

**United States Court of Appeals
for the Second Circuit**

August Term 2021

(Argued: August 27, 2021 Decided: May 2, 2022)

No. 20-3594-cr

UNITED STATES OF AMERICA,

Appellee,

— v. —

AKSHAY AIYER,

Defendant-Appellant.

Before: PARKER, BIANCO, and MENASHI, *Circuit Judges.*

Defendant-Appellant Akshay Aiyer appeals from the October 2, 2020 judgment entered in the United States District Court for the Southern District of New York (Koeltl, J.), following a jury trial, convicting him of conspiracy to restrain trade in violation of Section 1 of the Sherman Act, 15 U.S.C. § 1. More specifically, Aiyer was convicted for his participation in a conspiracy to fix prices and rig bids in connection with his trading activity in the foreign currency exchange market. His primary argument on appeal is that the district court erred by failing to consider his proffered evidence that the alleged illegal trading activity lacked anticompetitive effects and had procompetitive benefits and by refusing to

conduct a pre-trial assessment as to whether the *per se* rule or the rule of reason applies in this case. Aiyer further contends that the district court abused its discretion in largely precluding his competitive effects evidence from admission at trial and in conducting only a limited post-trial inquiry into allegations of juror misconduct. We hold that the district court was not required to make a threshold pre-trial determination as to whether the *per se* rule or the rule of reason applies to the alleged misconduct in this criminal antitrust case. The grand jury indicted Aiyer for a *per se* antitrust violation and the government, which was proceeding only under that theory, was entitled to present its case to the jury. The district court properly assessed the sufficiency of the evidence of the alleged *per se* violation at the time of Aiyer's Rule 29 motion after the government rested its case (which Aiyer renewed after trial), and the sufficiency decision upholding the verdict is not challenged on appeal. In addition, given that the case was being tried under the *per se* rule, the district court acted within its broad discretion in strictly limiting the admission of Aiyer's competitive effects evidence at trial to the issue of intent. Finally, the district court did not abuse its discretion in ending its post-trial investigation into alleged juror misconduct and concluding there was no basis to vacate the jury's verdict where such investigation included interviewing the accused juror and finding his denial of the allegations credible.

Accordingly, we **AFFIRM** the judgment of the district court.

MARY HELEN WIMBERLY (Stratton C. Strand, Kevin B. Hart, Eric Hoffman, Philip Andriole, *on the brief*), United States Department of Justice, Antitrust Division, *for* Richard A. Powers, Acting Assistant Attorney General, Washington, DC, *for Appellee*.

MARTIN B. KLOTZ, Willkie Farr & Gallagher LLP, New York, NY (Joseph T. Baio, Jocelyn M. Sher, Willkie Farr & Gallagher LLP, New York, NY, Mark Stancil, Willkie Farr & Gallagher LLP,

Washington, DC, *on the brief*), for
Defendant-Appellant.

JOSEPH F. BIANCO, *Circuit Judge*:

Defendant-Appellant Akshay Aiyer appeals from the October 2, 2020 judgment entered in the United States District Court for the Southern District of New York (Koeltl, J.), following a jury trial, convicting him of conspiracy to restrain trade in violation of Section 1 of the Sherman Act, 15 U.S.C. § 1. Specifically, Aiyer was convicted for his participation in a conspiracy to fix prices and rig bids in connection with his trading activity in the foreign currency exchange market. His primary argument on appeal is that the district court erred by failing to consider his proffered evidence that the alleged illegal trading activity lacked anticompetitive effects and had procompetitive benefits and by refusing to conduct a pre-trial assessment as to whether the *per se* rule or the rule of reason applies in this case. Aiyer further contends that the district court abused its discretion in largely precluding his competitive effects evidence from admission at trial and in conducting only a limited post-trial inquiry into allegations of juror misconduct. We hold that the district court was not required to make a threshold pre-trial determination as to whether the *per se* rule or the rule of reason applies to the alleged misconduct in this criminal antitrust case. The grand jury indicted

Aiyer for a *per se* antitrust violation and the government, which was proceeding only under that theory, was entitled to present its case to the jury. The district court properly assessed the sufficiency of the evidence of the alleged *per se* violation at the time of Aiyer’s Rule 29 motion after the government rested its case (which Aiyer renewed after trial), and the sufficiency decision upholding the verdict is not challenged on appeal. In addition, given that the case was being tried under the *per se* rule, the district court acted within its broad discretion in strictly limiting the admission of Aiyer’s competitive effects evidence at trial to the issue of intent. Finally, the district court did not abuse its discretion in ending its post-trial investigation into alleged juror misconduct and concluding there was no basis to vacate the jury’s verdict where such investigation included interviewing the accused juror and finding his denial of the allegations credible.

Accordingly, we AFFIRM the judgment of the district court.

BACKGROUND

I. The Relevant Market¹

This criminal antitrust case arises out of Aiyer’s alleged conduct in—and corresponding communications relating to—the foreign currency exchange (“FX”)

¹ Given that Aiyer appeals from a judgment of conviction entered after a jury trial, “our statement of the facts views the evidence in the light most favorable to the government,

market. Participants in the FX market buy or sell one national currency in exchange for another. In other words, FX trading takes place in currency pairs, where one individual or entity sells a certain amount of one country's currency to another individual or entity that purchases that currency with a certain amount of another country's currency. *See* Gov't Supp. App'x at 3–4 (“[L]et’s take an example . . . you want to buy [U.S.] dollars in exchange for . . . Canadian dollars That exchange . . . between United States dollar and Canadian dollars, that’s called a currency pair. There are always two currencies because you have got to buy one and sell the other.”).² The mechanism for pricing in the FX market is known as the “exchange rate,” “rate,” or “price,” which essentially represents the amount of one specific currency that a market participant can be paid in exchange for another specific currency. App'x at 33. As of 2013, trillions of dollars in various currencies were traded across this market each day.

crediting any inferences that the jury might have drawn in its favor.” *United States v. Percoco*, 13 F.4th 158, 164 n.3 (2d Cir. 2021) (quoting *United States v. Rosemond*, 841 F.3d 95, 99–100 (2d Cir. 2016)).

² There are numerous ways in which FX market participants can trade. However, the “basic trade” in the FX market is known as a “spot trade,” where one party simply agrees to buy one currency from a counterparty in exchange for a different currency, with settlement to follow in two business days. Gov't Supp. App'x at 13.

Turning to the market participants themselves, typical customers in the FX market include pension funds, hedge funds, insurance companies, and international corporations. These customers transact with FX traders at “dealer” banks, which are “mostly very large, well-capitalized banks” that “stand[] ready to buy or sell foreign exchange upon demand.” Gov’t Supp. App’x at 15. If a customer wants to make an FX trade, he or she can solicit prices from multiple dealer banks for a given currency pair and then “pick the best price.” Gov’t Supp. App’x at 36. In this context, potential customers are provided with a “two-way” price quote (or “spread”)—the “bid,” *i.e.*, the price at which the dealer bank would be willing to buy a particular currency, and the “offer” or “ask,” *i.e.*, the price at which the dealer bank would be willing to sell a particular currency. Gov’t Supp. App’x at 15, 29–30, 113; *see also* App’x at 34.

In addition to facilitating transactions for customers, dealer banks trade currencies with one another, through employee-FX traders, in part of the FX market known as the “interbank” (or “interdealer”) market. Gov’t Supp. App’x at 24; App’x at 36. Whether they are competing for transactions with customers or with each other in the interdealer market, dealer banks compete on the basis of price across the FX market.

Notably, unlike markets such as the New York Stock Exchange, the FX market is not centralized; instead, the FX market operates internationally and is almost always open. In the absence of a centralized exchange, trading is conducted in a variety of ways, including directly between dealer banks and customers (or between dealer banks), through brokers, or over an “electronic broking system,” such as the “Reuters matching system” (the “Reuters platform”).³ Gov’t Supp. App’x at 29–30.

II. The Alleged Conspiracy to Restrain Trade

Aiyer, along with Christopher Cummins, Jason Katz, and Nicolas Williams (together, the “co-conspirators”), worked as FX traders at different dealer banks where they traded, in varying degrees, Central and Eastern European, Middle Eastern, and African (“CEEMEA”) currencies, such as the Russian ruble (or “RUB”), South African rand (or “ZAR”), and Turkish lira (or “TRY”).⁴ The banks at which the co-conspirators worked all competed with each other to win FX customers’ trades.

³ Using the Reuters platform, FX traders can input proposed bids and offers, execute trades, observe market trends, and view “the best bid and the best offer in the market.” Gov’t Supp. App’x at 147.

⁴ In the FX market, other currencies, such as the U.S. dollar (or “USD”) and the euro (or “EUR”) are said to trade “against” these currencies. App’x at 33.

At various times spanning from as early as October 2010 to at least July 2013, the co-conspirators agreed not to compete with one another in terms of pricing and also to coordinate in order to affect pricing in the FX market. Katz, who pled guilty pursuant to a cooperation agreement with the government, testified at trial that “the point of not competing with each other, that was kind of an undercurrent that would just be there on a constant basis.” Gov’t Supp. App’x at 157. Communicating through Bloomberg’s instant messaging platform (“Bloomberg chat”), among other means, the co-conspirators dispensed with competing for trades—in both the interbank and more general customer contexts—and, instead, coordinated in relation to the timing and amounts of their bids and offers.

As summarized by Cummins, who also pled guilty pursuant to a cooperation agreement with the government, the co-conspirators engaged in, among other things, the following activities in the FX market:

There were times, for example, when a client would call up and ask a number of us in the chat room for the same thing all at the same time, so we would convey to the others what we were being asked, as far as what currency and what size, and then indicate what price we were showing to the client, and in that way we could kind of coordinate what we would show and whether or not we wanted to win the trade and kind of denote who might be the winner of the trade but still maintain the look of a competition in the eyes of the client.

...

There were [also] times in the course of trading where . . . myself and the other guys in the chat room might have the same interest, meaning I might have an interest to buy dollars as well as someone else in the chat room had an interest to buy dollars against a certain currency or we might have the same interest to sell dollars. So one of us would be the one to place the interest in the market so that it didn't give the market the appearance that there were a lot of buyers entering the market at one time, because that might push the market against us and we might buy it at higher prices, meaning it would be unfavorable to us.

...

[W]e would [also] spoof the market, meaning if someone in the chat needed to buy dollars against a certain currency, I might place offers in the market in order to try to drive the price lower into that person's hands, . . . in order to help them out or vice versa. If my friend needed to sell dollars, I might go into the market and place buy orders in the hopes of driving the price higher.

Gov't Supp. App'x at 50–51.

During the relevant time period, the co-conspirators communicated with each other almost every day, and, over time, various members of the conspiracy participated in numerous FX trading episodes in furtherance of their agreement not to compete. These trading episodes shed light upon several aspects of the conspiracy.

First, the co-conspirators' FX trading activity, as charged in the indictment, revealed their coordinated efforts when competing for customers' transactions. For instance, on November 4, 2010, Aiyer and Katz coordinated in connection with the prices they offered to a potential customer who was interested in selling Russian rubles. More specifically, when communicating over Bloomberg chat that day, Aiyer and Katz realized that the same customer was asking them for a "usd rub" quote, App'x at 1132,⁵ and they thereafter "agreed what bid we were going to show them between the two of us," Gov't Supp. App'x at 168–69. Because the customer wanted to sell currency, Aiyer and Katz knew that the customer was seeking the highest offered price. For example, on one occasion, Aiyer informed Katz that he offered the customer a price of "30.99," so Katz responded that he would "show 30.98" and indicated that "you can have" the transaction. App'x at 1132. Ultimately, the customer accepted Aiyer's price. Immediately after this trading episode, Katz wrote to Aiyer via Bloomberg chat that "conspiracies are nice," to which Aiyer replied, "hahaha . . . proolly shudnt puot this on perma chat." App'x at 1133.

⁵ Unless otherwise indicated, Bloomberg chat messages quoted herein appear as they do in the record.

Second, other episodes of trading activity demonstrated the co-conspirators' agreement to refrain from competing with each other on the Reuters platform. For example, on September 23, 2011, Aiyer and Cummins both wanted to buy U.S. dollars against Turkish lira. After noticing that Aiyer was "bidding [TRY] at [a price of] 15," Cummins noted on Bloomberg chat that he was bidding "at [a price of] 10." Gov't Supp. App'x at 400. Cummins then wrote that he would "pull" — or cancel—his bids so that he and Aiyer would not "get in front of each other." Gov't Supp. App'x at 401.

Third, the co-conspirators' FX trading activity also demonstrated their attempts to affect prices in the market. For example, on January 18, 2012, Aiyer and Cummins both had identical U.S. dollar-South African rand stop-loss orders—specifically, orders to "sell \$25 million if the market goes lower to [a price of] 7.95."⁶ Gov't Supp. App'x at 79–80. After this fact was disclosed on a Bloomberg chat involving Aiyer, Cummins, and Katz, Katz wrote, "why dont we drive [the price] down there and keep some," Gov't Supp. App'x at 500, which Cummins

⁶ A stop-loss order is an order a customer gives to a dealer bank to sell a specific currency if the market price reaches a certain low price. The idea behind such orders is "risk mitigation"—if the market price for the relevant currency continues to fall beyond the stated price in the stop-loss order, the customer is "locking in a loss." Gov't Supp. App'x at 127–28.

testified meant “if you push it through now, it is likely that the market would bounce back and . . . you could make a profit selling higher if the market bounces higher.” Gov’t Supp. App’x at 81. Aiyer, Cummins, and Katz then “[w]ork[ed] together on the stop-loss,” Gov’t Supp. App’x at 122, and were able to lower the market price, with Aiyer writing on Bloomberg chat, “wow tht went,” Gov’t Supp. App’x at 465. Around two hours later, Aiyer wrote to Cummins and Katz, “salute to first coordinated . . . zar effort,” and Katz responded, “yep . . . many more to come.” Gov’t Supp. App’x at 450.

III. Procedural History

A. The Indictment

On May 10, 2018, a grand jury returned an indictment charging Aiyer with one count of conspiring to restrain trade in violation of Section 1 of the Sherman Act, 15 U.S.C. § 1. The indictment alleged that, “[f]rom at least as early as October 2010 and continuing until at least July 2013,” Aiyer, along with Cummins, Katz, and Williams,⁷ “knowingly entered into and participated in a combination and conspiracy to suppress and eliminate competition by fixing prices of, and rigging bids and offers for, CEEMEA currencies traded in the United States and

⁷ Williams is identified in the indictment as CW1.

elsewhere.” App’x at 38–39. The indictment further alleged, *inter alia*, that the co-conspirators “engag[ed] in near-daily conversations through private electronic chat rooms . . . and other means of communication, to reveal their currency positions, trading strategies, bids and offers on Reuters, customer identities, customer limit order price levels, upcoming customer orders, and planned pricing for customer orders, among other information”; “agree[d] to suppress and eliminate competition among themselves for the purchase and sale of CEEMEA currencies by coordinating their bidding, offering and trading”; and “agree[d] on pricing to quote to customers.” App’x at 39–40.

Aiyer moved to dismiss the indictment in part on March 22, 2019, arguing that certain of the alleged offense conduct, such as the co-conspirators’ coordinated activities in the interdealer market: (1) was not subject to the *per se* rule under Section 1 of the Sherman Act; (2) was, instead, subject to rule-of-reason analysis;⁸ and therefore (3) could not support a criminal indictment, given that the

⁸ As discussed in more detail below, under the Sherman Act, most alleged misconduct is assessed under the rule of reason, where “the factfinder [must] decide whether under all the circumstances of the case the restrictive practice imposes an unreasonable restraint on competition,” but certain misconduct, such as price fixing, is considered illegal *per se*. *Arizona v. Maricopa Cnty. Med. Soc’y*, 457 U.S. 332, 343, 346–47 (1982).

government only prosecutes conduct that is subject to the *per se* rule.⁹ In support of his motion, Aiyer submitted two expert affidavits, in which the experts opined that the co-conspirators' activities in the FX market did not yield anticompetitive effects and, in fact, had procompetitive benefits.

On June 4, 2019, the district court entered an order denying Aiyer's motion to dismiss. As explained in its oral ruling at a conference the prior day, the district court denied the motion on the grounds that "[t]he indictment properly alleges a single overarching conspiracy" to fix prices and rig bids in the FX market and that "[e]ach act committed by a coconspirator in furtherance of the conspiracy need not be criminal in and of itself." App'x at 191; *see also* App'x at 192 ("It is irrelevant that certain activity set forth in the indictment may not alone constitute a *per se* crime. What is relevant is that those acts enable the defendant and his coconspirators to carry out an unlawful conspiracy."). In addition, the district court concluded that Aiyer's expert evidence was "improper at this stage of the case and cannot be considered." App'x at 191.

⁹ *See* U.S. Dep't of Just., Just. Manual § 7-1.100 (2020)) ("When it comes to enforcement, the Division's policy, in general, is to proceed by criminal investigation and prosecution in cases involving horizontal, 'per se' unlawful agreements such as price fixing, bid rigging, and market allocation.").

B. The Motions *in Limine*

Before trial, both Aiyer and the government filed motions *in limine* raising numerous evidentiary issues. As is relevant on appeal, the government moved to exclude evidence purporting both to demonstrate procompetitive justifications for Aiyer's trading activity in the FX market and to show that that conduct did not have anticompetitive effects. In opposition, Aiyer argued, *inter alia*, that such evidence was "critical to the Court's determination of what behavior at issue, if any, is *per se* illegal," App'x at 291, as opposed to merely being subject to the rule of reason.

At a conference held on September 24, 2019,¹⁰ the district court granted the government's motion to exclude evidence of competitive effects, reasoning that "evidence of the lack of anticompetitive effects would be irrelevant [in the context of this case] because price fixing and bid rigging are *per se* illegal," and that, under the law, Aiyer "should not be able to argue that the pro-competitive effects of horizontal bid rigging or price fixing make such practices legal." App'x at 311–15. However, the court expressly left open the possibility that the parties could seek

¹⁰ The corresponding order regarding the parties' motions *in limine* was entered on September 25, 2019.

to introduce evidence of procompetitive effects at trial, for example on the issue of intent. Thus, the district court made clear that its decision on the government's motion to exclude was "without prejudice to the ability of the parties to raise the issue with respect to specific evidence at trial."¹¹ App'x at 315.

C. The Trial

The district court held a jury trial from October 30 to November 20, 2019. At trial, the jury heard testimony from numerous fact and expert witnesses, including the government's background expert, Dr. David DeRosa; cooperating witnesses Cummins and Katz;¹² three asset managers who had been the co-conspirators' customers in the FX market; the government's FX-trading expert, Ross Waller; and Aiyer's expert, Professor Richard Lyons.

After the government rested, Aiyer moved for a judgment of acquittal pursuant to Federal Rule of Criminal Procedure 29. Among other things, he again asserted that "none of the conduct at issue constitutes a per se violation of the

¹¹ For his part, Aiyer moved to exclude evidence concerning interdealer trading and his trading activity with Katz related to the Russian ruble because, in his view, that evidence was irrelevant as it did not show that Aiyer participated in illegal price fixing or bid rigging. The district court denied Aiyer's motion, stating that Aiyer "acknowledges that there is no basis at this time to exclude" such evidence. App'x at 330.

¹² The government did not call Williams to testify.

antitrust laws.” App’x at 964. The district court denied the motion without prejudice to renewal, concluding that, based upon the evidence presented, a reasonable jury could find that the government had proven the charge in the indictment—that Aiyer entered into a conspiracy to fix prices and rig bids in the FX market.

During its charge to the jury, the district court gave the following instruction:

The goal of every price fixing conspiracy is the elimination of one form of competition—competition over price. Therefore, if you find that the charged price fixing conspiracy existed, it does not matter whether the prices agreed upon were high, low, reasonable, or unreasonable. What matters is that the prices were fixed. . . . Every conspiracy to fix prices unlawfully restrains trade regardless of the motives of the conspirators or any economic justification they may offer.

App’x at 1095–96; *see also* App’x at 1098–99 (same with respect to bid rigging).

Although Aiyer took issue with various aspects of the lengthy jury instructions, he never objected to the substance of this particular instruction.

On November 20, 2019, the jury found Aiyer guilty of the charged conspiracy to restrain trade.

D. The Allegations of Jury Misconduct

On the day the jury reached its verdict, Juror No. 6 wrote a letter to the district court in which he raised a number of allegations of juror misconduct and expressed regret as to his participation in reaching the guilty verdict.

In relevant part, Juror No. 6 alleged that he overheard Juror No. 3 state, “The judge said we cannot talk about or look up information about the case, he never said that my girlfriend can’t,” and “even my boss looked up the case.” Redacted App’x at 3. Juror No. 6 also asserted that Juror No. 3 said he “had looked up information on members of the counsel” and commented on one attorney’s appearance.¹³ Redacted App’x at 3.

Following Juror No. 6’s revelation of potential jury misconduct, defense counsel “searched through various public online social media platforms to assess whether any additional improper communications by or among jurors occurred during the trial.” Redacted App’x at 4. Counsel reported to the district court that,

¹³ Although Aiyer does not raise Juror No. 6’s other allegations on appeal, we note that he further alleged that he agreed to the verdict “based solely on the intimidation of five members of the jury”; that Juror No. 3 also stated that, at one point, “he saw the facial expression on the defendant and the defendant[s] brother” and later said “they smile now, but they [won’t] be smiling at the end of this”; and that, when certain jurors “were puzzled with [the district court’s] instructions regarding the statute of limitation, conspiracy, and agreement,” the jurors “piggybacked off” of Juror No. 10’s opinion that “conspiracy equals agreement.” Redacted App’x at 3.

on his weekly, publicly available podcast, Juror No. 4 made various comments about his jury service while the trial was ongoing, including that he was “angry” about being a juror, did not care about the case, and that he “started to not pay attention at all in the court room,” but that he did not “identify[] the case by its name and did not discuss any specific facts at issue.” Redacted App’x at 5.

Less than a month after Juror No. 6 wrote his letter, the district court issued an order directing Juror No. 3 to appear in court to be interviewed in the presence of counsel for the government and Aiyer. At that interview, when the district court asked whether he had conducted any outside “research about the case or any of the parties or the lawyers” before the jury reached its verdict, Juror No. 3 unequivocally said that he had not. Redacted App’x at 18. In addition, Juror No. 3 informed the court that: when his girlfriend asked about the case, he told her he was not permitted to discuss it; his father had become aware of the case’s name; he had learned, post-trial, that his office manager had researched the case; and the jurors had nicknames for some of the lawyers.

On January 15, 2020, the district court issued an opinion and order concerning all of the allegations of juror misconduct. *See United States v. Aiyer*, 433 F. Supp. 3d 468 (S.D.N.Y. 2020) (“*Aiyer I*”). The district court held that no

additional inquiry into Juror No. 3's alleged misconduct was warranted because his responses to the court were credible and there was "no reason to suggest that there was any prejudicial information improperly brought to the attention of the jury in this case." *Id.* at 476. With respect to Juror No. 4's comments on his podcast, the district court concluded that those comments "[did] not raise any concerns that necessitate a post-verdict inquiry" because the podcast "did not contain any evidence of prejudice or evidence that the Juror did not deliberate fairly and impartially." *Id.* at 474. In sum, when considering all of the allegations of juror misconduct, the district court determined that there was "no basis to vacate the jury's verdict." *Id.* at 477.

E. The Post-Trial Proceedings

After the jury returned its verdict, Aiyer renewed his motion for a judgment of acquittal pursuant to Rule 29 and moved, in the alternative, for a new trial under Rule 33, again arguing that the district court erroneously failed to determine whether the charged offense conduct was subject to the *per se* rule or the rule of reason. The district court denied these motions. *See United States v. Aiyer*, 470 F. Supp. 3d 383, 391 (S.D.N.Y. 2020) ("*Aiyer II*"). In particular, in relation to Aiyer's contention that the district court was required to make a threshold determination

as to whether the *per se* rule or the rule of reason applied to the conduct alleged in the indictment, the district court stated:

That question may be decided by the court in a civil case on a motion for summary judgment as a matter of law if there is no material dispute of fact that needs to be submitted to the jury. However, there are no motions for summary judgment in a criminal antitrust case, and it is a question for a properly instructed jury to determine whether the Government has proved beyond a reasonable doubt that the defendant knowingly participated in a conspiracy to fix prices and rig bids.

The question on this Rule 29 motion is whether the evidence adduced at trial was sufficient for the jury to find, beyond a reasonable doubt, that the conspiracy to fix prices and rig bids alleged in the indictment actually existed and that the defendant knowingly joined that conspiracy.

Id. at 401–02 (footnotes omitted). The district court, after thoroughly analyzing the trial evidence with respect to each of the elements of the offense, concluded that “there was sufficient evidence from which a reasonable jury could conclude beyond a reasonable doubt that the defendant knowingly joined a conspiracy to fix prices and rig bids that affected interstate commerce and that existed within the statute of limitations period,” and denied the Rule 29 motion. *Id.* at 409.

In also denying the Rule 33 motion for a new trial, the district court separately addressed the six arguments raised by Aiyer in support of that motion. In particular, as relevant to this appeal, the district court rejected the argument

that “procompetitive justifications for conduct at issue and evidence of the lack of anticompetitive effects of conduct at issue was improperly excluded at trial.” *Id.* at 413. In doing so, the district court reiterated the basis for its prior rulings on this issue:

As the Court previously ruled prior to and during the trial, in per se Sherman Act cases in which the question for the jury is whether the conduct at issue amounted to a conspiracy to fix prices and rig bids, evidence of the lack of anticompetitive effects or the presence of procompetitive justifications is inadmissible for the purpose of proving that the price fixing or bid rigging conspiracy was reasonable or beneficial. The Court’s prior rulings were properly decided.

Id. at 413–14 (internal citation omitted). The district court further emphasized that, notwithstanding that ruling, it did allow the defendant the opportunity to introduce such evidence “for the limited and permissible purpose of showing that the defendant or one of his alleged coconspirators lacked the specific intent to engage in the conduct that comprised the object of the conspiracy, namely fixing prices and rigging bids.” *Id.* at 414. Thus, the district court concluded that Aiyer had failed to explain how that ruling, which was consistent with Supreme Court precedent, provided any basis for a new trial.

On September 17, 2020, the district court sentenced Aiyer to eight months’ imprisonment, to be followed by a two-year term of supervised release, and

imposed a \$150,000 fine. The judgment reflecting this sentence was entered on October 2, 2020.¹⁴

DISCUSSION

Aiyer raises three arguments on appeal. Specifically, he contends that the district court: (1) legally erred by failing to review his proffered evidence of competitive effects and refusing to make a threshold determination as to whether, under the Sherman Act, the *per se* rule or rule of reason applied to his trading activity in the FX market; (2) abused its discretion in precluding the admission of his evidence concerning competitive effects; and (3) abused its discretion conducting only a limited investigation into allegations of juror misconduct that came to light post-trial. As set forth below, we discern no error in the district court's refusal to make a threshold determination as to which analytical framework under the Sherman Act governed this case, and we further conclude that the district court did not abuse its discretion in connection with either its evidentiary rulings or its post-trial investigation into alleged juror misconduct.

¹⁴ Although the district court denied Aiyer bail, *see United States v. Aiyer*, 500 F. Supp. 3d 21 (S.D.N.Y. 2020), this Court granted Aiyer's motion for bail pending appeal on December 2, 2020.

I. The Applicable Antitrust Framework

Aiyer's primary argument on appeal is that the district court erred by consistently failing to evaluate purported evidence that his conduct in the FX market lacked anticompetitive effects, and, in fact, had procompetitive benefits, in order to decide whether the *per se* rule or rule of reason applies to that conduct.

Notably, in relation to this issue, Aiyer does not challenge the district court's rulings on his motion to dismiss the indictment or his later motion for a judgment of acquittal or a new trial under Rules 29 and 33, nor does he contend that the district court erred in its legal instructions to the jury. Instead, he makes the more amorphous argument that, at some point during the lengthy proceedings below, the district court should have made a threshold determination as to which analytical framework under the Sherman Act—the *per se* rule or the rule of reason—should be applied in assessing the alleged offense conduct. We construe this aspect of Aiyer's appeal as raising a question of law, which we review *de novo*. See *United States v. Skelos*, 988 F.3d 645, 658 (2d Cir. 2021); see also *United States v. Apple, Inc.*, 791 F.3d 290, 313, 321–30 (2d Cir. 2015) (reviewing *de novo* the question whether the *per se* rule or rule of reason applied to alleged conduct in a civil antitrust case); *California ex rel. Harris v. Safeway, Inc.*, 651 F.3d 1118, 1124 (9th Cir.

2011) (“The selection of the proper mode of antitrust analysis is a question of law, which we review de novo.”). As set forth below, we find no error in the district court’s conclusion that it was not required to review Aiyer’s proffered evidence of competitive effects of his trading activity in the FX market or to make a threshold determination as to whether, under the Sherman Act, the *per se* rule or rule of reason applied at his criminal trial.

A. Legal Context

Under Section 1 of the Sherman Act, Congress declared “[e]very contract, combination . . . , or conspiracy, in restraint of trade or commerce . . . to be illegal.” 15 U.S.C. § 1. Although the plain language of this provision broadly covers *any* agreement to restrain trade, it is axiomatic that “Congress intended to outlaw only *unreasonable* restraints.” *Texaco Inc. v. Dagher*, 547 U.S. 1, 5 (2006) (quoting *State Oil Co. v. Khan*, 522 U.S. 3, 10 (1997)); *see also Ohio v. Am. Express Co.*, 138 S. Ct. 2274, 2283 (2018) (“[The Supreme] Court has long recognized that, ‘[i]n view of the common law and the law in this country’ when the Sherman Act was passed, the phrase ‘restraint of trade’ is best read to mean ‘undue restraint.’” (alteration in original) (quoting *Standard Oil Co. of N.J. v. United States*, 221 U.S. 1, 59–60 (1911))).

Typically, alleged restraints on trade challenged under the Sherman Act are analyzed under the rule of reason. *See Dagher*, 547 U.S. at 5 (stating that “[the Supreme] Court presumptively applies rule of reason analysis” in Sherman Act cases); *Khan*, 522 U.S. at 10 (noting that “most antitrust claims are analyzed under a ‘rule of reason[.]’”). As its name suggests, the rule of reason requires that “the finder of fact . . . decide whether the questioned practice imposes an unreasonable restraint on competition, taking into account a variety of factors, including specific information about the relevant business, its condition before and after the restraint was imposed, and the restraint’s history, nature, and effect.” *Khan*, 522 U.S. at 10; *see also Am. Express*, 138 S. Ct. at 2284 (“The rule of reason requires courts to conduct a fact-specific assessment of market power and market structure . . . to assess the [restraint]’s actual effect on competition. The goal is to distinguis[h] between restraints with anticompetitive effect that are harmful to the consumer and restraints stimulating competition that are in the consumer’s best interest.” (alterations in original) (internal quotation marks and citation omitted)); *Gatt Commc’ns, Inc. v. PMC Assocs., L.L.C.*, 711 F.3d 68, 75 n.8 (2d Cir. 2013) (“When applying the rule of reason, courts weigh all of the circumstances surrounding the challenged acts to determine whether the alleged restraint is unreasonable . . .”).

However, certain restraints are subject to the *per se* rule—that is, they are categorically unreasonable restraints on trade, given their inherently anticompetitive nature. See *Khan*, 522 U.S. at 10 (“Some types of restraints . . . have such predictable and pernicious anticompetitive effect, and such limited potential for procompetitive benefit, that they are deemed unlawful *per se*.”). As we have stated, the *per se* rule “‘reflect[s] a longstanding judgment’ that case-by-case analysis is unnecessary for certain practices that, ‘by their nature[,] have a substantial potential’ to unreasonably restrain competition.” *Apple*, 791 F.3d at 321 (alterations in original) (quoting *FTC v. Superior Ct. Trial Laws. Ass’n*, 493 U.S. 411, 433 (1990)). “To justify a *per se* prohibition a restraint must have manifestly anticompetitive effects, and lack . . . any redeeming virtue.” *Leegin Creative Leather Prods., Inc. v. PSKS, Inc.*, 551 U.S. 877, 886 (2007) (alteration in original) (internal quotation marks and citation omitted). Under this rule, there is no “need to study the reasonableness of an individual restraint in light of the real market forces at work.” *Id.* Thus, in a criminal antitrust case alleging conduct falling within the *per se* rule, the government “need prove only that [the offense conduct] occurred in order to win [its] case, there being no other elements to the offense and no

allowable defense.” *United States v. Koppers Co.*, 652 F.2d 290, 294 (2d Cir. 1981) (internal quotation marks omitted).

The paradigmatic example of a *per se* illegal restraint on trade under the Sherman Act is a horizontal conspiracy to fix prices with competitors. *See United States v. Socony-Vacuum Oil Co.*, 310 U.S. 150, 223 (1940) (“Under the Sherman Act a combination formed for the purpose and with the effect of raising, depressing, fixing, pegging, or stabilizing the price of a commodity in interstate or foreign commerce is illegal *per se*.”); *Catalano, Inc. v. Target Sales, Inc.*, 446 U.S. 643, 647 (1980) (“A horizontal agreement to fix prices is the archetypal example” of a *per se* unreasonable practice).¹⁵ In addition, the Supreme Court has held that the practice of allocating markets is subject to the *per se* rule. *See Palmer v. BRG of Ga., Inc.*, 498 U.S. 46, 49–50 (1990). Moreover, we have ruled that bid rigging—which is simply another “form of horizontal price fixing”—is a *per se* violation of the Sherman Act. *See Koppers*, 652 F.2d at 294 (“In cases involving behavior such as bid rigging, . . . the Sherman Act will be read as simply saying: An agreement among competitors to rig bids is illegal.” (internal quotation marks omitted)); *see*

¹⁵ “[C]oncerted action [between competitors at the same level of the market] is usually termed a ‘horizontal’ restraint, in contradistinction to combinations of persons at different levels of the market structure, *e.g.*, manufacturers and distributors, which are termed ‘vertical’ restraints.” *United States v. Topco Assocs., Inc.*, 405 U.S. 596, 608 (1972).

also *United States v. Joyce*, 895 F.3d 673, 677 (9th Cir. 2018); *United States v. Fenzl*, 670 F.3d 778, 780 (7th Cir. 2012) (defining “bid rigging” as “a form of price fixing in which bidders agree to eliminate competition among them, as by taking turns being the low bidder”); accord 15 U.S.C. § 7a note (Findings; Purpose of 2020 Amendment) (“Congress finds [that] . . . [c]onspiracies among competitors to fix prices, rig bids, and allocate markets are categorically and irredeemably anticompetitive and contravene the competition policy of the United States.”).

Despite the categorical nature of the *per se* rule, there are certain exceptions to its application. For example, the “ancillary restraints doctrine,” which “governs the validity of restrictions imposed by a legitimate business collaboration, such as a business association or joint venture, on nonventure activities,” *Dagher*, 547 U.S. at 7, “exempt[s]” such agreements “from the *per se* rule,” such that the rule of reason applies, *Aya Healthcare Servs. Inc. v. AMN Healthcare, Inc.*, 9 F.4th 1102, 1109 (9th Cir. 2021) (quoting *Rothery Storage & Van Co. v. Atlas Van Lines, Inc.*, 792 F.2d 210, 224 (D.C. Cir. 1986)). When this doctrine applies, “courts must determine whether the nonventure restriction is a naked restraint on trade, and thus invalid, or one that is ancillary to the legitimate and competitive purposes of the business association, and thus valid.” *Dagher*, 547 U.S. at 7.

Apart from the ancillary restraints doctrine, courts have also relieved alleged misconduct from *per se* treatment in “[limited] situations where the ‘restraints on competition are essential if the product is to be available at all.’” *Apple*, 791 F.3d at 326 (quoting *Am. Needle, Inc. v. Nat’l Football League*, 560 U.S. 183, 203 (2010)). As we have explained when discussing this second exception to the *per se* rule, courts “apply the rule of reason [under these circumstances] only when the restraint at issue was imposed in connection with some kind of potentially efficient [formal or informal] joint venture.” *Id.* (“Put differently, a participant in a price-fixing agreement may invoke only certain, limited kinds of ‘enterprise and productivity’ to receive the rule of reason’s advantages.” (emphasis omitted)).

B. Application

Aiyer argues that the district court erred in declining to assess his competitive effects evidence and refusing to make a threshold determination as to whether the *per se* rule or the rule of reason applied to the conspiracy to restrain trade alleged in the indictment. We disagree. Aiyer’s argument is both procedurally and substantively flawed.

As a procedural matter, contrary to Aiyer’s contention, the district court did not “abdicate[] its gate-keeping responsibilities” by “refus[ing] to analyze the

charged conduct in light of the proffered economic evidence and decide whether it should be evaluated under the per se rule or the rule of reason,” Aiyer Br. at 36, because it has no such responsibilities in this criminal case. Before trial, a defendant “may raise by . . . motion any defense, objection, or request that the court can determine without a trial on the merits,” including a motion alleging “a defect in the indictment.” Fed. R. Crim. P. 12(b)(1)(B). On such a motion, “[a]n indictment is sufficient as long as it (1) ‘contains the elements of the offense charged and fairly informs a defendant of the charge against which he must defend,’ and (2) ‘enables the defendant to plead an acquittal or conviction in bar of future prosecutions for the same offense.’” *United States v. Dawkins*, 999 F.3d 767, 779 (2d Cir. 2021) (quoting *United States v. Wedd*, 993 F.3d 104, 120 (2d Cir. 2021)). Additionally, although a district court can “make factual determinations in matters that do not implicate the general issue of a defendant’s guilt” when assessing a Rule 12 motion, it cannot resolve “a factual dispute that is inextricably intertwined with a defendant’s potential culpability,” as that is a role reserved for the jury. *United States v. Sampson*, 898 F.3d 270, 281 (2d Cir. 2018).

Beyond a Rule 12 motion, “[a] defendant has no right to judicial review of a grand jury’s determination of probable cause to think a defendant committed a

crime.” *Kaley v. United States*, 571 U.S. 320, 333 (2014). Thus, “[a]n indictment returned by a legally constituted and unbiased grand jury, . . . if valid on its face, is enough to call for trial of the charge on the merits.” *Costello v. United States*, 350 U.S. 359, 409 (1956) (footnote omitted); accord *United States v. Ciambrone*, 601 F.2d 616, 623 (2d Cir. 1979).

Here, in its denial of Aiyer’s motion to dismiss the indictment—which is not challenged on appeal—the district court properly concluded that the indictment adequately alleged a conspiracy to fix prices and rig bids in the FX market. As a result, the government was entitled to present its *per se* case against Aiyer to the jury without any pre-trial determination by the district court as to the sufficiency of the government’s proof of the alleged *per se* charges. See *Costello*, 350 U.S. at 409.

In reaching this decision, we emphasize that this is a *criminal* case, and “summary judgment does not exist in federal criminal procedure.” *Wedd*, 993 F.3d at 121 (quoting *Sampson*, 898 F.3d at 282). In other words, “although a judge may dismiss a civil complaint pretrial for insufficient evidence [on a motion for summary judgment], a judge generally cannot do the same for a federal criminal indictment.” *Sampson*, 898 F.3d at 280. Moreover, unlike a civil antitrust case, where the government may proceed in the alternative under a rule of reason

theory and the availability of the rule of reason impacts the scope of evidence at trial, *see Apple*, 791 F.3d at 297, the government’s criminal case here was going to rise or fall solely on its ability to prove the *per se* categories of restraint alleged in the indictment. In other words, there was no possibility that the government could argue to the jury in the alternative that, if the government’s proof fell short of a *per se* violation, Aiyer could still be found guilty under the rule of reason. As noted *supra*, the government does not pursue criminal charges under the rule of reason as a matter of policy and, in any event, the indictment here—charging only a *per se* case—would have foreclosed any such attempt to switch theories during trial. Simply put, in a criminal antitrust case, a district court has no pretrial obligation to consider a defendant’s evidence of competitive effects in order to determine whether or not the indictment properly charges an actual *per se* offense. Thus, there was no procedural error in the district court’s failure to assess Aiyer’s proffered evidence and decide which rule under the Sherman Act applied here.¹⁶

¹⁶ We are unpersuaded by Aiyer’s suggestion that we have previously required courts to conduct a preliminary, “sophisticated economic inquiry” to determine whether a challenged restraint is properly characterized as *per se* unlawful. Aiyer Br. at 35 (quoting *Volvo N. Am. Corp. v. Men’s Int’l Pro. Tennis Council*, 857 F.2d 55, 71–72 (2d Cir. 1988)). As a threshold matter, we note that *Volvo* was a civil case, and thus, as discussed *supra*, is subject to different procedures for pre-trial determinations regarding sufficiency of the evidence. In any event, the substance of our decision in *Volvo* does not conflict with our analysis here. In that case, plaintiffs alleged, among other things, that a professional

Aiyer’s argument is equally without merit from a substantive standpoint based upon well-settled antitrust jurisprudence. Having correctly determined that the indictment charged price fixing and bid rigging as *per se* violations of criminal antitrust laws, the district court properly concluded that precedent from both the Supreme Court and this Court has long foreclosed consideration by the district court (whether pre-trial or at some later procedural posture) of the competitive effects—*i.e.*, reasonableness—of that alleged conduct in an attempt by Aiyer to avoid the *per se* rule. *See, e.g., Maricopa Cnty.*, 457 U.S. at 351 (“The anticompetitive potential inherent in all price-fixing agreements justifies their facial invalidation even if procompetitive justifications are offered for some.”); *Socony-Vacuum*, 310 U.S. at 218 (“[The Supreme] Court has consistently and without deviation adhered

tennis council conspired to fix compensation for certain professional tennis matches. 857 F.2d at 71. The district court granted defendants’ motion to dismiss as to this claim. *See id.* at 62. We reversed, but noted in *dicta* that “[a]ssuming . . . appellants succeed in proving the foregoing allegations, . . . we express no opinion at this time as to whether [defendants’] conduct should be condemned as *per se* unlawful or, instead, should be analyzed under the Rule of Reason.” *Id.* at 71. We further explained that it was not immediately clear that the *per se* rule should apply in the context of that case because “professional sporting events cannot exist unless the producers of such events agree to cooperate with one another to a certain extent, and that the antitrust laws do not condemn such agreements when coordination is essential if the activity is to be carried out at all.” *Id.* at 71–72. As discussed below, Aiyer does not—and cannot—argue that his conduct was essential to the functioning of the FX market. In any event, we did not suggest in *Volvo* that a defendant is entitled to a pre-trial determination on these issues in a criminal case.

to the principle that price-fixing agreements are unlawful per se under the Sherman Act and that no showing of so-called competitive abuses or evils which those agreements were designed to eliminate or alleviate may be interposed as a defense.”); *Apple*, 791 F.3d at 321 (explaining that “case-by-case analysis [of competitive effects] is unnecessary” in *per se* cases); *Koppers*, 652 F.2d at 295 n.6 (stating that “the per se rule makes certain conspiracies illegal without regard to their actual effects on trade”).

As the Supreme Court explained in 1940, “[w]hatever economic justification particular price-fixing agreements may be thought to have, *the law does not permit an inquiry into their reasonableness*. They are all banned because of their actual or potential threat to the central nervous system of the economy.” *Socony-Vacuum*, 310 U.S. at 224 n.59 (emphasis added). Therefore, even assuming *arguendo* that Aiyer is correct that the charged “conspiracy to ‘fix prices’ or ‘rig bids’ did not actually have a material effect on supply, demand, or consumer price,” Aiyer Br. at 36, that fact has no legal consequence because actual effects on the market are, subject to only a few, narrow exceptions, *irrelevant* in a case alleging a *per se* violation of the Sherman Act.¹⁷ Therefore, any inquiry into Aiyer’s proffered

¹⁷ Relatedly, this long-standing principle also renders Aiyer’s argument that the government “showed no increased prices or reduced supply,” Aiyer Br. at 45, unavailing.

economic evidence below would not only have been unnecessary on the issue of reasonableness with respect to a *per se* violation, *cf. Taylor v. Illinois*, 484 U.S. 400, 410 (1988) (noting that “[t]he accused does not have an unfettered right to offer testimony that is . . . inadmissible under standard rules of evidence”), but indeed, would have been legal error absent a properly asserted exception to the *per se* rule, none of which are at issue here.

At oral argument, Aiyer relied heavily on the Supreme Court’s decision in *Leegin* for the proposition that “a ‘departure from the rule-of-reason standard must be based upon demonstrable economic effect rather than . . . upon formalistic line drawing.’” 551 U.S. at 887 (alteration in original) (quoting *Cont’l T. V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36, 58–59 (1977)). Therefore, he argued, the district court was required to consider economic effects before determining whether the *per se* rule applied here. However, Aiyer misunderstands the import of that case. In *Leegin*, the Court considered whether a *specific category* of restraints on trade—“vertical minimum resale price maintenance agreements”—“should continue to be treated as *per se* unlawful.” *Id.* at 885. Thus, upon reviewing the relevant

We reiterate that, in a *per se* case, resulting anticompetitive effects need not be proved. *See, e.g., Copperweld Corp. v. Indep. Tube Corp.*, 467 U.S. 752, 768 (1984) (explaining that agreements subject to the *per se* rule “are thought so inherently anticompetitive that each is illegal *per se* without inquiry into the harm [they have] actually caused”).

economic evidence, the Court concluded that the rule of reason, rather than the *per se* rule, was “the appropriate standard to judge vertical price restraints,” and overruled prior caselaw holding otherwise. *Id.* at 889–99, 907. Similarly, in *GTE Sylvania*, the Court was asked to determine whether certain vertical franchise agreements that “limited the number of franchises granted for any given area” were subject to the *per se* rule or the rule of reason. 433 U.S. at 38, 41–42. There too, the Supreme Court overruled a prior case and determined that the rule of reason applied to the challenged restraints. *Id.* at 58–59.

Here, by contrast, the Supreme Court and this Court have *long held* that the categories of restraints alleged in the indictment—price fixing and bid rigging—are subject to the *per se* rule, *see, e.g., Catalano*, 446 U.S. at 647; *Socony-Vacuum*, 310 U.S. at 223; *Koppers*, 652 F.2d at 293–94, “because of their pernicious effect on competition and lack of any redeeming virtue,” *Nw. Wholesale Stationers, Inc. v. Pac. Stationery & Printing Co.*, 472 U.S. 284, 289 (1985). Indeed, in *Leegin itself*, the Supreme Court reiterated that “[r]estraints that are *per se* unlawful include horizontal agreements among competitors to fix prices.” 551 U.S. at 886. Thus, there was no need for the district court to consider “demonstrable economic effect[s],” *id.* at 887 (internal quotation marks omitted), given the well-established

principle that the “anticompetitive potential inherent in all price-fixing agreements justifies their facial invalidation,” *Maricopa Cnty.*, 457 U.S. at 351.

On appeal, Aiyer also asserts that “[e]ven when no formal cooperative venture exists, conduct that technically would fall within the *per se* category may still warrant rule of reason analysis when it promotes productivity,” Aiyer Br. at 33, but that assertion is overstated and, in any event, has no application to the facts here. As we explained in *Apple*, a joint venture-related exception to the *per se* rule arises “only when the restraint at issue was imposed in connection with some kind of potentially efficient joint venture.” 791 F.3d at 326. A court may then consider the alleged misconduct under the rule of reason. *Id.* Cases applying this exception, however, tend to be “limited to situations where the ‘restraints on competition [at issue] are *essential* if the product is to be available at all.’” *Id.* (emphasis added) (quoting *Am. Needle*, 560 U.S. at 203). In addition, in *Apple* itself we rejected application of this exception where “there was no joint venture or other similar productive relationship between any of the participants in the conspiracy.” *Id.*¹⁸

Aiyer does not, nor could he, claim that, even if he and the other co-conspirators

¹⁸ Although Aiyer complains that the government’s interpretation of this exception incorrectly requires the existence of a *formal* joint venture, we made clear in *Apple* that a “similar productive relationship” suffices as well. *Id.*

had the requisite “productive relationship,” their trading activity in the FX market was “essential” for CEEMEA currencies “to be available at all.” *Id.* (internal quotation marks omitted).¹⁹ In short, the district court did not err in refusing to assess Aiyer’s competitive effects evidence to decide whether that evidence counseled in favor of applying the rule of reason to this facially valid indictment charging a *per se* case. To hold otherwise would be to unconstitutionally infringe upon the factfinding function of the jury in a criminal trial, and likewise cause “the *per se* rule [to] lose all the benefits of being ‘*per se*.’” *Id.*

Aiyer suggests that “without the trial court’s meaningful, on-the-record analysis of proffered economic evidence to determine whether the *per se* rule

¹⁹ Aiyer’s substantial reliance on civil cases applying the ancillary restraints doctrine or joint venture-related exception to the *per se* rule is therefore misplaced. For example, in *In re Sulfuric Acid Antitrust Litigation*, the Seventh Circuit determined that the rule of reason should apply to alleged misconduct where the defendants—which were affiliate firms—entered a joint venture with another company to supply sulfuric acid in the United States because “the[ir] coordination [was] ancillary to (that is, supportive of) the legitimate business purpose of the venture.” 703 F.3d 1004, 1013 (7th Cir. 2012); *see also Med. Ctr. at Elizabeth Place, LLC v. Atrium Health Sys.*, 922 F.3d 713, 719, 725–31 (6th Cir.) (assessing whether the ancillary restraints doctrine applied to alleged coordinated conduct among various hospitals where those hospitals’ functions were governed by a joint operating agreement), *cert. denied*, 140 S. Ct. 380 (2019); *Polk Bros., Inc. v. Forest City Enters., Inc.*, 776 F.2d 185, 188–90 (7th Cir. 1985) (concluding that, under Illinois law (which “refers courts to federal antitrust law as a guide to questions of interpretation”), the rule of reason applied to an “ancillary” restraint stemming from “a new venture—the building of a joint facility—that would expand output”). Simply put, such cases, which we assume *arguendo* were correctly decided and which do not bind this Court in any event, are distinguishable on their facts and inapplicable here.

applies, the [Sherman Act] would be unconstitutional” and “violate basic principles of due process.” Aiyer Br. at 43. This perfunctory assertion is unsupported by the law or the record in this case. In *Koppers*, we explicitly “decline[d] the invitation” to find that the *per se* rule could not be applied constitutionally absent a finding that the challenged agreement was factually unreasonable and noted that “[t]his argument asks us in effect to overrule the Supreme Court’s decisions.” 652 F.2d at 293; *see also id.* at 294 (“Since the Sherman Act does not make ‘unreasonableness’ part of the offense, it cannot be said that the judicially-created *per se* mechanism relieves the government of its duty of proving each element of a criminal offense under the Act.”). To be sure, the absence of a “reasonableness” element in a *per se* violation does not alter the government’s burden to prove each of the existing elements of a *per se* violation to the jury beyond a reasonable doubt. However, as set forth below, Aiyer was not precluded from legally and factually challenging each of the elements of the alleged *per se* charge in full accord with due process.

First, if a defendant seeks to challenge the application of the *per se* rule to his offense conduct by arguing to the jury that such conduct fell within one of the exceptions to the *per se* rule, he would have had every right to make those

arguments and present evidence on such exceptions at trial. Aiyer was given a full opportunity to do so. He could have introduced evidence (or argued) that his coordinated activities in the FX market either fell within the ancillary restraints doctrine, *see Dagher*, 547 U.S. at 7, or otherwise were in furtherance of some joint venture-like enterprise that yielded significant efficiencies, *see Apple*, 791 F.3d at 326. Indeed, the district court *denied* the government's motion *in limine* to exclude evidence that Aiyer's challenged conduct was subject to any joint venture-related exception to the *per se* rule. Importantly, although Aiyer suggested prior to trial that the ancillary restraints doctrine or other joint venture-related exception could apply to his conduct, he did not make specific arguments regarding, or offer any evidence related to, those exceptions at trial. In fact, Aiyer did not even ask that the jury be instructed regarding any of these potential exceptions to the *per se* rule. Thus, Aiyer chose not to pursue these exceptions at trial.

Second, as discussed further *infra*, Aiyer *was* permitted to present some competitive effects evidence on the intent element by cross-examining witnesses regarding the actual effects of the co-conspirators' trading activity. The district court reasoned, "having gone through all of the evidence that the purpose of [the conspiracy] was not only . . . to agree to set a price to a customer, but, rather, to

move the prices up or down in order to be able to make more money and to effect supply and demand, it would . . . be remarkable not to admit evidence [of] whether what they intended to do, in fact, had any effect.” App’x at 821–22. Thus, on several occasions, Aiyer was able to elicit testimony supporting his argument that the co-conspirators’ trading activity did not yield significant price effects. Insofar as Aiyer argues that he should have been permitted to introduce *more* evidence of competitive effects in relation to intent, as discussed below, we reject that argument because, as we have held—and reemphasize today—under these particular circumstances “nothing more is required than a showing that the defendant intentionally engaged in conduct that is a *per se* violation of the Sherman Act, which was proven here.” *Koppers*, 652 F.2d at 298. In addition to arguing to the jury that he lacked the requisite intent, Aiyer argued that there was no agreement among the alleged co-conspirators, and that any agreement that may have existed was not an agreement among competitors or an agreement to not compete on pricing. Therefore, Aiyer was fully able to attack the government’s proof as to each element of a *per se* case.

Third, Aiyer had the opportunity to ensure that the government’s proof met the correct legal standard for a *per se* violation by challenging the district court’s

jury instructions with respect to the elements. Although he asserts that he objected to the court's instructions on price fixing and bid rigging, Aiyer's counsel, in fact, objected more narrowly to the district court's decision not to use certain of his proposed instructions—namely, instructions that interdealer trading and trading in the Russian ruble do not constitute price fixing or bid rigging.²⁰ Thus, there was no objection to the district court's specific language in the ultimate instruction that stated that price fixing and bid rigging “unlawfully restrain[] trade regardless of the motives of the conspirators or any economic justification they may . . . offer.” App'x at 1096 (price fixing); *see also* App'x at 1098–99 (same with respect to bid rigging). Further, had Aiyer presented any evidence going to the ancillary restraints doctrine or joint venture-related exception to the *per se* rule, he could have requested that the district court instruct the jury on those issues. Tellingly, on appeal, Aiyer does not make any specific challenges to the substance of any of the language in the district court's jury instructions.²¹

²⁰ Aiyer's counsel also contended that “any instruction on bid rigging was not necessary because there was no bid rigging proved.” App'x at 1059.

²¹ Although Aiyer generally argues on appeal that the district court “could have instructed the jury to consider the reasonableness of [his] conduct,” Aiyer Br. at 42, he is incorrect. As discussed *supra*, absent an applicable exception, the *per se* rule “eliminates the need to study the reasonableness” of a challenged restraint on trade. *Leegin*, 551 U.S. at 886 (emphasis added); *accord Socony-Vacuum*, 310 U.S. at 224 n.59.

Finally, with respect to judicial review of the adequacy of the government's proof in the *per se* case against him, Aiyer was permitted to—and did—challenge the sufficiency of the government's evidence in a Rule 29 motion for a judgment of acquittal. *See* Fed. R. Crim. P. 29. Of course, Aiyer carried a heavy burden because, on a Rule 29 motion, “a reviewing court must sustain the jury's guilty verdict if viewing the evidence in the light most favorable to the prosecution, *any* rational trier of fact could have found the essential elements of the crime beyond a reasonable doubt.” *United States v. Ho*, 984 F.3d 191, 199 (2d Cir. 2020) (quoting *United States v. Heras*, 609 F.3d 101, 105 (2d Cir. 2010)). Under that standard, in its thorough and well-reasoned decision, the district court denied Aiyer's motion and concluded that there was sufficient evidence from which a reasonable juror could find beyond a reasonable doubt that Aiyer “knowingly joined a conspiracy to fix prices and rig bids that affected interstate commerce and that existed within the

statute of limitations period.”²² *Aiyer II*, 470 F. Supp. 3d at 409. Aiyer does not challenge that ruling, regarding the sufficiency of the evidence, on appeal.²³

²² As described in detail in the district court’s decision, see *Aiyer II*, 470 F. Supp. 3d at 392–400, the government’s proof included compelling, direct evidence of a *per se* violation. Taking just one example, as described above, on January 8, 2012, Aiyer and Cummins realized that they had the same U.S. dollar–South African rand stop-loss order—to sell \$25 million if the market price reached a certain low point. Once this situation was made known to Katz on a Bloomberg chat involving him, Aiyer, and Cummins, Katz wrote, “why dont we drive [the price] down there and keep some,” Gov’t Supp. App’x at 464, which Cummins understood to mean, “if you push it through now, it is likely that the market would bounce back and . . . you could make a profit selling higher if the market bounces higher,” Gov’t Supp. App’x at 81. Then, as Cummins testified at trial, the three co-conspirators “[w]ork[ed] together on the stop-loss.” Gov’t Supp. App’x at 122. There was evidence introduced at trial that, through this coordinated effort, Aiyer, Cummins, and Katz lowered the market price for the South African rand, after which Aiyer wrote in the chatroom, “wow tht went.” Gov’t Supp. App’x at 465. Later that day, Aiyer wrote on Bloomberg chat, “salute to first coordinated . . . zar effort,” to which Katz replied, “yep . . . many more to come.” Gov’t Supp. App’x at 450. The evidence of criminal intent was further bolstered by Aiyer’s prior comments on Bloomberg chat, such as telling Katz, “u shud introduce me to the zar mafia,” Gov’t Supp. App’x at 395; writing that he “want[ed] in to the zar mafia,” Gov’t Supp. App’x at 396; and that, “between [him and Katz] . . . we can ryun zar,” Gov’t Supp. App’x at 395; see also App’x at 1133 (Bloomberg chat where, in response to Katz’s comment that “conspiracies are nice,” Aiyer writes, “hahaha . . . proly shudnt puot this on perma chat”).

²³ Aiyer does attempt to relitigate that, in connection with Russian ruble trading, his role was more akin to that of a supplier in a vertical relationship, such that his conduct should be assessed under the rule of reason. See *Apple*, 791 F.3d at 321 (explaining that “the Supreme Court in recent years has clarified that vertical restraints—including those that restrict prices—should generally be subject to the rule of reason” (citing *Leegin*, 551 U.S. at 882 and *Khan*, 522 U.S. at 7)). However, the jury heard arguments that this was not a horizontal price agreement among competitors and implicitly rejected those arguments as a factual matter with its verdict, and, again, Aiyer does not challenge the sufficiency of the evidence supporting the verdict on appeal.

In sum, the district court did not commit legal error in declining to review Aiyer's proffered competitive effects evidence and refusing to determine, as a threshold matter, whether the *per se* rule or the rule of reason applied in this case. Having had the ability to test the facial validity of the indictment in a motion to dismiss under Rule 12, to present arguments and evidence to the jury on exceptions to the *per se* rule (which he choose not to do), to question some witnesses regarding competitive effects of the trading activity on the issue of intent, to challenge the district court's jury instructions, and to move for a judgment of acquittal under Rule 29, Aiyer was given a full opportunity to legally and factually challenge the *per se* case against him throughout the proceedings below.

II. The Evidentiary Challenges

Next, Aiyer relatedly challenges the district court's decision to exclude at trial his proffered evidence—including expert testimony—that his conduct in the FX market lacked anticompetitive effects and, in fact, yielded procompetitive benefits. More specifically, he asserts that this competitive effects evidence should have been admitted to help the jury assess: (1) the “unreasonableness” of his

conduct; and (2) “whether [he] had the necessary criminal intent to form the alleged conspiracy.” Aiyer Br. at 52.

“We review the district court’s evidentiary rulings for abuse of discretion.” *United States v. Willis*, 14 F.4th 170, 185 (2d Cir. 2021). However, “we will disturb an evidentiary ruling only where the decision to admit or exclude evidence was manifestly erroneous.” *United States v. Litvak*, 889 F.3d 56, 67 (2d Cir. 2018) (internal quotation marks omitted). “Even if a decision was manifestly erroneous, we will affirm if the error was harmless.” *Id.* (internal quotation marks omitted). “These principles apply equally whether a [proffered] witness is testifying based on personal knowledge or special expertise.” *United States v. Felder*, 993 F.3d 57, 71 (2d Cir. 2021) (citing *United States v. Romano*, 794 F.3d 317, 330 (2d Cir. 2015)).

Aiyer’s first evidentiary challenge—that his competitive effects evidence was relevant to whether his conduct was reasonable—is without merit. Under the Federal Rules of Evidence, “[e]vidence is relevant if: (a) it has any tendency to make a fact more or less probable than it would be without the evidence; and (b) the fact is of consequence in determining the action.” Fed. R. Evid. 401. Although relevant evidence is generally admissible, “[i]rrelevant evidence is *not* admissible.” Fed. R. Evid. 402 (emphasis added).

As we discussed above, restraints on trade that are subject to the *per se* rule, such as price fixing and bid rigging, are *categorically unreasonable*, such that proof of reasonableness—which is to say, a lack of anticompetitive effects and/or the presence of procompetitive benefits—is not required. *See, e.g., Leegin*, 551 U.S. at 886 (explaining that, under the *per se* rule, there is no “need to study the reasonableness of an individual restraint [including price fixing] in light of the real market forces at work”); *Socony-Vacuum*, 310 U.S. at 224 n.59 (“Whatever economic justification particular price-fixing agreements may be thought to have, the law does not permit an inquiry into their reasonableness.”); *Koppers*, 652 F.2d at 293 (explaining the Supreme Court’s holding in *Socony-Vacuum* that “certain types of conduct, including price-fixing, are so patently anticompetitive that they violate the [Sherman] Act without proof of unreasonableness in each case”). Here, the indictment alleged that Aiyer entered into a conspiracy to fix prices and rig bids. These restraints, if proven, “must *automatically* be treated as unreasonable.” *Koppers*, 652 F.2d at 294 (emphasis added). Thus, reasonableness was not a “fact . . . of consequence in determining” Aiyer’s guilt, Fed. R. Evid. 401, and the district court therefore properly concluded that “[e]vidence of pro-competitive effects, or the lack of harm, is not relevant” on that issue, Gov’t Supp. App’x at 228; *accord*

App'x at 313 (concluding, in connection with the motions *in limine*, that “if the price fixing charges are substantiated, evidence of anticompetitive [or procompetitive] effects is irrelevant”); *see also United States v. Guillory*, 740 F. App'x 554, 556 (9th Cir. 2018) (determining that “[t]he district court did not preclude any relevant evidence by granting the government’s motion *in limine* to prohibit [defendant] from introducing evidence or argument that the bid-rigging agreements were reasonable” because “the rule of reason inquiry . . . is inapplicable if the restraint falls into the category of agreements which have been determined to be *per se* illegal” (internal quotation marks and alteration omitted)).

Aiyer separately asserts that “the district court’s exclusion of effects evidence was error because it significantly impaired the defense’s ability to prove that [he] lacked the requisite criminal intent.” Aiyer Br. at 53. To be sure, “intent is a necessary element of a criminal antitrust violation.” *United States v. U.S. Gypsum Co.*, 438 U.S. 422, 443 (1978). Further, with respect to the element of intent this Court has clarified that, when the *per se* rule governs the restraint of trade at issue, “nothing more is required than a showing that the defendant intentionally engaged in conduct that is a *per se* violation of the Sherman Act.” *Koppers*, 652 F.2d at 298.

Although Aiyer contends that the government must also “prove that the defendant knew that anticompetitive effects would ‘most likely follow’ from his conduct,” Aiyer Br. at 54 (quoting *U.S. Gypsum*, 438 U.S. at 444), our decision in *Koppers* forecloses that approach in *per se* cases. In *Koppers*, the defendant road tar producer was convicted of conspiring to rig bids and allocate territories in violation of Section 1 of the Sherman Act. 652 F.2d at 291–93. More specifically, a jury found that the defendant and its sole competitor coordinated their bids for the sale of road tar to the State of Connecticut and that, as a result, the defendant was awarded all of the road tar sales contracts in eastern Connecticut, while its competitor was awarded all such contracts in western Connecticut. *See id.* On appeal, the defendant asserted, among other things, that the district court’s jury instructions on intent were legally erroneous because they “permitted the jury to convict if it found that the defendant had known the objective of the conspiracy to rig bids and had intentionally become a member of it,” without considering whether the defendant “also intended that the conspiracy result in anticompetitive effects.” *Id.* at 295 n.6. We rejected the defendant’s assertion, reasoning that:

By allowing the jury to find criminal intent without addressing the issue of intent to unreasonably restrain trade, the district court was merely being consistent in its application of the *per se* rule to this case. Since the *per se* rule makes certain conspiracies illegal without regard

to their actual effects on trade, it would be illogical to refuse to allow a jury to consider whether the defendant's acts had resulted in an unreasonable restraint, on the one hand, and then require it to find the specific intent to produce those effects, on the other. Where *per se* conduct is found, a finding of intent to conspire to commit the offense is sufficient; *a requirement that intent go further and envision actual anti-competitive results would reopen the very questions of reasonableness which the per se rule is designed to avoid.*

Id. (emphasis added). It follows that, because conspiring to fix prices and rig bids is “illegal without regard to [its] actual effects on trade,” *id.*, there is likewise no need for the government to prove that a defendant in a criminal antitrust case was consciously aware that anticompetitive effects would most likely result from his alleged misconduct.

To the extent Aiyer argues that this conclusion is inconsistent with *United States Gypsum*, we disagree. There, the Supreme Court was considering the parameters of intent under criminal antitrust law, but the restraint of trade at issue—“the exchange of price information among competitors”²⁴—was subject to the rule of reason. *U.S. Gypsum*, 438 U.S. at 441 & n.16. Thus, the Court had occasion to analyze intent in a context where the presence or absence of anticompetitive effects was highly relevant. *See id.* at 444 n.21 (“We hold only that

²⁴ To be clear, the exchange of price information is different from the primary restraint of trade at issue here—price fixing—which, as noted, has consistently been held to be the quintessential *per se* violation under the Sherman Act.

[an] elevated standard of intent [requiring proof that the defendant intended to cause anticompetitive effects] need not be established in cases where [such] effects have been demonstrated; instead, proof that the defendant's conduct was undertaken with knowledge of its probable consequences will satisfy the Government's burden."). Here, by contrast, the existence of anticompetitive effects was immaterial in this *per se* case and, thus, as to intent, the government was required to prove nothing more than that Aiyer intentionally engaged in a conspiracy to fix prices and/or rig bids. *See Koppers*, 652 F.2d at 298.

In connection with his alleged intent, Aiyer argues that the district court should have permitted him to present evidence that his conduct did not yield anticompetitive effects in the FX market—namely, that there was no effect on prices—because such evidence raises the inference that the co-conspirators lacked the intent to fix prices or rig bids. *Cf. U.S. Gypsum*, 438 U.S. at 446 (“[A]n effect on prices may well support an inference that the defendant had knowledge of the probability of such a consequence at the time he acted.”). Aiyer's logic essentially is that he and his co-conspirators—as sophisticated and knowledgeable participants in the FX market—would never have intentionally conspired to fix

prices or rig bids if it would not have had an effect on the market.²⁵ Although evidence of the lack of an effect on price during a conspiracy could be relevant on the issue of intent, as noted above, the district court *did* allow some cross-examination concerning the extent of the price effects Aiyer's trading activity caused. For example, during the cross-examination of cooperating witness Katz, defense counsel utilized exhibits to point out to Katz that he and Aiyer were unable to affect the price on a number of transactions notwithstanding their alleged illegal coordination. App'x at 823–29. Based upon that cross-examination, Aiyer's counsel argued in summation that Aiyer lacked the requisite intent to fix prices:

And Mr. Katz's testimony is: What I was trying to do was show buying interest that would move the price higher. That was my purpose. I wanted to move the price higher. And then you see what actually happens a couple of minutes later is Mr. Aiyer does in fact sell, but he sells at a lower price, not a higher price. . . . You have to ask yourself, on this episode and the next one, is what Mr. Aiyer is

²⁵ Aiyer selectively quotes *Matsushita Electric Industrial Co. v. Zenith Radio Corp.*, 475 U.S. 574, 592 (1986), to argue that the failure of the alleged scheme to affect prices in three years is "strong evidence" of a lack of intent to do so. Aiyer's Br. at 55. However, in his opening brief, he elides the key fact that the Supreme Court made this comment in light of evidence that the alleged conspiracy at issue had been ineffectual for around *twenty* years. See 475 U.S. at 592 (explaining that an "alleged conspiracy's failure to achieve its ends in the two decades of its asserted operation is strong evidence that the conspiracy does not in fact exist"). Thus, the strength of the inference here regarding the lack of a price effect (to the extent that could be proven) is not analogous to the factual circumstances in *Matsushita*.

trying to do here move the price lower—which doesn’t happen—or is he trying to stimulate interest in the market so that he can find a counterparty, for get [sic] about the price, just to get out of his position?

Gov’t Supp. App’x at 338; *see also id.* at 339 (“And what you see happens next, five minutes later, is Mr. Aiyer, who is a buyer, he wants the lowest possible price, is successful in buying 5 million Euros against the Hungarian forint. But if you look at the price, it’s a higher price, not a lower price. So, again, can you conclude beyond a reasonable doubt that his intention was to move the price higher or lower as opposed to just stimulating market activity?”).

Although Aiyer contends he was entitled to introduce additional evidence that his trading activity did not produce anticompetitive effects, including expert testimony, he cannot use the element of intent as a backdoor to bring an undue amount of competitive effects evidence before the jury. *See Koppers*, 652 F.2d at 295 n.6; *see also Apple*, 791 F.3d at 326 (“[T]he *per se* rule would lose all the benefits of being ‘*per se*’ if conspirators could seek to justify their conduct on the basis of its purported competitive benefits in every case.”). Federal Rule of Evidence 403 provides that a district court “may exclude relevant evidence if its probative value is substantially outweighed by a danger of . . . unfair prejudice, confusing the issues, [or] misleading the jury.” *See Skelos*, 988 F.3d at 662–63 (“In the context of

Rule 403, we conduct [our] review recognizing that [a] district court is, of course, in the best position to do the balancing required.” (second alteration in original) (internal quotation marks omitted)).

Given that the government did not need to prove that the conspiracy to fix prices and rig bids alleged in the indictment was unreasonable, allowing unlimited evidence of a lack of anticompetitive effects or the existence of procompetitive benefits in connection with the alleged conduct would have risked “cloud[ing] the issue” of whether Aiyer was guilty of a *per se* violation of the Sherman Act and would have potentially confused or misled the jury, otherwise resulting in unfair prejudice to the government. *United States v. Gatto*, 986 F.3d 104, 117–18 (2d Cir. 2021).

Because of this concern, the district court carefully parsed through Aiyer’s evidence regarding a lack of anticompetitive effect and weighed its probative value on the issue of intent against its potential prejudicial effect. For example, with respect to the opinions of Aiyer’s expert witness, although the district court allowed some of that testimony, it noted, “to the extent that [the expert opinion] attempts to suggest why the alleged conspirators in this case acted as they did, it would be an impermissible attempt for an expert to testify as to the state of mind

of the alleged conspirators.” Gov’t Supp. App’x at 227; *see also* Gov’t Supp. App’x at 228 (“[T]o the extent that the analysis of [defense expert] Professor Lyons is based on an analysis of market conditions to negate the intent of the conspirators, the evidence should be excluded for the additional reason that there is no proffer that the alleged conspirators were aware of the conditions relied upon by Professor Lyons[.]”); Gov’t Supp. App’x at 236 (“It is one thing to cross-examine a witness on what the witness’s intent was based upon what the witness knew, and in particular, the point I made at the sidebar, the chart with respect to moving the price up or down. . . . But it’s another thing to say then independently we’re going to present evidence that the ultimate transaction benefitted the client or had no effect on the client. It didn’t affect prices. That is a different question, and it is removed from the cross-examination of the witness about what the witness knew or thought and whether the witness’s testimony was, in fact, credible testimony.”).²⁶

²⁶ The district court noted, in ruling on the admissibility of certain defense exhibits, that “witnesses could be re-called” if the defense wanted to establish the necessary foundation for additional evidence on the intent issue by showing that the conspirators were “aware of what was going on in the market.” Gov’t Supp. App’x at 249. Aiyer did not recall any witnesses or otherwise establish such a foundation.

Ultimately, the district court determined that any probative value of this additional evidence on intent was substantially outweighed by its potential prejudice. Having reviewed the district court's careful consideration of this complex evidentiary issue, we conclude that the district court properly balanced the need to allow Aiyer to rebut the government's intent evidence with the importance of preventing irrelevant competitive effects evidence from coming before the jury in this *per se* case and confusing the jury on the requisite elements of the crime. Accordingly, the district court did not abuse its discretion in limiting Aiyer's evidence purporting to show that the FX trading activity he engaged in lacked anticompetitive effects and had procompetitive benefits.

III. The Alleged Juror Misconduct

Finally, Aiyer contends that the district court abused its discretion in handling allegations of juror misconduct. In particular, he argues that the district court erroneously accepted Juror No. 3's "self-serving denials" of the allegations during his post-trial interview in court, Aiyer's Br. at 56, and that, instead, the district court should have also interviewed Juror No. 6, who made the post-trial allegations in a letter to the court. Aiyer additionally asserts that another juror's

mid-trial podcasts, discovered after trial, suggested that further investigation was required.²⁷

We review a district court's investigation into alleged juror misconduct for abuse of discretion. *United States v. Baker*, 899 F.3d 123, 130 (2d Cir. 2018). When “[f]aced with a credible allegation of juror misconduct during trial, a court has an obligation to investigate and, if necessary, correct the problem.” *United States v. Haynes*, 729 F.3d 178, 191 (2d Cir. 2013). We have warned, however, “that district judges should be particularly cautious in conducting investigations into possible jury misconduct after a verdict.” *United States v. Sabhnani*, 599 F.3d 215, 250 (2d Cir. 2010); *see also United States v. Stewart*, 433 F.3d 273, 302 (2d Cir. 2006) (“Post-trial jury scrutiny is disfavored because of its potential to undermine full and frank discussion in the jury room, jurors’ willingness to return an unpopular verdict, and the community’s trust in a system that relies on the decisions of laypeople.”) (internal quotation marks omitted). Thus, in the post-verdict context, a hearing into allegations of juror misconduct is required only “when reasonable grounds for investigation exist” and “[r]easonable grounds are present when there is clear,

²⁷ Aiyer raises no arguments concerning that juror’s post-trial podcast wherein he discussed his jury service. Accordingly, we consider any such arguments abandoned. *See Cohen v. Rosicki, Rosicki & Assocs., P.C.*, 897 F.3d 75, 87 n.9 (2d Cir. 2018).

strong, substantial and incontrovertible evidence that a specific, nonspeculative impropriety has occurred which could have prejudiced the trial of a defendant.”²⁸ *United States v. Moon*, 718 F.2d 1210, 1234 (2d Cir. 1983) (internal citation omitted). Moreover, “in the course of a post-verdict inquiry on this subject, when and if it becomes apparent that . . . reasonable grounds to suspect prejudicial jury impropriety do not exist, the inquiry should end.” *Id.* As set forth below, we find no abuse of discretion in the district court’s handling of these post-trial allegations of juror misconduct.

After the district court received the letter from Juror No. 6 regarding Juror No. 3’s alleged misconduct, it directed Juror No. 3 to return to court for an interview with lawyers for both sides present. The district court first asked Juror No. 3 whether he had done “any research about the case or any of the parties or the lawyers.” Redacted App’x at 18. Juror No. 3 indicated that he had conducted no such research during the trial and volunteered that, after the trial, he learned

²⁸ We have clarified that “[t]he requirements of ‘strong, substantial and incontrovertible evidence’ do not demand that the allegations be irrebuttable; if the allegations were conclusive, there would be no need for a hearing.” *United States v. Ianniello*, 866 F.2d 540, 543; accord *Baker*, 899 F.3d at 130–31. For example, in *Ianniello*, we found that a post-trial hearing was warranted based upon three affidavits from jurors that “contain[ed] concrete allegations of inappropriate conduct [by the trial judge and a federal marshal] that constitute[d] competent and relevant evidence.” 866 F.2d at 543.

that his office manager—who had seen a notice related to Juror No. 3’s jury service—had researched this case. Juror No. 3 also denied seeing any pictures of any attorneys involved in the trial and reported only that the jurors had “nicknames for some of the lawyers.” Redacted App’x at 19. With respect to the suggestion that his girlfriend or boss may have given him outside information before the jury reached its verdict, Juror No. 3 explained that they did not provide him with any such information and that they “respected that the United States Code is to leave the juror alone.” Redacted App’x at 20. He also stated, “[i]n one instance, my girlfriend did ask [about the case], but I told her I was not allowed to speak about it.” Redacted App’x at 20. Before Juror No. 3 was dismissed, counsel for both the government and Aiyer informed the district court that they had no additional questions for Juror No. 3.

The district court did not abuse its discretion in concluding that, in light of Juror No. 3’s interview, “there [was] no reason to suggest that there was any prejudicial information improperly brought to the attention of the jury.” *Aiyer I*, 433 F. Supp. 3d at 476. After interviewing Juror No. 3, the district court found that he “was forthcoming in his answers and explained [them] in matter-of-fact and credible terms.” *Id.* Moreover, the district court explained:

To the extent that there is any conflict between Juror No. 3's testimony and the allegations contained in Juror No. 6's letter, Juror No. 3's direct statements are more credible than the alleged comments that Juror No. 6 claims to have overheard, particularly when the Court instructed the jurors to bring to the Court's attention during the trial if any juror violated the Court's instructions not to look at or listen to anything about the case outside the courtroom. Further, Juror No. 6 brought his concerns to the Court only after he became dissatisfied with the unanimous verdict.

Id. at 476–77. Given that “the district court is best situated to evaluate jurors’ credibility” in these circumstances, *United States v. Cox*, 324 F.3d 77, 87 (2d Cir. 2003), we decline to second-guess the district court’s finding that Juror No. 3 was more credible than Juror No. 6.

Moreover, the district court did not abuse its discretion in concluding that, even assuming that Juror No. 6's allegations were true, those allegations failed to demonstrate that Juror No. 3 had, in fact, been exposed to any prejudicial information. In other words, even if Juror No. 3's girlfriend and boss had looked up this case, and even if he had looked up a member of the defense team and commented on that attorney's appearance, Juror No. 6 made no allegation that Juror No. 3 received or otherwise heard anything that could have prejudiced Aiyer's trial. In addition, given the level of detail in Juror No. 6's letter, as well as the district court's instruction that jurors immediately bring misconduct concerns

to its attention, the court was well within its discretion to doubt that Juror No. 6 had any more details to provide and to conclude that the investigation could end because “reasonable grounds to suspect prejudicial jury impropriety” did not exist. *Moon*, 718 F.2d at 1234.

To the extent Aiyer relies on *United States v. Resko*, 3 F.3d 684 (3d Cir. 1993) in support of his position, we are unpersuaded. There, the district court was informed mid-trial that “members of the jury had been discussing the case during their recesses and while waiting in the jury room.” *Id.* at 687. After “summon[ing] the jurors en masse” and informing them of the issue, the court gave them a two-question questionnaire with the following yes-or-no questions: (1) “Have you participated in discussing the facts of this case with one or more other jurors during the trial?”; and (2) “If your answer to Question No. 1 is ‘Yes,’ have you formed an opinion about the guilt or non-guilt of either defendant as a result of your discussions with other jurors?” *Id.* at 688. Although “[a]ll twelve jurors answered ‘yes’ to the first question and ‘no’ to the second question,” the district court denied the defendants motion for a mistrial and resumed the trial. *Id.*

On appeal, the Third Circuit vacated the defendants’ convictions, concluding that “the questionnaire raised more questions than it answered”

because, among other things, the jurors' answers indicated that they all "engaged in premature discussions," but "there [was] no way [of] know[ing] the nature of those discussions—whether they involved merely brief and inconsequential conversations about minor matters or whether they involved full-blown discussions of the defendants' guilt or innocence." *Id.* at 690–91. Thus, the Third Circuit concluded that the district court abused its discretion by "declining to engage in further inquiry—such as individualized voir dire—upon which it could have determined whether the jurors had maintained open minds." *Id.* at 691.

Here, by contrast, after it received the specific allegations of misconduct by Juror No. 3, the district court promptly recalled Juror No. 3 for an interview, asked him focused questions related to the specific allegations, and received answers denying any impropriety, which the district court found credible. Thus, in light of its knowledge of the specifics of the allegations from Juror No. 6's letter and its credibility determination as to Juror No. 3 after interviewing him, the district court was able to conclude confidently that it was "apparent that . . . reasonable grounds to suspect prejudicial jury impropriety do not exist," and thus, "the inquiry should end." *Moon*, 718 F.2d at 1234. Additionally, it is significant that the allegations in this case, unlike in *Resko*, arose *after* the jury reached its verdict, a time when

district courts “should be[] hesitant to haul jurors in [to court] . . . in order to probe for potential instances of bias, misconduct or extraneous influences.” *Id.*

In essence, Aiyer asks us to decide that, where a juror informs a district court—post-trial—about potential juror misconduct in detail in writing, and an accused juror’s subsequent denial of those allegations is deemed credible, the district court is still obligated in every instance to interview, at a minimum, the accusing juror. We decline to adopt such a categorical rule, which would be inconsistent with our precedent. Indeed, we are mindful that “[a] district court’s investigation of juror misconduct or bias is a delicate and complex task.” *Cox*, 324 F.3d at 86 (internal quotation marks omitted). In performing that task, there are a series of discretionary (and often countervailing) factors that could impact a district court’s determination on whether one or more jurors should be interviewed when an allegation of misconduct arises, including, among others, the nature of the allegations, the level of detail in the allegations, the strength of the allegations on their face and in the context of other information and observations already possessed by the court before conducting any investigation, as well as an ongoing assessment of the merits of the allegations based on the results of any investigation that the court decides to conduct (including, here, any credibility

determination it makes as to an accused juror if that juror is interviewed first). In short, this type of delicate inquiry should not be subject to any bright-line rule on how a district judge must proceed, but rather should be a fact-specific, discretionary determination that must be carefully assessed on a case-by-case basis. *See also United States v. Aiello*, 771 F.2d 621, 629 (2d Cir. 1985) (“The extent of that investigation and the method of conducting it will, of course, depend on the surrounding circumstances, including the content of the communication and the apparent sensitivity of the juror. The trial judge must be given wide discretion to decide upon the appropriate course to take, in view of his personal observations of the jurors and parties.”), *abrogated on other grounds*, 116 S. Ct. 1241 (1996). Under the particular facts here, the district court did not abuse its discretion in concluding, after interviewing Juror No. 3 and finding the juror’s responses to the allegations credible, that the inquiry could end without interviewing the accusing juror to further assess the credibility of that juror’s allegations or to determine if there were any additional unreported allegations.

As to Juror No. 4’s mid-trial podcasts, we similarly conclude that the district court did not abuse its discretion in finding that, when considered in their entirety, the podcasts “[did] not raise any concerns that necessitate a post-verdict inquiry.”

Aiyer I, 433 F. Supp. 3d at 474. Of course, Juror No. 4’s mid-trial, public comments on the podcast that he did not care about the case, was “angry” that he was a juror, and that he “started to not pay attention at all” were cause for concern. Redacted App’x at 5. However, the district court did not rely on snippets of the podcasts provided by Aiyer after the trial; instead, it reviewed all of Juror No. 4’s mid-trial podcasts and found that, notwithstanding his many complaints, he also explained that “he would refrain from discussing the case during the trial”; “he would be unbiased in deliberations[] at the end of the day”; and “he understood the gravity of his role and . . . would render a fair and just decision.” *Aiyer I*, 433 F. Supp. 3d at 474–75. Based on this record, the district court was well within its discretion in determining that “reasonable grounds to suspect prejudicial jury impropriety [no longer] exist[ed],” and that no further investigation was warranted. *Moon*, 718 F.2d at 1234.

Accordingly, we conclude that there was no abuse of discretion in relation to the district court’s post-trial investigation into potential juror misconduct.

CONCLUSION

For the reasons set forth above, we **AFFIRM** the judgment of the district court.