ("What we normally see is people placing orders of roughly the same size .

. . there aren't two order sizes in use"); Tr. 352 ("Mr. Coscia was the only person we looked at in this time frame who would put in small orders with one cancellation rate and big orders with a completely different cancellation rate. That was unusual."). Comparing defendant to other high-frequency traders, and looking specifically at the number of orders placed versus orders filled, Redman found that defendant's order-to-fill ratio was exponentially larger than his counterparts. Tr. 293-300. Other trading firms' order sizes were between 91% and 260% of what they actually traded, whereas defendant's order size was approximately 1,600% of what he actually traded.[6] Tr. 297-300; R. 177-32.

Redman also compared the frequency with which other high-frequency traders cancelled large orders following the trading of a small order. Tr. 305. On a single day in September 2011, defendant cancelled 273 large orders in the wake of trading small orders, whereas every other trader in the ICE Futures Europe market, collectively, cancelled two large orders after trading small orders. Tr. 306; G. Exh. ICE Summary Chart 6. On other days during that month the divergence was even starker, with defendant cancelling 966 larger orders after trading small orders but no one else in the market doing so. *Id*. In total, during September and October 2011, defendant was responsible

[6] A ratio can be less than 100% because traders can accept another trader's order without themselves placing an order on the market. Tr. 299.

for over 90% of the large-order cancellations after a small-order fill. Tr. 308. Redman concluded that the data "tells you that . . . it was really only Mr. Coscia who was doing this."[7] Tr. 307.

The same cancellation discrepancy was reflected in defendant's trading of products on the CME. Tr. 390-95. Defendant entered 453,604 large orders in August and September 2011. Tr. 391. Of those orders:

- 445,482, or 98.21%, were fully cancelled;
- 347, or 0.08%, were fully filled;
- 7,761, or 1.71%, were partially filled.

Id.; R. 177-31. By contrast, defendant placed 237,596 small orders during the same timeframe, but fully filled 35.61% and partially filled another 5.4% of

[7] Defendant says that "[b]etween the verdict and sentencing, the Government abandoned its argument that Coscia was an outlier," and cites "Dkt. 149 at 7." Br. 21. The document cited, R. 149, is two pages and has no page seven. But the defense appears to be referring to post-trial litigation about Government Exhibit ICE Summary Chart 6.

After trial, ICE produced data that showed a minor discrepancy between ICE Summary Chart 6 and actual cancellation rates. The summary chart introduced at trial showed that defendant cancelled 14,563 large orders after a small-order fill; the data supports 14,141 cancellations. R. 152. Likewise, the chart showed all other market participants having 671 large-order cancellations after a small-order fill; the data shows 1,328 cancellations. *Id.* The defense cited the new data in requesting a sentencing continuance and a subpoena to ICE for additional data, and the district court denied both requests. R. 154.

ICE's slight revision to cancellation rates on the summary chart does not mean that the government "abandoned its argument that Coscia was an outlier." Br. 21. Defendant still was responsible for over 91% of these types of cancellations. The government consistently has maintained that defendant's trading patterns, including his differential treatment of large and small orders, were unlike those of other high-frequency traders trading lawfully. R. 152.

those orders. Tr. 394-95.

Effect of Defendant's Conduct on Other Market Participants

Defendant's trading disrupted the financial markets. By filling the order book with bait orders, defendant induced other traders to trade with him at prices that were not maximally efficient. Tr. 341-44, 635, 696. Relying on information in the order book when making trading decisions, including the total relative number of bid and ask offers, these traders—or the computer algorithms they designed and used to trade—were tricked into believing that a price change was imminent and traded accordingly. Tr. 696. For example, when defendant's large sell orders far exceeded the total number of buy orders, it made it appear that prices were dropping; likewise, when the balance of buy and sell orders changed abruptly, it caused traders, or their computer programs, to believe that market supply and demand had changed.[8] Tr. 194-99, 210, 219, 635-36, 735-37, 765.

Victim traders testified that defendant's[9] flash orders and cancellations

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[8] An Executive Director at CME Group testified about elementary market principles, including the effect of supply and demand on prices. Tr. 194-99, 210. Like other products, commodities futures prices are dictated by supply and demand. Tr. 210, 219. An abundance of supply, or the absence of demand, pushes prices lower; reduced supply, or increased demand, results in price increases. Tr. 196-99. Market participants who testified at trial concurred that "supply and demand meeting is where prices are determined." Tr. 655.

[9] The victims did not know who was responsible for the fraud they identified; defendant's identity was proven by the government by introducing summary charts that traced the trading activity to defendant's unique trading identifiers. *See, e.g.,* Tr. 355, 360, 367-71, 400.

affected their trading strategy, including their perception of the depth of the order book, inducing trades at less favorable prices than what otherwise would have existed in the market:

- A trader from Pilgrim's Pride observed a "large order that was flashing onto the screen," meaning that "[i]t was there and it was gone." Tr. 613. He tried to buy the product in question, but could not do so before the order disappeared. *Id.*

- Citadel's computer programs use many factors to determine when and how to trade, including the number and price of available orders. Tr. 636-36, 644. Due to defendant's large orders flooding the market, Citadel filled one of defendant's small orders and then sold the contracts two ticks lower than the purchase price, resulting in a loss of $480 in 400 milliseconds. Tr. 635.

- Teza Technologies' computer algorithm was duped by defendant's large orders, approximately 10 to 20 times the usual size typically traded in the crude oil market, which led to an oversupply of the market and a shift in prices. Tr. 649-56, 664. The program filled defendant's small orders, causing losses to Teza of approximately $10,000 in an hour. Tr. 655-56.

- GSA Capital "los[t] a substantial amount of money," estimated to be in the "low hundreds of thousands of dollars," as a result of defendant's trading strategy. Tr. 696-97, 710. These losses were due to defendant's large quote orders, which "creat[ed] a very substantial buyer/seller imbalance on the market triggering trades by [GSA Capital's] automated trading strategies." Tr. 696. GSA Capital's computer program "interpret[ed] this imbalance as basically a signal to buy [the small orders]," prior to the large orders disappearing. *Id.* Each loop of defendant's strategy generated "a small loss, but all combined," it was a "quite substantial loss." Tr. 696-97; R. 177-25 to 29.

In addition, when they observed defendant's trading in the market, many traders exited the market so that their computer programs would not be induced to trade with defendant. Tr. 664, 710, 742-48.

Defendant's Admissions in a Prior Proceeding

The government introduced and read to the jury defendant's sworn testimony from a civil deposition taken by the CFTC. During that testimony, defendant admitted that:

- Quote Trader and Flash Trader were of his design: He came up with the idea, directed Park to create the programs, and told him how the programs should work. Tr. 441-45.

- The trading activity in Panther Energy's account between August and October 2011 reflected Quote Trader and Flash Trader's algorithm. Tr. 557.

- He used Quote Trader and Flash Trader in 18 commodities futures markets. Tr. 580-81.

- His trading strategy was to create "different lopsided markets" because he had noticed that "there was more trading done when one side was larger than the other." Tr. 558. To accomplish this goal, he placed small orders on one side of the market, then large orders on the opposite side of the market, with the bids increasing to "become the best bid and best offer." Tr. 559.

- He programmed the large orders to immediately cancel under three circumstances: (1) if the small order, regardless of whether it was to buy or sell, was filled; (2) if any portion of the large orders was filled; or (3) if a timer expired (about 300 to 400 milliseconds) without any order being filled. Tr. 562, 577-78.

- Over the course of about 6 weeks in late 2011, defendant made approximately $1.38 million from this strategy. Tr. 605.

When defendant was asked why he treated large and small orders differently—specifically, why the small orders remained active but the large orders were programmed to cancel, including if the large orders were partially

filled—he responded, "That's just the way it was programmed. I don't have any further explanation on that." Tr. 567-68.

Defense Case

The defense's theory at trial was that, although defendant was responsible for the trading algorithm and specific trades in question, it was all just "good trading." Tr. 186. The defense acknowledged the basics of how defendant's trading strategy worked, and that the strategy was materially different from the trading of other high-frequency firms, but claimed that defendant's sole purpose was to encourage other traders to fill his orders. Tr. 178-79, 1465. According to the defense, in the high-frequency world of trading, "many orders are open for what any of us would consider to be very, very small amounts of time before they are cancelled," and defendant's large orders, while cancelled, were on the market for a sufficient amount of time that superfast traders could have filled them if they had wanted to. Tr. 180.

Consistent with that theory, defendant testified at trial that he was responsible for the trading strategies of Panther Energy Trading and directed the development of Quote Trader and Flash Trader, in mid-2011, to "make a lopsided market and hope to get traded on the better of the offer." Tr. 876-77. He admitted that he engaged in the general pattern of small traded orders and large cancelled orders, as the government claimed, including that his large orders were programmed to cancel if the small orders were filled or any part of

the large orders filled. Tr. 893. He also admitted that the strategy was designed around his observation that a discrepancy between large and small orders would cause the market to move. Tr. 877-78. But, he claimed, he did not intend to cancel his large orders at the time that he placed them; according to defendant, he "wanted to trade them" and he "never put in any orders that [he] did not want to trade." Tr. 939-40, 969-70.

Defendant cited specific examples—pulled from the .08% of his large orders that were filled (Tr. 1045)—that he claimed showed that he wanted to trade his large orders. Tr. 940-65. Indeed, according to defendant, he was indifferent to whether his small or large orders were filled. He claimed that the result was the same: If the small order filled, he cancelled the large orders; if the large orders filled, he cancelled the small order. Tr. 895. To attempt to explain his fill-rate discrepancies, defendant claimed that he often tried to fill his large orders but that "nothing at all happened," "[n]othing traded," because of the computer program's parameters. Tr. 940. To attempt to explain why his large orders were programmed to cancel if any part of the large orders were filled—a setting that is at odds with defendant's claim that he wanted to fill the large orders—defendant claimed that he was satisfied with partially-filled orders because he preferred to "trade with one person" at a time in the market, due to a traumatic experience he had while working at a flea market as a child where multiple customers rushed at him. Tr. 896-98.

Defendant called two experts, Adam Warren and Matthew Evans, who testified that high-frequency traders commonly cancel orders before execution and that defendant's orders, both large and small, were real orders in the market exposed to risk and available to be traded. Tr. 1121-1328. Evans acknowledged on cross-examination, however, that other high-frequency traders rarely cancel large orders. Tr. 1281-83. In addition, by Evans' calculations, 65% of large-volume orders are open on the market for more than one second, whereas 99.4% of defendant's large orders were cancelled within one second. *Id*.

Government's Rebuttal Evidence

In rebuttal, the government called Hank Bessembinder, a professor of finance at Arizona State University. Tr. 1338. Bessembinder examined defendant's trading data to assess defendant's claims that he (1) was indifferent as to whether he filled his large or small orders; and (2) intended to trade all of his orders, including the large ones. Tr. 1343-65.

Bessembinder found defendant's claims to be belied by his trading practices. Contrary to defendant's assertion that he was indifferent as to which of his orders traded, his trades did not reflect the "even balance" one would expect if a trader was indifferent. Tr. 1363. Defendant entered far more large orders than any other trader; he cancelled more than 97% of his large orders within one second while other traders only cancelled 34% of their large orders;

large orders were 61% of defendant's trading volume but only 0.27% of other traders' total volume; and "more than 10 times as many contracts traded on [defendant's] small orders as compared to the large orders." Tr. 1363-64; R. 177-63 to 65. These divergences "in a database that contains more than 50,000 orders" cannot "be a coincidence," but instead are attributable to defendant's algorithm, which was set to cancel all large orders upon even a single contract being filled but not to do the same for the filling of the small order. Tr. 1363-64.

Unlike the data used by defendant's experts,[10] the trading data that Bessembinder examined showed, not just the trades themselves, but also cancellations and attempts to cancel trades by defendant. Tr. 1343-53. In each of examples cited by defendant as showing that he traded and intended to trade large orders, the opposite was, in fact, true: Defendant attempted to cancel the large orders but was too slow; the orders were filled in the milliseconds before his instructions to cancel arrived. Tr. 1352-53.

By way of example, Defendant's Exhibit 533 (R. 175-66) was a chart used during defendant's direct examination to show his large orders being fully filled. Tr. 962. Missing from the chart were defendant's repeated attempts to cancel these orders, at roughly the same time that they were filled; the orders were filled just before the cancellation instructions were received. Tr. 1354-55;

[10] Evans acknowledged that he did not check error logs, where attempted cancellations are documented, when he analyzed defendant's trading data. Tr. 1293.

R. 177-58. The same was true of each of 12 other defense exhibits, which omitted reference to defendant's attempts to cancel the same orders he said that he intended to fill. R. 177-56 to 67.

Rule 29 Motion

At the close of the government's evidence, defendant moved for acquittal pursuant to Fed. R. Crim. P. 29. R. 78. In addition to arguing that the spoofing and commodities fraud statutes are legally invalid for the reasons previously raised and rejected, defendant argued that the government's evidence did not show a scheme to "deceive about the nature of a bargain with a counterparty," including because defendant's offers were real and available to be traded, and did not show that defendant "specifically intended to cancel any of the bids or offers identified in the Indictment before they were executed," the definition of spoofing. R. 78; Tr. 848-49.

The district court rejected both challenges. With respect to the sufficiency of the evidence of commodities fraud, the court found:

> [T]he evidence, if believed by the jury, [shows] that the intention was . . . to trick other bidders into thinking that there was an increasing amount of contracts available, getting towards the price where the defendant's bid was in. . . . It certainly was to generate a reaction. The fact that the bids were capable of being accepted seems to me that does not in any way, shape or form mean that it couldn't be part of a scheme . . . [I]ntent to defraud can be found even where it's unsuccessful.

Tr. 850. On the spoofing charges, the court found sufficient evidence of intent to cancel. Tr. 850-52. Once again, the court held that it was irrelevant that

defendant's offers were real: If limited to non-real orders, "it would be impossible to spoof because you can't have an offer," the term used in the statute, "unless it's capable of being filled." Tr. 850-51.

Jury Instructions

On the commodities fraud counts, the jury was instructed that, to find defendant guilty, the government must have proven that (1) defendant knowingly executed a scheme to defraud, defined as a "plan or course of action intended to deceive or cheat another"; (2) defendant acted with intent to defraud, meaning that he "act[ed] knowingly with the intent to deceive or cheat the victim"; and (3) the scheme was in connection with any commodity for future delivery. Tr. 1582-83. The jury was instructed that a scheme to defraud "must be material, which means that it is capable of influencing the decision of the person to whom it is addressed." Tr. 1589-90. At the defense's request, the jury also was instructed on a good-faith defense: If defendant

> acted in good faith, then he lacked the intent to defraud required to prove the offense of commodities fraud . . . [I]f you find that [defendant] honestly believed that his trading strategy was not fraudulent and not intended to deceive other market participants, then he acted in good faith and without intent to defraud.

Tr. 1583-84.

For the spoofing charges, the jury was instructed that the government had to prove that: (1) defendant engaged in "spoofing," defined as "bidding or offering with the intent to cancel the bid or offer before execution"; and

(2) defendant acted knowingly. Tr. 1584-85. Over the government's objection (R. 75), the jury also was instructed that, to find spoofing, the government must have proven that,

> at the time [defendant] entered the bid or offer specified in the count . . . , he intended to cancel the entire bid or offer before it was executed and that he did not place the bid or offer as part of a legitimate good faith attempt to execute at least part of that bid or offer. The government must prove that [defendant] had the purpose or conscious desire to cancel his bid or offer before it was executed. It is not, however, sufficient for the government to prove that [defendant] knew or should have known that the consequence—that is, cancellation of the bid or offer before execution—was substantially likely to occur.

Tr. 1584-85.

On November 2, 2015, the jury convicted defendant of all counts.[11] App. 1; Tr. 1592-96.

Post-Trial Motions

In a post-trial motion for judgment of acquittal or a new trial, defendant raised a number of issues, including two of the issues raised on appeal. R. 96, 97. The district court denied the motion. App. 67. The court again rejected defendant's vagueness challenge to the anti-spoofing statute. App. 73-74. It found ample evidence of spoofing. App. 74. It also found sufficient evidence that defendant committed commodities fraud, including by fraudulently using his

[11] Summarizing the trial evidence, defendant says that, "[a]t trial, the Government did not prove that Coscia's larger orders were false or deceptive or that he intended to cancel them 'immediately.'" Br. 18. In light of the instructions given to the jury, that precisely is what the jury found.

large orders to "manipulate the market for his own financial gain." App. 70-71.

Sentencing

At defendant's sentencing hearing, the district court calculated defendant's offense level as follows:

Base offense level (U.S.S.G. § 2B1.1(a)(1))	7
Enhancement for gain to defendant of more than $550,000 but less than $1,500,000 (U.S.S.G. § 2B1.1(b)(1)(H))	+14
Enhancement for sophisticated means (U.S.S.G. § 2B1.1(b)(10)(C))	+2
Enhancement for abuse of public or private trust or use of a special skill (U.S.S.G. § 3B1.3)	+2
Enhancement for obstruction of justice on the basis of perjuring himself at trial (U.S.S.G. § 3C1.1)	+2

App. 15-30; PSR at 7-9.

The district court's calculations resulted in an adjusted offense level of 27, which, coupled with a criminal history of I, yielded an advisory Guidelines range of 70 to 87 months' imprisonment. App. 30. The district court sentenced defendant to 36 months' imprisonment. App. 2.

SUMMARY OF ARGUMENT

The jury's verdict was supported by substantial evidence. Defendant entered and cancelled the large-volume orders intending that the orders would not be traded. He placed the orders for a purpose other than to fill them. They

were bait or, in defendant's own words, decoys. This constitutes spoofing: He placed the orders with the intent to cancel them. It also constitutes commodities fraud: He schemed to deceive other traders about market supply and demand, to create the illusion of significant market activity at increasing or decreasing prices, and, ultimately, to fill his small orders—buying low and selling high—at prices that had not existed in the order book when he placed those orders.

Defendant had fair notice that this conduct violated the anti-spoofing statute. The statute contains a definition of spoofing: bidding or offering with the intent to cancel the bid or offer before execution. That definition was provided to the jury. The jury found that defendant engaged in the proscribed conduct. Because defendant's challenge does not implicate First Amendment concerns, whether the statute also provides adequate notice to hypothetical traders engaged in hypothetical conduct is not an issue that should be resolved in this case.

Defendant argues that, for the commodities fraud counts, the jury should have been instructed that the fraud must have been "reasonably calculated to deceive persons of ordinary prudence." Br. 30. Defendant waived this argument, not only by failing to propose this instruction in the lower court, but by affirmatively requesting a materiality instruction substantially similar to

the pattern instruction given. R. 59 at 6; R. 74 at 5. In any event, the district court's use of the pattern instruction on materiality was correct.

Defendant also wages a sentencing challenge, arguing that the district court erred in using defendant's $1.4 million gain as a measure of loss under Guideline § 2B1.1. The trial testimony established that defendant's fraud caused losses to other traders, ranging from $480 to the low hundreds of thousands of dollars. But defendant placed millions of orders, and his trading data, if printed, would take up about 14 million pieces of paper. Due to the sheer volume of data, and the complex task of estimating loss to other traders, the district court held that actual loss could not reasonably be determined. Under these circumstances, the district court properly used gain as a proxy for loss.

ARGUMENT

I. The Anti-Spoofing Statute is Not Unconstitutionally Vague as Applied to Defendant's Conduct.

A. Standard of Review

The district court's legal conclusions regarding the constitutionality of the anti-spoofing statute are reviewed *de novo*. *United States v. Morris*, 821 F.3d 877, 879 (7th Cir. 2016).

B. Analysis

1. The Anti-Spoofing Statute Provided Defendant Fair Notice that His Conduct Was Prohibited.

The anti-spoofing provision of the CEA provides:

> It shall be unlawful for any person to engage in any trading, practice, or conduct on or subject to the rules of a registered entity that is . . . "spoofing" (bidding or offering with the intent to cancel the bid or offer before execution).

7 U.S.C. § 6c(a)(5)(C). Knowing violation of the anti-spoofing provision is a felony. *Id.* § 13(a)(2).

Defendant concedes that the district court applied the correct legal standard in dismissing his vagueness challenge to the statute: "A statute is unconstitutionally vague if it fails to give ordinary people fair notice of the conduct it punishes, or is so standardless that it invites arbitrary enforcement." *Morris*, 821 F.3d at 879 (internal marks and alteration omitted); G. App. 5. Defendant also agrees, as he must, that the district court properly judged the statute on an as-applied basis. Br. 35. Established law provides that "[v]agueness challenges to statutes not threatening First Amendment interests are examined in light of the facts of the case at hand." *Maynard v. Cartwright*, 486 U.S. 356, 361 (1988). Rather, defendant's argument is a more limited one: that he could not reasonably have known that his conduct—bidding or offering with the intent to cancel the bid or offer before execution, defined by the statute as spoofing—would run afoul of the statute.

Defendant's position cannot be reconciled with the plain text of the statute and his conduct as proven at trial. The jury was instructed that, to find defendant guilty of Counts 7 through 12, he must have knowingly engaged in spoofing, which the court defined as "bidding or offering with the intent to cancel the bid or offer before execution." Tr. 1584-85. The jury was instructed that it needed to find that, at the time defendant entered the bid or offer, "he intended to cancel the entire bid or offer before it was executed," that "he did not place the bid or offer as part of a legitimate good faith attempt to execute at least part of that bid or offer," and that he "had the purpose or conscious desire to cancel his bid or offer before it was executed." *Id*. In short, the jury found that, at the time defendant placed his large orders, he intended to cancel the entirety of those orders.

The anti-spoofing statute gave defendant fair notice that this conduct was unlawful. The types of statutes the Supreme Court has declared unconstitutionally vague have been those that "tie[ ] criminal culpability to . . . wholly subjective judgments without statutory definitions, narrowing context, or settled legal meanings." *Holder v. Humanitarian Law Project*, 561 U.S. 1, 20-21 (2010). But the anti-spoofing statute did not prohibit spoofing and leave the definition of spoofing for courts and traders to ponder and discuss. It contains a parenthetical definition of spoofing—"bidding or offering with the intent to cancel the bid or offer before the execution"—and this definition was

provided to the jury. This is significant. The jury found that the defendant engaged in *precisely* the type of trading activity that the statute says is unlawful. There hardly could be a clearer example of fair notice. *Id.* at 20-21 (dismissing vagueness challenge where "reasonable person would recognize" that his conduct was prohibited); *United States v. Powell*, 423 U.S. 87, 93 (1975) (a statute is not vague where it "intelligibly forbids a definite course of conduct"); *United States v. Lim*, 444 F.3d 910, 915 (7th Cir. 2006) ("A challenge to a statute's vagueness may be overcome in any specific case where reasonable persons would know that their conduct is at risk" (internal marks omitted)).

Defendant contends that the parenthetical that appears after the word "spoofing" in the statute was not intended by Congress as a definition, and cites *Chickasaw Nation v. United States*, 534 U.S. 84, 89 (2001), for the proposition that the "use of parenthesis emphasizes the fact that that which is within is meant simply to be illustrative." Br. 41-42. Defendant misreads the case. The statute in *Chickasaw Nation* was a subsection of the Indian Gaming Regulatory Act, which stated, in part: "The provisions of Title 26 (including sections 1441, 3402(q), 6041, and 6050I, and chapter 35 of such title) . . ." 25 U.S.C. § 2719(d)(1). The contents of the parenthesis in that example *were* illustrations of the phrase that preceded it, given that the text inside of the parenthesis started with the word, "including." The same rule does not hold where the parenthetical contains an actual definition or modifier, as the both

Supreme Court and this Court have recognized.[12] *See Lopez v. Gonzales*, 549 U.S. 47, 52-53 (2006) (reading parenthetical in 8 U.S.C. § 1101(a)(43)(B)—defining aggravated felony to include "a drug trafficking crime (as defined in section 924(c) of title 18)"—to modify the remaining words of the statute so that only federal felonies qualified); *Desai v. Mukasey*, 520 F.3d 762, 765-66 (7th Cir. 2008) (recognizing the limiting role definitional parentheticals can play in statutes, including in *Lopez*); *Nutrilab, Inc. v. Schweiker*, 713 F.2d 335, 338 (7th Cir. 1983) (holding that the statutory phrase, "articles (other than food)," clearly applied only to non-food articles).

Defendant complains that no court of appeals has interpreted the anti-spoofing statute,[13] the CFTC has not issued binding guidance, and there has been significant debate in the trading industry about spoofing. Br. 42-44. Although this may be true, it is irrelevant. The statute itself defines spoofing, and in so doing, it gives discrete meaning to the challenged term. Defendant says Congress was "mistaken" that spoofing is a term of art (Br. 40), but term of art or not, Congress gave it a non-vague definition that left no ambiguity

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[12] The statutory definition of spoofing distinguishes the anti-spoofing statute from 7 U.S.C. § 6c(a)(2)(A)(i), cited by defendant, which prohibits any transaction that "is, of the character of, or is commonly known to the trade as, a 'wash sale' or 'accommodation trade.'" In that provision, the terms "wash sale" and "accommodation trade" appear in quotation marks but are not statutorily defined.

[13] Two district courts—Judge Leinenweber in this case and Judge St. Eve in a civil case—have held that the anti-spoofing statute is not unconstitutionally vague as applied. *See CFTC v. Oystacher*, 2016 WL 4439945, at *5 (N.D. Ill. Aug. 23, 2016). By the government's research, no court of appeals has yet addressed the issue.

about whether defendant's conduct was illegal. In any event, much of the cited industry debate has centered on what it means to be "of the character of" or "commonly known in the trade as" spoofing. These phrases appear in conjunction with the statutory prohibition on conduct that "is spoofing," but they are not at issue in this case.[14]

Citing two examples, defendant asserts that the district court offered "shifting interpretations" of the anti-spoofing statute that underscore its vagueness. Br. 36-39. It is not clear how the district court's discussion of defendant's conduct after the trial—years after his criminal conduct and months after his trial that led to conviction—could have affected whether defendant had fair notice that his conduct was illegal.

Nonetheless, there were no shifting interpretations, particularly when the cited examples are placed in context. The first example comes from the district court's order denying the post-trial motion, in which the district court described the anti-spoofing statute, generally, as applying only "when there is intent to defraud by placing illusory offers (or put another way, by placing offers with the intent to cancel them before execution)." App. 74. Read in context, the district court was simply using a well-known short-hand phrase

[14] Prior to trial, the government provided notice that it would proceed on the theory that defendant's conduct was spoofing, rather than was of the character of or commonly known as spoofing. R. 53.

("intent to defraud") to distinguish defendant's criminal conduct from the hypothetical good-faith trading that the jury was told was not prohibited. Tr. 1584-85. The second example is from defendant's sentencing hearing, where, speaking colloquially, the district court noted that defendant "manipulated the market, that [his trading] caused the market for a specific lot to go up one tick and, therefore, he was able to sell high." App. 17. This is factually accurate. Defendant was not charged with or convicted of market manipulation under 7 U.S.C. § 9 or price manipulation under 7 U.S.C. § 13(a)(2), but, as a factual matter, even though not a required finding, defendant did engage in conduct that was intended to distort or manipulate the market. The district court was entitled to consider this aspect of his conduct in determining his sentence.

2. The Anti-Spoofing Statute Does Not Invite Arbitrary Enforcement.

A second component of defendant's challenge is the assertion that the anti-spoofing statute is so vague that it allows arbitrary enforcement by the government. For example, defendant complains that the statutory definition of spoofing criminalizes "commonplace trading activity," including because of the difficulty of distinguishing between defendant and hypothetical "other traders who collectively entered nearly 630 million orders that were cancelled within a second." Br. 2, 39, 44-45 (emphasis removed).

Defendant is not one of those hypothetical legitimate traders and does not have standing to challenge the statute as applied to them. A defendant "who engages in . . . conduct that is clearly proscribed cannot complain of the vagueness of the law as applied to the conduct of others." *Humanitarian Law Project*, 561 U.S. at 18-19 (internal marks omitted). Instead, he must establish that *his* indictment resulted from arbitrary enforcement. The inquiry is whether defendant's conduct falls so squarely in the core of what is prohibited by the law that there is no substantial concern about arbitrary enforcement. *Farrell v. Burke*, 449 F.3d 470 at 493-94 (2nd Cir. 2006). There is no such concern here.

The spoofing statute distinguishes between legitimate and illegitimate trading. By its plain text, the anti-spoofing statute is not violated except in those instances where a trader intends to cancel an order at the time he places that order. This is clear from the statute's use of the phrase, "the intent to cancel." In this context, "the" is a restrictive term; it is used to signal the qualifying or defining phrase that follows. *See* Webster's Third New International Dictionary 2368 (1986). This suggests that specific intent is required. The trader must enter his order for a purpose other than to fill it.

The intent requirement is significant to the constitutional analysis. This Court has said that, where the government must prove "intent and knowledge," it "destroy[s] any force in the argument that application of the statute would

be so unfair that it must be held invalid." *United States v. Calimlim*, 538 F.3d 706, 711 (7th Cir. 2008) (internal marks and alterations omitted); *United States v. Jackson*, 983 F.2d 757, 765 (7th Cir. 1993) (intent requirement "significantly diminishes the statute's susceptibility to discriminatory enforcement"). The intent requirement here distinguishes the conduct criminalized by the statute from high-frequency trading strategies that use, for example, stop-loss (an order to sell a security once it reaches a certain price) and fill-or-kill (an order that must be executed in full immediately, or the entire order is cancelled) orders. In those strategies, the trader intends to fill the orders, under specific circumstances. The anti-spoofing statute, by contrast, criminalizes the placing of orders where the trader has no intention of executing the orders, which typically is done to strategically move markets.

Defendant's conduct falls squarely in the core of what is prohibited by statute. The jury found that defendant did *not* engage in "commonplace trading activity," Br. 2, or routine cancellations of the type seen in other high-frequency trading. His placing and cancelling of large-volume orders was *not* done in a legitimate way. He placed the orders with the intent to cancel them, which is precisely what the statute prohibits, and he did so in an effort to mislead the market.

Defendant's final argument is that the statute is vague and will continue to invite arbitrary enforcement unless interpreted by this Court to be

applicable only to orders "not subject to genuine execution risk." Br. 48. This interpretation makes no sense. There is no such thing as a fake bid or offer. A trader cannot enter an order that is anything but "real and tradeable." Tr. 1384 ("The order doesn't get to the market and get displayed in the book unless it's a real tradable order."). Likewise, there could be no cancellation if there was no order. As a result, in prohibiting certain types of bids or offers (those placed with the intent to cancel), Congress cannot have meant anything but orders subject to execution risk.

II. The Jury's Verdict on the Spoofing Charges Was Amply Supported by the Evidence.

A. Standard of Review

When considering a challenge to the sufficiency of the evidence, this Court will "draw all reasonable inferences in the light most favorable to the prosecution and uphold the verdict if any rational trier of fact could have found the essential elements of the crime beyond a reasonable doubt." *United States v. Khattab*, 536 F.3d 765, 769 (7th Cir. 2008). The conviction may be based on reasonable inferences from circumstantial evidence, *see United States v. Galati*, 230 F.3d 254, 257-59 (7th Cir. 2000), and the Court will not "weigh the evidence or second-guess the [trier of fact's] credibility determinations," *United States v. Stevens,* 453 F.3d 963, 965 (7th Cir. 2006). Thus, the Court should overturn a verdict for insufficiency of the evidence only "if the record is devoid

of the evidence from which a reasonable jury could find guilt beyond a reasonable doubt." *United States v. Stevenson,* 680 F.3d 854, 856 (7th Cir. 2012).

B. Analysis

In challenging the anti-spoofing statute as vague, defendant argues, in passing, that his spoofing convictions were not supported by the evidence. Br. 47. According to defendant, there was no evidence he harbored an "unconditional intent to cancel his trades before execution." *Id*.

As discussed above, to convict a defendant of spoofing under 7 U.S.C. §§ 6c(a)(5)(C) and 13(a)(2), the government must prove beyond a reasonable doubt that defendant knowingly entered the specified bids or offers with the intent to cancel the bid or offer before execution. Tr. 1584-85. There is no question in this case that defendant entered and cancelled the large-volume orders charged in the indictment; the only question is whether a rational jury could have concluded that he knowingly entered those orders intending that they would not be traded.

The trial evidence established that defendant used his large orders as bait, intending, from the time he entered the orders, that they would be cancelled. Park testified that, according to defendant, the small orders were to be traded, the large orders were "decoy[s]," intended not to trade but to "pump the market," and the large orders should be cancelled as soon as the small order

was filled and/or if any part, even a single contract, of the large orders were filled. Tr. 255, 263, 282, 379, 465-67, 472-80, 498, 502. The jury learned that defendant, in practice, followed through on his stated intent to cancel his large orders. Tr. 254-55, 260-66, 272-82, 348, 378-382, 408, 653. Hundreds of thousands of times, defendant followed the same pattern of placing a small order at a price not available in the market, placing a series of large orders at improving prices, and cancelling the large orders as soon as the market moved to fill his small order. *Id.* Contrary to defendant's assertion that he is indistinguishable from his fellow traders, the evidence showed that his trading was substantially different. He placed and cancelled more large orders, and he was the only trader regularly cancelling large orders immediately after filling small orders. Tr. 289-352; R. 177-63 to 65.

This evidence was more than sufficient to permit the jury to conclude that defendant knowingly used his large orders for a purpose other than to fill them. Notably, defendant testified at trial that he intended to trade all of his orders, including large orders, and only cancelled the orders because of changes in market conditions. *See, e.g.,* Tr. 1028-45. Defendant's attorneys urged the jury to acquit defendant for this reason. *See, e.g.,* Tr. 171, 1489-94. The jury was entitled to reject this version of events, based on all of the evidence. Notably, even in the examples cited by the defense, where a small number of large orders were partially filled by counterparties, the evidence showed that

the defendant had attempted to cancel those orders, many times over, but did not do so quickly enough. Tr. 1343, 1349-1355.

In short, the jury credited the government's evidence and found defendant guilty. While defendant can continue to assert that his algorithm comported with market conditions and trade and practice, the jury through its verdict found it did not. Defendant essentially requests that this Court reevaluate the evidence as if it were the jury, which is not the purpose of appellate review. *See United States v. Hampton,* 585 F.3d 1033, 1042 (7th Cir. 2009).

III. The Jury's Verdict on the Commodities Fraud Counts Was Based on Proper Instructions and Amply Supported by the Evidence.

A. Standard of Review

In reviewing defendant's challenge to the sufficiency of the evidence of commodities fraud, the Court will uphold the verdict if any rational trier of fact could have found defendant guilty. *Khattab*, 536 F.3d at 769. The Court reviews the district court's legal analysis, including its jury instructions, *de novo*. *United States v. Mancari*, 463 F.3d 590, 595 (7th Cir. 2006).

B. Analysis

Section 1348(1) makes it a crime to "knowingly execute[ ] . . . a scheme or artifice . . . to defraud any person in connection with any commodity for future delivery." 18 U.S.C. § 1348(1). As the jury was instructed, the elements

of this charge are: (1) fraudulent intent; (2) a material scheme or artifice to defraud; and (a) a nexus with a security or commodity. *Id.*; *Mahaffy*, 693 F.3d at 125.

Defendant's arguments on the commodities fraud counts are two-fold. First, although defendant appears to agree that the jury was properly instructed that a scheme to defraud requires intent to deceive or cheat, he says that, as a matter of law, the jury could not rationally have found that his conduct was deceptive because his "orders were open and available for execution in the marketplace." Br. 27-29. Second, defendant argues that the district court misdefined materiality for the jury, using this Court's pattern instruction. Br. 29-35. The second argument is waived and both arguments are without merit.

1. The Jury's Finding that Defendant Intended to Deceive or Cheat Was Well Supported by the Evidence.

The evidence at trial was more than sufficient to permit a rational jury to conclude that defendant intended to deceive or cheat other market participants.

As a threshold matter, defendant repeatedly asserts that the government did not prove his conduct "false" or "deceptive." The parties agreed below that, unlike the subsection immediately following it, § 1348(1) does not require a false statement. R. 74 at 7 (defense proposing jury instruction that

"a scheme to defraud need not involve any false statement or misrepresentation of fact"); *Mahaffy*, 693 F.3d at 125 (§ 1348 does not require a false statement); *cf.* 18 U.S.C. § 1348(2) (prohibiting the use of false representations in connection with commodities futures trading). To the extent defendant is urging a different interpretation on appeal, it is waived and meritless in any event. A scheme to defraud requires that defendant intended to deceive or cheat another for money or property and took action capable of influencing the persons to whom it was addressed. *McNally v. United States,* 483 U.S. 350, 358 (1987) ("to defraud" signifies "trick, deceit, chicane or overreaching").

The trial evidence proved that defendant designed a scheme to deceive and cheat others. This scheme included defendant's spoofing and was proven by the same evidence summarized above: the testimony of defendant's computer programmer about defendant's intent to use large orders as decoys to pump the market; defendant's trading patterns, which showed abnormally high cancellation rates of large orders coupled with abnormally high fill rates of small orders; and defendant's own implausible explanation, refuted by data that proved that defendant lied when he said that he wanted to fill his large orders. *See, e.g.,* Tr. 254-55, 260-66, 272-282, 378-382, 465-67, 472-80, 498, 502, 1028-45, 1343, 1349-1355. All of this proved that defendant was using his large orders to create the illusion of significant market activity at increasing or

decreasing prices.

But the fraud also is evident in what defendant did after cancelling his large orders. He did not exit the market. He doubled down. He flipped to the opposite side of the market and reversed course. He intended to catch other traders in the full-loop cycle, buying low and selling high, and to profit from their susceptibility to illusory supply and demand. *See, e.g.,* Tr. 784, 797-98.

To be sure, defendant used orders that were "fully executable," insofar as, if other traders were quick enough, they could fill the orders. Br. 27. This does not mean that the orders were not fraudulent. Defendant confuses *illusory* orders with an *illusion* of market movement. Defendant's orders were real, but he carefully calculated his use of the orders to create illusory market movement. He did not intend to trade the orders at the price at which he entered them, yet he caused the market to move by making it appear as if he intended to fill them. This was deceptive. The orders contributed to other traders' understanding that market prices were shifting, when, in reality, defendant intended to cancel the orders from the start.

Indeed, defendant's use of real orders is what made his scheme successful: The orders typically were on the market just long enough to trigger a market reaction. Defendant used his knowledge and expertise to estimate the optimum length of time to keep his orders active in the market, to catch the attention of other traders, but without risking order fulfillment.

Tr. 1017-18, 1083 (defendant acknowledging on cross-examination that he kept orders active on the market long enough to influence the market). He also strategically selected price levels that were high or low enough not to risk fulfilment but close enough to the best bid or offer that the market noticed the change in supply and demand. All of these things prove that, although the orders were real, defendant used them as part of a scheme to defraud with intent to defraud.

It also is significant that defendant's trial attorneys argued the same theory they press on appeal. In opening statements, defense counsel represented that the evidence would show that defendant "didn't cheat," "didn't trick," "didn't deceive anyone," because "[e]very order to buy or sell a futures contract . . . was a real, legitimate order." Tr. 170. Defense counsel elicited from witnesses the fact that his orders were real and tradeable. *See, e.g.*, Tr. 234 ("Q. . . . [A]ny order that's actually in the order book resting is tradable, is it not? A. It is."). In closing argument, defense counsel urged the jury to acquit because "[t]he prosecution now apparently concedes that orders in the order book were real orders available to be traded." Tr. 1472-73. After being instructed on the law, including that defendant is guilty only if he intended to deceive or cheat, the jury soundly rejected defendant's arguments in light of the substantial evidence presented by the government.

This case is not like *United States v. Radley*, 659 F. Supp. 2d 803 (S.D.

Tex. 2009), *aff'd on other grounds*, 632 F.3d 177 (5th Cir. 2011),[15] the district court case from Texas cited by defendant. In that case, natural gas traders who worked for BP were charged with price manipulation, in violation of 7 U.S.C. § 13(a)(2), and wire fraud, in violation of 18 U.S.C. § 1343. The traders were alleged to have artificially inflated the price of TET propane, which was to BP's advantage when it sold propane. 659 F. Supp. 2d at 806-09. They did this, according to the indictment, by buying contracts for the delivery of large amounts of TET propane, even though BP had no commercial need for TET propane. *Id*. They also used stacked and best bids, which means that they entered multiple bids at the same time. *Id*. at 815.

On the traders' motion, the district court dismissed the price manipulation and wire fraud counts. 659 F. Supp. 2d at 810-20. The court found that trading of TET propane is unique because it is done by bilateral, direct negotiation between parties, and is not executed on a trading facility, so it falls within an exception to the price manipulation statute under 7 U.S.C. § 2(g). 659 F. Supp. 2d at 810-12. In *dicta*, the court then opined on the merits of the defendants' constitutional challenge, holding that § 13(a)(2) was vague as applied to the defendants. *Id*. at 810-16. The court's primary concern was that the alleged misconduct—purchasing propane without an actual use for

[15] The Fifth Circuit affirmed on the ground that the transactions were exempt under § 2(g) and did not reach the alternative constitutional holding.

the propane—was not "unquestionably criminal." *Id*. at 815. It noted that many traders are "speculators attempting to make profits based on movement in prices of commodities and other products with no intention of ever consuming or producing them," and there is no "law or case" that prohibits trading for profit. *Id*. The court also was unpersuaded that the stacked and best bids were criminal because they were actual bids, the defendants went through with the transactions when the bids was accepted, and they made no false statements when bidding. *Id*. The court dismissed the wire fraud counts for the same reason, finding that there was no allegation of a misrepresentation constituting fraud.[16] *Id*. at 820.

Radley is inapplicable here. Defendant was not charged with price manipulation or wire fraud, and has not pursued a vagueness challenge to § 1348(1) on appeal. A false statement is not required under § 1348(1), only deceptive conduct is. Moreover, defendant here, unlike the defendants in *Radley*, engaged in conduct that is "unquestionably criminal." 659 F. Supp. 2d at 815. Defendant did not purchase products that he did not intend to consume, nor did he simply place multiple bids into the market, the alleged conduct in *Radley*. He did all of the things that *Radley* cited as potentially criminal but

[16] *Radley*'s holding has been controversial among district courts. *See, e.g.*, *CFTC v. Parnon Energy Inc.*, 875 F. Supp. 2d 233, 247 n.2 (S.D.N.Y. 2012); *Anderson v. Dairy Farmers of Am., Inc.,* No. 08-4726, 2010 WL 3893601, at *6 (D. Minn. Sept. 30, 2010).

not alleged in that indictment: He used his multiple orders to manipulate the "forces of supply and demand." *Id*. He did not "follow through on all of the bids," instead cancelling his bids before they could be filled. *Id*. And he caused "misconception" about his orders, namely, that he intended to trade them. *Id*. As a result, defendant's orders were misleading.

2. The District Court Properly Instructed the Jury on Materiality.

Defendant also says that the Court should vacate his commodities fraud convictions because the government did not prove that his large quote orders deceived other traders, which he argues is necessary to sustain a conviction under § 1348(1). Br. 29. He says that the district court wrongly used this Court's pattern instruction on materiality—requiring that the wrongdoing was "capable of influencing the decision of the person to whom it is addressed" (Tr. 1590)—instead of requiring that the fraud was "reasonably calculated to deceive persons of ordinary prudence." Br. 30. He alleges that, had the jury been so instructed, it would not have found defendant's scheme material because other traders could not have had a reasonable expectation about how long defendant's orders would remain active in the market before cancellation. Br. 31-33.

Defendant waived this argument. He did not propose the "reasonably calculated to deceive persons of ordinary prudence" instruction that he now

says that should have been used at trial. Not once during the trial were the phrases, "reasonably calculated" or "ordinary prudence" mentioned, including at the jury instruction conference. Instead, in both a pretrial set of proposed instructions and a supplemental set of instructions filed during trial, the defense proposed that the jury be instructed that a "fact or matter is material if it is capable of influencing the decision of the person[s] who learn[s] of it," a slight variation on the pattern instruction used.[17] R. 59 at 6; R. 74 at 5. Defendant now says that this is "not an appropriate standard for commodity fraud," Br. 30, but he has waived his objection, including by affirmatively proposing that standard at trial. *United States v. Natale,* 719 F.3d 719, 729 (7th Cir. 2013) ("[A] defendant's affirmative approval of a proposed instruction results in waiver."). Waiver forecloses this Court's review. *Id.*

Even absent waiver, the jury's instructions were correct. Other market participants need not have been actually deceived by defendant's strategy. The strategy need only have been capable of deceiving its audience. *United States v. Tadros*, 310 F.3d 999, 1006 (7th Cir. 2002). *Neder v. United States,* 527 U.S. 1 (1999), holds that, under the federal fraud statutes, the government must

[17] During trial, defendant did file a motion requesting a detailed instruction on the definition of a scheme to defraud. R. 74. As to materiality, however, the proposed instruction repeated the previously-proposed definition of materiality: that the wrongdoing must be "capable of influencing the decision of the person[s] who learn[s] of it." *Id.* at 6. The district court declined to give defendant's proposed instruction, including because it was an "excessively wordy, potentially confusing formulation of what the Government had to prove." App. 75; Tr. 981.

prove that the deceptive conduct underlying the scheme to defraud "ha[d] a natural tendency to influence or [was] capable of influencing, the decision of the decisionmaking body to which it was addressed." *Id.* at 16. This standard was codified in this Circuit's Pattern Instructions, and the district court properly adhered to the pattern definition in instructing the jury. *See* Seventh Circuit Pattern Instructions (2012), p. 399; *United States v. Marr,* 760 F.3d 733, 744 (7th Cir. 2014) (presuming "that the Pattern Criminal Jury Instructions for the Seventh Circuit correctly state the law").

The jury's judgment that defendant's conduct was capable of influencing other traders' conduct was reasonable and well supported. In fact, even were actual deception required, the trial record is replete with evidence of it. Traders observed the spoofing later tied to defendant and were deceived by it. Defendant says that investors must have considered his fraud important in making their decisions, and this is precisely what the market participants said about the fraud: It *was* important to them. Their computer algorithms were induced to trade on defendant's small orders, deceived by the illusion of market activity. *E.g.,* Tr. 636 (large orders induced firm to fill small orders); Tr. 649-55 (computer program was tricked by large orders, which created illusion of oversupply); Tr. 696 (computer program induced to trade by substantial buyer/seller imbalance, which it interpreted as a signal to buy small orders); Tr. 1185 (defense expert acknowledging that selective use of large orders "can

be" important in trader's decision to trade). In short, these traders were capable of being influenced and were influenced by defendant's fraudulent trading strategy. In fact, the defendant's scheme exerted such a powerful influence on certain market participants that it caused them to reduce their trading or temporarily withdraw from the relevant market altogether. Tr. 664, 710, 742-48.

Defendant argues that his conduct was not materially deceptive because his victims were "sophisticated, professional commodity futures traders" who were "knowledgeable about the markets." Br. 34. Inexplicably, defendant nonetheless suggests that the jury should have been instructed that defendant's conduct needed to have been reasonably calculated to deceive "persons of ordinary prudence," suggesting a target audience broader than one consisting of commodities traders. By contrast, the pattern instruction used by the district court properly directed the jury's attention to defendant's intended audience of commodities traders—the persons to whom the fraud was addressed. Tr. 1590. Another inexplicable part of the instruction defendant now proposes is that it would require defendant's orders to be "reasonably calculated" to deceive. But the jury was instructed on specific intent, using a standard more demanding than defendant's belatedly-proposed one: Per its instructions, the jury found defendant "intended to deceive or cheat another." Tr. 1583.

Defendant cites *United States v. Finnerty*, 474 F. Supp. 2d 530, 537 (S.D.N.Y. 2007)*, and Sullivan & Long, Inc. v. Scattered Corp*., 47 F.3d 857 (7th Cir. 1995). Neither is applicable. In *Finnerty,* the defendant was charged with securities fraud, in violation of 15 U.S.C. § 78j(b) and § 78ff. The question was whether the defendant's alleged interpositioning—trading for the firm's proprietary account by buying stocks from one customer and selling them to another—was deceptive. The district court held that deception requires the government to prove that the customers expected that the defendant would not do this. 474 F. Supp. 2d at 538-40. Likewise, in *Sullivan & Long*, a civil securities action, the plaintiffs alleged that defendant manipulated the market by short selling shares of a bankrupt company, betting on the prediction that the company would decline. 47 F.3d at 859-61. This Court held that the plaintiffs had not identified a rule that the trader violated. *Id*. at 861. Neither of these cases address materiality, which is the context in which defendant cites them. The cases stand for the undisputed proposition that a scheme to defraud requires deception. The jury here was instructed that defendant's conduct had to be deceptive—he needed to intend to cheat the market—and it found that requirement satisfied by the government's abundant trial evidence.

IV. The District Court Properly Applied a 14-Level Enhancement Under Guideline § 2B1.1(b).

A. Standard of Review

This Court reviews district courts' interpretation and application of the Guidelines *de novo* and its findings of fact for clear error. *United States v. White,* 737 F.3d 1121, 1139 (7th Cir. 2013).

B. Background

Defendant executed hundreds of thousands of trades over the course of 10 weeks in approximately 20 different markets. Defendant's trading loop generally occurred in two-thirds of a second. He employed his strategy nearly every trading day, for hours at a time. Just on CME Group exchanges, defendant entered 453,604 large orders between August and September 2011. Tr. 391. Given his large number of orders, across exchanges, the volume of trading data is enormous.

As a result, at defendant's sentencing hearing, the government argued that the losses caused by defendant's conduct could not reasonably be calculated but that, pursuant to Application Note 3(B) of Guideline § 2B1.1, defendant's base offense level should be increased by 14 levels using his gain of $1.4 million as an alternative measure of loss. App. 20-22. The government noted that assessing actual losses to those fraudulently induced to trade with defendant would require extensive analysis of voluminous trading data, which

is beyond the bounds of reasonableness. *Id*. In support, the government attached to its sentencing papers a transcript of traders' testimony at trial about losses attributable to defendant's fraud. App. 22; PSR at 7.

In response, the defense argued that, "in order to apply any loss enhancement, the government must prove the loss amount by a preponderance of the evidence," but "[t]he government has not established that [defendant's] subject trading strategies are the cause . . . of any loss whatsoever." App. 16-17 (arguing that there is "nothing preventing the government from specifically tallying the losses suffered by the testifying traders").

The district court agreed with the government that a 14-level enhancement using gain as a proxy for loss was proper:

> I'm going to rule in favor of the 1[4]-level enhancement . . . . [T]here was—had to be a loss somewhere. For someone to have made a $1,400,000 in ten weeks's [sic] time that somebody must have lost. And there were individuals who testified that he did lose. And as the government pointed out, to have to interview every single customer who traded at the time of the spoofing would be impractical, so it—the alternative is that if the loss cannot reasonably be determined, then the gain is the proxy for it, so the Court will overrule the objection and enhance by 14 levels.

App. 25. In analyzing the 18 U.S.C. § 3553(a) factors, however, the district court cited as a reason for its downward departure from the Guidelines the difficulty of accurately calculating losses to other traders. App. 57-58.

C. Analysis

Although he admits that he did make $1.4 million from the trading

strategy in question (Tr. 1088), defendant contends that the government did not establish that he caused losses to other traders or that substituting gain as a proxy for loss is appropriate. Br. 51-56. Both arguments are belied by the record.

The trial transcript, excerpts of which were provided to the district court in support of the enhancement at sentencing, contains substantial evidence that defendant's spoofing caused losses. Defendant focuses on the court's comment about defendant's trading being zero-sum—he made $1.4 million so the counterparties must have lost—but ignores the remainder of the court's analysis, including its crediting of "individual[s] who testified that [they] did lose." App. 25. These individuals included traders from firms who were on the opposite side of defendant's trades and testified that their computer algorithms were induced to make losing trades because of the false impression that defendant's large quote orders created. For example, a trader from Citadel, who was on the opposite side of one of defendant's small trades during a spoofing cycle, testified that his company lost at least $480 on the trade because it had to sell 2 points lower than it bought. Tr. 635. A trader from Teza Technologies testified that, because his computer program was tricked by the illusory oversupply of the market, the company sustained losses of approximately $10,000. Tr. 655-56. A trader from GSA Capital testified that he "los[t] a substantial amount of money," estimated to be in the "low hundreds

of thousands of dollars," due to "very substantial buyer/seller imbalance on the market." Tr. 696-97, 710.[18] In addition, many traders testified that they were forced to exit the market as a result of the spoofing and that their non-participation had incalculable opportunity costs. Tr. 664, 710, 742-48.

To be sure, these witnesses did not testify that defendant was responsible for their losses. Electronic trading is anonymous, so they could not have known defendant's identity. But, as discussed at length above, the government proved independently through trading data that the trading about which these victims testified was defendant's trading, based on unique identifiers like his Tag 50. *See, e.g.,* Tr. 355, 360, 367-71, 400.

Defendant complains that the government did not proffer specific evidence of these losses and the losses cannot be estimated with precision. There is no requirement that the court find a particular loss number before it may use gain as an alternative measure, or that gain be a reasonable estimate of loss. In fact, even "probable loss" is sufficient to justify the use of gain as a proxy for loss. *United States v. Vrdolyak*, 593 F.3d 676, 681 (7th Cir. 2010) (even a "probable loss" is a "'loss' within the meaning of the guideline" because any stricter rule would "give the defendant a sentencing break").

Here, requiring the government to calculate a precise loss figure would

[18] The only person at trial who said that defendant "improved the market" was the defendant himself. Tr. 1079-80.

not have been reasonable. To begin, the data of defendant's trading is enormous. Defendant's trading data spanned "millions of records." Tr. 1344. One of defendant's experts stated that he received over 700 million rows of trade data, which, if printed, would take about 14 million pieces of paper. Tr. 1211. The data was "simply . . . too voluminous" to yield a reasonable estimate. Tr. 379.

Moreover, the extent of losses to traders on the other side of defendant's orders would have depended upon a complex assessment of when the traders exited their positions (buying or selling immediately or later in time) and their overall trading strategy. For example, a trader who was caught in a full cycle of defendant's spoofing activity where defendant made a profit—meaning that they bought and sold with defendant or *vice versa*—would have sustained losses. A trader who was fraudulently induced to buy or sell contracts in half of one defendant's cycles—before defendant repeated the cycle on the other side of the market—could have held his position and lost money, depending on his overall trading strategy. Traders who had to exit the market when their algorithms were affected by defendant's spoofing activity also lost money. But calculating these losses would have required obtaining each trader's trading data and reverse engineering what would have occurred absent the spoofing activity. The Court properly found that the data needed for this analysis was not readily available, that the loss could not reasonably be determined, and

that, instead, defendant's gain should be used to calculate the advisory guideline range.

CONCLUSION

For the foregoing reasons, the government respectfully requests that the Court affirm defendant's conviction and sentence.

Respectfully submitted.

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RULE 32 CERTIFICATION

I hereby certify that:

1. This brief complies with the type volume limitation of Federal Rules of Appellate Procedure 32(a)(7)(B) because it contains 13,976 words.

2. This brief complies with the typeface and type-style requirements of Federal Rules of Appellate Procedure 32(a)(5), 32(a)(6), and Circuit Rule 32(b), because it has been prepared using the Microsoft Office Word proportionally-spaced typeface of Century Schoolbook with 13-point font in the text and 12-point font in the footnotes.

Respectfully submitted.

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CERTIFICATE OF SERVICE

I hereby certify that on October 6, 2016, I electronically filed the foregoing Brief and Short Appendix of the United States with the Clerk of the Court for the United States Court of Appeals for the Seventh Circuit by using the CM/ECF system. I certify that all participants in the case are registered CM/ECF users and that service will be accomplished by the CM/ECF system.

Respectfully submitted.

By: *<u>/s/ Andrianna D. Kastanek</u>*

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APPENDIX

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

UNITED STATES OF AMERICA, Plaintiff, v. MICHAEL COSCIA, Defendant.	Case No. 14 CR 551 Judge Harry D. Leinenweber

MEMORANDUM OPINION AND ORDER

Before the Court is Defendant Michael Coscia's ("Coscia") Motion to Dismiss the Indictment (the "Indictment") charging him with six (6) counts of "spoofing" under 7 U.S.C. §§ 6c(a)(5)(C) and 13(a)(2) and six (6) counts of commodities fraud under 18 U.S.C. § 1348 [ECF No. 27]. For the reasons stated herein, the Motion is denied.

I. BACKGROUND

Coscia began his career as a commodities futures trader in 1988. Since 2007, Coscia served as the principal of Panther Energy Trading LLC, a high-frequency futures trading firm.

According to the Indictment, in August 2011, Coscia developed and implemented a high-frequency trading strategy that allowed him to enter and cancel large-volume orders in a matter of milliseconds. (Indictment ¶ 3.) Allegedly, this strategy moved prices in the market, such that Coscia was able to

purchase contracts at lower prices, or sell contracts at higher prices, than the prices available in the market before the large-volume orders were entered and canceled. (*Id.*) Coscia would then "repeat[] his strategy in the opposite direction," reselling the low-price contracts he purchased at a high price, or buying back the high-price contracts he sold at a low price. (*Id.*) The Indictment charges that Coscia implemented his strategy "to create a false impression regarding the number of contracts available in the market, and to fraudulently induce other market participants to react to the deceptive market information that he created." (*Id.*) Coscia reaped approximately $1.5 million in profits as a result of the alleged scheme. (*Id.*)

To carry out the scheme, Coscia enlisted the help of a computer programmer to design two computer programs, Flash Trader and Quote Trader. (*Id.* ¶ 4.) Coscia employed the programs in 17 different CME Group markets and three different markets on the ICE Futures Europe exchange. (*Id.* ¶ 5.) The programs detected the conditions in which Coscia's strategy worked best (*id.* ¶ 6), and operated through a system of trade orders and quote orders (*id.* ¶¶ 8-9).

On one side of the market, the programs would place a bona fide "trade order" to be filled. (*Id.* ¶ 8.) On the other side, they would place several layers of large-volume "quote orders"

to manipulate market conditions. (*Id.* ¶ 9.) The quote orders, however, were canceled within a fraction of a second. (*Id.*) Once Coscia filled the first trade order, he would enter a second trade order on the other side of the market, again employ misleading quote orders, and ultimately "profit on the difference in price between the first and second trade orders." (*Id.* ¶ 12.) The entire series of transactions would take place in a matter of milliseconds. (*Id.* ¶ 13.)

II. LEGAL STANDARD

A legally sufficient indictment is one that "(1) states all the elements of the crime charged; (2) adequately informs the defendant of the nature of the charges so that he may prepare a defense; and (3) allows the defendant to plead the judgment as a bar to any future prosecutions." *United States v. White*, 610 F.3d 956, 958-59 (7th Cir. 2010) (citing FED. R. CRIM. P. 7(c)(1)). The Court reviews an indictment on its face, *id.*, accepting all of its allegations as true. *United States v. Moore*, 563 F.3d 583, 586 (7th Cir. 2009). The Court does not consider whether any of the Indictment's charges have been established by evidence, or whether the Government will ultimately be able to prove its case. *White*, 610 F.3d at 959. "Indictments are reviewed on a practical basis and in their entirety, rather than in a hypertechnical manner." *United States v. Smith*, 230 F.3d 300, 305 (7th Cir. 2000) (citations

and internal quotations omitted). In general, an indictment that tracks the words of a statute to state the elements crime is acceptable, provided that it states sufficient facts to place a defendant on notice of the specific conduct at issue. *White*, 610 F.3d at 958-59.

III. ANALYSIS

The Indictment charges Coscia under two relatively new statutory provisions: (1) the "anti-spoofing" provision of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, which amended the Commodity Exchange Act's ("CEA") "Prohibited Transactions" section; and (2) the Fraud Enforcement and Recovery Act, which, in 2009, expanded the anti-fraud provisions of 18 U.S.C. § 1348 to apply to commodities futures trading. Coscia seeks to dismiss the Indictment in its entirety, arguing that (1) the CEA's anti-spoofing provision is void for vagueness, and (2) the commodities fraud counts are legally invalid and similarly vague.

A. Spoofing

The "anti-spoofing" provision of the CEA prohibits "any trading, practice, or conduct [that] . . . 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)." 7 U.S.C. § 6c(a)(5)(C). Knowing violation of the anti-spoofing provision is a felony. *Id.* § 13(a)(2). Coscia

argues that the anti-spoofing provision is unconstitutionally vague because it fails to offer any ascertainable standard that separates spoofing from legitimate trade practices such as partial-fill orders (larger-than-necessary orders entered to ensure a sufficient quantity is obtained) and stop-loss orders (orders that are programmed to execute only when the market reaches a certain price). (*See*, Def.'s Mem., ECF No. 28, at 17.) Coscia also notes that at the time of the alleged transactions, only limited interpretative guidance on the meaning of "spoofing" was available from the Commodity Futures Trading Commission (the "CFTC").

"A fundamental principle in our legal system is that laws which regulate persons or entities must give fair notice of conduct that is forbidden or required." *F.C.C. v. Fox Television Stations, Inc.*, 132 S.Ct. 2307, 2317 (2012). A statute is impermissibly vague, and violative of the Due Process Clause, if it "fails to provide a person of ordinary intelligence fair notice of what is prohibited, or is so standardless that it authorizes or encourages seriously discriminatory enforcement." *United States v. Williams*, 553 U.S. 285, 304 (2008). If a reasonable person would have been on notice that his or her conduct was at risk, and reasonable guidelines for enforcement exist, the due process concerns raised in a vagueness challenge are overcome. *United States v.*

Pitt-Des Moines, Inc., 168 F.3d 976, 987 (7th Cir. 1999). "It is well established that vagueness challenges to statutes which do not involve First Amendment freedoms must be examined in the light of the facts of the case at hand." *United States v. Mazurie*, 419 U.S. 544, 550 (1975); *Pitt-Des Moines*, 168 F.3d at 986.

In determining whether a statute is void for vagueness, the focus of the inquiry is statutory clarity. *See, United States v. Jones*, 689 F.3d 696, 701 (7th Cir. 2012). Courts must strive to "construe, not condemn, Congress' enactments" because of their strong presumptive validity. *Skilling v. United States*, 561 U.S. 358, 403 (2010). Nevertheless, as the Supreme Court has often cautioned, the Constitution does not permit Congress to "set a net large enough to catch all possible offenders, and leave it to the courts to step inside and say who could be rightfully detained, and who should be set at large." *City of Chicago v. Morales*, 527 U.S. 41, 60 (1999) (quoting *United States v. Reese*, 92 U.S. 214, 221 (1876) (internal quotations omitted).

Coscia posits that there is no commonly understood meaning of "spoofing" in the world of futures trading. To illustrate this point, he traces the CFTC's interpretation of the statute back to November 2010, just months after the passage of the Dodd-Frank Act. Then, the CFTC published an advanced notice of

proposed rulemaking, inviting public comment on the nature of "spoofing." 75 Fed. Reg. 67,301-01, 67,302 (Nov. 2, 2010). Coscia cites numerous comments from CFTC's December 2010 roundtable discussions revealing difficulty defining a precise meaning of "spoofing." (*See*, Def.'s Mem., ECF No. 28, at 7-8 ("I'm not sure [i]f the definition of spoofing can be agreed upon by the ten people around this table.").)

By March 2011, the CFTC terminated its rulemaking efforts and published proposed interpretative guidance regarding spoofing. Under the proposed guidance, "orders, modifications, or cancellations" would not be considered spoofing if "submitted as part of a legitimate, good-faith attempt to consummate a trade." 76 Fed. Reg. 14,943, 14,947 (Mar. 18, 2011). The proposed guidance also stated that it is possible to distinguish between spoofing and legitimate trading by evaluating factors such as "the market context, the person's pattern of trading activity (including fill characteristics), and other relevant facts and circumstances." *Id.* The proposed guidance provided three specific examples of spoofing: "[1] submitting or cancelling bids or offers to overload the quotation system of a registered entity, [2] submitting or cancelling bids or offers to delay another person's execution of trades[,] and [3] submitting or cancelling multiple bids or offers to create an appearance of false market depth." *Id.* In May of 2013, the

CFTC issued final interpretive guidance on the term spoofing, adding an additional example: "submitting or canceling bids or offers with intent to create artificial price movements upwards or downwards." 78 Fed. Reg. 31,890, 31,896 (May 28, 2013).

According to Coscia, the ongoing debate surrounding the meaning of spoofing "illustrates the crucial point that the status of Mr. Coscia's alleged conduct was an open question from the outset." (Def.'s Mem., ECF No. 28, at 24.) At the time of the alleged trades, September 2011, the only available interpretation of the statute was the CFTC's proposed, non-binding guidance. Even if this guidance had been binding, Coscia argues that his conduct was not encompassed by any of the three examples provided. Coscia further states that his conduct was not encompassed by the fourth example added in May of 2013 — "submitting or canceling bids or offers with intent to create artificial price movements upwards or downwards" — because he did not create "artificial" price movement. (*Id.* at 26 n.1.)

Despite the contentious disagreement about the precise meaning of the term "spoofing," the Government argues that there was never any serious debate as to whether the conduct alleged in the Indictment — intentionally entering bids and offers with the intent to cancel them — falls within the meaning of the statute. For instance, in January 2011, before the CFTC had issued any interpretive guidance, CME's CEO Craig Donohue opined

that: "The distinguishing characteristic between 'spoofing' . . . and the legitimate cancellation of other unfilled or partially filled orders is that 'spoofing' involves the intent to offer non bona fide orders for the purpose of misleading market participants and exploiting that deception for the spoofing entity's benefit." (Ex. G to Def.'s Mot., ECF No. 27-3, at 296). Further, the CFTC's proposed guidance, issued approximately five months before the alleged trades took place, suggests that there was some degree of consensus as to what conduct was included and excluded: "In the view of the Commission, a . . . 'spoofing' violation requires that a person intend to cancel a bid or offer before execution . . . [L]egitimate, good-faith cancellation of partially filled orders would not violate [the statute]." 76 Fed. Reg. at 14,947.

Because First Amendment rights are not at stake, the Court must assess whether the statute is unconstitutional as applied to Coscia's conduct, *Mazurie*, 419 U.S. at 550, not to the conduct of the "hypothetical legitimate traders" who voiced concerns about the statute's applicability to practices such as partial-fill and stop-loss orders. (*see*, Pl.'s Opp., ECF No. 31, at 2-3). Similarly, Coscia's concerns regarding the applicability of the statute to other common trade practices, such as "Fill or Kill" orders, which are canceled unless they

are filled immediately, are not relevant here. "A plaintiff who engages in some conduct that is clearly proscribed cannot complain of the vagueness of the law as applied to the conduct of others." *Vill. of Hoffman Estates v. Flipside, Hoffman Estates, Inc.*, 455 U.S. 489, 495 (1982).

Turning to the allegations of the Indictment, which the Court must accept as true for the purposes of this Motion, Coscia "entered large-volume orders that he intended to immediately cancel before they could be filled by other traders." (Indictment ¶ 3.) Coscia had no intention of filling the orders, but instead "devised [his] strategy to create a false impression regarding the number of contracts available in the market, and to fraudulently induce other market participants to react to the deceptive market information that he created." (*Id.*) Without question, this conduct tracks the language of the statute, and constitutes "spoofing" as the statute defines that term: "bidding or offering with the intent to cancel the bid or offer before execution." 7 U.S.C. § 6c(a)(5)(C). Coscia argues that his intent to cancel was "concededly conditional," and in this respect his "trading was virtually identical to other durational or contingent orders routinely permitted by exchange trading interfaces." (Def.'s Mem., ECF No. 18, at 28.) However, this is not what the Indictment alleges. The Indictment charges that Coscia placed orders with the intent to

cancel, not with the intent to fill them under certain conditions. (*See*, Indictment ¶ 3.)

Coscia cites three other cases in which defendants prevailed on an as-applied challenge to certain language in the CEA. *See, United States v. La Mantia*, 2 Comm. Fut. L. Rep. (CCH) ¶ 20,667 (N.D. Ill. Aug. 9, 1978) ("fictitious sales"); *Stoller v. CTFC*, 834 F.2d 262 (2d Cir. 1987) ("wash sales"); *United States v. Radley*, 659 F.Supp.2d 803 (S.D. Tex. 2009), *aff'd on other grounds*, 632 F.3d 177 (5th Cir. 2011) ("manipulate"). However, as the Government correctly notes, these cases are distinguishable because in all three instances, Congress had not defined the challenged term in the statute. In contrast, § 6(a)(C)(5) provides a definition of "spoofing."

The statute's "intent to cancel" requirement is significant. "When the government must prove intent and knowledge, these requirements do much to destroy any force in the argument that application of the statute would be so unfair that it must be held invalid." *United States v. Cherry*, 938 F.2d 748, 754 (7th Cir. 1991) (citations, internal quotations, and alterations omitted). Coscia argues that the intent requirement does nothing to distinguish between lawful and unlawful conduct because both illegal "spoofing" and legitimate trading are intentional activities. However, unlike the conduct alleged in the Indictment, it is far from clear that the

legitimate trading activities Coscia discusses "involve[] the entry of bids or offers with the intent to cancel those bids or offers before they are executed." (Pl.'s Opp., ECF No. 31, at 2 n.1.) For instance, although Fill or Kill orders "must be filled immediately or the entire order is cancelled," (Def.'s Mem., ECF No. 28, at 18), they are not entered with the intent to cancel. The same is true of partial-fill orders, which are entered with the intent to consummate a trade, not with the intent to cancel the order altogether. *See*, 78 Fed. Reg. at 31,896 ("[T]he Commission interprets the statute to mean that a legitimate, good-faith cancellation or modification of orders (*e.g.*, partially filled orders or properly placed stop-loss orders) would not violate the statute.")

Coscia's alleged "intent to cancel" sets his conduct apart from the legitimate trading practices described in his memorandum. The conduct in the Indictment involves the entry of large-volume orders with the intent to "immediately cancel." (Indictment ¶ 3.) Because the alleged conduct clearly involves "bidding or offering with the intent to cancel" the Court does not find § 6c(a)(5)(C) impermissibly vague as applied to Coscia.

B. Commodities Fraud

Under 18 U.S.C. § 1348, it is unlawful to execute, or attempt to execute, a scheme or artifice "to defraud any person in connection with any commodity for future delivery" or "to

obtain, by means of false or fraudulent pretenses, representations, or promises, any money or property in connection with the purchase or sale of any commodity for future delivery." Coscia argues that the commodities fraud counts are legally invalid for three reasons. First, Coscia argues that his conduct cannot constitute fraud because it is not prosecutable under the anti-spoofing provision. (Def's Mem., ECF No. 28, at 27 ("[O]nce the spoofing charges fail for vagueness, the fraud charges must also be dismissed.".) Second, he argues that the Indictment fails to allege that Coscia made any affirmative or implied misrepresentations to other market participants, which a scheme to defraud would require. Finally, Coscia argues that § 1348 is impermissibly vague as applied to the alleged trading activity. Because the Court has already determined the spoofing statute is not vague as applied to Coscia's conduct, the Court focuses its attention on Coscia's second and third arguments.

Coscia relies on Seventh Circuit case law interpreting the language of mail and wire fraud statutes, 18 U.S.C. §§ 1341 and 1343, which parallel the language of § 1348. Under these statutes, the Seventh Circuit has repeatedly held that a necessary element of a scheme to defraud is "the making of a false statement or material misrepresentation, or the concealment of a material fact." *Williams v. Aztar Ind. Gaming*

Corp., 351 F.3d 294, 299 (7th Cir. 2003) (mail fraud); *United States v. Powell*, 576 F.3d 482, 490 (7th Cir. 2009) (wire fraud). According to Coscia, he never communicated anything to other market participants when he placed the quote orders, nor did he misrepresent that his orders would remain available for any specific amount of time. Because no false statement was made, or material facts omitted, Coscia claims that he cannot be held liable under § 1348. Coscia likens this case to *Radley*. Although the court found that another prohibition of the CEA precluded the price manipulation charges against defendants, it nevertheless concluded that defendants had not misled traders by placing "best bids" and "stacked bids" that drove up the price of propane:

> The "best bids," even if they were higher than any others, were actually bids, and when they were accepted, defendants actually went through with the transactions. Other counterparties may have assumed that the "stacked bids" came from multiple parties, but defendants did not perpetuate or cause this misconception. Since defendants were willing and able to follow through on all of the bids, they were not misleading.

Radley, 659 F.Supp.2d at 815.

Although the Indictment does not specifically allege that Coscia made a false statement or material misrepresentation, or concealed a material fact, the following allegations demonstrate a scheme to defraud: (1) Coscia carried out his strategy "to create a false impression regarding the number of contracts

available in the market, and to fraudulently induce other market participants to react to the deceptive market information," (Indictment ¶ 3); and (2) Coscia "intended to trick others into reacting to the false price volume information he created with his fraudulent and misleading quote orders . . . [and] intended to, and did, mislead other traders, causing them to react," (*Id.* ¶¶ 8, 11). While the word "misrepresentation" is absent, the Court declines to review the Indictment in a "hypertechnical manner." *Smith*, 230 F.3d at 305.

Coscia's narrow interpretation of § 1348 is inconsistent with its broad wording and at least one judicial interpretation. Statutory prohibitions against schemes to defraud are often worded broadly because Congress cannot anticipate each and every new context in which they might be carried out. *See, United States v. Motz*, 652 F.Supp.2d 284, 295 (E.D.N.Y. 2009) (noting that § 1348 is "intentionally broad because Congress sought to create a mechanism by which prosecutors could combat the myriad of ever-evolving securities fraud schemes"). Although the Seventh Circuit has not yet addressed securities or commodities fraud under § 1348, the Second Circuit has interpreted the statute's application to securities fraud broadly, noting that "false representations or material omissions are not required" under § 1348(1), as long as there is "(1) fraudulent intent, (2) [a] scheme or artifice to defraud, and (3) [a] nexus with a

security." *United States v. Mahaffy*, 693 F.3d 113, 125 (2d Cir. 2012).

Moreover, the fraudulent conduct alleged in the Indictment is distinct from that in *Radley*, in which defendants were apparently willing and able to follow through with the bids they placed. This is not the case here, where the Indictment plainly states that Coscia designed his programs to cancel automatically all the quote orders placed. (*See*, Indictment ¶ 11.) Whether the Government will be able to prove that Coscia actually misled other traders through his use of quote orders is an issue for trial. *White*, 610 F.3d at 959 (noting that court does not consider whether government will be able to prove its case when assessing sufficiency of indictment); *see also*, *United States v. Finnerty*, 533 F.3d 143, 149 (2d Cir. 2008) (affirming defendant's acquittal on § 10(b) charges where government failed to prove at trial that defendant "conveyed a misleading impression to customers" through his trading activity).

Coscia's final challenge is that § 1348 is impermissibly vague as applied to the alleged conduct. Coscia argues that the Government does not cite any judicial decision or source of authority "that could have provided reasonable notice that [his] alleged trading activity might be considered a form of fraud at the time of that activity." (Def.'s Reply, ECF No. 33, at 19.) However, the Court declines to conclude, based solely on the

scarcity of cases interpreting § 1348, that the statute "fails to provide a person of ordinary intelligence" fair notice of the conduct that it prohibits. *Williams*, 553 U.S. at 304. Here, the allegations of the Indictment – that Coscia created a "false impression," "fraudulently induce[d]", and "tricked" others, (Indictment ¶¶ 3, 8, 11) – are consistent with the scheme to defraud and use of "false or fraudulent pretenses, representations, or promises" described in the statute.

IV. CONCLUSION

For the reasons stated herein, Coscia's Motion to Dismiss the Indictment [ECF No. 27] is denied.

IT IS SO ORDERED.

Harry D. Leinenweber, Judge
United States District Court

Dated: 4/16/2015