**UNITED STATES DISTRICT COURT**
**SOUTHERN DISTRICT OF NEW YORK**

CLEVELAND BAKERS AND TEAMSTERS PENSION FUND, CLEVELAND BAKERS AND TEAMSTERS HEALTH AND WELFARE FUND, AND MASTERINVEST KAPITALANLAGE GMBH, on behalf of themselves and all others similarly situated,

Plaintiffs,

vs.

BANK OF NOVA SCOTIA, NEW YORK AGENCY; BMO CAPITAL MARKETS CORP.; BNP PARIBAS SECURITIES CORP.; BARCLAYS CAPITAL INC.; CANTOR FITZGERALD & CO.; CITIGROUP GLOBAL MARKETS INC.; COMMERZ MARKETS LLC; COUNTRYWIDE SECURITIES CORP.; CREDIT SUISSE SECURITIES (USA) LLC; DAIWA CAPITAL MARKETS AMERICA INC.; DEUTSCHE BANK SECURITIES INC.; GOLDMAN, SACHS & CO.; HSBC SECURITIES (USA) INC.; JEFFERIES LLC; J.P. MORGAN SECURITIES LLC; MERRILL LYNCH, PIERCE, FENNER & SMITH INCORPORATED; MERRILL LYNCH GOVERNMENT SECURITIES INC.; MIZUHO SECURITIES USA INC.; MORGAN STANLEY & CO. LLC; NOMURA SECURITIES INTERNATIONAL, INC.; RBC CAPITAL MARKETS, LLC; RBS SECURITIES INC.; SG AMERICAS SECURITIES, LLC; TD SECURITIES (USA) LLC; and UBS SECURITIES LLC,

Defendants.

Case No.

**CLASS ACTION COMPLAINT**

**JURY TRIAL DEMANDED**

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Plaintiffs Cleveland Bakers and Teamsters Pension Fund, Cleveland Bakers and Teamsters Health and Welfare Fund, and MASTERINVEST Kapitalanlage GmbH (collectively, "Plaintiffs"), individually and on behalf of all those similarly situated, as defined below, bring this class action for treble damages and allege as follows:

## NATURE OF THE ACTION

1. Since the founding of the United States, a cornerstone of the government's financing of its operations has been the borrowing of money. The United States Treasury borrows money by selling various types of debt instruments—including short-term Treasury bills, medium-term Treasury notes, and long-term Treasury bonds (collectively, "Treasuries" or "Treasury Securities"). These sales take place in market auctions conducted throughout the year. A select group of banks—known as "primary dealers"—bids in every one of those auctions. The primary dealers occupy a privileged position in those auctions, and are the largest collective group of Treasury purchasers. According to a former government bond trader at one of those primary dealers, Defendant Merrill Lynch, "primary dealers are an insiders club."[1]

2. Although the auction process is premised on the primary dealers engaging in vigorous and honest competition in placing their bids, leading to a fair price for the Treasuries, the primary dealers (Defendants in this action) abused their position of trust. Instead of competing with each other at arms' length, the Defendant members of this select group, to the detriment of the United States and investors in the secondary and derivatives markets (Plaintiffs and Class members here), conspired artificially to drive up the yield of the Treasuries (and

[1] Scaggs, Kruger & Geiger, "As U.S. Probes $12.7 Trillion Treasury Market, Trader Talk Is a Good Place to Start," *Bloomberg.com* (June 24, 2015) (*available at* http://www.bloomberg.com/news/articles/2015-06-24/trader-talk-is-an-open-secret-as-u-s-probes-treasuries).

correspondingly to drive down the prices of those Treasuries).[2] Defendants then turned around and sold the Treasuries at higher prices (and correspondingly lower yields) in the secondary markets, reaping substantial profits.

3. Earlier this summer, it was reported that the U.S. Department of Justice had commenced an investigation into Defendants' misconduct. According to a *Bloomberg* article published on June 24, 2015:

> The U.S. federal probe that ended last month with guilty pleas and $6 billion in fines from global banks began with an open secret—that currency traders there could talk to each other to coordinate trades.
>
> Now, the Justice Department unit behind those prosecutions is turning its sights on the $12.7 trillion U.S. Treasury market, a world with some of its own open secrets.
>
> Dozens of times a year before the Treasury holds an auction, salespeople at 22 primary dealers field billions of dollars in bids for government debt. Traders working at some of those financial institutions have the opportunity to learn specifics of those bids hours ahead of the auctions, according to several people familiar with these operations.
>
> Traders at some of these dealers also have talked with counterparts at other banks via online chatrooms, according people familiar with the operations, with one of them adding that the traders swapped gossip about clients' Treasury orders as recently as last year.
>
> Such conversations, both inside banks and among them, could give traders information useful for making bets on one of the most powerful drivers of global markets, the U.S. debt sales that often sway the prices of trillions of dollars worth of bonds.[3]

4. Victims of Defendants' scheme include the United States Treasury (which borrowed at higher rates due to the tainted auctions or, in the case of reissuances, received less

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[2] "Yield" refers to the income return of an investment. For fixed income securities like Treasuries, the most basic calculation for yield is to divide the coupon amount by the security's price. Holding coupon rate constant, this means that when prices go down, the yield goes up and vice versa.

[3] *See* Scaggs, Kruger & Geiger, *supra*.

than it should have in the auctions), sellers of Treasuries in various secondary markets for Treasuries and in markets for Treasury derivatives (where prices were temporarily suppressed to hide and to facilitate Defendants' artificial auction bids), and floating rate payers on Treasury-linked interest rate swaps or other instruments for which the cash flows were tied to the results of a Treasury auction. This complaint seeks recovery on behalf of those thousands of non-governmental victims for Defendants' violation of U.S. antitrust laws.

5. While the Department of Justice's investigation apparently remains ongoing, Plaintiffs herein have conducted their own exhaustive review of Defendants' conduct, and that review is described in this Complaint. It shows that, around the time of auction, prices in the primary market were repeatedly lower (and yields higher) than they would have been in a competitive auction, and that the only explanation for the disparity is that Defendants conspired through online chatrooms and a variety of other means of coordination to achieve those artificial outcomes.

6. More specifically, Plaintiffs have employed "screens," which are statistical tools based on economic models that use data such as prices, bids, quotes, spreads, market shares, and volumes to identify the existence, causes, and scope of manipulation, collusion, or other illegal behavior. This method of analysis is well accepted as reliable by economists and policy makers; for example, it was one of the tools employed to demonstrate that certain banks had improperly colluded to set an interest rate known as Libor, and separately to demonstrate that certain banks had improperly manipulated foreign exchange benchmarks.

7. Here, these analyses reveal a consistent pattern: Treasury auction yields were artificially high (and prices correspondingly low) from at least 2007 through early June 2015,

when the Department of Justice's investigation was announced and Defendants curtailed their improper conduct.

8. To take one example (many others are described in the body of this Complaint), Plaintiffs examined what are known as "reissued" Treasuries. In this scenario, the United States Treasury sells a security at auction, and then later sells the exact same security (*i.e.*, a Treasury Security with the same principal amount and the same maturity date) in a later auction.[4] By the time of the later auction, the Treasury Securities that were sold in the earlier auction are already trading in the secondary market. Accordingly, it is possible to compare the yield/price of the identical security at the same point in time at the auction in which Defendants had an "insider" position. If the yields at the auction were repeatedly higher than the yields in the secondary market, it would demonstrate that Defendants were artificially increasing the auction yields (correspondingly suppressing prices). Conversely, if both the auction and the secondary markets were truly competitive, the yield for the security would be substantially similar in both markets, or at least vary in a random fashion.

9. The data shows that the yields for these identical securities indeed repeatedly diverged as between the auction and secondary markets, almost always in the direction of a higher yield (lower price) in the auction relative to the lower yield (higher price) in the secondary market. Across all tenors (*i.e.*, lengths of time to maturity) of Treasuries, the yields of reissued Treasuries in the primary market were inflated in 69% of the auctions, by 0.91 basis points, a clearly significant disparity. This repeated bias cannot be explained as a result of random

[4] Reissued Treasuries also have the same coupon rate as the previously-issued security. For reissued securities, price is thus the variable that is determined at the auction, and which was directly manipulated by Defendants.

chance; instead, the only plausible explanation is that Defendants coordinated artificially to influence the results of the auctions in the primary market.

10. This is just one example of anomalous economic data. Indeed, these and the other data analyses discussed herein confirm that Defendants took full advantage of their privileged position as primary dealers at the Treasury auctions. As Duke Law School Professor James Cox, an expert on financial markets, has observed, "[i]n the Treasury market, where you have a small number of participants and the sales volume is very high, it is a fertile area for harmful collusive behavior."[5] Defendants should be held to account under United States antitrust laws for the injuries they have caused.

## JURISDICTION AND VENUE

11. This Court has subject matter jurisdiction over this action pursuant to Sections 4 and 16 of the Clayton Act (15 U.S.C. §§ 15(a) and 26), Section 22 of the Commodity Exchange Act (7 U.S.C. § 25), and pursuant to 28 U.S.C. §§ 1331 and 1337(a). This Court also has jurisdiction over the state law claims under 28 U.S.C. § 1367 because those claims are so related to the federal claims that they form part of the same case or controversy, and under 28 U.S.C. § 1332, because the amount in controversy for the Class exceeds $5,000,000 and there are members of the Class who are citizens of a different state than Defendants.

12. Venue is proper in this District pursuant to 15 U.S.C. §§ 15(a), 22 and 28 U.S.C. § 1391(b), (c), (d) because during the Class Period all Defendants resided, transacted business, were found, or had agents in this District; a substantial part of the events or omissions giving rise to these claims occurred in this District; and a substantial portion of the affected interstate trade and commerce discussed herein has been carried out in this District.

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[5] *See* Scaggs, Kruger & Geiger, *supra*.

13. This Court has personal jurisdiction over each Defendant, because each Defendant: transacted business throughout the United States, including in this District; had substantial contacts with the United States, including in this District; committed overt acts in furtherance of their illegal scheme and conspiracy in the United States; and/or is an agent of the other Defendants. In addition, the Defendants' conspiracy was directed at, and had the intended effect of, causing injury to persons residing in, located in, or doing business throughout the United States, including in this District.

14. The activities of Defendants and their co-conspirators were within the flow of, were intended to, and did have a substantial effect on the foreign and interstate commerce of the United States.

## THE PARTIES

### A. Plaintiffs

15. Plaintiff Cleveland Bakers and Teamsters Pension Fund is a collectively-bargained pension fund, established in 1962, which administers benefits for thousands of participants. Cleveland Bakers and Teamsters Pension Fund has almost ten thousand participants, and hundreds of millions of dollars in assets. The Fund is located at 9665 Rockside Road, Suite D, Valley View, Ohio 44125. Cleveland Bakers and Teamsters Pension Fund transacted in U.S. Treasury Securities and U.S. Treasury Investments on auction days during the Class Period at manipulated and anticompetitive prices that resulted from Defendants' illegal conduct. As a direct and proximate result of Defendants' illegal acts, Cleveland Bakers and Teamsters Pension Fund suffered injury to its business and property.

16. Plaintiff Cleveland Bakers and Teamsters Health and Welfare Fund is a collectively-bargained health and welfare fund, established in 1952, which administers benefits for thousands of participants. Cleveland Bakers and Teamsters Health and Welfare Fund has

almost six thousand participants and tens of millions of dollars in assets. The Fund is located at 9665 Rockside Road, Suite C, Valley View, Ohio 44125. Cleveland Bakers and Teamsters Health and Welfare Fund transacted in U.S. Treasury Securities and U.S. Treasury Investments on auction days during the Class Period at manipulated and anticompetitive prices that resulted from Defendants' illegal conduct. As a direct and proximate result of Defendants' illegal acts, Cleveland Bakers and Teamsters Health and Welfare Fund suffered injury to its business and property.

17. Plaintiff MASTERINVEST Kapitalanlage GmbH is an Austrian investment company. It was founded in 1985 as HYPO-Kapitalanlage-Gesellschaft m.b.H. by Austria's eight state mortgage banks and changed its name in 2010. MASTERINVEST has approximately $7.5 billion in assets under management. It is located at Landstraßer Hauptstraße 1 / Top 27, Vienna/Austria. MASTERINVEST transacted in U.S. Treasury Securities and U.S. Treasury Investments on auction days during the Class Period at manipulated and anticompetitive prices that resulted from Defendants' illegal conduct. These transactions were executed on U.S.-based exchanges, and/or using U.S.-based brokers. As a direct and proximate result of Defendants' illegal acts, MASTERINVEST suffered injury to its business and property.

**B. <u>Defendants</u>**

18. Whenever in this Complaint reference is made to any Defendant entity, such reference includes that entity, its parent companies, subsidiaries, affiliates, predecessors, and successors. In addition, whenever in this Complaint reference is made to any act, deed, or transaction of any Defendant entity, the allegation means that the entity engaged in the act, deed, or transaction by or through its officers, directors, agents, employees, or representatives while they were actively engaged in the management, direction, control, or transaction of the entity's business or affairs.

19. Defendant Bank of Nova Scotia, New York Agency ("BNS") is a financial services company with its principal place of business in New York, New York. BNS is a New York State agency of The Bank of Nova Scotia. BNS is a registered primary dealer for Treasury Securities with the Federal Reserve Bank of New York ("New York Fed").

20. Defendant Barclays Capital Inc. ("Barclays") is a financial services company incorporated in Connecticut, with its principal place of business in New York, New York. Barclays is a registered primary dealer for Treasury Securities with the New York Fed.

21. Defendant BMO Capital Markets Corp. ("BMO") is a financial services company incorporated in Delaware, with its principal place of business in New York, New York. BMO is a registered primary dealer for Treasury Securities with the New York Fed.

22. Defendant BNP Paribas Securities Corp. ("BNPP") is a financial services company incorporated in Delaware, with its principal place of business in New York, New York. BNPP is a registered primary dealer for Treasury Securities with the New York Fed.

23. Defendant Cantor Fitzgerald & Co. ("Cantor") is a financial services company organized under the laws of New York, with its principal place of business in New York, New York. Cantor is a registered primary dealer for Treasury Securities with the New York Fed.

24. Defendant Citigroup Global Markets Inc. ("Citi") is a financial services company incorporated in New York, with its principal place of business in New York, New York. Citi is a registered primary dealer for Treasury Securities with the New York Fed.

25. Defendant Commerz Markets LLC ("Commerz"), formerly known as Dresdner Kleinwort Securities LLC, is a financial services company incorporated in Delaware with its principal place of business in New York, New York. Commerz, under its former name, was a

registered primary dealer for Treasury Securities with the New York Fed during the Class Period.

26. Defendant Countrywide Securities Corp. ("Countrywide") is a financial services company incorporated in Delaware with its principal place of business in Calabasas, California. Countrywide is now a part of Bank of America. Countrywide was a registered primary dealer for Treasury Securities with the New York Fed during the Class Period.

27. Defendant Credit Suisse Securities (USA) LLC ("Credit Suisse"), formerly known as Credit Suisse First Boston LLC, is a financial services company formed under the laws of Delaware, with its principal place of business in New York, New York. Credit Suisse is a registered primary dealer for Treasury Securities with the New York Fed.

28. Defendant Daiwa Capital Markets America Inc. ("Daiwa"), formerly known as Daiwa Securities America Inc., is a financial services company incorporated in New York, with its principal place of business in New York, New York. Daiwa is a registered primary dealer for Treasury Securities with the New York Fed.

29. Defendant Deutsche Bank Securities Inc. ("Deutsche Bank") is a financial services company incorporated in Delaware, with its principal place of business in New York, New York. Deutsche Bank is a registered primary dealer for Treasury Securities with the New York Fed.

30. Defendant Goldman, Sachs & Co. ("Goldman") is a financial services company formed under the laws of New York, with its principal place of business in New York, New York. Goldman is a registered primary dealer for Treasury Securities with the New York Fed.

31. Defendant HSBC Securities (USA) Inc. ("HSBC") is a financial services company incorporated in Delaware, with its principal place of business in New York, New York. HSBC is a registered primary dealer for Treasury Securities with the New York Fed.

32. Defendant Jefferies LLC ("Jefferies"), formerly known as Jefferies & Company, Inc., is a financial services company formed under the laws of Delaware, with its principal place of business in New York, New York. Jefferies is a registered primary dealer for Treasury Securities with the New York Fed.

33. Defendant J.P. Morgan Securities LLC ("JPMorgan"), formerly known as J.P. Morgan Securities Inc., is a financial services company formed under the laws of Delaware, with its principal place of business in New York, New York. JPMorgan is a registered primary dealer for Treasury Securities with the New York Fed.

34. Defendant Merrill Lynch, Pierce, Fenner & Smith Incorporated ("Merrill Lynch"), formerly known as Banc of America Securities LLC, is a financial services company incorporated in Delaware, with its principal place of business in New York, New York. Merrill Lynch is a registered primary dealer for Treasury Securities with the New York Fed.

35. Defendant Merrill Lynch Government Securities Inc. ("MLGS") is a financial services company with its principal place of business in New York, New York. MLGS is now a part of Bank of America Corporation. MLGS was a registered primary dealer for Treasury Securities with the New York Fed during the Class Period.

36. Defendant Mizuho Securities USA Inc. ("Mizuho") is a financial services company incorporated in Delaware, with its principal place of business in New York, New York. Mizuho is a registered primary dealer for Treasury Securities with the New York Fed.

37. Defendant Morgan Stanley & Co. LLC ("Morgan Stanley"), formerly known as Morgan Stanley & Co., is a financial services company formed under the laws of Delaware, with its principal place of business in New York, New York. Morgan Stanley is a registered primary dealer for Treasury Securities with the New York Fed.

38. Defendant Nomura Securities International, Inc. ("Nomura") is a financial services company incorporated in New York, with its principal place of business in New York, New York. Nomura is a registered primary dealer for Treasury Securities with the New York Fed.

39. Defendant RBC Capital Markets, LLC ("RBC"), formerly known as RBC Capital Markets Corp., is a financial services company formed under the laws of Minnesota, with offices and a registered agent in New York, New York. RBC is a registered primary dealer for Treasury Securities with the New York Fed.

40. Defendant RBS Securities Inc. ("RBS") is a financial services company incorporated in Delaware, with its principal place of business in Stamford, Connecticut. RBS is a registered primary dealer for Treasury Securities with the New York Fed.

41. Defendant SG Americas Securities, LLC ("SG") is a financial services company formed under the laws of Delaware, with its principal place of business in New York, New York. SG is a registered primary dealer for Treasury Securities with the New York Fed.

42. Defendant TD Securities (USA) LLC ("TD Securities") is a financial services company formed under the laws of Delaware, with its principal place of business in New York, New York. TD Securities is a registered primary dealer for Treasury Securities with the New York Fed.

43. Defendant UBS Securities LLC ("UBS") is a financial services company formed under the laws of Delaware, with its principal place of business in New York, New York. UBS is a registered primary dealer for Treasury Securities with the New York Fed.

44. Various other entities and individuals unknown to Plaintiffs at this time—including other major Treasury Securities dealers—participated as co-conspirators in the acts complained of, and performed acts and made statements that aided and abetted and were in furtherance of the unlawful conduct alleged herein.

## BACKGROUND ON THE U.S. TREASURIES MARKETS

### A. General Background on Treasury Securities

45. Treasury Securities are debt instruments issued by the U.S. Government. They are one of the primary ways the United States borrows to finance the federal government's operations. Because Treasury Securities are backed by the full faith and credit of the United States, their risk of default is considered one of the lowest—if the not the lowest—in the world.

46. Treasury Securities are used for investing and hedging purposes, and are also used as widely recognized benchmarks for pricing other types of assets. Rates for variable-rate bonds, asset-backed securities, student-loan debt, interest-rate swaps, and other instruments all are directly tied to or otherwise directly influenced by what happens with the Treasuries market.

47. There are currently more than *$12.5 trillion* in Treasuries outstanding. In 2004, the U.S. Treasury Department issued $3.9 trillion in Treasuries. In comparison, just for last year alone, the Treasury issued more than $7 trillion.

48. Treasuries come in a wide range of maturities, from as short as a few days to as long as 30 years. Treasury Securities with maturities of one year or less are referred to as *Treasury bills* or *T-bills*; securities with maturities of between one and ten years are referred to as

*Treasury notes* or *T-notes*; and securities with maturities of greater than ten years are called *Treasury bonds* or *T-bonds*.[6]

**C. Before an Auction: The When-Issued Market**

49. Before a given Treasury issuance, there is an active market for the to-be issued securities. This "when-issued" market begins at the time the Treasury announces that an auction will take place, and continues until the auction actually concludes.

50. In the when-issued market, participants (including Defendants) buy and sell obligations to deliver the Treasuries once they are issued after the conclusion of the auction. If someone "sells" in the when-issued market, it must be able to cover its short position by eventually obtaining the necessary Treasuries, either through the auction itself or on the secondary market. If someone "buys" in the when-issued market, it is obligated to pay the previously agreed-upon price and take possession of the Treasuries, regardless of how the auction itself actually unfolds.

51. Even though the when-issued market begins upon announcement (usually, around seven days prior to the auction), nearly half of all trading in the when-issued market occurs within the two days prior to the auction.

**D. Treasuries Auctions**

52. ***When held.*** The Treasury Department sells new securities through a regular auction process:

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[6] The Treasury Department also issues more specialized securities, including Treasury Inflation-Protected Securities ("TIPS"), cash management bills ("CMBs"), and Floating Rate Notes ("FRNs"). With TIPS, the principal amount of debt adjusts according to whether there is inflation or deflation, as measured by the Consumer Price Index. Upon maturity, TIPS holders are paid the adjusted principal or the original principal, whichever is greater. CMBs are occasionally offered by the Treasury Department to meet short-term financing needs, with their maturities ranging from 1-day to approximately 1-year. However, most are issued with maturities of less than three months.

| Security | Time of Offering |
|---|---|
| 4-week T-bills | Weekly (Tuesdays) |
| 13-week and 26-week T-bills | Weekly (Mondays) |
| 52-week T-bills | Every 4 weeks (Tuesdays) |
| 2-year T-notes | Monthly (end of month) |
| 3-year T-notes | Monthly (middle of month) |
| 5-year T-notes | Monthly (end of month) |
| 7-year T-notes | Monthly (end of month) |
| 10-year T-notes | Monthly (middle of month) |
| 30-year T-bonds | Monthly (middle of month) |
| 5-year TIPS | Three times per year (April, August, December) |
| 10-year TIPS | Bimonthly (January, March, May, July, September, November) |
| 30-year TIPS | Three times per year (February, June, October) |
| 2-year FRN | Monthly (end of month) |

53. ***Who participates.*** There are three general categories of competitive bidders in the Treasury auctions: primary dealers, direct bidders, and indirect bidders.

54. Defendants here were each a designed primary dealer for all or part of the Class Period. Primary dealers trade in Treasuries with the New York Fed. By virtue of their ability to bid on behalf of themselves and indirect bidders, as well as their dominant share of the auction process, primary dealers, unlike other participants in the market, are uniquely situated to see order flows and estimate demand for any given Treasury auction issuance.

55. The primary dealers are required to bid at least their *pro rata* share of the offered securities in order to guarantee demand for the securities.[7] Under its "Business Standards" for primary dealers, the New York Fed states that a primary dealer's "bid rates should be reasonable when compared to the range of rates in the market, taking into account market volatility and

[7] No one primary dealer may obtain more than 35% of an issue of a Treasury. The Treasury considers "any persons or entities that intentionally act together with respect to bidding in a Treasury auction to collectively be one bidder." Thus, if (as alleged herein) Defendants acted as a bloc to obtain certain Treasury auction yields, then they violated their obligations to the Treasury each time they collectively obtained more than 35% of newly issued Treasuries.

other risk factors. In other open market operations, the [New York Fed] will expect a primary dealer to bid, or otherwise participate, in operations at levels commensurate with its size and presence in the market." If primary dealers "repeatedly provide bids and offers in the New York Fed operations or Treasury auctions that are not reasonably competitive, or that fail to provide useful market information and commentary," then such dealers "are not meeting the New York Fed's expectations of a primary dealer. In those situations, the New York Fed may limit a primary dealer's access to any or all of the primary dealer facilities or operations, and may suspend or terminate a primary dealer if it continues to fail to meet these business standards."[8] In return for the commitment to make a bid, within the applicable rules, primary dealers enjoy the right to act as market makers, which entails a number of significant financial benefits.

56. As seen in the below chart, the primary dealers as a group are the largest recipients of Treasuries within the auction process.[9]

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[8] Federal Reserve Bank of New York, Operating Policy: Administration of Relationships with Primary Dealers (Jan. 11, 2010) (*available at* http://www.newyorkfed.org/markets/pridealers_policies.html). Defendants also belong to the Treasury Market Practices Group ("TMPG"), a working group of Treasury dealers and other market participants sponsored by the New York Fed. The TMPG issues a series of "best practices" guidelines that set forth standards of conduct for primary dealers that are meant to ensure true competition and market liquidity and integrity for Treasuries.

[9] *See also* Michael J. Fleming, *Who Buys Treasury Securities at Auction?*, Current Issues in Economics & Finance, Vol. 13, No. 1, at 2 (Jan. 2007) (*available at* http://www.newyorkfed.org/research/current_issues/ci13-1.pdf).

**Primary Dealers' Purchases in Treasury Auctions**
**2007-2015**

| Maturity | Average Offering Amount (Net of Noncompetive Allocation) | Average Offering Purchased by Primary Dealers | Average Percentage of Offering Allocated to Primary Dealers |
|---|---|---|---|
| 1M | $20,077,391,442 | $9,150,061,273 | 46% |
| 3M | $29,507,514,381 | $19,572,719,647 | 66% |
| 6M | $24,089,022,746 | $13,840,631,961 | 57% |
| 1Y | $31,343,324,807 | $16,789,651,831 | 54% |
| 2Y | $13,705,793,519 | $6,345,991,782 | 46% |
| 3Y | $25,723,648,768 | $17,031,129,445 | 66% |
| 5Y | $31,132,815,787 | $15,223,332,422 | 49% |
| 7Y | $31,301,062,101 | $14,740,381,636 | 47% |
| 10Y | $24,133,398,980 | $13,515,333,707 | 56% |
| 30Y | $28,985,316,545 | $11,976,723,234 | 41% |

57. A smaller volume of the securities is purchased at each auction by the second category of competitive bidders, dealers other than primary dealers, and individual investors that bid directly. The third category are indirect bidders, who bid on Treasuries through the primary dealers as intermediaries. Indirect bidders typically include foreign central banks, but can also include domestic money managers making bids through primary dealers.

58. ***How the auction unfolds.*** The Treasury Department typically announces its auctions one week in advance.[10] Participants submit bids through the Treasury Automated Auction Processing System ("TAAPS"). Bids are supposed to be confidential, and can be either non-competitive or competitive.

59. *Non-competitive bids* are generally submitted by small investors and individuals. Non-competitive bidding typically closes at 11:00 a.m. ET for bills and FRNs and 12:00 p.m. ET for notes, bonds, and TIPS. Non-competitive bidders are guaranteed to receive securities at the auction, but individual non-competitive bidders are limited by federal regulation to $5 million

[10] The auctions announcements provide, among other things: (1) the amount of the security being offered; (2) the auction date; (3) the date of delivery of the auctioned securities; (4) the maturity date; (4) the terms and conditions of the offering; and (5) the noncompetitive and competitive bidding close times.

per auction. With a non-competitive bid, a bidder agrees to accept the discount rate (in the case of bills) or yield rate (in the case of notes, bonds, FRNs and TIPS) determined at auction.

60. *Competitive bids* are typically submitted by large financial institutions, including Defendants, for their own accounts or on behalf of customers. Competitive bidding typically closes at 11:30 a.m. ET for T-bills and FRNs, and 1:00 p.m. ET for T-notes, T-bonds, and TIPS. The bids are submitted in terms of a discount rate for bills and a yield for coupon-bearing securities, stated in three decimal places. Winning bids are assessed by determining which bidders offered the lowest yields—and thus, the highest prices—on the offered security.

61. Winning bids are determined by first subtracting the non-competitive bids from the offering amount to arrive at the pool of securities available for competitive bidders. Treasuries are then allocated to the competitive bidders. "Winning" bidders are determined based on which bidder will accept the lowest yield (*i.e.*, highest price) for its purchase. TAAPS works its way down the list of competitive bids and accepts competitive bids in ascending order of their rate, yield, or discount margin (as applicable; lowest to highest) until the quantity of awarded bids reaches the offering amount. All bidders then receive the same rate, yield, or discount margin at the highest accepted bid.

62. *Upon completion of an auction*, the Treasury Department publishes limited information about the auction results.[11] Of particular importance, it does not identify the winners or their bids.

[11] This includes: (1) as applicable, the discount rate or interest rate; (2) the price; (3) the highest yield offered; (4) percentage of Treasuries allotted at the high yield; (5) the median yield offered; (6) the low yield offered; (7) aggregate figures of bids tendered and accepted at both competitive and non-competitive auctions; and (8) figures breaking down the bids tendered and accepted based on bidder type (*e.g.*, primary dealer, direct bidder, and indirect bidder)

63. Treasuries from the most recent auctions are called "on-the-run securities." Securities from older auctions are called "off-the-run securities."

**E. Treasury Futures, Options, and Interest Rate Swaps**

64. Many instruments bought and sold by market participants are linked to the yields/prices of Treasury Securities at and after auction. These include Treasury futures, Treasury options and certain types of interest rate swaps.

65. ***Treasury futures*** are typically traded on the Chicago Mercantile Exchange ("CME"). In 2013, the average daily volume of Treasury futures traded on the CME was 2.69 million contracts, with a notional value in excess of $250 billion.[12]

66. As with all futures, there are two sides to any Treasury futures transaction: a long (buy) side and short (sell) side. The holder of the short position agrees to deliver the underlying Treasury Security at the expiry of the futures contract, and the holder of the long position agrees to take delivery at expiry. Short-sellers, if they choose to effect a physical settlement, must cover their short position by transacting in the open market for Treasury Securities that will satisfy the terms of delivery.

67. Instead of effecting a physical settlement, many future market participants will instead enter into offsetting positions. For example, if a short seller wishes to close out a position without delivery of the actual Treasury Securities, it can simply enter into an offsetting long position. The difference between the values of its short and long positions will determine whether it lost or gained money on the trade.[13] This can be done because futures are done over

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[12] There are six types of Treasury futures traded on the CME: (i) Ultra US Treasury Bond Futures; (ii) Bond Futures; (iii) 10-year Note Futures; (iv) 5-year Note Futures; (v) 3-year Note Futures; and (vi) 2-year Note Futures.

[13] Treasury futures cover not only different issuances of the same maturity (*e.g.*, 10-year notes from May 2003 and 10-year notes from May 2004), they also cover issuances of different maturities. For example, delivery of the underlying Treasury security in 10-year Note

the exchange—*i.e.*, the clearinghouse acts as the buyer to ever seller, and the seller to every buyer, allowing investors to "net out" positions because the counterparty on every position is technically the same.

68. Treasury futures prices are directly correlated to the yields/prices of Treasury Securities and, in a properly-functioning market, help act as one of the market's best predictive tools of upcoming Treasury auction yields/prices. Defendants used the futures market as part of their scheme to inflate the auction yields/suppress the auction prices, directly impacting investors in such markets.

69. ***Treasury options*** include over-the-counter ("OTC") options on a given Treasury security or options on Treasury futures contracts. Options on Treasury futures contracts are traded on the CME and the underlying security for these options contracts is one Treasury future.

70. OTC options and options on Treasury futures can be written as either "calls" or "puts." A call option gives the holder the right, but not the obligation, to buy a certain Treasury futures contract at a specified price, known as the "strike price," prior to or at some date in the future, when the option contract "expires." One may either (a) buy a call option, paying a negotiated price or premium to the seller, writer or grantor of the call, or (b) sell, write, or grant a call, thereby receiving that premium.

71. Conversely, a put option gives the holder the right, but not the obligation, to sell a Treasury futures contract at the strike price prior to or at the expiration of the option contract.

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Futures can be satisfied with a Treasury note with a "remaining term to maturity" of between 6.5 and 10 years, which would include issuances of 7-year T-notes as well as 10-year T-notes. As a result, decisions as to what Treasury security to actually deliver for these futures must factor in the different coupons associated with these various Treasury issuances. This is done by industry-standard "conversion factors."

Similarly, one may buy or sell a put option, either paying or receiving a negotiated premium or price.

72. Because Treasury option contracts are priced on the same underlying Treasury Securities as the corresponding Treasury futures, the prices of options on these futures contracts are also directly impacted by Treasury security yields/prices in the same way as Treasury future prices.

73. In an ***interest-rate swap***, two parties exchange interest rate payments on an agreed notional amount for a fixed period of time. Typically, one party will pay based on a "fixed" interest rate on the notional amount that does not vary from one payment to the next, while the other party will pay based on a variable "floating" interest rate on the same notional amount that is tied to an independent benchmark. Certain types of these swaps use yields from the Treasuries auctions to calculate amounts due on the "floating" leg. Manipulation of the auction yields thus directly impacted the cash-flows—and thus the value of—such swaps.

## FACTUAL ALLEGATIONS OF WRONGDOING

### I. ECONOMIC ANALYSES CONFIRM DEFENDANTS WERE INFLATING YIELDS (AND SUPPRESSING PRICES) IN THE TREASURIES AUCTION

74. As has been well-documented by Congressional testimony and academic publications, "screens" are statistical tools based on economic models that use data such as prices, bids, quotes, spreads, market shares, and volumes to identify the existence, causes, and scope of manipulation, collusion, or other illegal behavior. For instance, "screens" were part of an analysis that led to the discovery of the Libor rate-setting scandal that is still roiling the banking industry. In the context of Libor, journalists and economists uncovered anomalous behavior in the benchmark as compared to movements in other publically available data points

(data points that were independent of the banks' purported individualized judgment).[14] Screens also led to the initial detection, in the summer of 2013, of foreign exchange benchmark collusion and manipulation, which resulted in over $3 billion in settlements by banks in the U.S., the U.K., and Switzerland in November 2014.[15]

75. The use of "screens" here reveals a consistent pattern: no matter how one reviews the available data, Treasury auction yields were artificially high, which inured to Defendants' benefit because, from a practical perspective, the prices at which Defendants purchased the Securities were artificially low. Only collusion and market manipulation by Defendants can explain the field being so consistently tilted in Defendants' favor.

### A. Auction Yields Were Too High (*i.e.*, Prices in the Auction Were Too Low), As Evidenced by Yields for Essentially the Same Instruments Available Elsewhere

#### *1. Auction yields were too high/prices were too low as seen by comparing yields at the same moment in time to the secondary market for comparable Treasuries*

76. Treasuries that were sold in the immediate preceding auction for the Treasury Security of the same tenor ("on-the-run" securities) are available for sale on the secondary market. They represent the same risk profile as newly-issued Treasuries. Prices in a competitive auction for something should be the same as the price for *basically the equivalent thing* in the secondary market.[16] Or, any differences would be random. But that is not what happened. To

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[14] *See generally* Testimony of Rosa M. Abrantes-Metz on behalf of the Office of Enforcement Staff, Federal Energy Regulatory Commission (Sept. 22, 2014) (*available at* http://elibrary.ferc.gov/idmws/doc_info.asp?document_id=14274590).

[15] *See* Liam Vaughan and Gavin Finch, *Currency Spikes at 4 P.M. in London Provide Rigging Clues*, Bloomberg (Aug. 27, 2013) (*available at* www.bloomberg.com/news/2013-08-27/currency-spikes-at-4-p-m-in-london-provide-rigging-clues.html).

[16] Though true as a general matter, in fact here economic valuation theory holds that bidders should have been willing to accept a lower yield/pay a higher price than the prevailing rate in the secondary market for on-the-run securities, because the auction was providing participants an influx of the most highly liquid of all Treasuries, and many participants needed to

the contrary, the resulting (supposedly competitive) auction "price" here was consistently *lower* than the market "price" for essentially the same things already in the market. Put another way, Defendants were consistently able to secure windfall yields (aka bargain prices) in the auction.

77. Even assuming some amount of market noise, there is no legitimate reason why these two price discovery mechanisms (in an auction, versus in a secondary market) both getting at the same thing (the value of a promised dollar from the Treasury) should *consistently* break from one another *in the same direction*, auction after auction, maturity after maturity, year after year. But that is exactly what the data reveals.

78. The following chart shows how often (in red) auction yields were high/prices were low compared to those in the secondary market on comparable (on-the-run) Treasuries—*i.e.*, how often Defendants got a bargain-deal through the purportedly competitive auction. Across all maturities, Defendants were "winning" far more often than they were "losing." And for some maturities, they were *almost always* winning.

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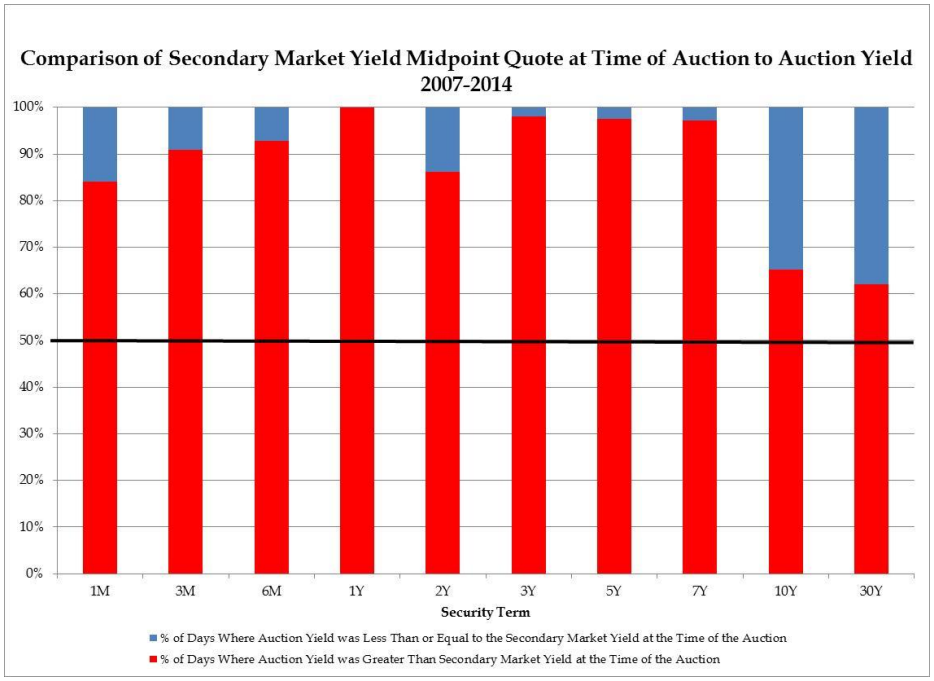
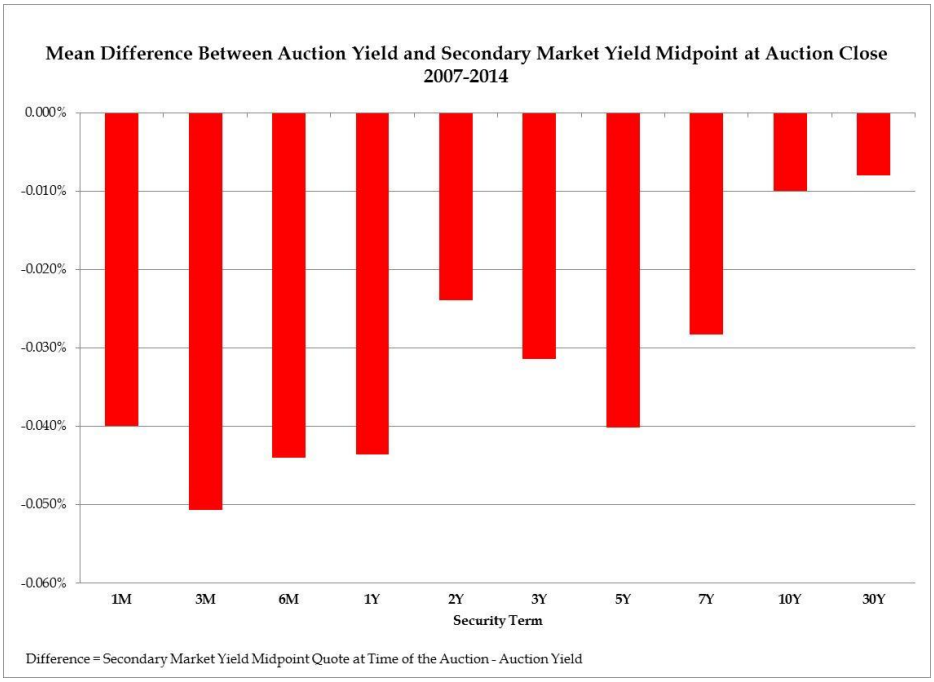
"win" to ensure they were not put in a "short squeeze" by previous commitments made in the when-issued market.



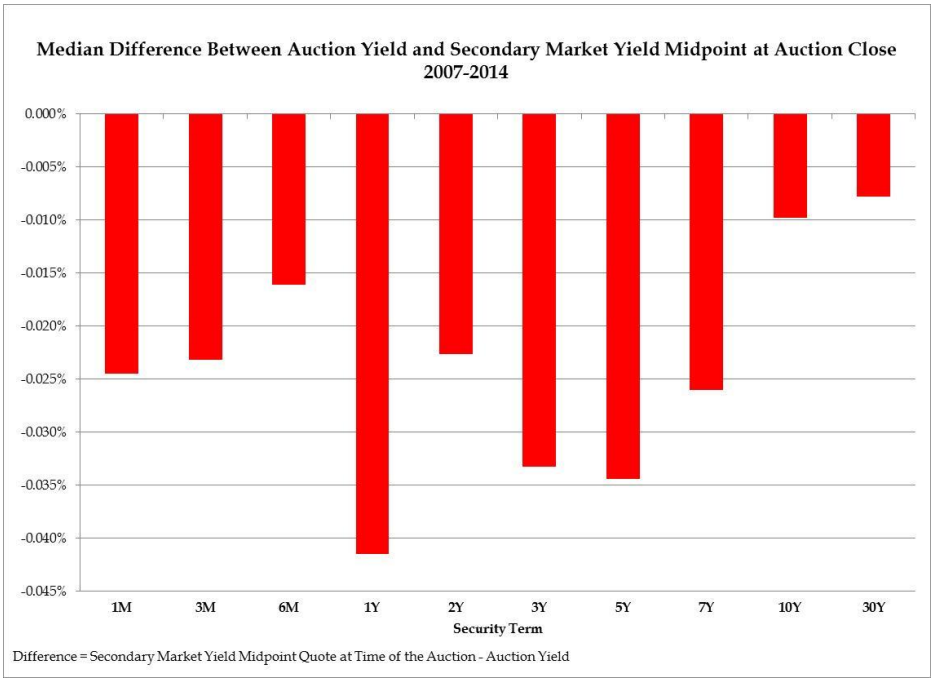

79. Appendix A hereto contains additional charts, breaking out the same directional study for each maturity, year by year rather than with all years together. The same results are seen there as well—a consistent pattern of windfall yields/bargain prices in the auction.

80. Statistically speaking, there is essentially ***a zero percent chance*** that over so many auctions, across so many years, and so many maturities, that the gap between the auction and secondary-market yields/pricing is the result of market noise or random chance. It can only be explained by Defendants consistently tipping the playing field in their own favor during the auctions.

81. To see the consistent tilting in Defendants' favor another way, the following charts measures the average difference between the two price-discovery mechanisms (*i.e.*, again, yields in the auction, versus for on-the-run Treasuries). That the bars are all below zero, for every maturity, again indicates that the yields in the auction were consistently higher and prices in the auction were consistently lower than what could be obtained in the secondary market.




82. To control for the possibility that the *average* difference was being dragged down by some outliers, the same analysis was run with respect to the *median* figures. It can again be seen that the auction yields were consistently too high, *i.e.*, Defendants were consistently getting bargain prices.

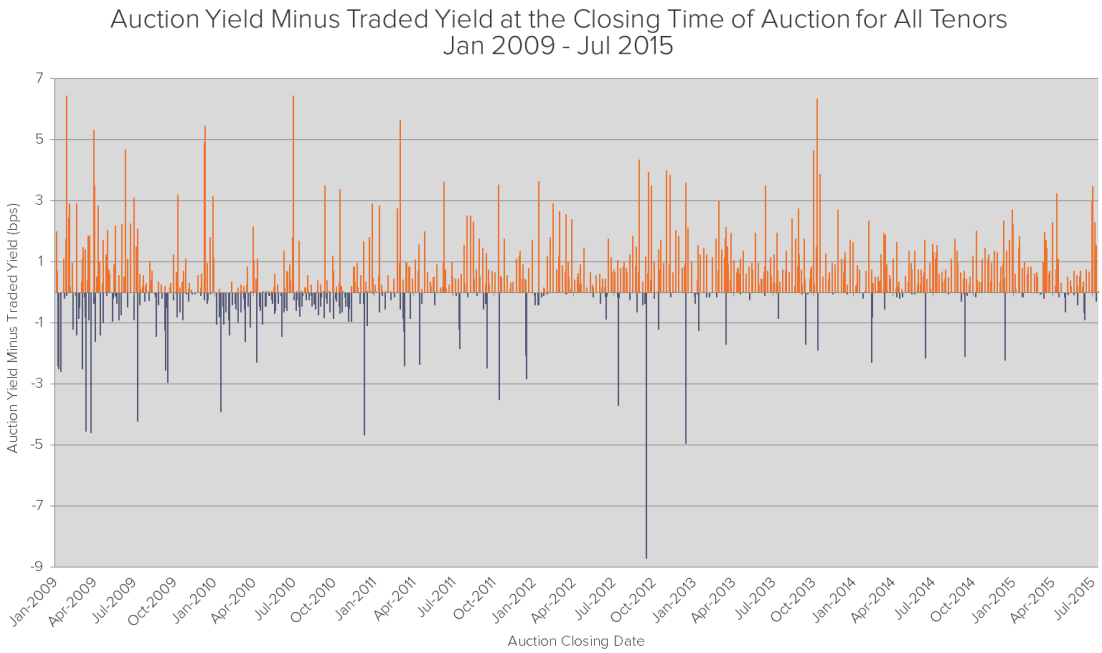


*2. Auction yields were too high/prices were too low as seen by comparing yields at the same moment in time to the secondary market for the exact same Treasuries*

83. The above analysis shows that yields in the auction systematically diverged from yields in the secondary market for equivalent "on-the-run" securities from auctions past. The same result is seen if a study is done into the yields for *the exact same* securities. This comparison is made possible because on certain occasions the Treasury re-issues the same exact securities in a follow-on auction. Again, because the promise to be paid a dollar by the Treasury, is a promise to be paid a dollar by the Treasury, yields in a competitive auction for re-issued Treasuries should be the same as yields for the *same exact thing* available on the secondary market.

84. That, again, is not what the data shows. Instead, again, Defendants were able to consistently secure for themselves—despite the purported confidential, competitive auction—windfall yields/bargain prices in the follow-on auction as compared to what was being demanded in the secondary market.

85. The following chart combines the multi-factor analyses seen above. Each line represents a re-issuance auction. The orange, above-zero lines represent instances where the auction yields were higher (prices were lower) than secondary-market yields for the same exact securities. Blue lines represent instances where the opposite occurred. There are far, far more orange lines—and those lines extend much higher, on average, than the blue lines. In other words, as in the study above of comparable "on-the-run" Treasuries, this study of re-issued Treasuries again finds that Defendants far more often than not got a bargain, and when they did their gains were much bigger than their losses when they happened to 'overpay' in the auction.




86. Year-by-year, tenor-by-tenor charts, showing the same unmistakable pattern of an auction consistently tilted in Defendants' favor, appear as Appendix B.

87. To see this numerically, the following table in essence counts the orange lines versus the blue lines ("% of Reissuance Auctions with Positive Spread"), for different tenors, and also makes the same comparison for all tenors in which reissuances occurred. The table also measures how much taller the orange lines are than the blue lines, confirming that the average movement across multiple auctions was in the direction that gave Defendants a bargain. Across all tenors, the auction yields of reissued Treasuries were inflated in 69% of auctions (*i.e.*, Defendants got a bargain price 69% of the time), by 0.91 basis points.

| **Tenor** | **% of Reissuance Auctions with Positive Spread** | **Average Positive Spread** |
|---|---|---|
| Cash Management Bills | 62.70% | 0.69 bps |
| 4-Week | 74.60% | 1.01 bps |
| 13-Week | 72.70% | 0.95 bps |
| 26-Week | 68.50% | 0.74 bps |
| 10-Year | 62.50% | 1.75 bps |
| 30-Year | 54.40% | 2.28 bps |

| Tenor | % of Reissuance Auctions with Positive Spread | Average Positive Spread |
|---|---|---|
| **All Tenors** | **69.00%** | **0.91 bps** |

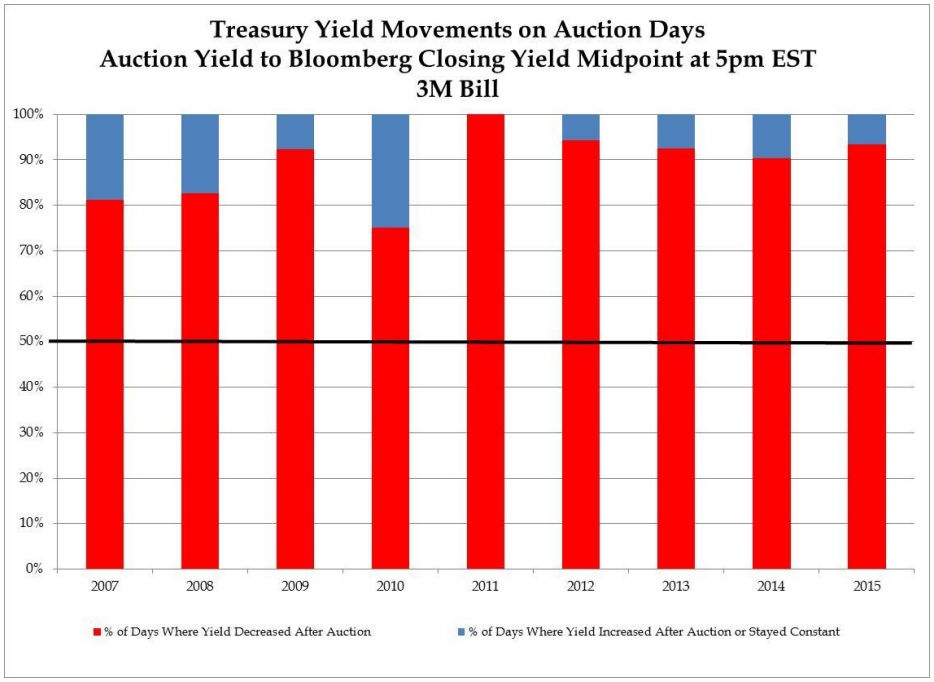
88. There is, again, essentially a zero percent chance that over so many re-issuance auctions, across so many years, and so many maturities, that the gap between the auction and secondary-market pricing *for the exact same security* is the result of market noise or random chance. It can only be explained by the consistent tipping of the playing field in Defendants' favor.

### B. The Market Suspiciously Moved in Defendants' Favor Following the Auction Far Too Often to Be the Result of Natural Phenomena

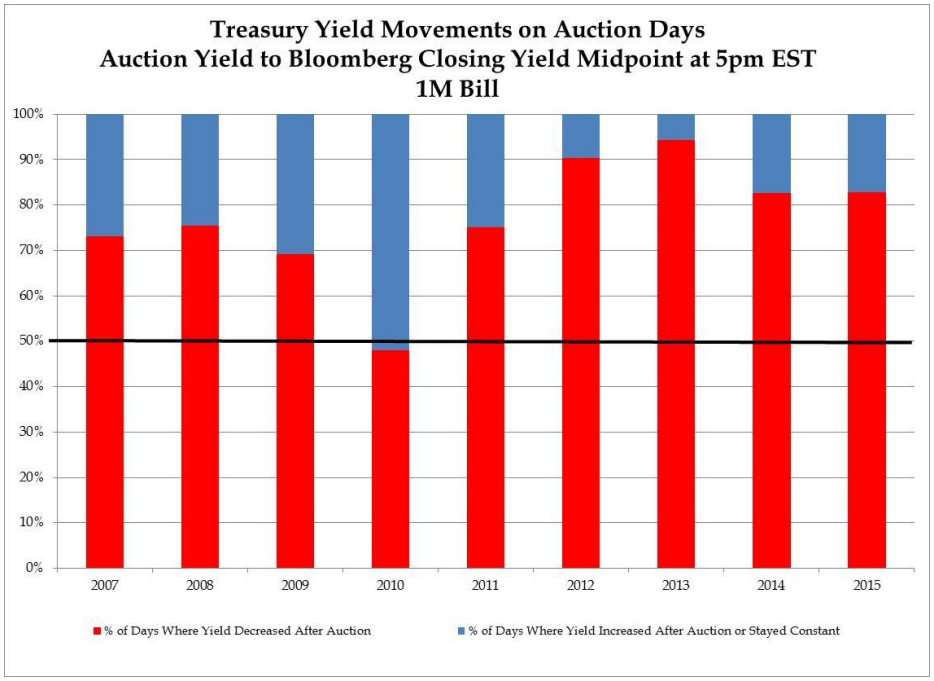
#### *1. Defendants were consistently able to turn and sell the Treasuries for a profit*

89. If someone gets something in an auction for a truly bargain price, they should be able to turn and sell it for a profit. That is, in fact, what the data shows occurred. Defendants were, once again, anomalously and predictably "winners" in the auction. A disproportionate number of times, yields went *down* for the just-auctioned Securities following the auction (*i.e.*, prices went up) over the course of the rest of the day, or the next one. The odds Defendants by random chance (and without collusion) secured a preferential auction rate across so many maturities, across so many auctions, is statistically zero.

90. Take, for example, the following chart, which compares the number of times yields/prices moved in Defendants' favor by the end of the day (in red), versus the number of times yields/prices moved against them (in blue), on the three-month T-bill. Year after year, Defendants by the end of the day came out winners far more often than not.



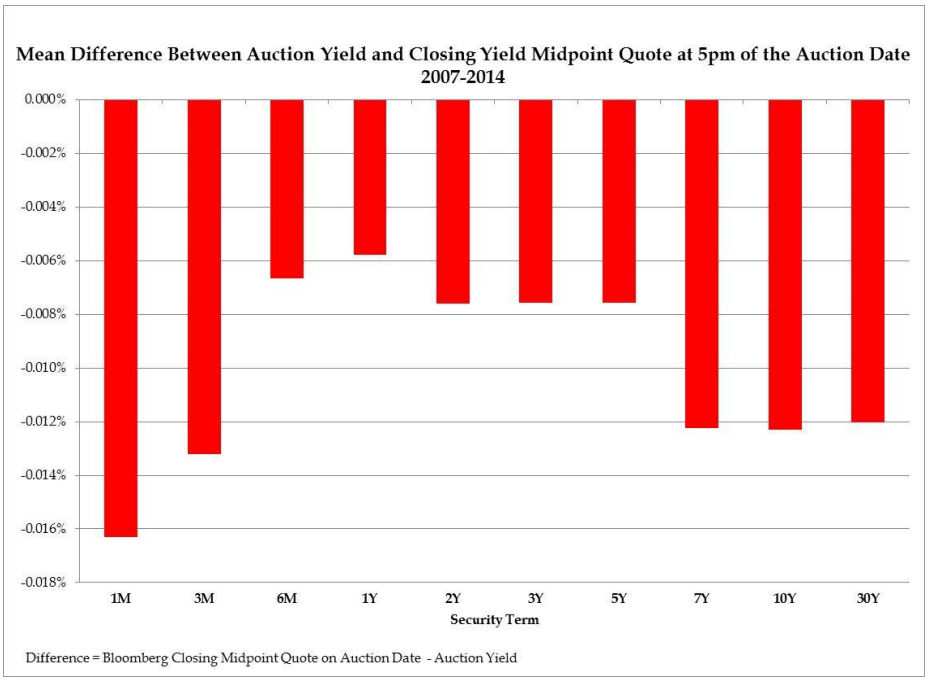

91. The same pattern is seen in the one-month T-bill auction:



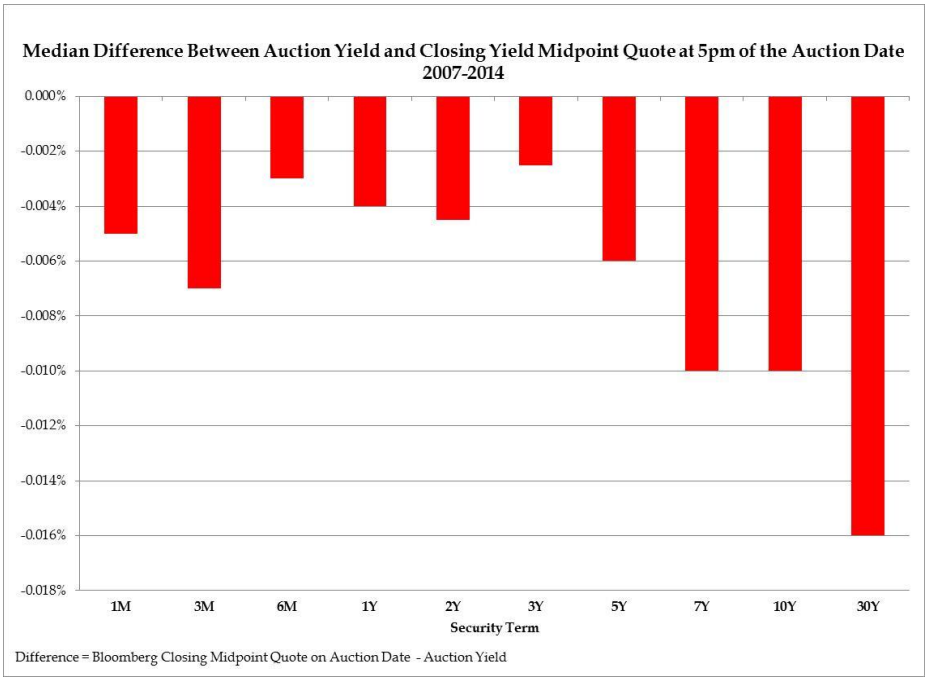

92. Additional charts, for additional maturities, are set forth as Appendix C. Consistently, yields went down/prices eventually went up following the auction. The consistency of that pattern—statistically significant—demonstrates that the purportedly

competitive auction, was anything but. Again, Defendants consistently rigged the auction playing field in their own favor.

93. As was done with a comparison of the auction yields/prices with those in the secondary market for comparable securities, it is also helpful to see not just the number of times things moved one direction or another, but how large of a gap was created. The following chart tracks the yields on the Treasuries at the end of the auction day, to the yields in the auction itself for those Treasuries. The bars are all below zero, meaning that yields on average went down over the course of an auction day, *i.e.*, prices for the same securities consistently went *up* after the auction. As the auctioned securities are equivalent to other securities that had been available all along, and because the auction was supposed to be a competitive process, again, Defendants should not have so consistently been able to secure a bargain during the auction process.




94. Looking again at the median difference for each maturity (in order to control for outliers that might disproportionately affect the mean difference), the same pattern of yields going down/prices going up post-auction is confirmed.




95. The same pattern of anomalously consistent price movements in one direction—directions that show Defendants almost always got an auction bargain—is also seen by running the same comparisons, but across multiple days. These additional charts are included as Appendix D.

*2. <u>Movements in post-auction yields/prices cannot be explained away by general market trends</u>*

96. The above analysis of yield/price movements after the auction shows a statistically aberrational pattern—in Defendants' favor, once again—confirming that the competitive auction was anything but. These anomalies are present even after controlling for potentially explanatory market movements, which can be seen most simply by comparing whether there was a uniform direction and degree of movement in the auction yields and the broader secondary market from auction close, to the end of the day. If both moved in the same fashion and by the same amount, then this would suggest the post-auction yield movements were simply explainable by common market movements.

97. A "regression analysis" can be performed to test whether the pro-Defendant movements in auction yields were in line with, and explained by, the general market trends on auction days. In short, they are not.

98. A regression analysis seeks to determine how much the movement of one measured thing can be explained by the movement of another. Here, the regression analysis used sought to measure how much movements in secondary market yields for previously issued Treasuries explained movements in yields for the just-issued Treasuries, from the time of the auction until later in the day.

99. The analysis compared the correlation between (1) auction yields at the auction and the yields for the newly issued security at the end of the day, and (2) secondary market yields at the time of the auction but before the auction results are publicly released and secondary market yields at the end of day. As the following table shows, there is a statistically significant, positive β coefficient for all tenors—meaning that, as one would expect, yields for the just-issued Treasuries and for comparable secondary market Treasuries are correlated and move in similar ways. After controlling for the size of those respective movements, there is *still* an *otherwise unexplained*, statistically significant, negative gap between the two categories of yields. This indicates that there is an extra, unexplained layer of artificiality built into the auction yields, above and beyond that which occurred in the much larger secondary market. Movements in the secondary market therefore cannot explain why Defendants are seen getting a bargain by the end of the auction day.

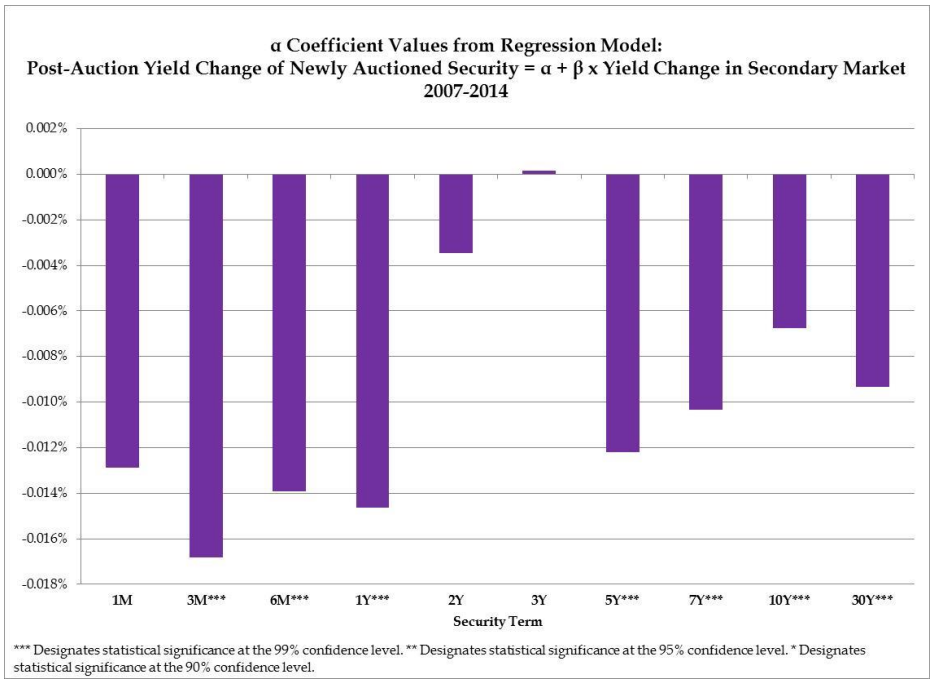
**Regression Results for Model:**
**Post-Auction Yield Change of Newly Auctioned Security = α + β x Yield Change in Secondary Market**
**2007-2014**

| Maturity | Number of Observations | α Coefficient | β Coefficent | RMSE | Adjusted R-Squared |
|---|---|---|---|---|---|
| 1M | 142 | -0.000129 | 0.661*** | 0.00100 | 0.13 |
| 3M | 142 | -0.000168*** | 0.599*** | 0.00047 | 0.39 |
| 6M | 125 | -0.000139*** | 0.084 | 0.00039 | 0.01 |
| 1Y | 26 | -0.000146*** | 0.497*** | 0.00028 | 0.31 |
| 2Y | 41 | -0.000035 | 0.698*** | 0.00018 | 0.71 |
| 3Y | 32 | 0.000001 | 0.906*** | 0.00004 | 0.98 |
| 5Y | 72 | -0.000122*** | 0.671*** | 0.00025 | 0.57 |
| 7Y | 68 | -0.000103*** | 0.555*** | 0.00022 | 0.46 |
| 10Y | 83 | -0.000068*** | 0.742*** | 0.00020 | 0.65 |
| 30Y | 71 | -0.000093*** | 0.548*** | 0.00024 | 0.55 |

Note:

*** Designates statistical significance at the 99% confidence level. ** Designates statistical significance at the 95% confidence level. * Designates statistical significance at the 90% confidence level.

100. The bottom line is that, even after controlling for movements in secondary market yields for previously issued Treasuries, almost every Treasury maturity exhibits a consistent pattern of negative post-auction yield movements (*i.e.*, in Defendants' favor), as seen by the consistency of the below-zero purple bars in the following chart.



101. As discussed below, the data shows that Defendants also manipulated secondary market yields through a combination of efforts in the much smaller when-issued and futures markets. And after the results of the auction are released, to secondary market moved in reaction to this "bad" (yield-wise") news. Accordingly, secondary market yields were not untainted and do not present a perfect "control." Nevertheless, given that Defendants could more easily manipulate auction yields due to their dominance of the auction process, the expectation is that the artificiality in those yields would be more pronounced. That is exactly what this regression analysis shows.

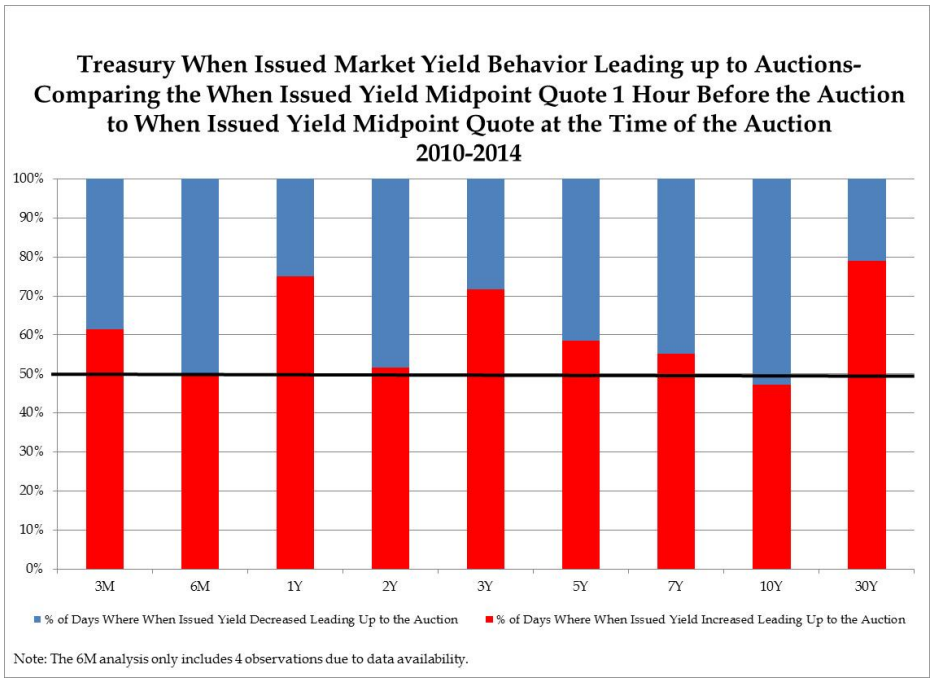
### C. Yields In The Supposedly Predictive "When-Issued" Market Consistently Underestimated Auction Yields, Again Showing Defendants Were Obtaining An Artificial Bargain

102. As discussed above, investors were able to stake out positions with respect to Treasuries before they were actually issued, by way of contracts entered into in the "when-issued" market. The buyer of the "when-issued" contract is taking a "long" position, paying the agreed-upon yield/price regardless of the auction results. And the seller is taking the "short" position, agreeing to deliver the security regardless of how much it costs to actually obtain within or after the auction.

103. In a competitive market, prices in the when-issued market would be an accurate predictor of the auction yield/price. Buyers would not be consistently willing to pay far more in advance, than what they think they will be able to get later. And sellers would not consistently agree to sell for far less than the costs they will incur in delivering the promised securities. As the Treasury itself has noted, "[w]hen-issued trading is important to the distribution process for Treasury Securities" because it is supposed to "reduce[] uncertainties surrounding Treasury

auctions by serving as a price discovery mechanism."[17] One would thus expect yields in the closing hour and near-final moments of the when-issued market to act as highly predictive indicators of the actual auction yield. They were not, yet another sign that competitive forces broke down in and around the auction.

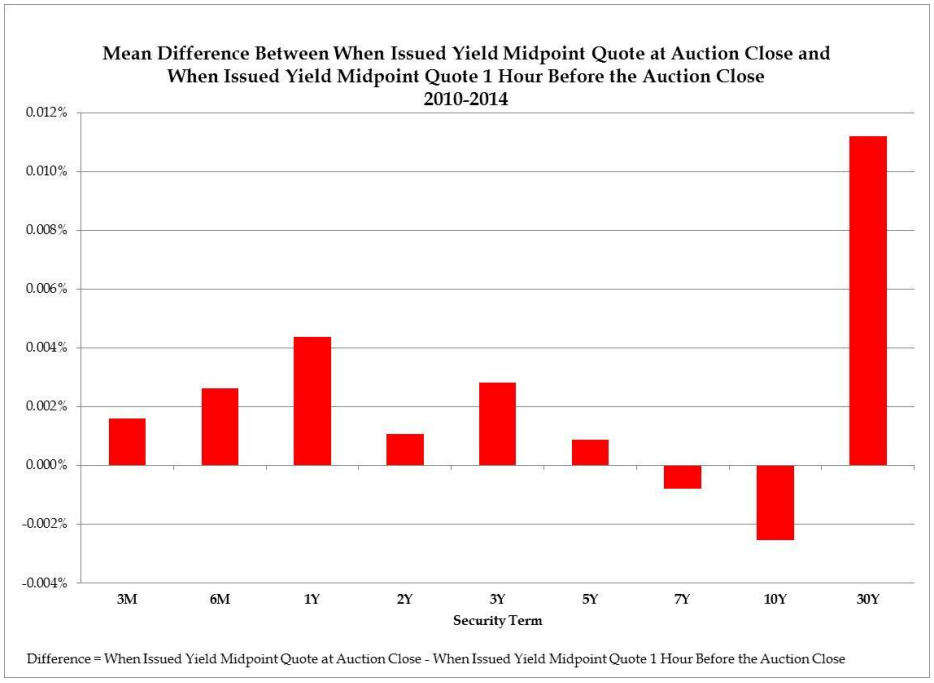
104. For example, the following chart tracks how often yields in the when-issued market were predicted incorrectly in a way that shows Defendants got an unexpectedly good bargain (in red) with how often the when-issued market predicted incorrectly in a way that Defendants were worse off (in blue). The same pattern seen in the other analyses above emerges: once again, the playing field was disproportionally tipped in Defendants' favor. For a period of years, and across almost all tenors, Defendants were seen not only getting a bargain, but getting one that the predictive "when issued" market did not expect.



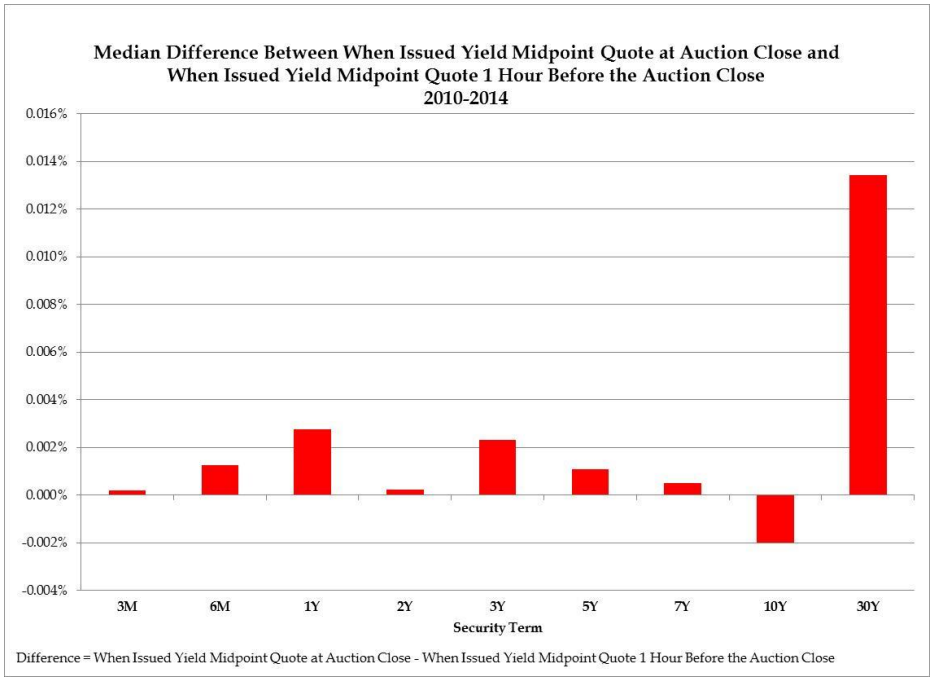

[17] *The Joint Report on the Government Securities Market*, at A-6, jointly prepared by the U.S. Department of the Treasury, the Securities and Exchange Commission, and the Board of Governors of the Federal Reserve System (Jan. 1992) (*available at* http://www.treasury.gov/resource-center/fin-mkts/Documents/gsr92rpt.pdf).

105. Markets of course can move during the hour leading up to the auction. But what is striking is once again the consistency of the *direction* of that movement. There is no reason the when-issued market (or any other) would consistently move one way or the other, over the course of so many studied days. Statistically speaking, the chance that when-issued yields would be so bad of a predictor as they ended up being, in terms of the direction of the gap, with such regularity, stand at just 0.17%.

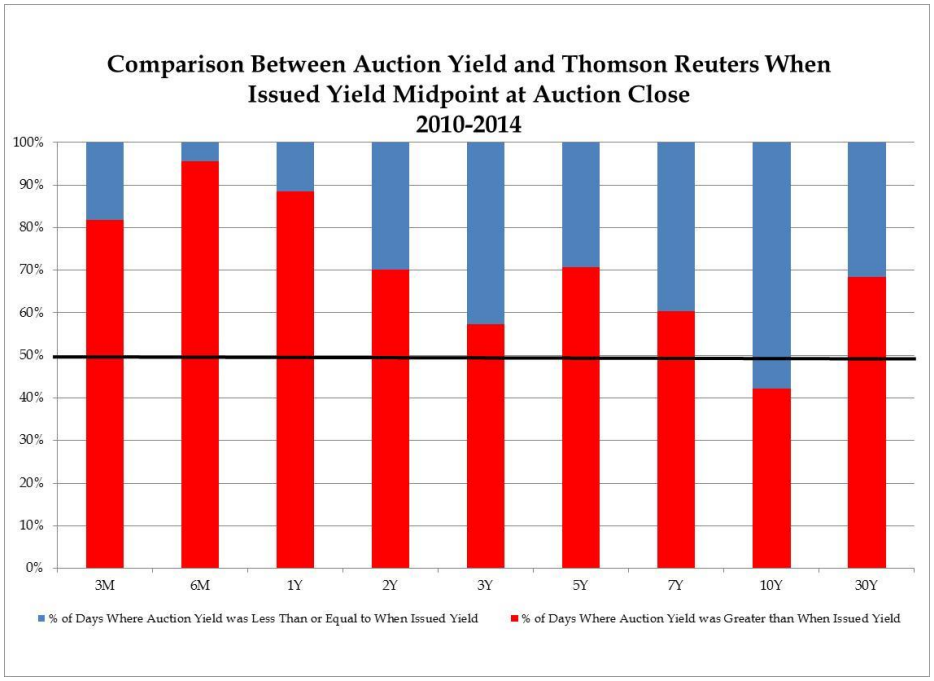
106. An equally important data point is that, despite their movements, the when-issued yields were still unable to actually predict auction yields. This can be seen by comparing yields in the when-issued market versus the auction yields. As seen below, the difference between when-issued yields in the final hour before the auction and the auction yield itself is generally positive, meaning when-issued yields before the auction were consistently predicting lower yields than what occurred (*i.e.*, they were guessing prices in the auction would be higher than they ended up being).



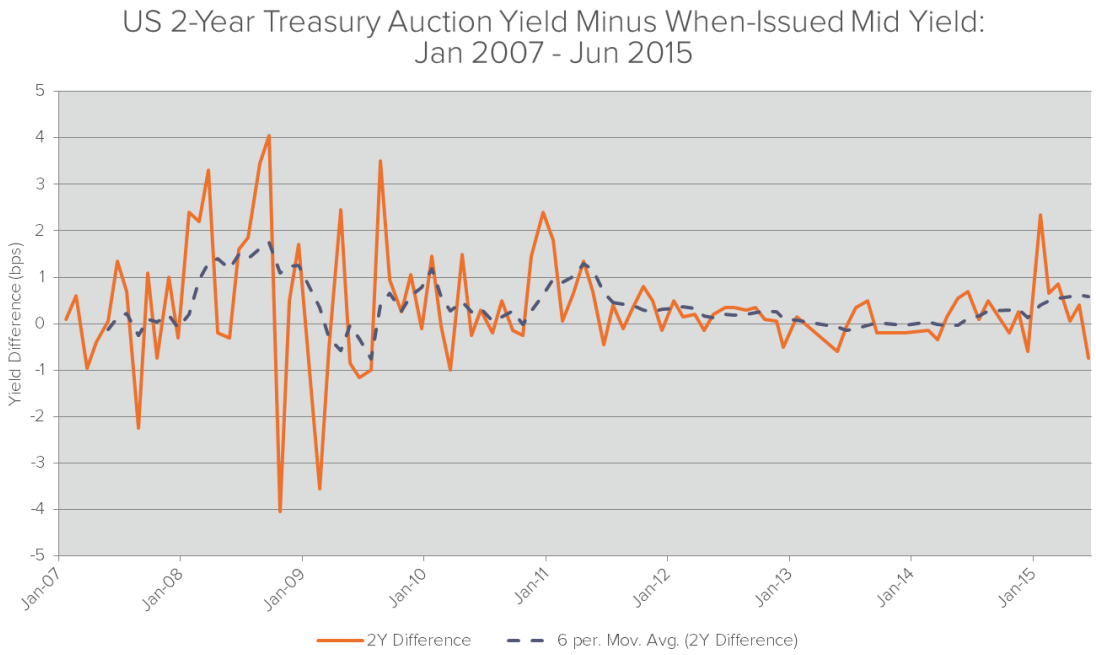
107. This pattern is also seen if one studies the median, rather than the average, between the two.




108. The same pattern also holds true when one analyzes the *final* when-issued yield, with the auction yield. Again, a consistent pattern of the banks' "winning" can be seen.



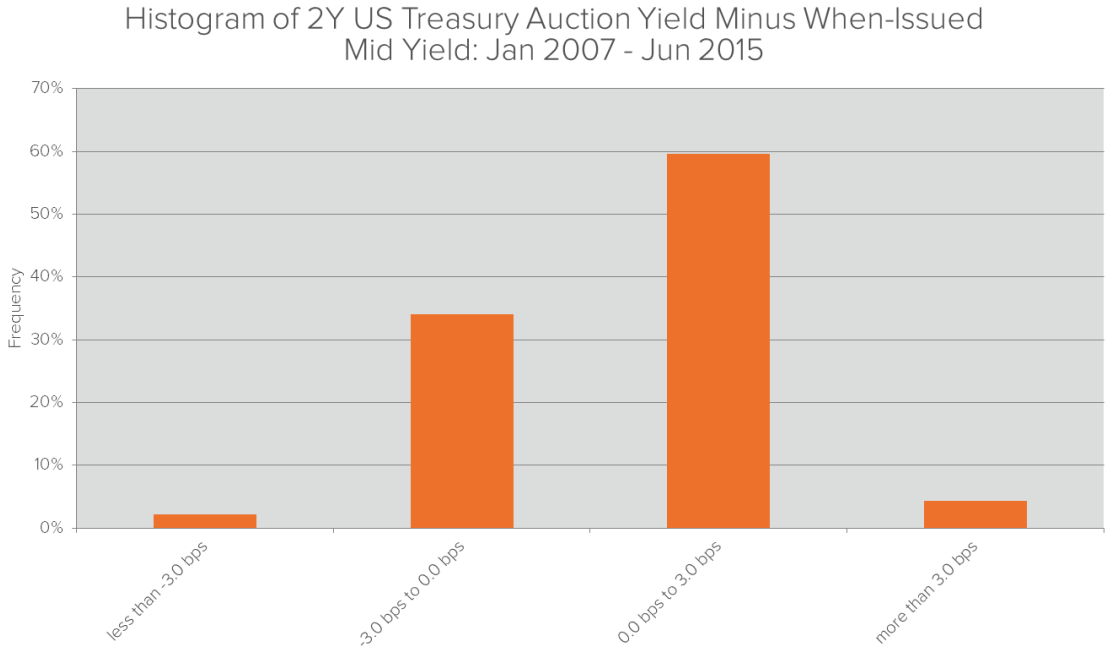
109. Seen another way, in the below chart (for two-year T-notes), the orange line represents the difference between the yield in the actual auction, versus the yield in the last when-issued transaction. The orange line is consistently and markedly above zero, *i.e.*, yields were consistently *higher* (prices were lower) in the actual auction, than the market effectively predicted moments before. The dotted blue line is the six-auction moving average of the differences, which helps normalize the data and makes it easier to see that the difference is consistently above zero, *i.e.*, towards higher yields in the auction. In other words, the data again shows that Defendants were getting artificially rigged, windfall yields/bargain prices that the market was not predicting.




110. Additional charts showing the same trend across other maturities are included as Appendix E.

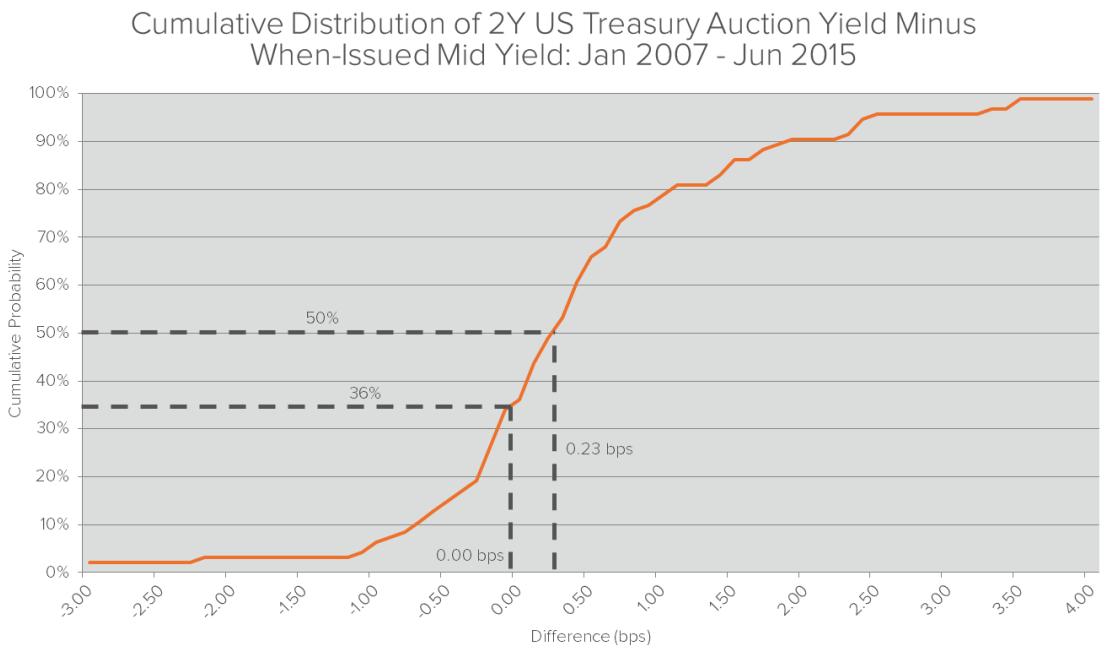
111. Rather than plotting the (consistently in Defendants' favor) movements across time, the following chart instead takes the same results and adds up the number of times the movement in yields fell into one band or another. One can thus again see that the auction yields

moved in Defendants' favor, versus what the when-issued market predicted, far more often than the other way around.




112. Additional charts showing the same trend across other maturities are included as Appendix F.

113. Another way to present this data is to do a "cumulative distribution" chart. The chart begins at the most negative figure observed in the data—*i.e.*, the rare instance where yields moved the most *against* Defendants. Tracking from left to right along the x-axis, the orange line rises as all the observations to the left of any point are shown as being a certain percent of the total population of observations. Thus, for instance, only 36% of the time did the when-issued market either anticipate the auction yield, or err against Defendants. The orange line rises dramatically once 0 is crossed, *i.e.*, once the predictive "errors" show surprise movements *in favor of* Defendants. Indeed, the market failed to anticipate how much of a bargain Defendants got in the auction ***two-thirds*** of the time.




114. Additional charts showing the same trend across other maturities are included as Appendix G.

## II. MANIPULATION OF THE FUTURES AND SECONDARY MARKETS WAS PART AND PARCEL OF DEFENDANTS' SCHEME

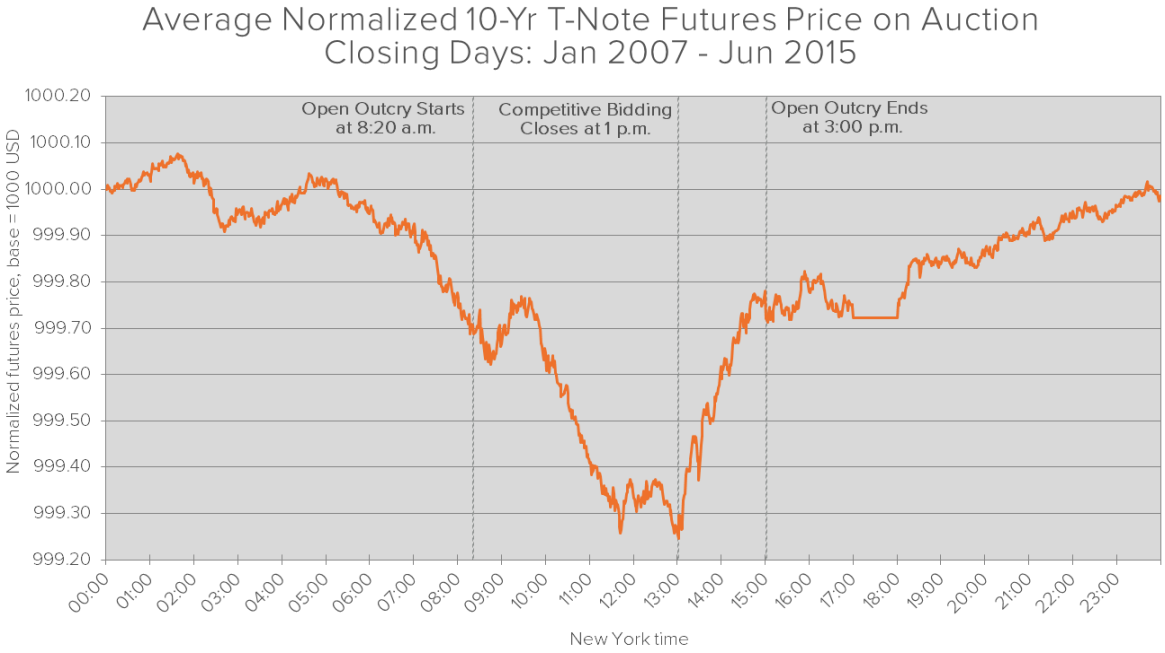
115. On auction days, prices for Treasury Investments, such as futures, consistently experienced sustained, increasingly downward pressure toward the close of competitive bidding. Yields for Treasury Securities in the secondary market likewise experienced a similar, sustained inflation (*i.e.*, "prices" experienced downward pressure) in the lead-up to the auction.

116. This downward pressure in the futures and secondary markets is further evidence of a conspiracy to rig the Treasury auctions. If Defendants had not acted to push down prices in the real-world markets, the high-yield/low-price auction results would have stuck out like a sore thumb. Too big of a gap between the auction and marketplace yields, could also have brought

unwanted scrutiny by the New York Fed, which held the power to revoke the banks' licenses if their bids were not "reasonable" in light of then-prevailing rates.[18]

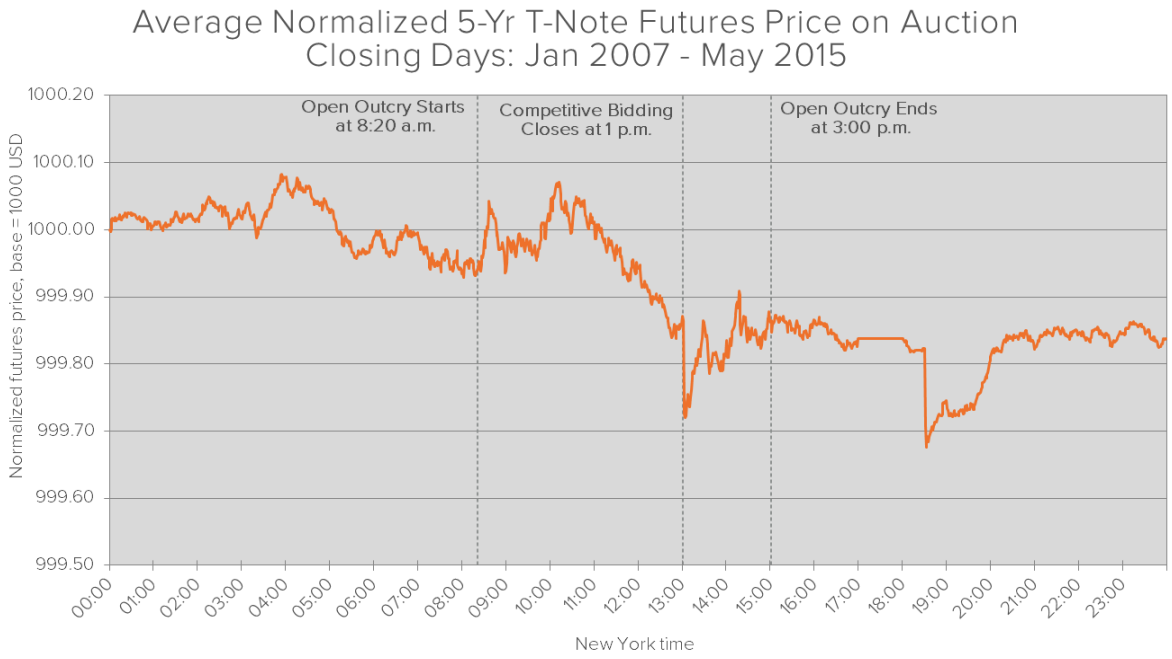
117. That these markets were put under artificial duress in the lead-up to the auction is again borne out by the economic data, set forth below.

118. For example, the following chart tracks prices for futures on the ten-year Treasury note, on a normalized basis, which allows the minute-by-minute movements to be tracked in relative terms across many days, where absolute values will of course differ one day to the next. This allows us to see how on average prices in the futures market moved from one minute to the next over the course of a trading day. A steady downward trend is observed in the lead-up to the close of the auction—followed by a sudden drop downward at the close.



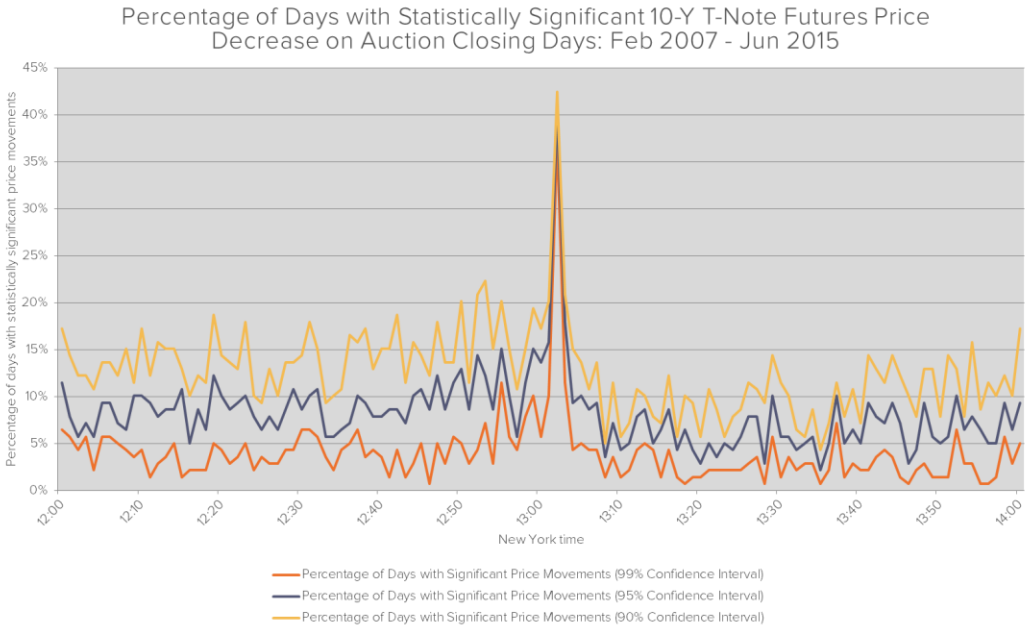

[18] In addition, the Treasury looked to just such data to help them plan future auctions. Manipulation of the futures and secondary markets thus furthered Defendants' goal of obtaining Treasuries through the auction process at higher yields/lower prices.

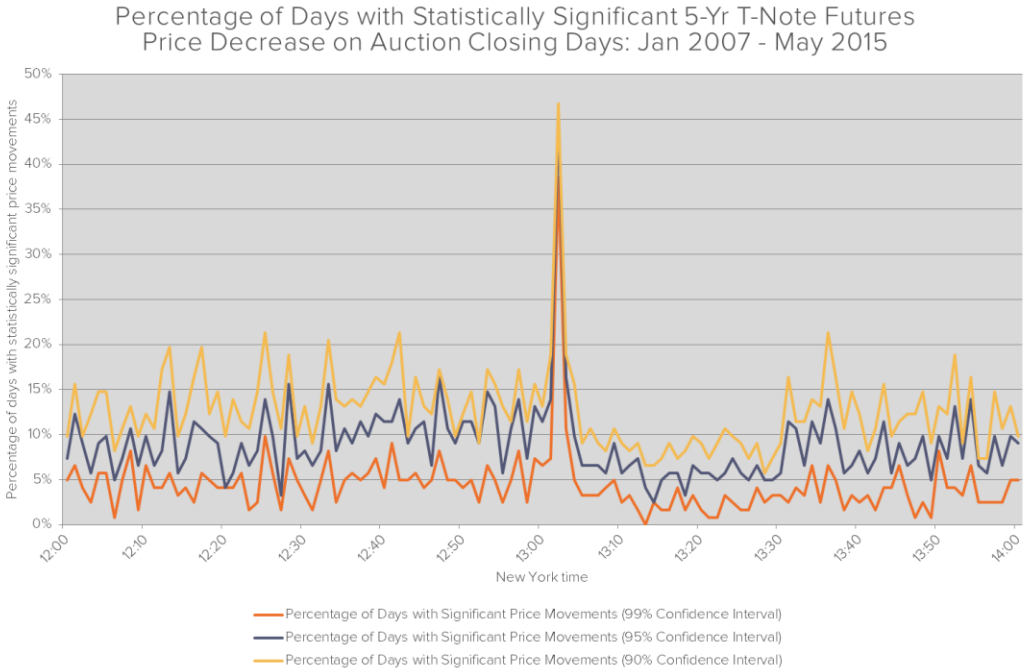
119. The same downward trend, culminated with a large drop right at the close, is similarly seen in the following chart, tracking the same normalized price movements across multiple auctions, but for five-year Treasury notes.




120. Additional charts, showing similar trends leading up to and at the close of the day's auction, across other maturities, is included herein as Appendix H.

121. Again, of course, prices move from minute to minute all the time, not just around the auction close. But the following chart separates out the market noise of random and small movements, to identify the times of day when *statistically significant*, outlier-sized movements were occurring. Both of the following charts, first for the ten-year Treasury note, then for the five-year note, make clear that it was around auction close that such significant movements were regularly occurring.



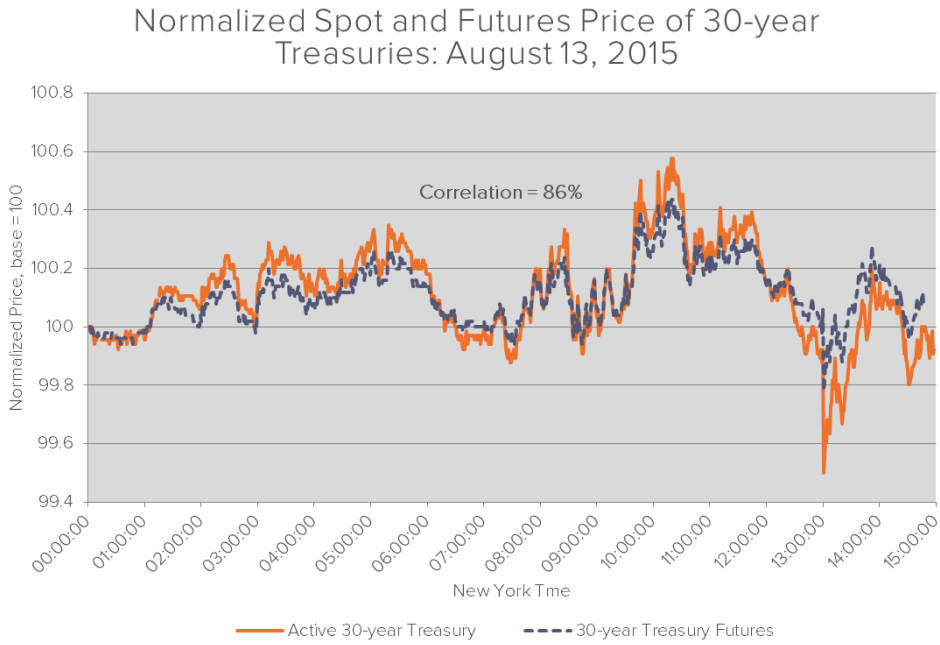




122. Additional charts, showing similar trends leading up to and at the close of the day's auction, across other maturities, are included herein as Appendix I.

123. The prices for Treasuries available for purchase on the spot market naturally track the prices for Treasuries available for purchase in the futures market. This is due to the size and

highly liquid nature of both markets, cross-market trading between the market, and investors' ability to near instantly price discover, particularly with electronic trading platforms and high-speed trading.

124. This correlation occurred even when Treasury yields/prices were being artificially moved. For instance, the following chart tracks prices for thirty-year Treasuries on an auction date. Notably, both the orange (spot) and blue (futures) prices not only move with each other throughout the day, but do so even as Treasury prices at auction were being manipulated downward by Defendants—and then suddenly spike—at the auction time.




125. This sustained pattern of movements in the direction favorable to Defendants, and the time most beneficial to Defendants, is the same calling card seen in the market data that has led to the discovery of other instances of market manipulation by the banks. *See* Section IV below. Defendants and co-conspirators (including high-frequency trader cohorts) were "banging the close" or "flashing" the market with sell orders (many or all of which would be cancelled

before execution, *i.e.*, they were "spoof" orders) in order to drag the market downward, both to infect the auction process and to help cover the tracks of their bid-rigging scheme.

126. Notably, this is not just another category of economic evidence that something was seriously amiss with the Treasuries markets in and around the auction. It also confirms that there were more victims to Defendants' schemes than "just" the U.S. Treasury. Sellers of Treasuries Instruments were harmed because they were caught in the downward price movements.

## III. THE ANOMALOUS PRICE MOVEMENTS WERE THE RESULT OF DEFENDANTS' CONSPIRACY

127. As discussed above, numerous studies into the behavior of yields/prices around the auction show statistically significant abnormalities. There is no innocent explanation for these abnormalities. Rather, the only plausible conclusion is that prices were being manipulated.

128. The artificialities observed were the result of joint action. No market participant acting alone would risk engaging in the manipulation documented above alone, at least not over the period of time for which evidence of manipulation exists. It would have been too risky, too costly, and too ineffective to attempt alone, auction after auction.

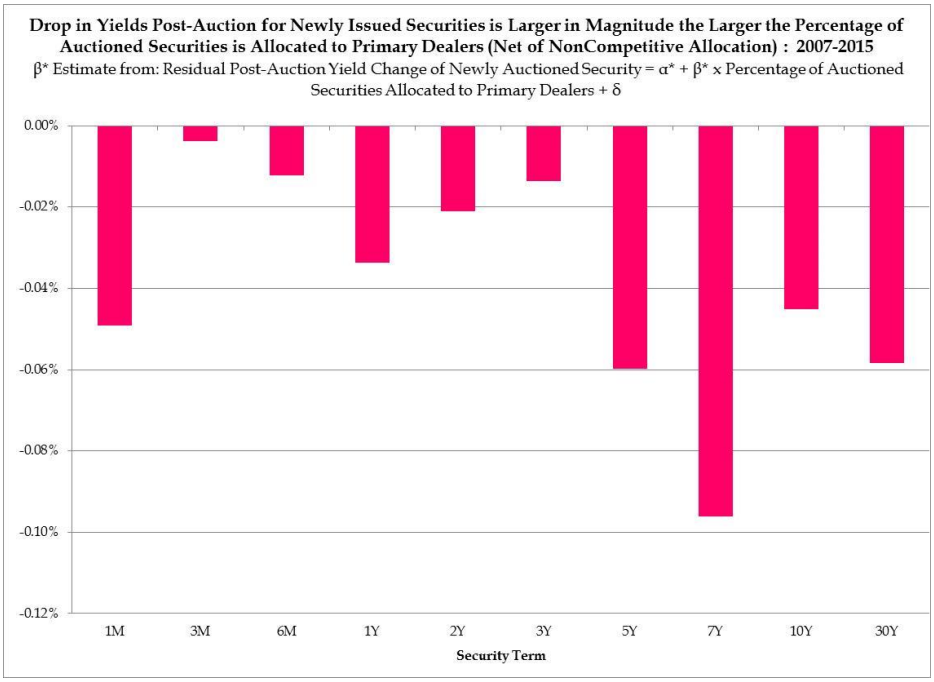
129. Not even a lone primary dealer Defendant could or would have done so. Outside of the auction, it would have been too risky to try to move market prices alone so regularly. Inside the auction, if any one bank continually led the charge to set prices lower, it would also continually incur the risk and cost of bidding "too low," having its bid excluded, and not receiving the securities it desired (and often needed for the other transactions into which it entered). It also risked standing out too much, drawing suspicions from regulators and the market alike.

130. Additional evidence—including further economic data—confirming the pricing anomalies discussed above were the result of Defendants' manipulations, are discussed below.

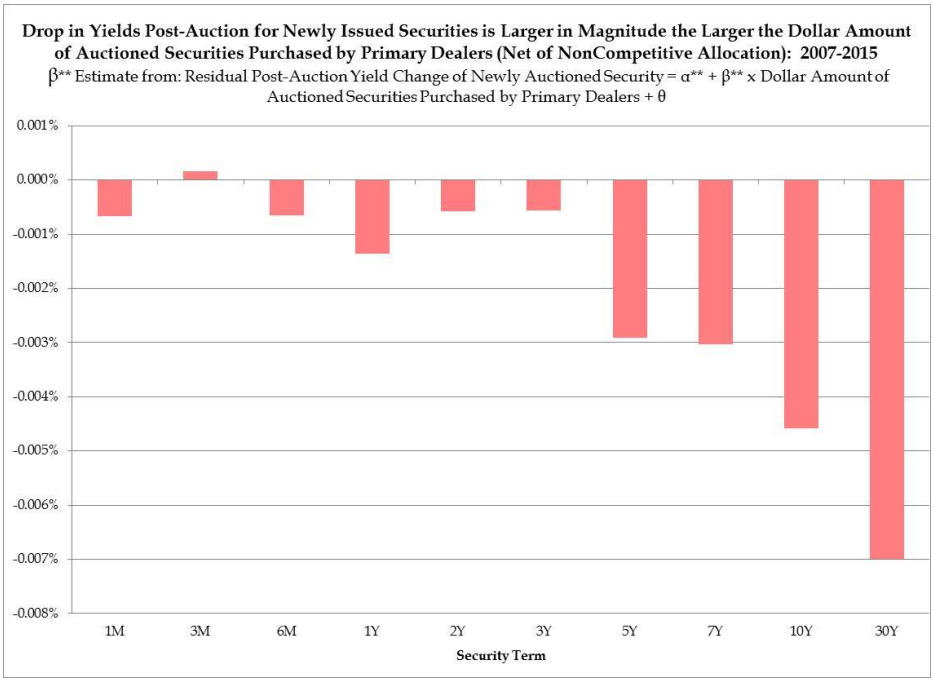
### A. **Price Artificiality Went Hand-in-Hand With Defendants "Winning" in the Auction**

131. As seen in the studies set forth in the preceding Sections, yields within the auction systematically departed from other measurables within the marketplace. Strikingly, when Defendants were more involved in a given auction, the observed anomalies were bigger. Conversely, when Defendants were less involved in a given auction, the observed anomalies were smaller. In other words, *Defendants' level of involvement* in an auction, and *the level of price artificiality* went hand-in-hand.

132. This can be seen in the following chart, which uses a regression model to measure how correlated the amount of securities Defendants "won" in a given auction was, with respect to the size of the gap between the auction yields and the yields at the end of the auction day, after having controlled for contemporaneous market movements in the secondary market. The numbers are negative, for all the maturities. Which is to say, again, the more securities Defendants "won," the more artificial (too high) the auction rate yields were.




133. Another way to track Defendants' level of focus on a given auction is to measure the total dollar amount of Treasuries allocated to Defendants, rather than the percent of Treasuries allocated to Defendants. Doing a similar regression analysis but using this measure to track how interested Defendants were in "winning," again finds that Defendants won more often the more artificial prices became.



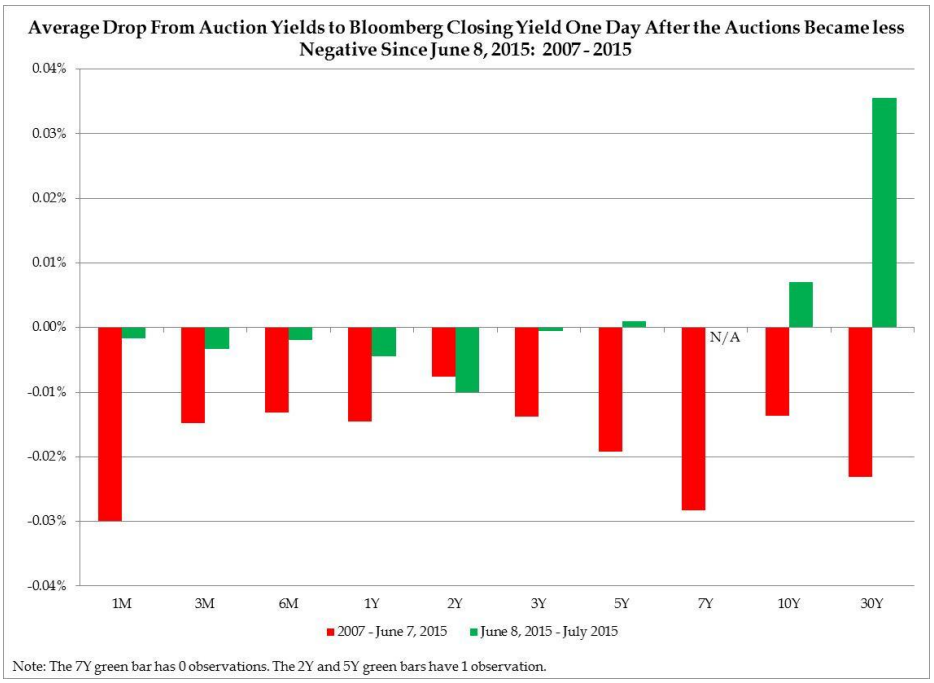

### B. Following the Announcement of the DOJ's Treasuries Investigation, Signs of Artificiality Dissipated

134. As discussed above in Section I, auction yields were consistently higher than those observed at the end of the auction day, or the next, for the same or comparable Treasuries. On June 8, 2015, media outlets first reported that the DOJ was investigating Defendants for their potential role in a conspiracy to manipulate Treasury auction yields.[19] Even in the limited number of auctions since that time, a break in the pattern has emerged. With one lone exception, yields no longer retreated with the same speed they once did on auction days. The break in the pattern is even more pronounced when looking at the two-day trend.

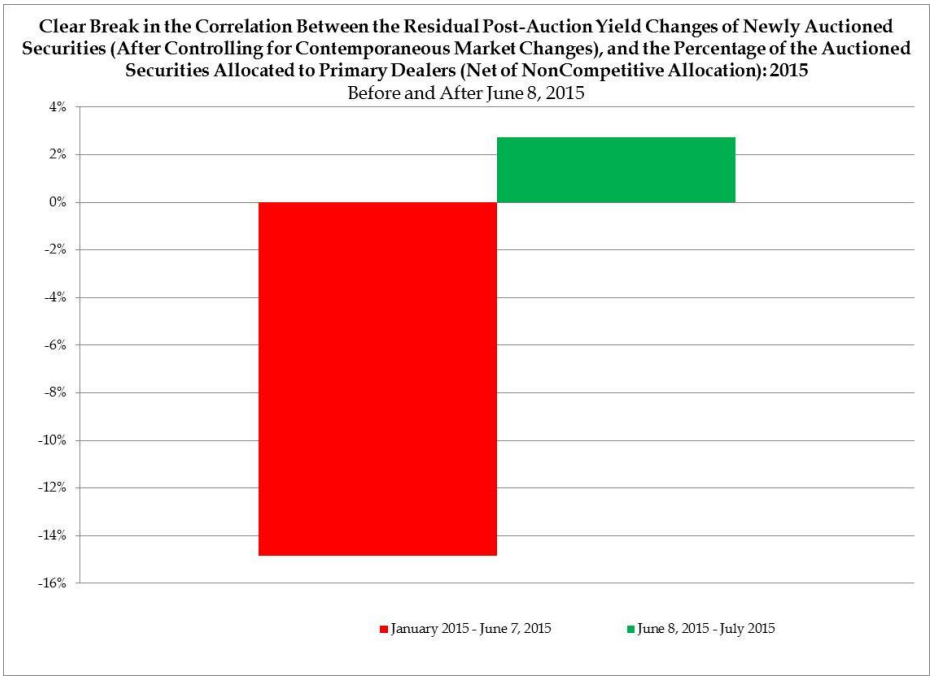
135. In the chart below, the difference between the auction yield and the closing-day yield the following day for 2000 through June 2015 appear as the red bars—they are noticeably all relatively large, and negative (indicating yields went down/prices went up post-auction). The

[19] *See* Kevin Dugan, *Justice Department Probes Banks for Rigging Treasuries Market*, N.Y. Post (June 8, 2015) (*available at* http://nypost.com/2015/06/08/department-of-justice-probes-Treasuries-market/).

same comparison is done post-reports of the DOJ, and appears below as the green bars—there is no consistent pattern anymore. And across *all* maturities the change from pre-and-post reports regarding the DOJ investigation is consistent with the cessation of attempts to inflate auction yields/depress auction prices.




136. Even more conspicuously, the previously observed direct relationship between auction yield artificiality, and Defendants' participation rate in the auction has also significantly softened, if not disappeared entirely, since the announcement of the DOJ investigation. This similarly demonstrates that, now that they are under scrutiny, Defendants have diminished their collusion. The chart below shows this difference graphically.

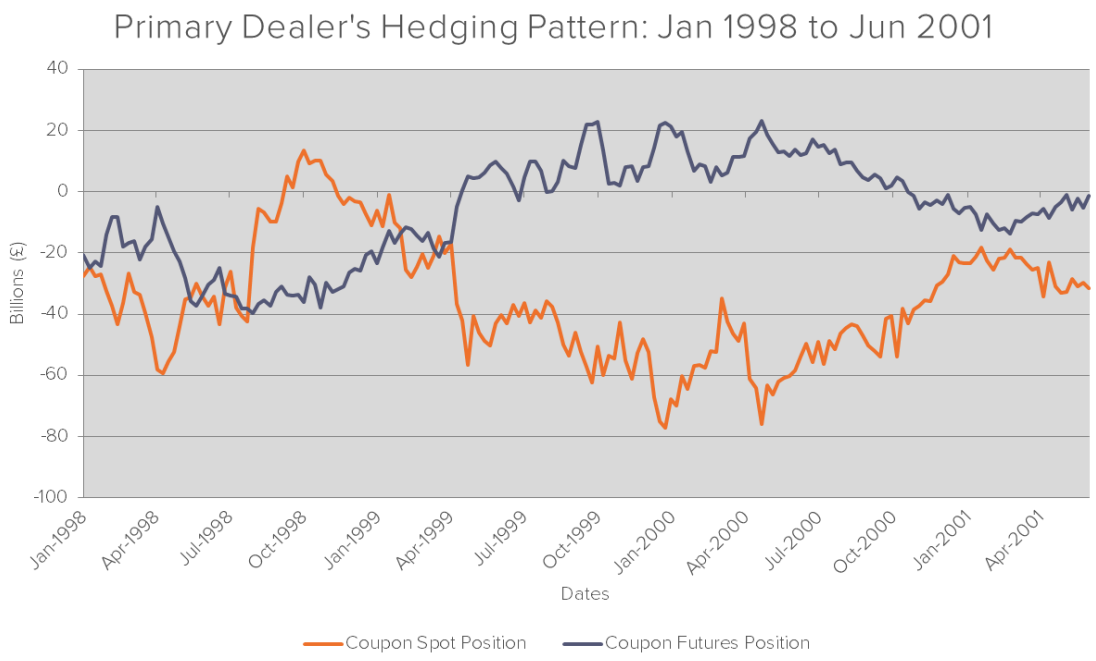



### C. <u>Defendants Did Not Seek to Hedge Risk Around the Auctions the Way They Did At Other Times</u>

137. Defendants' change in their hedging practices further evidences their manipulation of the Treasury auctions. Holding Treasuries Investments entails risk, just like any other investment. Particularly, there is a risk that yields will move against the holder, lowering the value of what is being held. Because of the many outlets for investing in Treasuries, this risk can be managed by going "long" in one area, but going "short" in the other.

138. The data that is available[20] shows that as a general matter, Defendants tended to do just that over the long term.

[20] The New York Fed stopped requiring the primary dealers to provide this type of data in 2001, which is why the chart below also stops at that date.




As the dealers' position in the spot market went "long" or "short" (the blue line), their position in the futures market (the orange line) moved in almost the exact opposite way.

139. This pattern of laying off risk that yields were going to move against the primary dealers suspiciously ceased when there was an auction. Rather than hedging by buying in one and selling in the other, or vice-versa, Defendants instead were, to a statistically significant degree, seen *only around auctions* going in the *same* direction in both the spot and futures markets. Defendants' volume of activities also increased markedly in these periods. The only plausible explanation for such "doubling down" behavior is that Defendants were confident that they knew how the markets were going to move at the time of auctions, because they were manipulating the auction prices.

**D. <u>Other "Plus Factors" Indicative of Collusion</u>**

140. The structure of the Treasuries market, and the ways Defendants operated within the market have created the perfect storm of features that invite and promote manipulation and collusion, allowing such behavior to go unnoticed until 2015.

141. ***First***, as observed by James Cox, a professor at Duke University School of Law who studies financial markets, "[i]n the Treasury market, where you have a small number of participants and the sales volume is very high, ***it is a fertile area for harmful collusive behavior***."[21] This is especially true of the auction process and the when-issued market. As discussed in the Background Section above, *all* of the issuance of new Treasuries goes through an auction process—one in which the primary dealer Defendants were by far the largest participants. The when-issued market was also naturally dominated by Defendants, who were the primary sources of the to-be-acquired Treasuries at auction.

142. ***Second***, Defendants were uniquely equipped to manipulate yields/prices to their advantage because they alone received a constant flow of customer order information reflecting the market's current and upcoming demands. Defendants' position as the preeminent "sellers" in the when-issued market gave them first-hand knowledge of the yields/prices that investors were willing to pay for forthcoming issuances. Similarly, Defendants' ability to bid on behalf of both themselves *and* indirect bidders during each auction gave Defendants the inside track on determining the market's demand for any given Treasury Security issuance. In an interview with Bloomberg, Mark MacQueen, a former government bond trader at Defendant Merrill Lynch confirmed that "primary dealers are an insiders club . . ."[22]

143. ***Third***, this customer order and bid information was *not* kept confidential. Rather, Defendants routinely shared it—both internally and with other banks. For instance, several people familiar with the auction process informed Bloomberg that "traders working at some of these financial institutions have the opportunity to learn specifics of those bids hours ahead of

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[21] *See* Scaggs, Kruger & Geiger, *supra*.
[22] *See* Scaggs, Kruger & Geiger, *supra*.

the auctions."[23] According to those sources, "traders at some of these dealers also have talked with counterparts at other banks via online chatrooms . . . with one of them adding that the traders swapped gossip about clients' Treasury orders as recently as last year." Many of these same Defendants have admitted to using the same types of inter-bank electronic chat-rooms to share customer information as part of their manipulation of other financial markets and benchmarks. *See* Section IV.

144. As reported by Bloomberg, "traders who learn of . . . deals' timing could place informed bets on the direction of prices."[24] This inside information allowed Defendants to predict what yields/prices investors would be willing to pay for Treasuries in the secondary market, and thus determine the level at which auction yields/prices had to be artificially set in order to result in the desired profits, while not drawing unwanted attention from the authorities and other market participants. The same electronic chat-rooms and other means of communication used to relay customer information were also used by Defendants to devise and execute their joint bidding and manipulative trading strategies.

145. ***Fourth***, Defendants lacked adequate internal safeguards to prevent the disclosure of customer information. Some Defendants expressly allow their traders to access confidential customer trading information. For example, Bloomberg reported that at Defendant SG Americas, traders would get a pre-auction rundown of customers' levels of interest.[25] At other Defendants, there was no clear set of rules. For instance, at Defendants BNPP and Cantor, "there isn't a consistent understanding among traders and salespeople about whether they can share information about orders before auctions, according to two people familiar with each firm."

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[23] *See* Scaggs, Kruger & Geiger, *supra*.
[24] *Id*.
[25] *Id*.

Cantor is said to instead run on an "honor system." While some Defendants reportedly have rules prohibiting employees from discussing yields or sizes of client bids before an auction, "[i]n many cases, such guidelines aren't always followed, monitored, or enforced, said several people familiar with these dealers." And in the case of UBS, a ban on traders from seeing client orders in the hours before an auction was only imposed in 2014—after Defendants had already manipulated Treasury auctions for years.

146. ***Fifth***, despite its size and importance, the Treasuries market is only lightly regulated. According to *Bloomberg*, the last time the government took a "hard look" at the Treasuries market was 1998.[26] Since then, massive technological developments—including, among other things, the advent of high-frequency trading, new trading platforms, and new means of electronic communication across the banks—have "left government overseers in the dust." In fact, many of the rules still governing the Treasuries market were first enacted as far back as 1986, and "have gone virtually untouched" since. In an interview with Bloomberg, Craig Pirrong, a finance professor at the University of Houston reflected that it was "rather remarkable that the Fed and Treasury have taken little interest in the dramatic change in market microstructure and trading technology."

147. There is currently a mishmash of agencies responsible for overseeing the Treasuries market, with "ample space between" their limited areas of authority.[27] The Treasury Department can write rules, and the Federal Reserve Bank of New York can audit auctions, but neither body is primarily responsible for enforcement. Enforcement responsibility instead falls to the Securities and Exchange Commission ("SEC"), the Financial Industry Regulatory

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[26] Matthew Leising, *If Treasuries Are Manipulated, Good Luck Finding Any Cops*, Bloomberg (Dec. 8, 2014) (*available at* http://www.bloomberg.com/news/articles/2014-12-08/light-speed-treasury-trading-governed-by-rules-dating-to-1998).

[27] *See* Scaggs, Kruger & Geiger, *supra*.

Authority ("FINRA"), and the CFTC—each of which has only a slice of responsibility, depending on whether a Treasury Security was sold at auction, traded on the secondary market, or packaged in a mutual fund or derivative, or whether exchange-traded Treasury futures or options were involved. This patchwork approach to governmental oversight is one of the reasons why Defendants' price-fixing conspiracy has gone undetected for so long.

148. ***Sixth***, the Treasuries market, and the auction process in particular, has been the subject of manipulation in the past. For instance, in 1992, the Treasury Department, Federal Reserve, and SEC issued a joint report finding that Salomon Brothers (then, a major participant in Treasury auctions) had submitted false or unauthorized bids in order to purchase more securities than were permitted by any one buyer.[28] The result was that *94%* of a particular auctioned Treasury security were sold to Salomon Brothers and its customers, which created a "short squeeze" from which Salmon Brothers reaped supra-competitive profits.

149. Regulators found that improper trading activity was not limited to Salomon Brothers, but rather was systemic. For example, the SEC, Office of the Comptroller of the Currency, and Federal Reserve initiated administrative proceedings against *98* other dealers, brokers, and banks. Those proceedings found each respondent "engaged in one or more improper practices in connection with the primary distribution of [government] securities," such as making and keeping inaccurate records. Salomon Brothers itself paid $290 million to settle the charges against it, including a charge of antitrust conspiracy brought by the DOJ.

150. ***Finally***, the veneer of a "competitive" "auction" process allowed Defendants to continue their conspiracy for years without detection. The Treasury Department publishes the overall results of each auction, including the final yields, rates, or discounts. However, the actual

[28] Joint Report on the Government Securities Market (Jan. 1992) (*available at* http://www.treasury.gov/resource-center/fin-mkts/Documents/gsr92rpt.pdf).

bidding activity that led to those final figures—including all of Defendants' actual bids—are still not available to the public. Similarly, the electronic chat-rooms and similar methods Defendants used to communicate customer information and coordinate their bidding strategies were also kept strictly private.

## IV. GOVERNMENT INVESTIGATIONS PROVIDE FURTHER EVIDENCE OF DEFENDANTS' CULPABILITY

151. On June 8, 2015, the New York Post first reported that the DOJ has begun an investigation into possible fraudulent manipulation of the Treasuries market.[29] Two days later, Bloomberg confirmed that to be the case.[30]

152. The focus of the probe is reported to be the auction process. Initial reports also state that the DOJ is modeling the Treasuries investigation on its successful examinations of the foreign exchange ("FX") and other financial markets, including by inquiring whether inside information was shared improperly—*e.g.*, whether Defendants used electronic chat-rooms and similar means to coordinate their positions and exchange confidential customer information, just as they did in the FX and other markets.[31] While the investigation is still in its early stages, government lawyers are reported to have reached out to at least three of the Defendants to request information.

153. As discussed below, investigations into the banks' Treasuries practices is just the latest in a long string of revelations about corruption in our financial system. With each passing scandal, it becomes clear that these are not isolated events, but rather that "cross-talk" on

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[29] *See* Dugan, *supra*.

[30] Keri Geiger and Matthew Leising, *Treasuries Collusion Said to Be Hunted in New Wave of Probes*, Bloomberg (June. 10, 2015) (*available at* http://www.bloomberg.com/news/articles/2015-06-10/treasuries-collusion-said-to-be-hunted-in-next-wave-of-probes).

[31] *See* Scaggs, Kruger and Geiger, *supra*.

electronic platforms, to arrange manipulative trading strategies at key points in the day, was for years viewed as normal operating procedure by Defendants and others in the banking industry.

### A. The Dam Breaks: Economic "Screens" Like Those Here Prompt (Successful) Investigations into the Rigging of Libor, an Interest-Rate Benchmark

154. One of the first financial benchmarks to draw scrutiny from government regulators was the London Interbank Offered Rate ("Libor"), which was supposed to reflect the rate that banks would pay to borrow funds in the inter-bank market. Following reports in the media that Libor had been manipulated—based on the use of economic "screens" highly similar to the ones used herein—regulators launched investigations into the conduct of the group of "panel banks" responsible for setting Libor.

155. Those investigations have revealed that instead of submitting their honest, expected borrowing costs, the Libor panel banks instead submitted deliberately false quotes for the purpose of manipulating the published Libor rate. The government investigations have resulted in both criminal and regulatory charges, and have been coordinated between agencies from the United States, the United Kingdom, Canada, Japan, and the European Union.

156. The first panel bank to be formally charged was Defendant Barclays. In June 2012, Barclays was fined over $450 million by the CFTC, DOJ, and U.K. Financial Services Authority ("FSA"). Barclays admitted to a detailed Statement of Facts, which cited scores of emails and other communications, in furtherance of their scheme to manipulate and suppress the published Libor rates.[32]

157. Later that year, the scandal widened when, for the first time, it was revealed that Libor manipulation was not restricted to traders within the panel banks, but also involved collusion *between* banks, and between banks and interdealer brokers. This revelation occurred in

[32] DOJ, Barclays Statement of Facts (Jun. 26, 2012) (*available at* http://www.justice.gov/iso/opa/resources/931201271017342636594 1.pdf).

connection with Defendant UBS's settlement agreements, wherein UBS was fined over $1.5 billion for its role in manipulating Libor rates. Regulators found "[m]ore than 2,000 instances of unlawful conduct involving dozens of UBS employees, colluding with other panel banks, and inducing interdealer brokers to spread false information and influence other banks."[33] UBS's settlements "exposed the systemic problems with the rate-setting process."[34]

158. Defendant RBS was the next to fall. In early 2013, it was charged with felony counts of wire fraud and price-fixing in violation of the Sherman Act. RBS admitted that it colluded with other banks to manipulate Libor rates. In addition to the $250 million in criminal fines imposed by the DOJ, RBS agreed to pay $325 million in fines and disgorgement to the CFTC, and $137 million to the FSA. Those regulators released many specific examples of RBS's collusive communications, in the form of emails, instant messages, and telephone transcripts between traders at RBS and other panel banks. As stated before British Parliament by Johnny Cameron, RBS's former Chairman of Global Banking and Markets, Libor manipulation involved "a cartel of people across a number of banks."[35]

159. On December 4, 2013, the European Commission issued its own set of findings, and fined Defendants Barclays, Citi, Deutsche Bank, JPMorgan, and RBS a total of $1.7 billion

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[33] CFTC, Press Release, CFTC Orders UBS to Pay $700 Million Penalty to Settle Charges of Manipulation, Attempted Manipulation and False Reporting of Libor and Other Benchmark Interest Rates (Dec. 19, 2012) (*available at* http://www.cftc.gov/PressRoom/PressReleases/pr6472-12).

[34] Mark Scott and Ben Protess, *As Unit Pleads Guilty, UBS Pays $1.5 Billion Over Rate Rigging*, New York Times (Dec. 19, 2012) (*available at* http://dealbook.nytimes.com/2012/12/19/as-unitpleads-guilty-ubs-pays-1-5-billion-in-fines-over-rate-rigging/?_php=true&_type=blogs&_r=0).

[35] Parliamentary Commission on Banking Standards – Minutes of Evidence (Feb. 11, 2013) (*available at* http://www.publications.parliament.uk/pa/jt201314/jtselect/jtpcbs/27/130211a.htm).

for "participating in cartels in the interest rate derivatives industry."[36] The European Commission found that each of these Defendants "coordinated with each other" to manipulate Libor and related benchmarks, which included discussions of "confidential and commercially sensitive information that they are not allowed to share with other market players" and that they "exchanged their pricing and trading strategies and trading positions."[37]

160. More recently, Defendant Deutsche Bank was charged with felony counts of wire fraud and price-fixing, and agreed to pay $625 million in fines to the DOJ.[38] The DOJ found that Deutsche Bank conspired with other banks to manipulate Libor. Deutsche Bank was also fined $800 by the CFTC, $344 million by the FSA, and $600 million by the New York Department of Financial Services.

### B. The Banks' Collusion to Manipulate the ISDAfix USA Interest-Rate Benchmark Reveals Evidence of Treasuries Manipulation

161. ISDAfix is another key interest-rate benchmark, as it is designed to represent current market fixed rates for interest rate swaps of various terms. In November 2012, the CFTC issued subpoenas focused on the issue of whether "ISDAfix was rigged." In April 2013, it was revealed that the CFTC and other regulators were actively investigating the manipulation of USA ISDAfix. The CFTC was reported to be sifting through over one million emails and instant messages, as it simultaneously interviewed current and former employees of banks and dealers as part of its ISDAfix investigation. Defendants Barclays, Citi, RBS, and UBS have all admitted in

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[36] European Commission, Press Release (Dec. 4, 2013) (*available at* http://europa.eu/rapid/press-release_IP-13-1208_en.htm).

[37] Joaquín Almunia, *Introductory Remarks on Cartels in the Financial Sector* (Dec. 4, 2013) (*available at* http://europa.eu/rapid/press-release_SPEECH-13-1020_en.htm), at 2.

[38] DOJ, Deutsche Bank's London Subsidiary Agrees to Plead Guilty in Connection with Long-Running Manipulation of Libor (Apr. 23, 2014) (*available at* http://www.justice.gov/opa/pr/deutsche-banks-london-subsidiary-agrees-plead-guilty-connection-long-running-manipulation).

their recent regulatory filings to being subject to ISDAfix investigations, including having "ongoing obligations" to cooperate with authorities.

162. In 2014, Bloomberg reported that the CFTC had "told the U.S. Justice Department they've found evidence of criminal behavior following an investigation into banks' alleged manipulation of ISDAfix[.]"[39] The article stated that the CFTC "has flagged its findings to prosecutors, according to a person familiar with the matter." This led the DOJ and other regulators to launch their own investigations.

163. Earlier this year, the CFTC fined Barclays $115 million based on the formal results of its investigation.[40] After reviewing thousands of documents and audio recordings of communications, the CFTC concluded that from at least 2007 through 2012, Barclays traders "attempted to manipulate [ISDAfix] to benefit the Bank's derivatives positions." This manipulation took two main forms: (1) targeted transactions around the 11 a.m. fixing window in a manner designed to alter yields/prices; and (2) responding to the ISDAfix "poll" with submissions that did not in fact match Barclays' actual rates. As Barclays traders acknowledged, "ISDAfix is manipulated."

164. The CFTC's investigation has also led to revelations about manipulation of the Treasuries market, to which the ISDAfix benchmark is closely linked. In its Order against Barclays, the CFTC found that Barclays traders engaged in "manipulation through . . . bidding, offering, and/or executing trades in U.S. Treasuries." The CFTC specifically described an

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[39] Matthew Leising and Tom Schoenberg, *CFTC Said to Alert Justice Department of Criminal Rate Rigging*, Bloomberg (Sept. 9, 2014) (*available at* http://http://www.bloomberg.com/news/articles/2014-09-08/cftc-said-to-alert-justice-department-of-criminal-rate-rigging-i2z7ngfn).

[40] *See In the Matter of Barclays Bank PLC*, CFTC Docket No. 15-25, Order Instituting Proceedings (May 20, 2015).

instance where Barclays derivatives traders coordinated with traders on the bank's Treasuries desk to "push the screens down" on Treasuries.

### C. **The Banks' Brazenness Is Further Revealed by Investigations into the FX Market**

165. Beginning in the fall of 2013, media reports surfaced that government regulators were investigating potential manipulation of the FX market. These investigations quickly grew in scope to include authorities from across the globe. Many of the Defendants here have been specifically targeted by regulators for their role in the manipulation of the FX market. Many of those investigations have already resulted in criminal guilty pleas, civil and criminal penalties totaling well over $10 billion, and the release of damning reports detailing how many of these Defendants actively colluded to manipulate the FX market through consistent, clearly improper cross-bank communications about orders and planned trading activities—the same type of "cross talk" used here to rig the Treasuries auction.[41] Again, many of these claims were uncovered in part through econometric analysis of the type performed here, *i.e.*, an analysis of trading patterns and price movements around pivotal points in the day.

166. In May 2015, Defendants Barclays, Citi, JPMorgan, RBS, and UBS were fined a total of $3 billion by the DOJ, and each pled guilty to criminal conspiracy charges for manipulating FX rates.[42] The DOJ settlements followed a series of Orders from November 2014, where the CFTC and FCA imposed over $3.2 billion in fines on Defendants Citi, HSBC, JPMorgan, RBS, and UBS for manipulating the FX market, the Office of the Comptroller of the

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[41] Karen Freifeld, David Henry and Steve Slater, *Global Banks Admit Guilt in Forex Probe, Fined Nearly $6 Billion*, Reuters (May 20, 2015) (*available at* http://www.reuters.com/article/2015/05/20/us-banks-forex-settlement-idUSKBN0O50CQ20150520).

[42] *See U.S. v. Barclays PLC*, Plea Agreement (D. Conn. May 20, 2015); *U.S. v. Citicorp*, Plea Agreement (D. Conn. May 20, 2015); *U.S. v. JPMorgan Chase & Co.*, Plea Agreement (D. Conn. May 20, 2015); *U.S. v. The Royal Bank of Scotland PLC*, Plea Agreement (D. Conn. May 20, 2015); *U.S. v. UBS AG*, Plea Agreement (D. Conn. May 20, 2015); *In the Matter of Barclays Bank PLC*, CFTC Docket No. 15-24, Order Instituting Proceedings (May 20, 2015).

Currency ("OCC") fined Defendants BofA, Citi, and JPMorgan another $950 million, and the Financial Market Supervisory Authority ("FINMA") fined UBS $141 million. Other authorities across the globe are also actively investigating Defendants' manipulation of the FX market, including the U.S. Federal Reserve and the Securities Exchange Commission.

167. The settlements entered to date lay out the details of how Defendants colluded to manipulate FX prices to their benefit. For instance, the CFTC found that Defendants Citi, HSBC, JPMorgan, RBS, and UBS "used private electronic chat rooms to communicate and plan their attempts to manipulate the Forex benchmark prices."[43] Defendants' traders used those inter-bank chat rooms to "coordinate[] their trading with certain FX traders at other banks to attempt to manipulate certain FX benchmark rates," and to "disclose[] confidential customer order information and trading positions, alter[] trading positions to accommodate the interests of the collective group, and agree[] on trading strategies as part of an effort by the group to attempt to manipulate certain FX benchmark rates." Those exclusive chatrooms were often given colorful names like "The Cartel," "The Mafia," "The Club," "The Bandits' Club," "The Dream Team," "One Team, One Dream," and "The Sterling Lads."

168. With customer information in hand, and a decision made to move prices in a particular direction, the colluding banks would equip each other with the tools to do so. For example, where one bank had a contrary book of orders, those orders would be "netted off" with third parties in order to reduce the number of adverse orders that were to be processed during the pivotal polling window—a process referred to as "taking out the filth" or "clearing the decks." When the banks had orders going in the same direction, they would "build" the orders by transferring them between other conspirators—a process referred to as "giving you the ammo."

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[43] *In the Matter of Citibank, N.A.*, Order Instituting Proceedings, CFTC Dkt. No. 15-03 (Nov. 11, 2014).

That way a subset of banks could more easily control the process of ensuring the trades had the maximum effect at just the right time.

169. As discussed above, Defendants here engaged in similar practices in the analogous context of the Treasuries market. Industry sources interviewed by Bloomberg have confirmed that Treasuries traders employed by Defendants used the same types of private electronic chat-rooms to communicate with their counterparts at other banks, including to "swap gossip" about their clients' Treasury orders. This was then used to coordinate bidding and trading strategies.

**D. <u>Investigations Into Manipulation of the Gold Market</u>**

170. The DOJ, CFTC, FCA, the Swiss Competition Commission (WEKO), the Swiss financial regulator FINMA, and the German financial regulator BaFin all launched probes into whether certain banks (including Defendants Credit Suisse, Goldman Sachs, JPMorgan, and UBS) also have sought to manipulate the market for gold.[44]

171. In May 2014, the FCA released the results of its investigation of Defendant Barclays, which found that the bank failed to "create or implement adequate policies or procedures to properly manage the way in which Barclays' traders participated in the Gold Fixing [a system used to set a benchmark price for gold] . . . and create systems and reports that allowed for adequate monitoring of traders' activity in connection with the Gold Fixing."[45] As a result of these failures, "Barclays was unable to adequately monitor what trades its traders were

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[44] *See* Jean Eaglesham and Christopher M. Matthews, *Big Banks Face Scrutiny Over Pricing of Metals: U.S. Justice Department investigates price-setting process for gold, silver, platinum, and palladium*, The Wall Street Journal (Feb. 23, 2015) (*available at* http://www.wsj.com/articles/big-banks-face-scrutiny-over-pricing-of-metals-1424744801).

[45] FCA Final Notice to Barclays Bank PLC (May 23, 2014) (*available at* https://www.fca.org.uk/static/documents/final-notices/barclays-bank-plc.pdf).

executing in the Gold Fixing or whether those traders may have been placing orders to affect inappropriately the price of gold in the Gold Fixing."

172. The FCA detailed a specific instance where Barclays traders intentionally drove down the Fix price of gold so as to avoid the payment it would have had to make to a customer pursuant to a digital option contract.[46] This was accomplished by the placement of several large, fictitious "sell" orders at the beginning of the auction period, which caused prices to drop during the auction, and the resulting Fixing price to drop as well. Traders interviewed by Bloomberg stated that this was not a one-off event, but rather was "common practice" among investment banks.[47]

173. FINMA found similar problems at UBS, which was a major participant in the gold market.[48] FINMA observed that UBS's FX and precious metals trading desks were closely integrated, and found that "just as in foreign exchange trading," UBS's precious metals traders engaged in "serious misconduct," including (1) sharing customer order information with other banks, and (2) manipulative trading strategies in and around the Fixing window for the purpose of altering prices. FINMA found that this conduct was tolerated or even engaged in by managers with responsibility for overseeing precious metals traders.

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[46] The kind of a digital option (also sometimes referred to simply as a "digital") at issue had only two potential values: a fixed payout to the customer if the option finished "in the money" (*i.e.*, the price exceed the specific barrier price), or no payout if the option finished "out of the money" (*i.e.*, the price was at or below the specific barrier price).

[47] Dave Michaels, Suzi Ring and Julia Verlaine, *Barclays Fine Spurs U.K. Scrutiny of Derivatives Conflict*, Bloomberg (June 5, 2014) (*available at* www.bloomberg.com/news/2014-06-05/barclays-fine-leads-to-new-u-k-scrutiny-of-derivatives-conflict.html).

[48] FINMA, *Foreign exchange trading at UBS AG: investigation conducted by FINMA – Report* (Nov. 12, 2014) (*available at* https://www.finma.ch/en/news/2014/11/mm-ubs-devisenhandel-20141112/).

## V. PLAINTIFFS AND MEMBERS OF THE CLASS WERE INJURED BY DEFENDANTS' ANTICOMPETITIVE CONDUCT

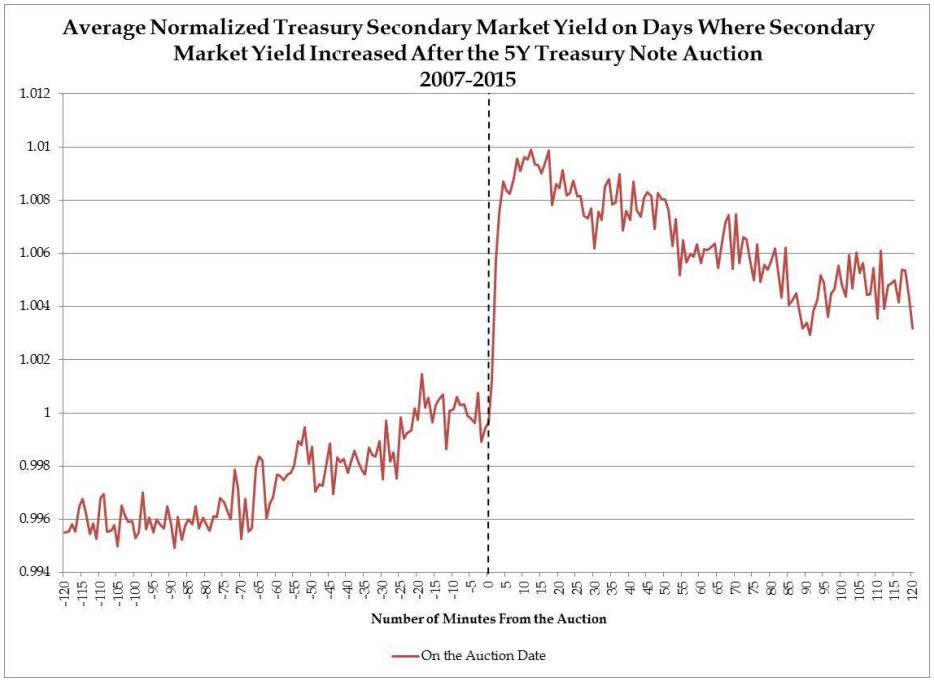
### A. Summary of Plaintiffs' Injuries

174. Defendants' attempts to manipulate Treasury auctions harmed many types of investors.

175. For instance, as discussed above in Section II, both to impact the auction itself, and to help conceal the artificiality of the auction results, Defendants manipulated prices for Treasuries futures and for Treasuries in the spot market. Sellers of futures, and sellers on the secondary market, were harmed because they sold for less than they would have in an manipulated market.

176. The wide-ranging impact of Defendants' manipulation can be further seen in a study of movements in yields following the announcement of the auction results. Though the markets in the run-up to the auction had been manipulated as part of the scheme, the release of the auction results still potentially represented new information from the market's perspective. An artificially high auction result—even if aided by pre-auction manipulations—would be expected to cause a corresponding shift in the secondary and futures markets to the extent they were surprised by the yield itself and thereafter assimilated that information into market prices. In fact, that is exactly what happened.

177. For instance, the following chart tracks secondary market yields for auction days where yields increased following the auction. While the trend upward towards higher yields (lower prices) begins prior to the manipulated auction, the effect is compounded greatly with the announcement of the actual auction results. Thus, Defendants' collusion substantially impacted both the pre- and post-auction markets such that market participants were directly harmed by the conspiracy.




178. Additional charts, showing additional spikes around the auction in both the secondary and when-issued markets, are included as Appendix J.

179. In addition, Defendants' manipulation directly impacted instruments, such as interest rate swaps, that used the auction yield/prices, and secondary market Treasury yields/prices, as benchmarks. For example, as discussed in the Background Section, swaps use interest-rate benchmarks to determine the cash flows one counterparty owes to the other. Thus, on swaps that were pegged to the results of the Treasury auction, floating rate payers on such swaps thus paid higher amounts on their swaps because published Treasury auction yields were higher than they would have been in a competitive market, absent Defendants' manipulations.

**B. <u>Defendants' Conduct Restrained Trade And Decreased Competition</u>**

180. Defendants' conduct constitutes a *per se* violation of the antitrust laws because of its clear and obvious risk of inflicting anticompetitive impact and economic injury. Defendants operated as a secretive cartel and engaged in a price-fixing scheme that reduced the free and unfettered competition the Sherman Act was designed to preserve and promote. Defendants'

scheme to fix Treasury auctions at artificial levels, as well as to inflated yields (thereby suppressing prices) for Treasury Securities and Treasury Investments in the hours leading up to the auction, directly and immediately impacted the market for Treasury Securities and Treasury Investments (markets in which Defendants participate). To the extent some types of Treasury Securities and/or Treasury Investments may be considered distinct submarkets, Defendants' scheme immediately impacted those submarkets as well.

181. Defendants are considered to be, and hold themselves out as, horizontal competitors (as buyers, sellers, and brokers) in the markets for Treasury Securities and Treasury Investments. As such, they should compete *against* each other when (a) submitting bids for Treasury Securities and trading either their own proprietary books or the assets and investments of their clients, and (b) trading in the Treasury Security and/or Treasury Investment markets. Indeed, the auctions were intended to yield market outcomes that depended on Defendants operating as competitors in the secondary market and in the auction itself. Instead of acting as competitors, however, Defendants and their co-conspirators agreed to restrain trade in order to pursue collective goals and to manipulate the market by collusion and coordination, as described above. Defendants' collusive price fixing was inimical to competition and restrained trade in the affected markets (and any applicable submarkets).

182. Treasury auctions were supposed to be—and were understood by market participants as being—a reliable process to establish the yields for Treasury Securities, because they were supposed to reflect actual market conditions, as well as the results of the primary dealers' and other direct bidders' actual competitive bids.

183. As discussed above, however, Defendants—by far the largest constituent of direct bidders in Treasury auctions, with the combined power to manipulate the results of those

auctions—repeatedly colluded to inflate the yields of all Treasury Securities. As also shown above, Defendants also repeatedly colluded to manipulate prices for on-the-run and off-the-run Treasury Securities, as well as Treasury Investments. Trade was accordingly restrained and competition decreased in the market for Treasury Securities and Treasury Investments.

184. Defendants' collusive inflation of Treasury auction yields, inflation of on-the-run/off-the-run Treasury Security yields, and suppression of Treasury Investment (*e.g.*, futures) prices had the purpose and effect of depressing prices in the market.

## VI. CLASS ACTION ALLEGATIONS

185. Plaintiffs bring this action on behalf of themselves and as a class action under Rule 23(a) and (b)(3) of the Federal Rules of Civil Procedure, seeking relief on behalf of the following class (the "Class"):

> All persons or entities who during the period from January 1, 2007 through the present (the "Class Period"): (a) sold an on-the-run or off-the-run Treasury Security around the time of a Treasury auction; (b) sold a Treasury future around the time of a Treasury auction; and/or (c) were the floating-rate payer on a Treasury-linked interest rate swap, or were in a similar position on other instruments, contracts, or investments whose cash flows were tied to a Treasury Security auction result.
>
> Excluded from the Class are Defendants and their employees, affiliates, parents, subsidiaries, and co-conspirators, whether or not named in this Complaint, and the United States Government.

186. There are many thousands of Class Members as described above, making the Class so numerous and geographically dispersed that joinder of all Class Members is impracticable.

187. There are questions of law and fact common to the Class that relate to the existence of the conspiracy alleged, and the type and common pattern of injury sustained as a result thereof, including, but not limited to:

a. Whether Defendants and their co-conspirators engaged in a combination or conspiracy to fix, lower, maintain, stabilize and/or otherwise manipulate Treasury Security and Investment prices in violation of the Sherman Act and/or Commodity Exchange Act;

b. The identity of the participants in the conspiracy;

c. The scope and duration of the conspiracy;

d. The nature and character of the acts performed by Defendants and their co-conspirators in furtherance of the conspiracy;

e. Whether the conduct of Defendants and their co-conspirators, as alleged in this Complaint, caused injury to the business or property of Plaintiffs and the Class Members;

f. Whether Defendants and their co-conspirators fraudulently concealed the conspiracy's existence from Plaintiffs and the Class Members;

g. Whether Defendants' manipulation constituted a manipulative or unlawful act barred by the Commodity Exchange Act;

h. Whether such manipulation caused the price of Treasury Investments to be artificial;

i. The appropriate injunctive and equitable relief for the Class; and

j. The appropriate measure of damages sustained by Plaintiffs and the Class Members.

188. Plaintiffs' claims are typical of the claims of the other Class Members. Plaintiffs and the Class Members sustained damages arising out of Defendants' common course of conduct in violation of law as complained of herein. The injuries and damages of each Class Member were directly caused by Defendants' wrongful conduct in violation of the laws as alleged herein.

189. Plaintiffs will fairly and adequately protect the interests of the Class Members. Plaintiffs are adequate representatives of the Class and have no interests adverse to the interests of absent Class Members. Plaintiffs have retained counsel competent and experienced in

complex class action litigation, including commodity futures manipulation and antitrust class action litigation.

190. The prosecution of separate actions by individual Class Members would create a risk of inconsistent or varying adjudications.

191. The questions of law and fact common to the Class Members predominate over any questions affecting only individual members, including legal and factual issues relating to liability and damages.

192. A class action is superior to other available methods for the fair and efficient adjudication of this controversy. Treatment as a class action will permit a large number of similarly situated persons to adjudicate their common claims in a single forum simultaneously, efficiently and without duplication of effort and expense that numerous, separate individual actions, or repetitive litigation, would entail. The Class is readily definable and is one for which records should exist in the files of Defendants and their co-conspirators, Class Members, or the public record. Class treatment will also permit the adjudication of relatively small claims by many Class Members who otherwise could not afford to litigate the claims alleged herein, including those for antitrust. This class action presents no difficulties of management that would preclude its maintenance as a class action.

## VII. EQUITABLE TOLLING OF THE STATUTE OF LIMITATIONS DUE TO DEFENDANTS' CONCEALMENT OF THE CONSPIRACY

193. Defendants and their co-conspirators concealed their wrongdoing in manipulating Treasury auction yields and prices within the Treasury Security and Treasury Investment markets. Thus, the statute of limitations relating to the claims for relief alleged herein was tolled, due both to Defendants' and their co-conspirators' affirmative acts of concealment and the inherently self-concealing nature of their private, unregulated conduct.

194. Defendants' and their co-conspirators' success in concealing their collusion was facilitated by their tremendous control over the Treasury markets, which was aided in no small part by virtue of Defendants' positions as primary dealers.

195. Neither Plaintiffs nor the Class knew of Defendants' and their co-conspirators' unlawful and self-concealing manipulative acts and could not have discovered them by the exercise of reasonable due diligence, if at all, at least prior to public reports of government investigations concerning possible manipulation of Treasury auctions in June 2015. Plaintiffs and the Class also lacked any basis for identifying the wrongdoers or calculating damages before that date. Indeed, Defendants' and their co-conspirators' conduct concerning Treasury auctions and pre-auction Treasury Security and Treasury Investment prices was so well hidden that Defendants and their co-conspirators kept global regulators unaware of such conduct for years.

196. Following the reports of the DOJ's investigation becoming public, Plaintiffs retained counsel, who undertook an investigation into possible manipulation of Treasury auction yields and retained economic consultants to undertake sophisticated economic investigations of the Treasury Security and Treasury Investment markets and whether they were subject to manipulation by Defendants and their co-conspirators.

197. Reasonable due diligence could not have uncovered Defendants' and their co-conspirators' manipulative conspiracy because: (i) the Treasury Security sale process was held out as being set by an impartial, competitive auction based on market factors; (ii) the Treasury auctions are conducted through confidential bids, which are not publicly available; (iii) Defendants' and their co-conspirators' trading positions and trading strategies are also largely not public information; (iv) the bilateral, non-exchange traded nature of many of the transactions at issue; (v) the highly specialized nature of the various aspects of the Treasury Security and

Treasury Investment markets make it extraordinarily difficult for an ordinary person to assess improprieties; and (vi) neither Defendants nor their co-conspirators told Plaintiffs or other Class Members that they were conspiring to fix, stabilize, maintain, and/or otherwise manipulate Treasury Security auction yields, or Treasury Security and Treasury Investment prices.

198. Defendants and their co-conspirators also took active steps to conceal evidence of their misconduct from Plaintiffs, the Class, regulators, and the public including, *inter alia*: (i) holding out the Treasury Security sale process as an impartial, arms-length auction that reflected competitive market factors; (ii) stating that Treasury Security and Treasury Investment prices reflected normal market forces; (iii) maintaining the secrecy of the Treasury auction process; (iv) avoiding any discussion in public fora of manipulation of Treasury Security and Treasury Investment prices; (v) refusing to comment on, or affirmatively denying allegations of, manipulation reported by the press in or after June 2015; (vi) using non-public proprietary electronic communication platforms (*e.g.*, electronic chatrooms, instant messaging, etc.) to exchange confidential customer information and coordinate their bidding and trading strategies; and (vii) actively attempting to hide the conspiracy by inflating yields in the secondary Treasury Security markets and suppressing prices in the Treasury Investment market in the hours leading up to Treasury auctions.

199. In addition, Defendants and their co-conspirators also failed to have the proper internal controls in place to detect internal misconduct concerning Treasury auctions. Such internal failures made it all the more difficult for Plaintiffs, the Class, government regulators, and the public to become aware of Defendants' and their co-conspirators' misconduct. Indeed, even following government investigations concerning other financial benchmark manipulation that

came to light in 2012 and 2013, the Defendants did not examine their internal controls surrounding Treasury auctions and chose instead to continue to conceal their misconduct.

200. For example, many Defendants did not ban their employees from using electronic chatrooms to communicate with their counterparts at other banks, if they have banned their employees from engaging in such communications at any point, until 2014.[49]

201. Such failures were not limited to a single Defendant. Instead, they are prevalent among the Defendants and their co-conspirators. For example, the CFTC found that HSBC failed to have adequate internal controls in place on its foreign currency desk to detect the manipulation of foreign currency benchmark prices. BaFin noted similar internal control failures at Deutsche Bank concerning LIBOR.[50] The French financial regulator Autorité de Contrôle Prudentiel has also found "serious shortcomings" in internal controls at Société Générale in the past.[51] The Swiss financial regulator FINMA also found similar failures at UBS surrounding precious metals benchmarks. FINMA noted that although many in UBS were aware of manipulation and the fact that internal controls were deficient, UBS employees voluntarily chose not to take any action and instead helped to conceal the activity.

202. As a result of Defendants' and their co-conspirators' affirmative steps to conceal their improper conduct, their willful decision not to put in place proper controls to detect improper conduct, the self-concealing nature of the price-fixing conspiracy, and the resulting

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[49] *See* Scaggs, Kruger, and Geiger, *supra*.

[50] Daniel Schäfer, *German Regulator to Rell Deutsche Bank to Improve Controls*, Financial Times (Aug. 12, 2013) (*available at* http://www.ft.com/intl/cms/s/0/4a036a28-0342-11e3-b871-00144feab7de.html#axzz3jTt4BJTS).

[51] Fabio Benedetti-Valentini, *SocGen Blames Single Trader After $608 Million Penalty*, Bloomberg (Dec. 4, 2013) (*available at* http://www.bloomberg.com/news/2013-12-04/solcgen-blames-single-trader-after-607-million-penalty.html).

lack of public information about material aspects of the conspiracy, collusion, and trading based on nonpublic information, the statute of limitations was tolled for Plaintiffs' claims.

## CAUSES OF ACTION

## CLAIM ONE

### VIOLATION OF 15 U.S.C. § 1
### AGREEMENT RESTRAINING TRADE

203. Plaintiffs hereby incorporate each preceding and succeeding paragraph as though fully set forth herein.

204. Defendants and their unnamed co-conspirators entered into and engaged in a combination and conspiracy that was an unreasonable and unlawful restraint of trade in violation of Section 1 of the Sherman Act, 15 U.S.C. § 1, *et seq.*

205. During the Class Period, Defendants agreed to reduce competition amongst themselves by fixing and/or manipulating Treasury auction prices and, as a result, the price of Treasury Securities and Treasury Investments.

206. This conspiracy caused injury to both Plaintiffs and the Class by depriving them of the benefit of Treasury Security auctions reflecting true market conditions, as well as accurate Treasury security prices for some period before, during, and following Defendants' unlawful conduct, and thus received, upon execution of their trades, less in value than they would have received absent Defendants' wrongful conduct. Those who held swaps or other instruments whose cash flows were directly tied to the auction results, were similarly impacted by the manipulation in and around the auctions.

207. The conspiracy is a *per se* violation of Section 1 of the Sherman Act. Alternatively, the conspiracy resulted in substantial anticompetitive effects in the Treasury

market. There is no legitimate business justification for, or pro-competitive benefits from, Defendants' conduct.

208. As a direct and proximate result of Defendants' violation of Section 1 of the Sherman Act, Plaintiffs and the Class have suffered injury to their business and property throughout the Class Period.

209. Plaintiffs and the Class are entitled to treble damages for the violations of the Sherman Act alleged herein. Plaintiffs and the Class are also entitled to an injunction against Defendants preventing and restraining the violations alleged herein.

## CLAIM TWO

### VIOLATION OF 7 U.S.C. §§ 1 *et seq.*
### MANIPULATION IN VIOLATION OF THE COMMODITY EXCHANGE ACT, INCLUDING CFTC RULE 180.2

210. Plaintiffs incorporate by reference and reallege the preceding allegations as though fully set forth herein.

211. By their intentional misconduct, Defendants and their co-conspirators each violated Sections 6(c)(3) and 9(a)(2) of the Commodity Exchange Act ("CEA"), 7 U.S.C. §§ 9(3), 13(a)(2), and CFTC Rule 180.2 adopted under the CEA ("Rule 180.2") and caused prices of exchange-traded Treasury Investments, including Treasury futures and options, and the prices of the commodity underlying these instruments, to be artificial during the Class Period.

212. Defendants' and their co-conspirators' trading and other activities alleged herein constitute market manipulation of prices of exchange-traded Treasury Investments, including Treasury futures and options, and the prices of the commodity underlying these instruments, in violation of Sections 6(c)(3), 9(a), and 22(a) of the CEA, 7 U.S.C. §§ 9(3), 13(a) and 25(a), and Rule 180.2.

213. Defendants' and their co-conspirators' manipulation deprived Plaintiffs and the Class of a lawfully operating market during the Class Period.

214. Plaintiffs and others who transacted in exchange-traded Treasury Investments, including Treasury futures and options, during the Class Period transacted at artificial and unlawful prices resulting from Defendants' and co-conspirators' manipulations in violation of the CEA, 7 U.S.C. § 1, *et seq.*, and Rule 180.2, and as a direct result thereof were injured and suffered damages. Plaintiffs each sustained and are entitled to actual damages for the violations of the CEA alleged herein.

## CLAIM THREE

### VIOLATION OF 7 U.S.C. §§ 1 *et seq.* EMPLOYMENT OF MANIPULATIVE OR DECEPTIVE DEVICE OR CONTRIVANCE IN VIOLATION OF THE COMMODITY EXCHANGE ACT, INCLUDING CFTC RULE 180.1

215. Plaintiffs incorporate by reference and reallege the preceding allegations as though fully set forth herein.

216. By their intentional misconduct, at least 2007 through the present, Defendants and their co-conspirators each violated Sections 6(c)(1) and 9(a)(2) of the CEA, 7 U.S.C. §§ 9(1), 13(a)(2), and CFTC Rule 180.1 adopted under the CEA ("Rule 180.1") and caused prices of exchange-traded Treasury Investments, including Treasury futures and options, and the prices of the commodity underlying these instruments, to be artificial during the Class Period.

217. Defendants' and their co-conspirators' trading and other activities alleged herein constitute market manipulation of prices of exchange-traded Treasury Investments, including Treasury futures and options, and the prices of the commodity underlying these instruments, in violation of Sections 6(c)(1), 9(a), and 22(a) of the CEA, 7 U.S.C. §§ 9(1), 13(a) and 25(a), and Rule 180.1.

218. Defendants' and their co-conspirators' manipulation deprived Plaintiffs and the Class of a lawfully operating market during the Class Period.

219. Plaintiffs and others who transacted in exchange-traded Treasury Investments, including Treasury futures and options, during the Class Period transacted at artificial and unlawful prices resulting from Defendants' and co-conspirators' manipulations in violation of the CEA, 7 U.S.C. § 1, *et seq.*, and Rule 180.1, and as a direct result thereof were injured and suffered damages. Plaintiffs each sustained and are entitled to actual damages for the violations of the CEA alleged herein.

## CLAIM FOUR

### VIOLATION OF 7 U.S.C. §§ 1 *et seq.*
### PRINCIPAL-AGENT LIABILITY IN VIOLATION OF THE COMMODITY EXCHANGE ACT

220. Plaintiffs incorporate by reference and reallege the preceding allegations as though fully set forth herein.

221. Each Defendant is liable under Section 2(a)(1)(B) of the CEA, 7 U.S.C. § 2(a)(1)(B), for the manipulative acts of their agents, representatives, and/or other persons acting for them in the scope of their employment.

222. Plaintiffs each sustained and are entitled to actual damages for the violations of the CEA alleged herein.

## CLAIM FIVE

### VIOLATION OF 7 U.S.C. §§ 1 *et seq.*
### AIDING AND ABETTING LIABILITY IN VIOLATION OF THE COMMODITY EXCHANGE ACT

223. Plaintiffs incorporate by reference and reallege the preceding allegations as though fully set forth herein.

224. Defendants and their co-conspirators knowingly aided, abetted, counseled, induced and/or procured the violations of the CEA alleged herein. Defendants did so knowing of each other's, and their co-conspirators', manipulation of the Treasury security auctions, and willfully intended to assist these manipulations, which resulted in Treasury Investments, including Treasury futures and options, pricing becoming artificial during the Class Period in violation of Sections 13 and 22(a)(1) of the CEA, 7 U.S.C. §§ 13c(a), 25(a)(1).

225. Plaintiffs each sustained and are entitled to actual damages for the violations of the CEA alleged herein.

## CLAIM SIX

### UNJUST ENRICHMENT

226. Plaintiffs incorporate by reference and reallege the preceding allegations as though fully set forth herein.

227. Defendants were unjustly enriched as the expense of and to the detriment of Plaintiffs and members of the Class. As described above, the Defendants knowingly acted in an unfair, unconscionable, and oppressive manner toward Plaintiffs and members of the Class by manipulating Treasury Security and Treasury Investment yields and prices, in conscious and/or reckless disregard for the Class members' rights.

228. Defendants were unjustly enriched at the expense of the Plaintiffs and members of the Class when the Defendants: paid Class members less for Treasury Securities and/or Treasury Investments at or around the time of Treasury auctions than they would have otherwise received absent Defendants' collusion; received payments from Class members for Treasury options that then expired out of the money due to Defendants' collusion; and/or, due to Defendants' collusion, received more from Class member floating rate payers on Treasury Security-linked interest rate swaps to which Defendants were the counterparties.

229. Plaintiffs and members of the Class have no adequate remedy at law for these misappropriated gains. The Court should issue a constructive trust compelling counterparty Defendants to disgorge to Plaintiffs and members of the Class all unlawful or inequitable proceeds counterparty Defendants received, and all funds counterparty Defendants unjustly retained that should have been paid to Plaintiffs and members of the Class. Plaintiffs and members of the Class are also entitled to rescission of the transactions or rescissory damages.

230. The counterparty banks worked in concert and entered into a civil conspiracy and corrupt agreement to manipulate Treasury Security and Treasury Investment yields. Whereas a particular Defendant may not have profited off one transaction when viewed in isolation, the conspiracy allowed all Defendants to profit. Accordingly, any Defendant not in privity on a given transaction is included in this Claim as co-conspirator.

231. As described above, all Defendants committed numerous overt acts in furtherance of that conspiracy and agreement, as detailed above, including coordinating anomalous bidding activities during the Treasury auctions, and manipulating yields in the when-issued, futures, and secondary markets. Defendants acted with malice, and intended to injure investors and the Plaintiffs and members of the Class through the actions described herein.

232. Each Defendant was at all relevant times fully aware of the conspiracy and substantially furthered it as set forth above.

233. Plaintiffs and members of the Class seek restoration of the monies of which they were unfairly and improperly deprived, as described herein.

## PRAYER FOR RELIEF

Plaintiffs demand relief as follows:

A. That the Court certify this lawsuit as a class action under Rules 23(a), (b)(2), and (b)(3) of the Federal Rules of Civil Procedure, that Plaintiffs be designated as class representatives, and that Plaintiffs' counsel be appointed as Class counsel for the Class;

B. That the unlawful conduct alleged herein be adjudged and decreed to violate Section 1 of the Sherman Act;

C. That Defendants be permanently enjoined and restrained from continuing and maintaining the conspiracy alleged in the Complaint;

D. That the Court award Plaintiffs and the Class damages against Defendants for their violations of federal antitrust laws, in an amount to be trebled in accordance with such laws, plus interest;

E. That the Court find that Defendants violated the CEA and award appropriate damages;

F. That the Court award monetary losses suffered by Class Members that were in contractual or quasi-contractual relationships with a Defendant or an affiliate thereof;

G. That the Court award Plaintiffs and the Classes their costs of suit, including reasonable attorneys' fees and expenses, as provided by law; and

H. That the Court direct such further relief it may deem just and proper.

## DEMAND FOR JURY TRIAL

Pursuant to Rule 38(a) of the Federal Rules of Civil Procedure, Plaintiffs demand a jury trial as to all issues triable by a jury.

DATED: New York, New York
August 26, 2015

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