UNITED STATES DISTRICT COURT

SOUTHERN DISTRICT OF NEW YORK

STATE-BOSTON RETIREMENT SYSTEM, on behalf of itself and all others similarly situated,

Plaintiff;

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.; 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; 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.

No.

CLASS ACTION COMPLAINT

JURY TRIAL DEMANDED

1. Plaintiff State-Boston Retirement System, on behalf of itself and all others similarly situated, brings this class action for violations of the Sherman Act, Clayton Act, Commodity Exchange Act, and state common law against Defendants, the largest dealer banks in the world. Plaintiff's allegations are made on personal knowledge as to Plaintiff and Plaintiff's own acts and upon information and belief as to all other matters.

NATURE OF THE ACTION

2. This antitrust and commodities class action concerns Defendants' collusive manipulation of the market for U.S. Treasury bills, notes, and bonds (together, "Treasury securities"), and derivative financial products based on these Treasury securities, including Treasury futures and options traded on the Chicago Mercantile Exchange (collectively with Treasury securities, "Treasury Instruments"). Treasury securities are debt instruments issued by the U.S. Treasury Department ("Treasury Department") to help finance the operations of the U.S. government. Treasury securities also serve as benchmarks for interest rates and pricing various other assets, including student loan debt, bonds, interest rate swaps, and exchange-traded Treasury futures and options. Treasury securities and related derivative financial products are used by state and local municipalities, corporations, investment funds, hedge funds, pension funds and individuals for investing and hedging purposes. In short, the integrity of the Treasury securities market is paramount because it affects many facets of the U.S. economy.

3. Defendants, by virtue of their position as primary dealers in the market for Treasury securities, have a special obligation to ensure the efficient function of this market. Instead, Defendants used their critical position to subvert the proper operation of the Treasury securities market by colluding to manipulate the Treasury Department auctions, as well as the

pricing of Treasury securities in the "when-issued market"—i.*e.,* the period between auction announcement date and the issuance (delivery) of the auctioned securities.

4. The when-issued market takes place during the seven days leading up to the Treasury Department auction, but also includes the few days between the auction and the ultimate issuance of the securities. During the pre-auction part of this period, entities including Defendants, pension funds, investment funds, hedge funds, and other types of investors can trade in the Treasury securities that are to be auctioned. Typically, Defendants act as sellers of Treasury securities to their customers during the when-issued market. Then, at auction, Defendants become buyers of the Treasury securities in order to cover the sales they made during the when-issued market. The difference between the price at which Defendants sell in the when-issued market and purchase at auction, or spread, is Defendants' profit. Defendants' conspiracy was to cause these profits to be supracompetitive.

5. In a competitive market not manipulated by Defendants, prices (yields) of Treasury securities generally tend to be higher (lower) in the when-issued market than prices tendered at auction. However, as a result of Defendants' unlawful manipulation of the Treasuries market, the prices of when-issued Treasury securities were artificially high and the prices of Treasury securities at auction were artificially low. This scheme maximized Defendants' profits at the expense of their customers and others in the market.

6. Defendants employed a two-pronged scheme to manipulate the Treasury securities market. *First,* Defendants used electronic chatrooms, instant messaging, and other electronic and telephonic methods to exchange confidential customer information, coordinate trading strategies, and increase the bid-ask spread in the when-issued market to *inflate* prices of Treasury securities they sold to the Class. *Second,* Defendants used the same means to rig the

Treasury auction bidding process to *deflate* prices at which they bought Treasury securities to cover their pre-auction sales. Recent reports confirm that traders at some of these primary dealers "talked with counterparts at other banks via online chatrooms"[1] and "swapped gossip about clients' Treasury orders."[2]

7. By engaging in this unlawful conduct, Defendants maximized the spread not only for transactions in the when-issued market, but also between their buy (auction) price and sell (when-issued) price. This conduct lined the pockets of Defendants while raising prices to investors trading Treasury securities in the when-issued market, investors trading Treasury security-based futures and options, and investors transacting in instruments benchmarked to the prices of Treasury securities determined at auction, including certain bonds and other asset-backed securities and interest rate swaps.

8. Given the tight correlation between the Treasury securities prices in the spot market and futures markets, Defendants' manipulation of the auction prices for Treasury securities also directly and proximately caused injury to individuals and entities that traded in Treasury futures and options on U.S. exchanges, including the Chicago Mercantile Exchange ("CME").

9. Plaintiff retained expert economists to analyze certain price behavior of Treasury securities in the when-issued market and at the Treasury Department auctions. In their preliminary analyses, they observed a greater spread between when-issued prices and auction prices around December 2012. Around this same time, there were the public revelations that several banks manipulated and rigged their interest rate submissions for the London Interbank

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[1] Alexandra Scaggs, Daniel Kruger, & Keri Geiger, *As U.S. Probes $12.7 Trillion Treasury Market, Trader Talk Is a Good Place to Start,* BLOOMBERG (June 24, 2015), http://bloom.bg/1TMV51m.

[2] *Id.*

Offered Rate ("LIBOR")—including Defendants Barclays, Deutsche Bank RBS, and UBS (or their parents and affiliates).

10. Plaintiff's experts further found that bid-ask yield spreads of Treasury securities in the when-issued market were higher in the period leading up to the revelation of the LIBOR scandal than they were after the scandal broke. Plaintiffs' experts found the change in these spreads to be statistically significant.

11. These observations support the proposition that spreads before the LIBOR scandal revelation were artificially high and, following the public announcement of the scandal, returned to competitive levels, as several of the same Defendants involved in the LIBOR scandal engaged in substantially similar misconduct in the Treasury market. This price artificiality could only have been caused by Defendants' collusive behavior in both the when-issued market and at the Treasury Department auctions.

12. Recently, the U.S. Department of Justice ("DOJ") opened an investigation into the market for Treasury Instruments. According to press reports, DOJ has sent requests for information to at least three banks in connection with its probe. DOJ's investigation follows on the heels of its broader investigation into anticompetitive conduct in various financial product markets and benchmarks, including LIBOR, foreign exchange, and ISDAFIX, among others. Indeed, several Defendants, their parents, or affiliates have paid fines or pleaded guilty to criminal charges in these investigations, including Barclays, Citigroup, Deutsche Bank, HSBC, JPMorgan, RBS, and UBS.

13. Plaintiff brings this action for claims arising under the federal antitrust and commodities laws to recover damages, injunctive relief, and other relief for the substantial injuries it and others similarly situated have sustained as a result of Defendants' unlawful

conduct to restrain competition in the market for Treasury Instruments in the United States from at least as early as January 1, 2007 to December 31, 2012 (the "Class Period").

JURISDICTION AND VENUE

14. 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).

15. 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.

16. 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; and/or committed overt acts in furtherance of their illegal scheme and conspiracy in the United States. In addition, the 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, and Plaintiff's claims arise out of Defendants' conduct.

17. 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. Plaintiff

18. Plaintiff State-Boston Retirement System ("State-Boston") is a governmental defined-benefit plan located in Massachusetts. As of December 31, 2013, State-Boston managed more than $5.384 billion in assets on behalf of 37,000 members and beneficiaries associated with the City of Boston, Boston Redevelopment Authority, Boston Housing Authority, Boston Water and Sewer Commission, Boston Public Health Commission, and others. State-Boston directly transacted in Treasury Instruments with one or more of the Defendants. As a direct and proximate result of Defendants' collusive and manipulative activities, Plaintiff was injured in its business or property.

B. Defendants

19. Defendant Bank of Nova Scotia, New York Agency **("BNS")** is a New York-based branch of a Canadian financial services and banking company with its principal place of business at 250 Vesey Street, New York, New York 10080. BNS is a registered primary dealer for Treasury securities with the Federal Reserve Bank of New York ("FRBNY").

20. Defendant BMO Capital Markets Corp. **("BMO")** is a New York-based financial services and banking company with its principal place of business at 3 Times Square, 28th Floor, New York, New York 10036. BMO operates as a subsidiary of BMO Financial Corp. BMO is a registered primary dealer for Treasury securities with the FRBNY.

21. Defendant BNP Paribas Securities Corp. **("BNPP")** is a New York-based financial services company with its principal place of business at 787 Seventh Avenue, New York, New York 10019. BNPP operates as a subsidiary of BNP Paribas North America Inc. BNPP is a registered primary dealer for Treasury securities with the FRBNY.

22. Defendant Barclays Capital Inc. **("Barclays")** is a New York-based financial services company with its principal place of business at 745 Seventh Avenue, New York, New York 10019. Barclays operates as a subsidiary of Barclays Group US, Inc. Barclays is a registered primary dealer for Treasury securities with the FRBNY.

23. Defendant Cantor Fitzgerald & Co. **("Cantor")** is a New York-based financial services company with its principal place of business at 499 Park Avenue, New York, New York 10022. Cantor operates as a subsidiary of Cantor Fitzgerald LP. Cantor is a registered primary dealer for Treasury securities with the FRBNY.

24. Defendant Citigroup Global Markets Inc. **("Citigroup")** is a New York-based financial services company with its principal place of business at 390-388 Greenwich Street, New York, New York 10013. Citigroup operates as a subsidiary of Citigroup Financial Products Inc. Citigroup is a registered primary dealer for Treasury securities with the FRBNY.

25. Defendant Credit Suisse Securities (USA) LLC **("Credit Suisse")** is a New York-based financial services company with its principal place of business at **11** Madison Avenue, 24th Floor, New York, New York 10010. Credit Suisse operates as a subsidiary of Credit Suisse (USA), Inc. Credit Suisse is a registered primary dealer for Treasury securities with the FRBNY.

26. Defendant Daiwa Capital Markets America Inc. **("Daiwa")** is a New York-based financial services company with its principal place of business at Financial Square, 32 Old Slip, New York, New York 10005. Daiwa operates as a subsidiary of Daiwa Capital Markets America Holdings Inc. Daiwa is a registered primary dealer for Treasury securities with the FRBNY.

27. Defendant Deutsche Bank Securities Inc. **("Deutsche Bank")** is a New York-based investment bank with its principal place of business at 60 Wall Street, 4th Floor, New York, New York 10005. Deutsche Bank operates as a subsidiary of DB U.S. Financial Markets

Holding Corporation. Deutsche Bank is a registered primary dealer for Treasury securities with the FRBNY.

28. Defendant Goldman, Sachs & Co. **("Goldman")** is a New York-based financial services company with its principal place of business at 200 West Street, 29th Floor, New York, New York 10282. Goldman operates as a subsidiary of The Goldman Sachs Group, Inc. Goldman is a registered primary dealer for Treasury securities with the FRBNY.

29. Defendant HSBC Securities (USA) Inc. **("HSBC")** is a New York-based investment banking firm with its principal place of business at HSBC Tower, 452 Fifth Avenue, New York, New York 10018. HSBC operates as a subsidiary of HSBC Investments (North America) Inc. HSBC is a registered primary dealer for Treasury securities with the FRBNY.

30. Defendant Jefferies LLC **("Jefferies")** is a New York-based financial services company with its principal place of business at 520 Madison Avenue, 10th Floor, New York, New York 10022. Jefferies operates as a subsidiary of Jefferies Group LLC. Jefferies is a registered primary dealer for Treasury securities with the FRBNY.

31. Defendant J.P. Morgan Securities LLC **("JPMorgan")** is a New York-based financial services company with its principal place of business at 277 Park Avenue, New York, New York 10172. JPMorgan operates as a subsidiary of JPMorgan Chase & Co. JPMorgan is a registered primary dealer for Treasury securities with the FRBNY.

32. Defendant Merrill Lynch, Pierce, Fenner & Smith Incorporated **("Merrill Lynch")** is a New York-based financial services company with its principal place of business at One Bryant Park, New York, New York 10036. Merrill Lynch operates as a subsidiary of BAC North America Holding Company. Merrill Lynch is a registered primary dealer for Treasury securities with the FRBNY.

33. Defendant Mizuho Securities USA Inc. **("Mizuho")** is a New York-based financial services company with its principal place of business at 320 Park Avenue, 12th Floor, New York, New York 10022. Mizuho operates as a subsidiary of Mizuho Securities Co., Ltd. Mizuho is a registered primary dealer for Treasury securities with the FRBNY.

34. Defendant Morgan Stanley & Co. LLC **("Morgan Stanley")** is a New York-based financial services company with its principal place of business at 1585 Broadway, New York, New York 10036. Morgan Stanley operates as a subsidiary of Morgan Stanley Domestic Holdings, Inc. Morgan Stanley is a registered primary dealer for Treasury securities with the FRBNY.

35. Defendant Nomura Securities International, Inc. **("Nomura")** is a New York-based financial services company with its principal place of business at 309 West 49th Street, Worldwide Plaza, New York, New York 10019. Nomura operates as a subsidiary of Nomura Holding America, Inc. Nomura is a registered primary dealer for Treasury securities with the FRBNY.

36. Defendant RBC Capital Markets, LLC **("RBC")** is a Canadian financial services company with its principal place of business at Royal Bank Plaza, 200 Bay Street, Toronto, Ontario, Canada ON M5J 2W7. RBC also maintains offices at 3 World Financial Center, 200 Vesey Street, 8th Floor, New York, New York 10281 and at One Liberty Plaza, 165 Broadway, New York, New York 10006. RBC operates as a subsidiary of RBC USA Holdco Corporation. RBC is a registered primary dealer for Treasury securities with the FRBNY.

37. Defendant RBS Securities Inc. **("RBS")** is a Connecticut-based financial services company with its principal place of business at 600 Washington Boulevard, Stamford,

Connecticut 06901. RBS operates as a subsidiary of RBS Holdings USA Inc. RBS is a registered primary dealer for Treasury securities with the FRBNY.

38. Defendant SG Americas Securities, LLC **("SG")** is a New York-based financial services company with its principal place of business at 1221 Avenue of the Americas, 6th Floor, New York, New York 10020. SG operates as a subsidiary of SG Americas Securities Holdings, LLC, which itself is a subsidiary of Societe Generale Group. SG is a registered primary dealer for Treasury securities with the FRBNY.

39. Defendant TD Securities (USA) LLC **("TD Securities")** is a New York-based financial services company with its principal place of business at 31 West 52nd Street, New York, New York 10019. TD Securities operates as a subsidiary of TD Holdings II Inc. TD Securities is a registered primary dealer for Treasury securities with the FRBNY.

40. Defendant UBS Securities LLC **("UBS")** is a Connecticut-based financial services company with its principal place of business at 677 Washington Boulevard, Stamford, Connecticut 06901. UBS operates as a subsidiary of UBS Americas Inc. UBS is a registered primary dealer for Treasury securities with the FRBNY.

41. Various other entities and individuals unknown to Plaintiff 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.

FACTUAL BACKGROUND

A. The Treasury Securities Market

42. The market for Treasury securities is one of the largest and most active debt securities markets in the world with $12.5 billion of debt instruments outstanding. Indeed, last

year, the Treasury Department issued some $7 trillion in debt instruments with maturities of varying lengths—from a few days to 30 years. Treasury securities with maturities of one year or less are referred to as *bills* or *T-bills;* securities with maturities of between one and ten years are referred to as *notes* or *T-notes;* and securities with maturities of greater than ten years are called *bonds* or *T-bonds.*

43. Bills do not pay interest prior to maturity. Instead, they are sold at a discount to par value. Notes and bonds make coupon payments every six months.

44. In addition to bills, notes, and bonds, 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 principle 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 other original principle, 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.

45. The Treasury Department only recently began issuing FRNs in January 2014. These instruments are issued for a term of two years, and pay varying amounts of interest quarterly until maturity. The interest rate payments adjust *(i.e.,* rise or fall) based on discount rates in auctions of 13-week Treasury bills.

46. The amount of Treasury securities outstanding has grown rapidly over the past ten years, growing from approximately $4 trillion outstanding in year-end 2004 to over $12.5 trillion

outstanding at year-end 2014. The following table demonstrates the amounts outstanding over this period by debt instrument:[3]

U.S. Treasury Securities Outstanding
(USD **Billions)**

	Bills	Notes	Bonds	TIPS	FRN	Total
2004	1,001.2	2,157.1	539.4	245.9		3,943.6
2005	960.7	2,360.2	516.4	328.6		4,165.9
2006	940.8	2,440.5	530.5	411.1		4,322.9
2007	999.5	2,487.4	558.4	471.4		4,516.7
2008	1,861.2	2,791.5	591.9	529.6		5,774.2
2009	1,793.5	4,181.1	717.9	568.1		7,260.6
2010	1,772.5	5,571.7	892.6	616.1		8,853.0
2011	1,520.5	6,605.1	1,064.1	738.8		9,928.4
2012	1,629.0	7,327.1	1,240.2	849.8		11,046.1
2013	1,592.0	7,881.7	1,408.2	972.6		11,854.4
2014	1,457.9	8,229.2	1,576.2	1,077.6	164.0	12,504.8

47. Treasury securities are used for investing and hedging purposes and as benchmarks for pricing other types of assets. For example, the prices of the following instruments may be linked to Treasury securities: variable rate bonds; asset-backed securities such as student loan debt; and interest rate swaps. In addition, the yields for Treasury securities are used by many in the public and private sectors to predict the future course of the U.S. and global economy.

48. Treasury securities prices are quoted using the following conventions. Treasury bills are quoted on a discount basis. An investor's return on a bill is the difference between the purchase and subsequent sale price or, when held to maturity, the face value paid by the Treasury. Consequently, bills are quoted at a discount from face value, with the discount expressed as an annual rate based on a 360-day year. For example, a T-bill with a bid (or ask) of "5.08" means that the dealer is willing to buy (or sell) the instrument at an interest rate of 5.08%.

[3] http://www.sifma.org/uploadedfiles/researchistatistics/statistiestiles/ta-us-treasury-sifma.xls?n=31406

49. Coupon-bearing notes and bonds, however, are quoted using slightly different conventions. These Treasury securities are quoted in dollars and fractions of a dollar. By market convention, the normal fraction used for Treasury security prices is 1/32. For example, a bid (or ask) quote of "105.08" means $105 plus 8/32 of a dollar, or $105.25 for each $100 face value of a note (or bond).

50. The value of Treasury notes and bonds is a function of their par value, the public demand for debt, the coupon, and the yield.

51. "Par value" means the face value of the note or bond. Usually notes and bonds are sold at a discount the bond's par value. For example, a Treasury security may have a par value of $1,000, but sell for $100. At the Treasury security's maturity, the holder of the Treasury will receive the par value *(i.e.,* $1,000), plus any accrued interest.

52. A "coupon" is the interest rate that the issuer of the debt is willing to provide to the holder of the note or bond. Coupons on Treasury securities are usually paid semi-annually *(i.e.,* every six months). The coupon is expressed as a percentage of the par value. For example, if a Treasury bond pays a coupon of 10% and its par value is $1,000, then the United States will pay the bond or note holder $100 in interest every six months (or $200 every year).

53. Further, coupon rates may add a premium to the par value of the bond depending on prevailing interest rates. For example, if the coupon rate for a 10-year Treasury note at issuance is 6%, while prevailing interest rates are 2%, that 10-year Treasury note will trade at a significant premium over its par value because the purchaser will receive coupon payouts at 6% of par value instead of 2% on a note with similar par value at prevailing rates.

54. With respect to T-notes and T-bonds, the coupon rate is determined by the Treasury Department upon completion of the auction.

55. The "yield" reflects the return on a Treasury security. Although yield can be measured in a variety of ways, it typically can be expressed as

$$\mathbf{Y = \{R + [(FV - PP)/M]\}/ [(FV + PP)/2],}$$

where:

R = the coupon rate
PP = purchase price
FV = face value
M = years to maturity[4]

56. For example, a 7-year Treasury note with a par value of $100, at a price of $99.71, and a coupon rate of 7-7/8, payable semi-annually, would have a yield of approximately 7.93%.[5]

57. There is an inverse relationship between the price of Treasuries and their yields. Taking the following example above, if the price of the Treasury *falls* from $99.71 to $90.00, the yield on that same bond *increases* to approximately 9.79%.[6] Conversely, if the price of the note *increases* to $110, the yield *falls* to approximately 6.14%.[7]

B. Treasury Department Auctions

58. The Treasury Department issues the vast majority of its debt through public auctions, where participants—including Defendants and other bond broker-dealers, hedge funds, mutual funds, pension funds, and sovereign funds—bid on the auctioned debt. Bidders at Treasury Department auctions can be classified into three primary categories: primary dealers, direct bidders, and indirect bidders.[8]

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[4] Fed. Res. Bank of New York, Estimating Yields on Treasury Securities, http://www.newyorkfed.org/aboutthefed/fedpoint/fed28.html.

{[7.875 + [(100-99.71)/7]}/[(100+99.71)12] = 7.927%.

[6] {[7.875 + [(100-90)/7]}/[(100+90)/2] = 9.7932%.

[7] {[7.875 + [(100-110)/7]}/[(100+110)/2] = 6.1394%.

[8] Michael J. Fleming, *Who Buys Treasury Securities at Auction?,* CURRENT ISSUES IN ECONOMICS & FINANCE, Vol. 13, No. 1 (Jan. 2007), at 2, *available* at http://www.newyorkfed.org/researchicurrent issues/c113-1.pdf.

59. Treasury auctions are held on a regular basis, and generally follow the following pattern:[9]

Treasury Security	Time of Offering
4-week bills	Weekly (Tuesdays)
13-week and 26-week bills	Weekly (Mondays)
52-week bills	Every 4 weeks (Tuesdays)
2-year notes	Monthly (End of month)
3-year notes	Monthly (Middle of month)
5-year notes	Monthly (End of month)
7-year notes	Monthly (End of month)
10-year notes	Monthly (Middle of month)
30-year bonds	Monthly (Middle of month)
5-year TIPS	Three times per year (Apr, Aug, Dec)
10-year TIPS	Bimonthly (Jan, Mar, May, Jul, Sep, Nov)
30-year TIPS	Three times per year (Feb, Jun, Oct)
2-year FRN	Monthly (End of month)

60. With respect to certain Treasury securities, the Treasury Department will have "re-openings" in which the Treasury Department issues additional amounts of a previously issued Treasury security.

61. The Treasury Department auctions have three phases: announcement of the auction, bidding, and issuance of the purchased securities. The Treasury Department typically announces its auctions one week in advance of the auction date. The auctions announcements provide the following details: (1) the amount of the security being offered; (2) the auction date;

[9] Fed. Res. Bank of New York, Treasury Auctions, http://www.newyorkfed.orglaboutthefed/fedpoint/fed41.html.

(3) the date of delivery of the auctioned securities; (4) the maturity date; (4) the terms and conditions of the offering; (5) the noncompetitive and competitive bidding close times; and (6) any other pertinent information.

62. Participants in these auctions submit their bids through the Treasury Automated Auction Processing System ("TAAPS"). The bids are confidential and can be either non-competitive or competitive.

63. 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 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.

64. Competitive bids, on the other hand, are usually submitted by large financial institutions for their own accounts or on behalf of customers. Competitive bidding typically closes at 11:30 a.m. ET for bills and FRNs and 1:00 p.m. ET for notes, 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. Treasury Department rules restrict competitive bidders from receiving more than 35 percent of the total amount of securities available to the public. The winning bids are assessed by determining which bidders offered the lowest yields—and thus, the highest prices—on the offered security.

65. Winning bids are determined by first subtracting the non-competitive bids from the offering amount to determine the amount of Treasuries available for competitive bidders.

Treasuries are then allocated to the competitive bidders based on either the discount rate (in the case of bills) or yield rate offered (in the case of notes, bonds, FRNs and TIPS).

66. To help elucidate this process, take the following example: The Treasury Department announces an auction of $11 billion worth of 5-year notes. On the date of the auction, the Treasury Department determines that there were $1 billion in non-competitive bids and $10 billion in competitive bids. During the competitive bidding process there are six bidders providing the following bids:

NAME	YIELD	AMOUNT
Bidder 1	2.998%	$3.5 billion
Bidder 2	2.999%	$2.5 billion
Bidder 3	3.000%	$3.0 billion
Bidder 4	3.000%	$3.0 billion
Bidder 5	3.001%	$2.0 billion
Bidder 6	3.002%	$1.0 billion

67. "Winning" bidders are determined based on which bidder demands the lowest yield (highest price) for its purchase of Treasury securities. This helps ensure that the U.S. government achieves the lowest costs to finance their debt. TAAPS works its way down the list of competitive bids and accepts the lowest possible yields until the full offering amount has been awarded. Thus, in the hypothetical auction above, Bidder 1 receives the full offer of its bid *(i.e.,* $3.5 billion at 2.998%). So does Bidder 2 ($2.5 billion at 2.999%).

68. However, Bidder 3 and Bidder 4 requested the same amount of Treasury securities for the same yield. Under these circumstances, the Treasury will allocate the remaining Treasuries ($4 billion) equally to Bidder 3 and Bidder *4—i.e.,* providing each $2 billion worth of Treasuries at 3.000% or 2/3 of their original bid. Bidder 5 and Bidder 6 receive nothing because the Treasury Department was able to successfully allocate the total auction amount to Bidders 1, 2, 3, and 4.

69. Upon completion of an auction, the Treasury Department publishes limited information about the results of the auction, including: (1) the 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). It does not identify the specific institutions to whom the securities are allocated or the auction participants' bids.

70. Auctioned securities are then delivered to the winning competitive bidders and non-competitive bidders. Delivery of the auctioned Treasury securities to the winning bidder usually occurs within a few days after the auction.

71. Treasury securities from the most recent auctions are called "on-the-run securities," and become the new benchmark security for a given maturity of Treasury debt. By contrast, securities from older auctions are called "off-the-run securities." On-the-run securities tend to be more liquid than off-the-run securities and typically trade at a slight premium in terms of price—and therefore, have a lower yield—relative to their off-the-run counterparts. Off-the-run securities tend to be more numerous in volume, but are less actively traded than on-the-run securities.

C. Participants in Treasury Department Auctions

72. There are three categories of participants in Treasury Department auctions: primary dealers, direct bidders, and indirect bidders. Primary dealers are institutions that have a formal trading relationship with the Federal Reserve Bank of New York. There are currently 22 primary dealers, and each Defendant is designated as one. They are usually the most active participants in the purchase and sale of Treasury securities, and are the only market participants

that are required to bid a specified amount in every Treasury Department auction.[10] During Treasury Department auctions, they are required to bid, at a minimum, no less than their pro rata share, based on the number of primary dealers at the time of the auction—currently, around 4.55% (or 1/22). Primary dealers can bid on their own behalf, which are known as "house bids," as well as submit bids on behalf of indirect bidders.

73. Direct bidders also directly bid at Treasury Department auctions. Historically, their bids are usually for a smaller volume than primary dealers."

74. Indirect bidders, as the name implies, do not submit direct bids to the Treasury Department; instead, they place their bids through primary dealers and direct bidders.[12] Indirect bidders include pension funds, sovereign wealth funds, and foreign central banks, among others.

75. Primary dealers comprise the largest participants in Treasury auctions. Primary dealers' allocated shares of particular issuances can vary somewhat depending on the Treasury security offered. One study found that primary dealers' shares for CMBs was 93.1%; 84.7% for 4-week bills, 66.3% for 13-week bills, and 63.1% for 26-week bills.[13]

76. Under its "Business Standards" for primary dealers, the Federal Reserve Bank of New York 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 other risk factors. In other open market operations, the [FRBNY] will expect a primary dealer to bid, or otherwise participate, in operations at levels commensurate with its size and presence in the market."[14]

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[10] Fed. Res. Bank of New York, *supra* note 9.

[11] Michael J. Fleming, *Who Buys Treasury Securities at Auction?,* CURRENT ISSUES IN ECONOMICS & FINANCE, Vol. 13, No. 1 (Jan. 2007), at 2, *available* at http://www.newyorkfed.org/research/current issues/cil3-1.pdf.

[12] *Id.*

[13] *Id.* at 3.

[14] Federal Reserve Bank of New York, *Operating Policy: Administration of Relationships with Primary Dealers* (Jan. 11, 2010), http://www.newyorkfed.org/markets/pridealers_policies.html.

77. By virtue of their ability to bid on behalf of themselves and indirect bidders, primary dealers, unlike other participants in the market, are uniquely situated to see order flows and estimate demand for any given issuance at a Treasury Department auction.

78. Representatives from several primary dealers belong to The Treasury Market Practices Group ("TMPG"), a working group of Treasury security dealers that is sponsored by The Federal Reserve Bank of New York, including: Thomas Wipf of Morgan Stanley; Jim Hraska of Barclays; James DeMare of Merrill Lynch; Mark Tsesarsky of Citigroup; Matt Zames and Sandra O'Connor of JPMorgan; Beth Hammack of Goldman Sachs; and Brian Egnatz of HSBC. These individuals met at various times with representatives of the Federal Reserve Bank of New York and the Treasury Department to discuss issues in the affecting the Treasury markets.

79. The TMPG periodically publishes best practices and antitrust guidelines on acceptable and unacceptable behavior in the Treasury markets. Among the behaviors deemed unacceptable are price fixing agreements, the sharing pricing information, boycotts, and allocation of customers.[15] In its best practices guideline, the TMPG offers the following "best practices," among others:

- All market participants should behave in a manner that supports market liquidity and integrity.
- Market participants should be responsible in quoting prices and should promote overall price transparency across trading platforms.
- Market participants should not plan or make sudden changes to trading strategies with the intention to disrupt market liquidity or functioning.

[15] The Treasury Market Practices Group, ANTITRUST GUIDELINES FOR THE MEMBERS OF THE TREASURY MARKET PRACTICE GROUP AND ASSOCIATED WORKING GROUPS, http://www.newyorkfed.org/TMPG/tmpg antitrust guidelines 02262015.pdf.

- Market participants should ensure adequate oversight of their Treasury . . . trading activity.
- Market participants should avoid any strategies that create or exacerbate settlement fails.
- Market participants with large short positions should make deliveries in good faith.
- When evaluating trading strategies for large positions, market participants should take care that sudden changes in those strategies do not adversely affect the liquidity or settlement of the Treasury . . . issue in the marketplace.
- To promote the integrity and efficiency of tri-party repo settlement, market participants should support timely trade confirmation in this market.
- To promote the integrity and efficiency of tri-party repo settlement, market participants should support timely trade confirmation in this market.
- Trade cancellations and corrections should be routinely reviewed by senior desk management and compliance staff, with particular focus on any occurrences after 3:00 p.m. ET.
- To promote efficient market clearing and reduce settlement fails, market participants should avoid the practice of holding back deliveries until immediately before the close of the securities wire.[16]

80. Primary dealers understood their central role in the proper and efficient operation of the Treasury markets and these best practices guidelines were intended to ensure that they conducted themselves in a manner that would best achieve those ends. Nevertheless, despite being aware of their importance in the proper functioning of the Treasury securities market, Defendants and their co-conspirators used their special position to manipulate the market to their benefit and to the detriment of others, including Plaintiff and Class Members.

[16] The Treasury Market Practices Group, BEST PRACTICES FOR TREASURY, AGENCY DEBT, AND AGENCY MORTGAGE-BACKED SECURITIES MARKETS, http://www.nevyyorkfed.org/tmpg/TPMG_June%202015_Best%20Practices.pdf.

D. The When-Issued Market

81. Before a given Treasury issuance, there is an active market for the to-be issued or "when-issued" Treasury securities. This when-issued market takes place between the date of announcement and continues beyond the auction date to the date the Treasury Department issues (delivers) the auctioned securities. In this market, primary dealers and direct bidders execute trades amongst themselves or their customers for the placement of when-issued Treasury securities after the completion of the auction. Defendants' unlawful conduct during the when-issued market took place during the period between the announcement of the auction and the auction.

82. Despite the fact that the when-issued market begins upon the announcement of a Treasury Department auction (about seven days prior to the auction), nearly half of all trading (48%) occurs within the 48-hour period prior to the auction. A substantial volume of Treasury security trading occurs during the when-issued market.

83. In the when-issued market, traders, investors, and dealers place buy and sell orders with each other. If a trader, investor, or dealer takes a short position during the when-issued period, it must be able to cover its short position by obtaining the necessary Treasury securities during the auction or through another source in the secondary market so that it can deliver the Treasury securities to the counterparty going long *(i.e.,* taking delivery the security). The short seller makes money on their short positions if they can obtain Treasuries from the Treasury Department auction (or secondary market) at a lower price than it agreed to sell it at in the when-issued market and deliver to its counterparty going long.

84. A problem can arise for short sellers when they are unable to cover their short positions with sufficient Treasury securities at a specified price. Under these circumstances, short sellers will be required to pay more for Treasuries than it otherwise would have liked, narrowing

or eliminating entirely their expected profits on the short sale. This phenomenon is known as a "short squeeze." If they happen frequently enough, short squeezes can threaten the integrity and liquidity of the Treasury market, and make it marginally more difficult for the Treasury Department to distribute its issuances without disruption. It also may result in driving up the Treasury Department's borrowing costs as participants withdraw from the market altogether, believing the auction process and when-issued market is rigged.[17]

85. Given the dynamic of this pre-auction market—namely, the need for short sellers to cover their positions at no loss—primary dealers and others need to obtain their securities at auction at a lower price than they agreed to sell in the when-issued market. Thus, Treasury security prices in the when-issued market tend to be higher than prices of Treasury securities sold in the Treasury Department auctions. However, Plaintiff's analyses of Treasury security pricing data in both the when-issued market and at auction suggest that Defendants manipulated and artificially increased the spread between the prices of Treasury securities bought and sold in the when-issued market and their prices at auction.

E. Various Financial Products Are Tied to the Prices of Treasuries

86. There are various products that are tied to the prices of Treasuries, including zero-coupon securities such as Separate Trading of Registered Interest and Principal of Securities ("STRIPS"); corporate and municipal bonds; interest rates on student loans; mortgage rates; and futures and options bought and sold on the CME.

87. Treasury futures and options are among the most commonly traded instruments that are directly affected by price movements of Treasury securities.

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[17] Competitive Impact Statement at 4 11.1, *United States v. Certain Property Owned by Salomon Bros., Inc.*, 92 Civ. 3700 (S.D.N.Y.), *available at* http://www.justice.gov/atr/cases/f313900/313960.pdf; Dep't of the Treasury, et al., JOINT REPORT ON THE GOVERNMENT SECURITIES MARKET at 10 (Jan. 1992), *available at* http://www.treasury.sov/resource-center/fin-mkts/Documents/gsr92rpt.pdf.

1. Treasury Futures

88. Treasury futures are some of the most commonly traded Treasury security derivatives. In 2013 alone, 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.[18]

89. There are six 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. For the Ultra U.S. Treasury Bond Futures, Bond Futures, 10-year Note Futures, and 5-year Note Futures, each contract has an underlying unit that is equal to one U.S. Treasury note or bond (depending on the futures contract) having a face value at maturity of $100,000. For the 2-year and 3-year Futures contracts, the underlying unit is one U.S. Treasury note having a face value at maturity of $200,000.[19]

90. As with all futures, there are two sides to any Treasury futures transaction: a long (buy) side and short (sell) side. The short position holder agrees to deliver the underlying Treasury security at the futures contract's expiry and the long position holder agrees to take delivery at expiry. A short seller, if she chooses to deliver the underlying Treasury security and does not have the underlying Treasury security in his possession, must cover her short position by transacting in the open market for a Treasury security that will satisfy the terms of delivery and deliver it to the long position holder.

91. However, many future market participants do not physically settle their Treasury futures positions *(i. e.,* deliver or accept delivery of the underlying Treasury security). Many will instead enter into offsetting positions prior to the contract's expiry. For example, if a short

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[18] CME Group, THE BASICS OF US TREASURY FUTURES, at 4 (Feb. 2014), available at http://www.cmegroup.comitrading/interest-rates/files/basics-of-us-treasury-futures.pdf.

[19] *Id.*

position holder in a given Treasury futures contract wishes to close her position and avoid delivery, she can purchase (go long) an equal amount of the same Treasury futures contract. The difference between the values of her short and long positions will determine whether she lost or gained money on the transaction.

92. 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 in 10-year Note 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 Treasury Notes as well as 10-year Treasury Notes.

93. As a result, delivery of the underlying Treasury security for these futures must factor in the different coupons associated with these various Treasury issuances. For each of these futures there is a "Conversion Factor" that adjusts based on: (i) the delivery of the particular underlying Treasury issuance; and (ii) the particular contract month in which it is to be delivered by the futures seller (the short position holder) to the futures buyer (the long position holder). The Conversion Factor represents the price, in percentage terms, at which $1 par of a security would trade if it had a 6% yield to maturity. Issues with coupons less than 6% will have a Conversion Factor of less than 1 to reflect that the issue is priced at a discount and issues with coupons greater than 6% will have a Conversion Factor of greater than 1 to reflect that the coupon is priced at a premium.[20]

[20] The CME publishes conversion factors for each Treasury futures contract at http://www.cmegroup.comitrading/interest-rates/treasury-conversion-factors.html.

94. For example, the following table illustrates the Conversion Factors for a CME 10-year Treasury Note Futures contract:[21]

Coupon	Issue Date	Maturity Date	C08.0 Number	Issuance (Billions)	Jun.2018	Sep. 2016	Dec 2016	Mar. 2016	Jun 2016	Sep. 2018	Dec. 2016	Mar. 2017	Jun.2017	Sep 2017	Dec 2017	Mar. 2018	Jun.2016	Sep. 2018	Dec 2018
2 118	12131114	12131121	al2$$,N0$	529.0	0.7939	.....	---												
1 12	02102115	013022	612E24006	529.0	0.7607														
2 02/15112		02/15122	5/129:0A5A	968.0															
314 D3/02/15		02/28122	21;4,...4.).	529.0															
1 3/4	40631/16	03/3122	912E28475	529.0	0.760.9	0,7740													
1314	04130n6	04133/22	91232.60;29	029.0	0.7669	47740													
1914 06(15/12		0611517.2	9,1262354+3	666.0	0.7669	0.7740													
1 7/8	06/01/15	0513122	9126;.3)4Z	2296	0.7736	07807													
2118 86131416		06130/22	at425:D.R	529.0	----	0.7875	0.7939	---											
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	11115/12	11/18/22	&12229T45	$68.0	0.7458	0.7529	0.7600	0.76:4											
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	05115113	06115/23	6.12.124Y.4	565.0	0.7398	07463	0.7631	0.7600	0.7869	0.7740									
212	08/16/13	0141529	107 26V56	566.0	0.7950	07856	0.7911	0.7966	0.8023	0.8080	02139								
	11115/13	1111923	0j826,1:55	368.0	0.7909	0.7959	0.8009	0.	08111			0.8272							
	02/18/14	02/15/24		566	07861	0.7909	5.7969			0.8111			72						
			9.1.2328V.1.5.	385,0	3.7644	0.7806	0,774!		0.7866	0.7911	07986	0.6523	0.8080	0.8139					
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	02/17::5	02)15/25	1282,?..)2Z	6600	0.7136	0.7191	0.7249		0.7357	0.7426	0.7488	0.7649	07612	0.7876	07741		0.7873		
2118	06115116	06015126		545.0			0.7279	0.7336	amst	0.7449	0.7507	0.7566	0.7626	07857	0.7748	0.7811	0.7875	0.7939	
			618/6144 of Egibls Issues:	Zt	20	17	13	11		9	8	7	6	5	tv 4	3	2	1	0
			5Silia14"61 E46in" for Delivery:	31,10i0	51,077.0	$9650		5706.0	58	5573.0	$507.0	$4	3376.0		0	3177.	9111.0	546.0	50.0

95. The table above demonstrates that (i) multiple securities are eligible for delivery; (ii) each security has its own Conversion Factor; and (iii) the number of eligible securities vary from one delivery month to the next.

96. Further, because delivery can be satisfied by any one of a number of Treasury issuances, there is an acute incentive for a short position holder of Treasury futures to try to maximize her profits by delivering the Treasury security that is the cheapest for her to buy in the open market relative to the Treasury futures prices she receives from the long position holder.

97. To demonstrate this concept, the following example is illustrative. Consider a March 2013 10-year Treasury Note Futures contract. On January 10, 2013, 10-year Treasury note maturing in 2019, bearing a coupon of 3-3/8%, could be purchased at 114-00¾ *(i.e.,*

[21] CBOT® U.S. TREASURY FUTURES AND OPTIONS: REFERENCE GUIDE, at 6 (2006), *available at* http://insigniafutures.com/Docs/CBOT Treasuries.pdf.

$114,023.44 per $100,00 face value unit). On that same date, a 10-year Treasury note maturing in 2022 bearing a coupon of 1-%%, could be purchased at 99-18¾ *(i.e.,* $99,585.94 per $100,000 face value unit).

98. Both 10-year notes could be used by the short position holder of the March 2013 10-year Note Futures contract to satisfy delivery under that contract. However, when taking into consideration these 10-year Notes respective values and conversion factors, the 10-year Note maturing in 2019 is cheaper to deliver, should the short position holder wish to settle the March 2013 contract physically.[22]

99. Because delivery of can be satisfied by the 10-year Treasury Note maturity in 2019, the value of that Treasury security is what most clearly informs the price of the 10-year Treasury Note Future. Thus, as a general rule, the Treasury security that is "cheapest-to-deliver" ("CTD") is the underlying security Treasury futures most directly track.

100. Treasury futures prices are highly correlated to the prices of Treasury securities bought and sold in the when-issued market. As a result, price movements in Treasury securities in the when-issued market are almost always tracked in the market for Treasury futures. This correlation is maintained during the life of the Treasury futures contract because any differential between the cash market price and the futures price would have been eliminated through arbitrage.

[22] In this example, physically delivering either 10-year Treasury Note will cause the short position holder to lose money, but by delivering the 10-year Treasury Note maturing in 2019, the short position holder loses approximately $5,700 less than he would if he delivered the 10-year Treasury Note maturing in 2022. *See* CME Group, INTEREST RATES: UNDERSTANDING TREASURY FUTURES, at *7, available at* https://www.cmegroup.com/education/files/understanding-treasury-futures.pdf.

2. Treasury Options

101. 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.

102. 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.

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

104. Because Treasury futures contracts underlying options on Treasury futures are priced based on certain underlying Treasury securities, the prices of options on these futures contracts are also directly impacted by the spot market prices of Treasuries underlying Treasury futures contracts.

NATURE OF DEFENDANTS' UNLAWFUL CONDUCT

A. Defendants Collude to Manipulate the Prices of Treasury Securities in the When-Issued Market and at Treasury Department Auctions

105. Defendants abused their position as primary dealers in the market for Treasury securities. Primary dealers represent dependable partners for the government by ensuring that there will be enough demand for each auction—even to the point of putting up their own funds to

purchase Treasury securities at auction—and helping officials to plan by providing insights on market conditions. Primary dealers are required to participate and bid in Treasury Department auctions.[23]

106. However, there is very little oversight over the Treasury securities market and auction process. According to *Bloomberg,* it has been nearly two decades since "regulators took a hard look at how Wall Street trades Treasuries."[24] Currently, there is a hodgepodge of agencies responsible for overseeing this market. While the Treasury Department has the authority to draft rules regarding Treasury security trading, it does not enforce them. Responsibility to enforce these regulations as they apply to cash market generally falls to the Securities and Exchange Commission ("SEC"), and regulation of the trading of Treasury futures and options falls to the Commodity Futures Trading Commission ("CFTC").

107. After the Salomon Brothers Treasury security scandal in the early 1990s, the FRBNY, SEC, CFTC, Treasury Department, and the Board of Governors of the Federal Reserve System formed the Working Group for Treasury Market Surveillance (the "Working Group"). In 1998, the Working Group published a report on the government securities market, which include Treasury securities. The report highlighted the patchwork nature of surveillance and enforcement. The Working Group acknowledged that while SEC monitors trading activity, it was "heavily reli[ant] on the FRBNY to collect and assess, initially, dealer position data and other

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[23] Christine Harper & Daniel Kruger, *Bond Traders Club Loses Cachet in Most Important Market,* BLOOMBERG (Apr. 4, 2013), http://www.bloomberg.com/news/articles/2013-04-04/bond-traders-club-loses-cachet-in-most-important-market.

[24] Matthew Leising, *If Treasuries Are Manipulated, Good Luck Finding Any Cops,* Bloomberg (Dec. 8, 2014), htt•://www.bloomber .com/news/articles/2014-12-08/1i ht-s eed-treasu -tradin -'overned-b -rules-datin•-to-1998.

types of market information to help facilitate a collective determination on whether a particular price/yield or volume situation is indicative of possibly fraudulent or manipulative activity."[25]

108. This patchwork of limited oversight and lax enforcement gave Defendants the opportunity to employ their collusive and manipulative scheme. Indeed, Craig Pirrong, a finance professor at the University of Houston, in commenting on the propensity of government regulators to take a "hands-off role with the government securities market," found it "rather remarkable that the Fed and Treasury have taken little interest in the dramatic change in market microstructure and trading technology./,[26]

109. It is an "open secret" that Treasury securities traders employed by Defendants "can see orders flowing in."[27] In an interview with *Bloomberg,* Mark MacQueen, a manager for Sage Advisory Services Ltd., stated that "primary dealers are an insiders' club where they're supposed to have more information."[28] The information asymmetry between primary dealers and other market participants gives primary dealers a unique informational advantage in both Treasury Department auctions and the when-issued market, allowing them the ability to assess and anticipate their own exposure and predict price movements in Treasury securities market. More critically, the exchange of this proprietary customer information during the when-issued market allowed Defendants to artificially inflate prices in the when-issued market through bid-ask spread coordination.

110. According to traders interviewed by *Bloomberg,* "bankers have often shared broad guidance, both internally and to clients, on whether demand is slack or strong before

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[25] JOINT STUDY OF THE REGULATORY SYSTEM FOR GOVERNMENT SECURITIES (Mar. 1998), at 14, *available at* http://www.treasurydirect.gov/instit/statregigsareg/gsareg gsr98rpt.pdf.

[26] Leising, *supra* note 24.

[27] Scaggs et al., *supra* note 1.

[28] *Id*

auctions."[29] Further, although many banks have rules prohibiting employees from discussing yields or the size of client bids before auction, "[i]n many cases, such guidelines aren't always followed, monitored or enforced."[30]

111. For example, at BNPP and Cantor Fitzgerald, there is not a "consistent understanding among traders and salespeople about whether they can share information about orders before [Treasury Department] auctions," according to two people interviewed by *Bloomberg* that were familiar with each Defendant. According to a person familiar with Societe Generale's operations (the parent for Defendant SG), Treasury securities "traders can get a pre-auction rundown of customers' level of interest."[31]

112. Despite TMPG guidelines advising them not to, Defendants also often shared proprietary information about customer orders and yields to be bid at Treasury Department auctions. Interviews with traders at primary dealers confirm that they frequently "talked with counterparts at other banks via online chatrooms" and "swapped gossip about clients' Treasury orders." [32] It was this very conduct that enabled Defendants' collusive scheme to flourish.

113. Similar to what DOJ discovered in connection with its criminal investigation into the FX market, Defendants' employees also used electronic chatrooms and other media to share confidential order flow information and collude on the prices of Treasury security transactions in the when-issued market. Defendants used these same electronic means to collude with respect to their bidding strategies at Treasury Department auctions so that they could maximize their gains in auctioned Treasury securities.

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[29] Scaggs et al., *supra* note 1.

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[31] *Id*

[32] *Id*

114. Indeed, in response to revelations that FX traders used chatrooms to manipulate the FX market, certain Defendants recently barred their traders from using electronic chatrooms, including Defendants Barclays, Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, Morgan Stanley, RBS, and UBS.

115. Using these electronic methods of communication, Defendants' Treasury securities traders employed a two-pronged scheme to maximize the spread between their short positions in the when-issued market and their acquisition costs of obtaining Treasury securities at Treasury Department auctions.

116. First, Defendants' traders agreed to artificially *inflate* the prices of Treasury securities in the when-issued market through coordination of bid-ask spreads. Defendants communicated with each other during the when-issued market to ensure that prices of when-issued Treasury securities would stay at supracompetitive levels.

117. However, because Defendants are primary dealers—and thus were required to bid at Treasury Department auctions—Defendants, individually and collectively, generally maintained short positions in the when-issued market. Defendants needed to be able to cover these positions profitably. Thus, they needed to fix the prices at which they bought Treasury securities from the Treasury Department.

118. And that's exactly what Defendants did. Defendants coordinated their bidding strategies at the Treasury Department auctions to artificially *suppress* the prices they would pay for their bids. This had the effect of benefiting the short positions they maintained in the when-issued market by allowing Defendants to cover their positions with low-cost Treasury securities purchased at auction.

119. By artificially increasing the spread between prices of Treasury securities in the when-issued market and at auction, Defendants were able reap supracompetitive profits—essentially shorting (selling) Treasury securities artificially high in the when-issued market and then buying them at artificially low prices in the Treasury Department auction to cover their short positions.

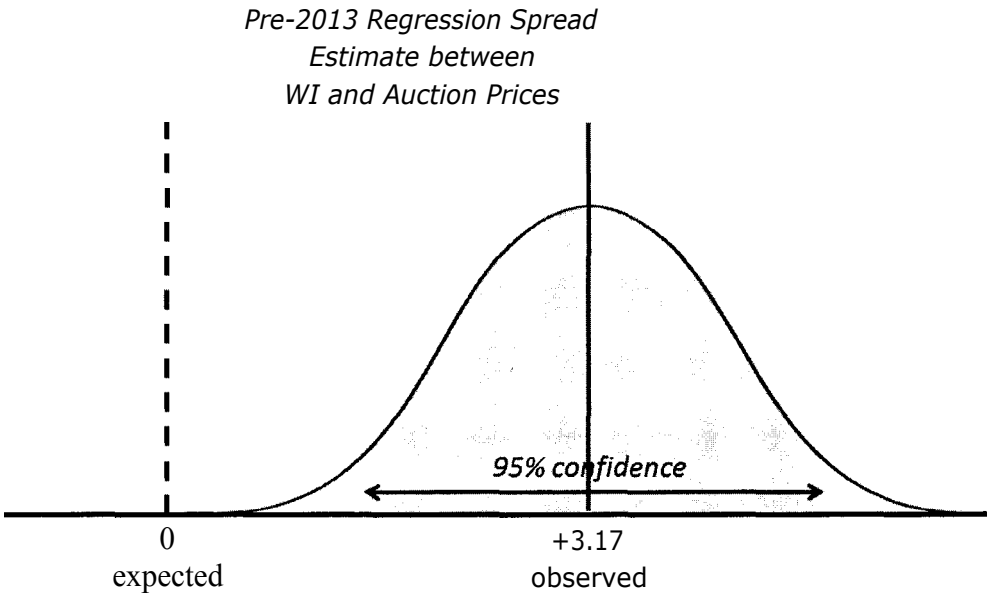
120. Through Defendants' unlawful conduct, they were able to keep the spread between when-issued and auction prices at supracompetitive levels that would otherwise not have been possible in a competitive market. As shown below, Defendants' conspiracy ultimately collapsed around the time DOJ secured a plea agreement from UBS Securities Japan Co. Ltd. in connection with its investigation of LIBOR in or around December 2012—a scandal involving similar manipulative conduct that would ultimately engulf several of the same Defendants, their parents, or affiliates.

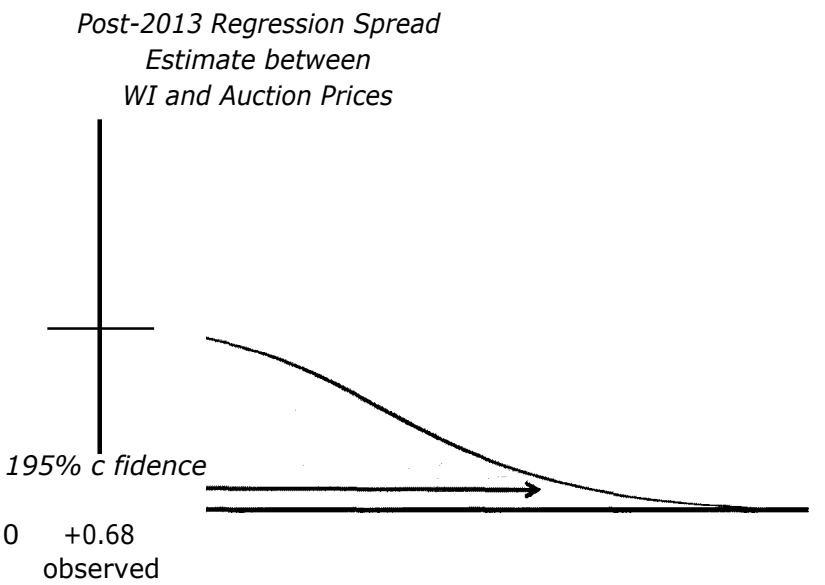
B. Expert Economic Analysis Suggests that the Treasury Securities Market Was Being Manipulated

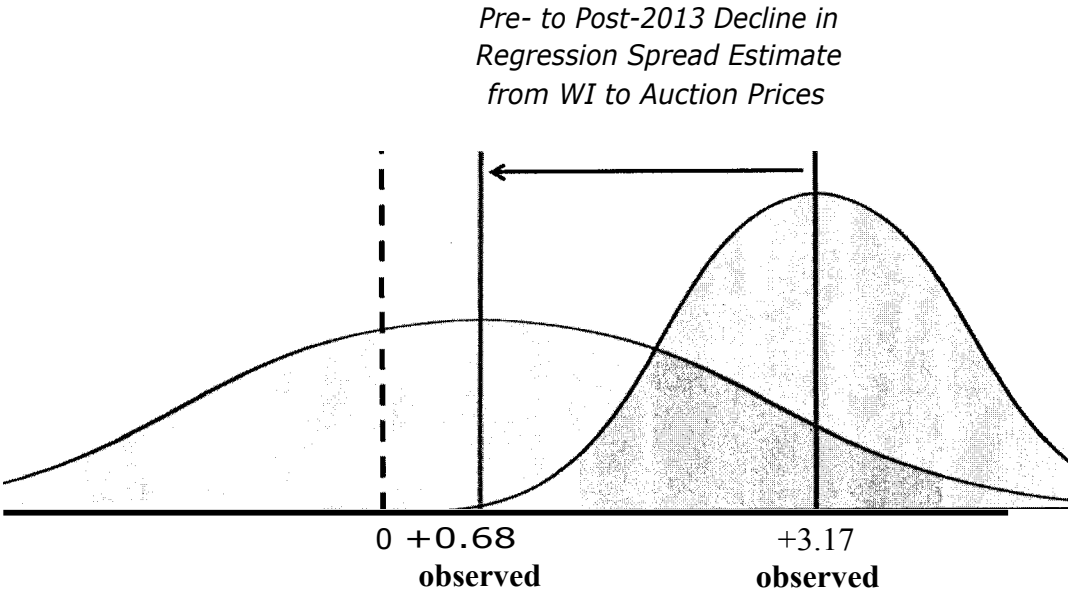
121. Plaintiff retained expert economists to conduct preliminary analyses of Treasury securities data. Their research supports the following: (1) that prices (yields) of Treasury securities were artificially high (low) in the when-issued market; (2) that auction prices were artificially low; and (3) that the spread between the prices of Treasury securities in the when-issued market and at auction (the "WI-auction spread") dramatically narrowed around December 2012.

122. Plaintiffs experts compared the mean prices for Treasury securities in the when-issued market to auction prices for an extended period of time. Plaintiff's experts also analyzed bid-ask spreads for the yields of Treasury securities sold in the when-issued market during that same period.

123. Plaintiff's experts' regression analyses showed a distinct "break" in the data around December 2012. They found that the WI-auction spread narrowed by a statistically significant amount—at a confidence level of 95%—around December 2012.



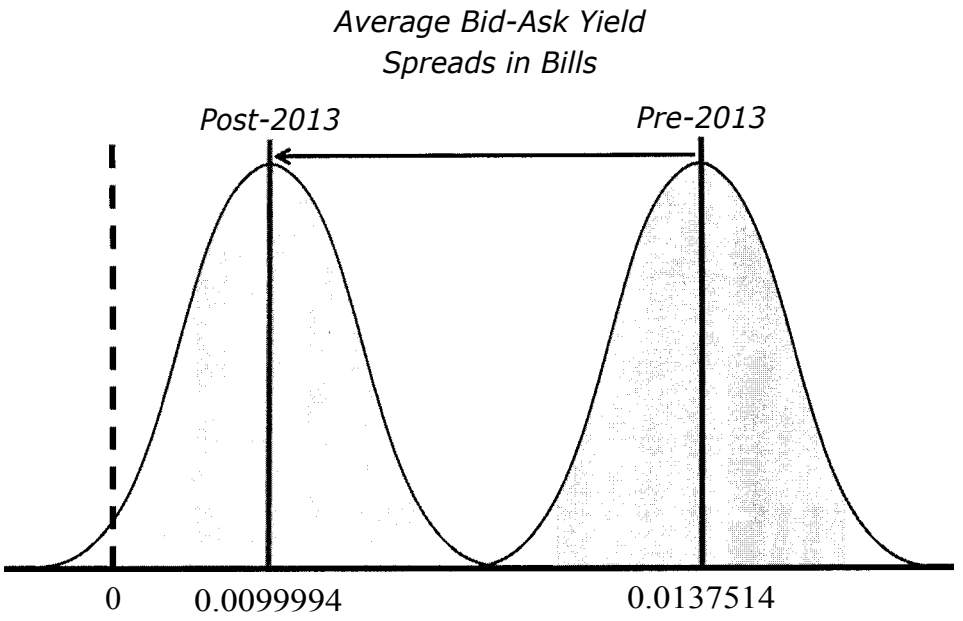


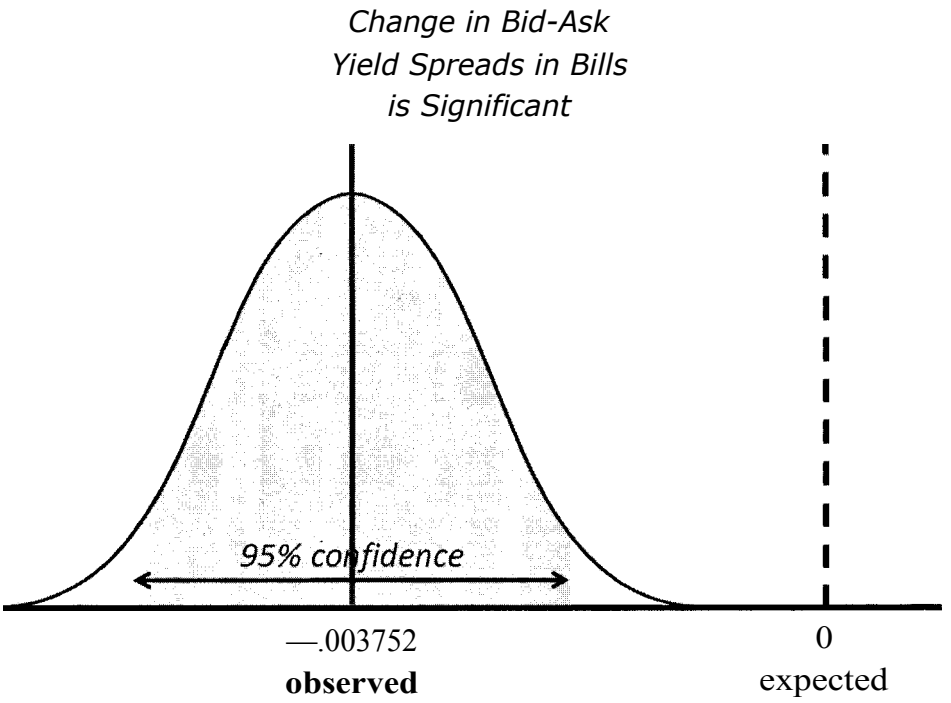


124. Indeed, Plaintiffs experts found that mean WI-auction spread for T-bills *decreased* by approximately 50% between the pre-2013 period and the post-2013 period.

125. Further, when Plaintiffs experts examined bid-ask yield spreads for Treasury securities in the when-issued market, they found that they were wider in the period prior to January 1, 2013 than they were in period after January 1, 2013. This means that bid-ask price spreads for Treasury securities in the when-issued market were also *higher* in the period prior to January 1, 2013 than they were in the period post-January 1, 2013. Plaintiffs experts' observations were statistically significant at a confidence level of 95%.

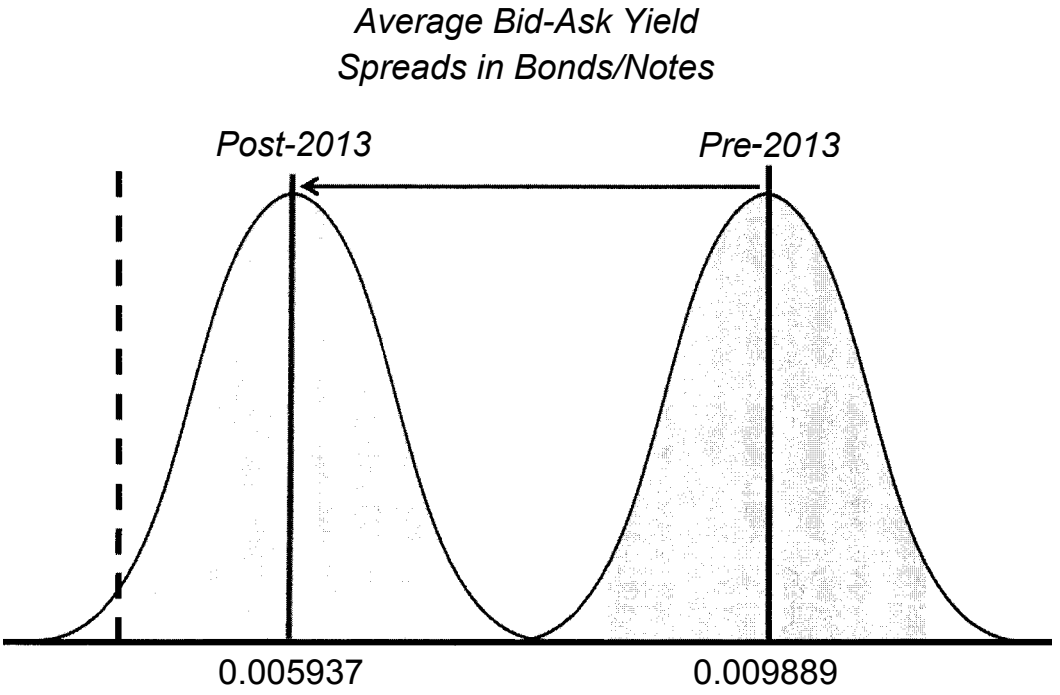
126. The following graphs show the average bid-ask yield spreads for T-bills. As these graphs show, in the pre-2013 period the bid-ask yield spread for T-bills in the when-issued market, on average, was *higher—and* thus the bid-ask spread for when-issued Treasury security prices were *higher—than* they were in the post-2013 period. The first graph below reflects that the mean bid-ask yield spread for T-bills in the pre-2013 period was approximately 38% *higher* than in the post-2013 period. The second graph reflects that this difference was statistically significant at a confidence level of 95%.

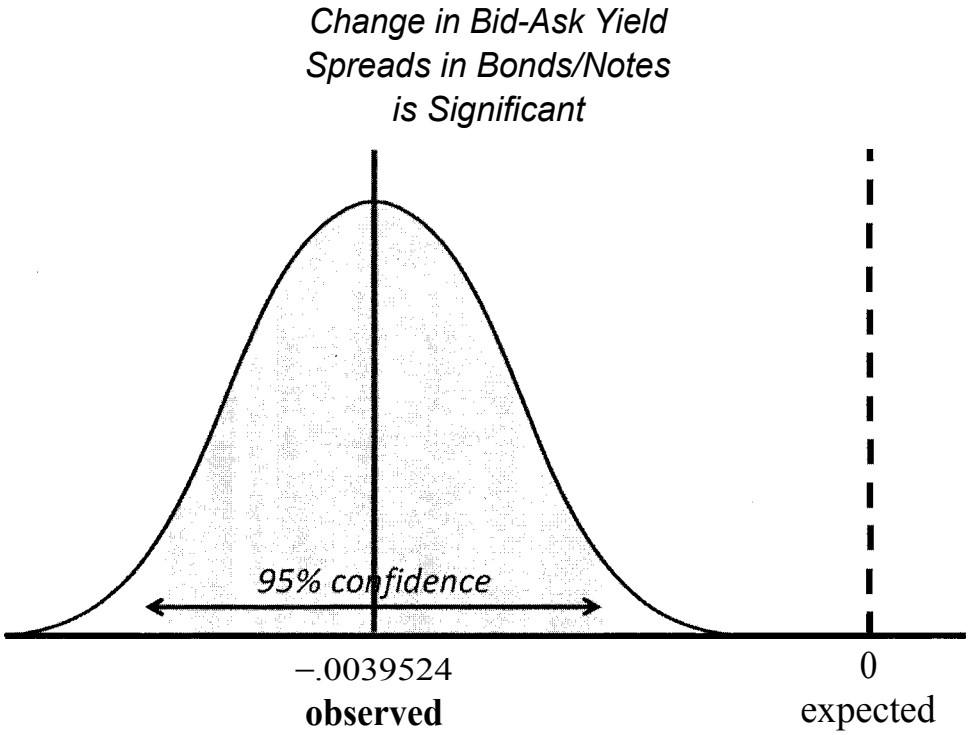




127. Even more robust results were found when Plaintiff's experts examined the average bid-ask yield spreads for T-notes and T-bonds. T-notes and T-bonds bid-ask yield spreads were *higher* in the pre-2013 period than they were post-2013. The first graph below reflects that the mean bid-ask yield spread for T-bills in the pre-2013 period was approximately

67% *higher* than in the post-2013 period. The second graph reflects that this difference was statistically significant at a confidence level of 95%.





128. The only plausible explanation for the sharp break the expert economists observed in the data is that Defendants felt the heat of the DOJ's ongoing investigation into LIBOR, and ceased their efforts to manipulate the Treasury securities market because Defendants' Treasury traders feared that they too would be prosecuted for their misconduct. Indeed, several Defendants, their parents, or affiliates have paid large fines or pleaded guilty to manipulating LIBOR, including Barclays, Deutsche Bank, RBS, and UBS.

C. Defendants' Manipulation of Treasury Securities Directly and Proximately Affected Prices of Exchange-Traded Treasury Futures and Options and Caused Their Prices To Be Artificial

129. The prices of Treasury securities in the when-issued market and at auction have a direct and positive correlation with the prices of exchange-traded Treasury futures and options—particularly those traded on the CME.

130. The prices of commodities in the cash and futures markets converge as the delivery date of the futures contract approaches. This is because the futures price will reflect the market price of the underlying commodity that short position holder would be required to purchase and deliver to the long position holder at the contract's expiry.

131. Furthermore, cash and futures prices almost always move in lock-step because any dissonance between the relative movements between prices in the two markets would be arbitraged away—e.g., through cash-and-carry arbitrage, which involves taking opposing positions in the cash and futures market in order to make riskless profit.

132. Accordingly, Defendants' manipulation of Treasury securities in the when-issued market and at auction had a direct effect and proximately caused exchange-traded Treasury futures and options to be priced at artificial levels.

CURRENT AND PRIOR GOVERNMENT INVESTIGATIONS DEMONSTRATE THE VULNERABILITY OF TREASURY MARKETS TO MANIPULATION

133. Beginning in June 2015, several news agencies reported that DOJ requested information from at least three banks regarding their participation in Treasury Department auctions. The articles noted that DOJ's investigation is in its early stages.[33]

134. While DOJ's investigation may be in its early stages, there already appears to be smoke indicative of a fire. Recently, the CFTC, in connection with its investigation into the manipulation of the ISDAFIX benchmark by many of the same Defendants in this Complaint, found that Barclays traders used Treasury securities as part of their manipulative scheme to move reference rates and spreads that influence ISDAFIX.[34] The CFTC fined Barclays $115 million in connection with its enforcement action for manipulating ISDAFIX.

135. Indeed, Treasury Department auctions have been the subject of manipulation and anticompetitive behavior in the past. In January 1992, the Treasury Department, the Board of Governors of the Federal Reserve System, and the SEC issued a joint report on operation of Treasuries market around and during the auctions (the "Joint Report").[35] The report found that Salomon Brothers Inc. had submitted bids of questionable propriety during at least five auctions: a December 27, 1990 auction for 4-year notes; a February 7, 1991 auction for 30-year bonds; a February 21, 1991 auction for 5-year notes; an April 25, 1991 auction for 5-year notes; and a

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[33] Kevin Dugan, Justice Department probes banks for rigging Treasures market, N.Y. POST (June 8, 2015), http://nypost.com/2015/06/08/department-of-justice-probes-treasuries-market/; Keri Geiger & Matthew Leising, Treasuries Collusion Said to Be Hunted in Next Wave of Probes, BLOOMBERG (June 10, 2015), http://www.bloomberg. com/news/arti cles/2015-06-10/treas uri es-collusion-said-to-be-hunted-in-next-wave-of-probes.

[34] *In the Matter of Barclays PLC, et al.,* CFTC Docket No. 15-25, Order Instituting Proceedings Pursuant to Sections 6(c) and 6(d) of the Commodity Exchange Act, Making Findings, and Imposing Remedial Sanctions, at 8 n.8 (May 20, 2015) (Barclays traders "at least on a few occasions attempted manipulation through other means, including bidding, offering, and/or executing trades in U.S. Treasuries on [a] Swap Broker's electronic bond trading platform (for 2-year through 30-year maturities) . . . .").

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

May 22, 1991 auction for two-year notes. In each of these instances, Salomon Brothers submitted either false or unauthorized bids. In at least two of the auctions—February 21, 1991 and May 22, 1991—Salomon Brothers' aggregate bidding strategy violated the 35% cap on Treasury securities awarded to any one participant in an auction pursuant to Treasury Department regulations.

136. Salomon Brothers' misconduct in the May 22, 1991 auction was given the greatest scrutiny by regulators because of its impact on the Treasuries market. The Joint Report stated that Salomon Brothers failed to report an existing $590 million net long position in the when-issued market for the May 22, 1991 auction of May 1993 2-year Treasury notes.[36]

137. At the auction, Salomon Brothers submitted several bids at an "aggressive" yield of 6.81% (just prior to the auction yields on the when-issued security were at 6.83%): one on its own behalf for $4.2 billion; and three on behalf of three customers for $4.287 billion, $2 billion, and $130 million respectively.

138. However, on the $2 billion customer bid, the investigation found that the customer only authorized $1.5 billion, giving Salomon Brothers an extra $500 million. That, together with its $590 million net long position, allowed Salomon Brothers to exceed the 35% threshold. As a result of Salomon Brothers' activities, 94% of all auctioned securities were allocated to Salomon Brothers and its customers.

[36] At the time of the Joint Report, Treasury Department regulations required that bidders report net long position of greater than $200 million at the time of auction. Any net long position in excess of $200 million counts towards the 35% award limit. htt•://www.treasur oviresource-center/fin-mkts/Documents/ sr92 st •clf.

139. The accretion of such an overwhelming percentage of the May 1993 2-year Treasury notes also created a "short squeeze" for this issuance. The creation of this short squeeze allowed Salomon Brothers to obtain far cheaper rates for its repos.[37]

140. Ultimately, DOJ's Antitrust Division filed a complaint alleging that Salomon Brothers and certain unnamed co-conspirators "engaged in a conspiracy to coordinate their trading activity in May 1993 2-year Treasury notes in order to adversely affect prices and rates for the notes in secondary and financing markets."[38] In 1992, Salomon Brothers paid $290 million to settle charges from the SEC and DOJ arising from its conduct in the Treasuries market.

141. The Joint Report also found that improper trading and reporting activity was not just limited to Salomon Brothers. Rather, it was systemic, finding that between January 1, 1990 and August 31, 1991, "the amount of customer orders reported to [the government] by their selling group members far exceeded the amount of securities available. The SEC's investigation revealed that nearly all selling group members engaged in one or more improper practices in connection with the primary distribution of [government] securities."[39] Indeed, the SEC, OCC, and Federal Reserve jointly initiated administrative proceedings against 98 registered broker-dealers, registered government securities brokers, and/or dealers and banks. Those proceedings found each respondent "made and kept certain records that did not accurately reflect the

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[37] Joint Report at C-6.

[38] Dep't of Justice, Press Release, Department of Justice and SEC Enter $290 Million Settlement With Salomon Brothers in Treasury Securities Case (May 20, 1992), http://wwwj ustice.gov/atepublic/press releases/1992/211182.htm.

[39] Joint Report at C-7.

respondent's customers' orders for the [government] securities and/or offers, purchaser or sales by the respondents of [government] securities."[40]

CERTAIN DEFENDANTS HAVE PLEADED GUILTY TO OR ADMITTED MANIPULATING OTHER FINANCIAL MARKETS

142. Defendants' conduct in this case is part of a larger set of revelations emerging about manipulation and collusion in connection with financial benchmarks and the financial instruments tied to those benchmarks. Certain Defendants in this Complaint (or their parents and affiliates) have been fined for their roles in manipulating LIBOR, FX, and ISDAFIX.

A. LIBOR Manipulation

143. Several Defendants named in this Complaint (or their parents and affiliates) have been implicated in and either admitted guilt or pleaded guilty to wrongdoing in connection with the setting of LIBOR rates. Regulators accused many of these entities of manipulating LIBOR rates by coordinating submissions and submitting deliberately false quotes for various LIBOR rates to the British Bankers' Association, the organization that collected dealer-bank submissions and calculated the various LIBORs.

144. On June 22, 2012, Defendant Barclays (and its parent companies, Barclays PLC and Barclays Bank PLC) paid over $450 million in fines to the CFTC ($200 million), DOJ ($160 million), and the U.K. Financial Services Authority ($91 million) in connection with its manipulation of LIBOR and EURIBOR rates. Barclays had been accused of—and ultimately admitted to—manipulating LIBOR and EURIBOR rates routinely from as early as 2005 for two purposes: (1) to make their derivatives positions more profitable; and (2) to signal the bank's health in the midst of the global financial crisis.

[4°] Joint Report at C-9.

145. On December 19, 2012, UBS AG and a Japanese subsidiary agreed to pay regulators a total of $1.5 billion in fines for LIBOR rate manipulation. Specifically, UBS AG entered into a non-prosecution agreement with DOJ requiring UBS "to pay an additional $400 million penalty, to admit and accept responsibility for its misconduct as set forth in the extensive statement of facts and to continue cooperating with the Justice Department in its ongoing investigation."[41] UBS's wholly-owned subsidiary, UBS Securities Japan Co. Ltd., pleaded guilty to wire fraud and agreed to pay a criminal fine of $100 million.

146. However, UBS's non-prosecution agreement was later revoked by DOJ, in light of revelations that UBS had also conspired to manipulate FX benchmarks and fix spreads of FX transactions. UBS was obliged under its non-prosecution agreement not to commit any U.S. crimes during the two-year term of the agreement. DOJ determined that UBS breached the non-prosecution agreement because its FX traders engaged in illegal conduct after its execution.

147. Separately, the CFTC fined UBS $700 million for its role in manipulating LIBOR. In its order imposing the fine, the CFTC found that UBS engaged in the following misconduct:

(a) "For at least six years UBS regularly tried to manipulate multiple benchmark interest rates for profit, and at times succeeded in manipulating the official fixing of Yen LIBOR;"

(b) "More 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;" and

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[41] Dep't of Justice, Press Release, UBS Securities Japan Co. Ltd. to Plead Guilty to Felony Wire Fraud for Long-running Manipulation of LIBOR Benchmark Interest Rates, Dec. 19, 2012, http://www.justice.gov/opa/pr/2012/December/12-ag-1522.html.

(c) "UBS made false U.S. Dollar LIBOR and other submissions to protect its reputation during the global financial crisis."[42]

148. On February 6, 2013, RBS and its wholly-owned subsidiary RBS Securities Japan Ltd. agreed to pay criminal fines of $150 million to DOJ for its role in manipulating LIBOR. RBS Securities Japan Ltd. pleaded guilty to one count of wire fraud and agreed to pay a $50 million criminal fine.

149. In a deferred prosecution agreement, DOJ charged RBS with one felony count under Section 1 of the Sherman Act for rigging LIBOR rates, as well as another count for wire fraud. According to the deferred prosecution agreement, "at various times from at least 2006 through 2010, certain RBS Yen and Swiss Franc derivatives traders — whose compensation was directly connected to their success in trading financial products tied to LIBOR — engaged in efforts to move LIBOR in a direction favorable to their trading positions."[43] Through these schemes, RBS "defrauded counterparties who were unaware of the manipulation affecting financial products referencing Yen and Swiss Franc LIBOR."" As part of the deferred prosecution agreement, RBS agreed to the details in the criminal information and statement of facts filed by DOJ. RBS was fined $100 million by DOJ for its misconduct.

150. In addition to the criminal fines imposed by DOJ, RBS paid $325 million in fines and disgorgement to the CFTC, and an additional $137 million to the U.K. Financial Services Authority.

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[42] 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, http://www.cftc.gov/PressRoom/PressReleases/pr6472-12.

[43] *Id.*

[44]

151. In addition, on December 4, 2013, the European Commission fined Barclays, Deutsche Bank, RBS, JPMorgan, and Citigroup approximately $1.7 billion in connection with rigging of various LIBOR rates. Deutsche Bank was fined $633 million; RBS was fined over $500 million; JPMorgan was fined $107 million; and Citigroup was fined $95 million.

152. More recently, Deutsche Bank entered into a deferred prosecution agreement with DOJ, in which it accepted criminal responsibility for engaging in one count each of wire fraud and price-fixing in violation of the Sherman Act, 15 U.S.C. § 1. DOJ found that Deutsche Bank employees conspired with their counterparts at other banks to submit favorable contributions to LIBOR and EURIBOR. As part of its non-prosecution agreement, Deutsche Bank agreed to pay $625 million in fines.[45]

153. In connection with DOJ' s investigation of Deutsche Bank, a Deutsche Bank subsidiary also pleaded guilty to one count of wire fraud in connection with Deutsche Bank's manipulation of LIBOR and EURIBOR. This subsidiary was assessed a $150 million criminal penalty." Additional penalties were assessed by the CFTC ($800 million); New York Department of Financial Services ($600 million); and the U K Financial Conduct Authority ($344 million).

B. Foreign Exchange Manipulation

154. Barclays, HSBC, UBS, Citigroup, JPMorgan, and RBS entities were recently subjected to multiple investigations that resulted in substantial fines stemming from their conspiracy to manipulate FX benchmarks—including the WM/Reuters ("WMR") rates and

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[45] Dep't of Justice, Press Release, Deutsche Bank's London Subsidiary Agrees to Plead Guilty in Connection with Long-Running Manipulation of LIBOR (Apr. 23, 2015), http://www.justice.gov/opa/pr/deutsche-banks-london-subsidiary-agrees-plead-guilty-connection-long-running-manipulation.

[46] Plea Agreement at 1117, *United States v. DB Group Srvs. UK Limited, available at* http://www.justice.gov/sites/default/files/opa/press-releases/attachments/2015/04/23/dbgsplea agreement.pdf.

European Central Bank ("ECB") rates—as well as to fix the bid-ask spreads on FX transactions. Among the conduct these banks have admitted to perpetrating, include: disclosing confidential customer order information and trading positions; adjusting trading positions to accommodate the interests of the collective group; trading to trigger customers' limit orders or customers' barrier options for the bank's benefit and to the detriment of those customers; agreeing to enter into trading strategies to manipulate benchmark prices; and agreeing to fix the spreads on customer FX transactions.

155. On May 20, 2015, Citicorp, JPMorgan Chase & Co., Barclays PLC, and The Royal Bank of Scotland plc, pleaded guilty to conspiring to manipulate the price of the U.S. dollar and euro currency pair exchanged in the FX spot market. Specifically, these banks entered into and engaged in a "conspiracy to fix, stabilize, maintain, increase or decrease the price of and rig bids and offers for the euro/U.S. dollar currency pair exchanged in the foreign currency spot market, which began at least as early as December 2007 and continued until at least January 2013, by agreeing to eliminate competition in the purchase and the sale of the U.S. dollar and euro currency pair in the United States and elsewhere, in violation of the Sherman Antitrust Act, 15 U.S.C. § 1."[47]

156. The banks agreed to pay criminal fines totaling more than $2.5 billion. Citicorp agreed to pay a fine of $925 million.[48] Barclays agreed to pay a fine of $650 million.[49] JPMorgan agreed to pay a fine of $550 million.[50] RBS agreed to pay a fine of $395 million.[51]

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[47] *See, e.g.,* DOJ Barclays Plea Agreement at 112.

[48] DOJ Citigroup Plea Agreement, May 20, 2015 (available at: http://www.justice.gov/file/440486/download).

[49] DOJ Barclays Plea Agreement, May 20, 2015 (available at: http://www.justice.gov/file/44048 I /download).

[50] DOJ JPMorgan Plea Agreement, May 20, 2015 (available at: http://www.j ustice.gov/file/440491/down|oad).

[51] DOJ RBS Plea Agreement, May 20, 2015 (available at: http://www.justice.gov/file/440496/download).

157. Also, on May 20, 2015, UBS pleaded guilty to manipulating LIBOR and other benchmark interest rates and paid a $230 million criminal penalty.[52] According to the factual statement attached to UBS's plea agreement, DOJ found that UBS engaged in deceptive FX trading and sales practices after it signed the LIBOR non-prosecution agreement. UBS admitted that it conspired with other firms acting as dealers in an FX spot market by "agreeing to restrain competition in the purchase and sale of the EUR/USD currency pair in the United States and elsewhere . . . by, among other things: (i) coordinating the trading of the EUR/USD currency pair in connection with ECB and WMR benchmark currency 'fixes' . . ., and (ii) refraining from certain trading behavior, by withholding bids and offers, when one conspirator held an open risk position, so that the price of the currency traded would not move in a direction adverse to the conspirator with an open risk position."[53] Additionally, UBS traders tracked and executed limit orders at a level different from the customer's specified level in order to add undisclosed markups.[54]

158. In connection with its parallel investigation into the FX market, the CFTC found that Citibank, JPMorgan, HSBC, RBS, UBS, and Barclays "failed to adequately assess the risks associated with their FX traders participating in the fixing of certain FX benchmark rates and lacked adequate internal controls in order to prevent improper communications by traders."[55] These banks "lacked sufficient policies, procedures and training specifically governing participation in trading around the FX benchmarks rates; and had inadequate policies pertaining

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[52] DOJ UBS Plea Agreement, May 20, 2015 (available at: http://www.justice.gov/file/440521/download).

[53] *Id.* at Exhibit 1,1115.

[54] *Id.* at 1114.

[55] *See CFTC Orders Five Banks to Pay over $1. 4 Billion in Penalties for Attempted Manipulation of Foreign Exchange Benchmark Rates,* Release PR 7056- 14 (Nov. 12, 2014) (available, with links to Consent Orders, at http://www.cftc.gov/PressRoom/PressReleases/pr7056-14); *see also* Barclays to Pay $400 Million Penalty to Settle CFTC Charges of Attempted Manipulation and False Reporting of Foreign Exchange Benchmarks (May 20, 2015) (available at www.cftc.gov/PressRoom/PressRelease/pr7181-15).

to, or sufficient oversight of, their FX traders' use of chat rooms or other electronic messaging."[56]

159. The CFTC Orders also noted that between August 2012 and December 2013, Citibank, JPMorgan, HSBC, RBS, UBS, and Barclays either banned or restricted the use of multi-bank chat rooms for its FX personne1.[57]

C. ISDAFIX Manipulation

160. On May 20, 2015, the CFTC fined Defendant Barclays (and its parent companies, Barclays PLC and Barclays Bank PLC) $115 million for manipulating a widely used interest rate derivatives benchmark known as ISDAFIX. The CFTC found that certain Barclays traders "bid, offered, and executed transactions in targeted interest rate products, including swap spreads, at the critical 11:00 a.m. fixing time with the intent to affect the reference rates and spreads . . . and thereby to affect the published USD ISDAFIX."[58]

161. The CFTC further found that "certain traders at Barclays attempted to manipulate USD ISDAFIX by making false submissions for Barclays as a panel bank . . . skewing the rates and spreads submitted in the direction that could have moved USD ISDAFIX setting to benefit the Bank's trading positions."[59]

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[56] *Id.*

[57] *In the Matter of Citibank, NA.,* CFTC Docket No. 15-03, Order Instituting Proceeding Pursuant to Sections 6(c)(4)(A) and 6(d) of the Commodity Exchange Act, Making Findings, and Imposing Remedial Sanctions, at 9 (Nov. 11, 2014) (early 2013); *In the Matter of JPMorgan Chase Bank, NA.,* CFTC Dkt. No. 15-04 (Nov. 11, 2014) at 8 (December 2013); *In the Matter of HSBC Bank plc,* CFTC Dkt. No. 15-07 (Nov. 11, 2014) at 10 (December 2012); *In the Matter of Royal Bank of Scotland plc,* CFTC Dkt. No. 15-05 (Nov. 11, 2014) at 7 (August 2012); *In the Matter of UBS AG,* CFTC Dkt. No. 15-06 (Nov. 11, 2014) at 8 (November 2013); New York State Department of Financial Services, *In the Matter of Barclays Bank plc,* Consent Order Under New York Banking Law §34, at 9 (May 20, 2015) (available at: http://www.dfs.ny.goviabout/ea/ea150520.pdf).

[58] *In the Matter of Barclays PLC, et al.,* CFTC Docket No. 15-25, Order Instituting Proceedings Pursuant to Sections 6(c) and 6(d) of the Commodity Exchange Act, Making Findings, and Imposing Remedial Sanctions, at 3 (May 20, 2015).

[59] *Id*

CLASS ACTION ALLEGATIONS

162. Plaintiff brings this action on behalf of itself and as a class action under Rule 23(a), (b)(2) 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 December 31, 2012 (the "Class Period") transacted in any Treasury Instrument.
>
> 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.

163. Plaintiff believes that there are thousands of Class Members, making the Class so numerous and geographically dispersed that joinder of all Class Members is impracticable.

164. 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, raise, maintain, stabilize and/or otherwise manipulate the prices for Treasury Instruments in violation of the Sherman Act and/or Commodity Exchange Act;

b. The identity of the participants in the conspiracy;

c. The 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 Plaintiff and the Class Members;

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

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

h. The appropriate measure of damages sustained by Plaintiff and the Class Members.

165. Plaintiff's claims are typical of the claims of the other Class Members. Plaintiff and 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.

166. Plaintiff will fairly and adequately protect the interests of Class Members. Plaintiff is an adequate representative of the Class and has no interests adverse to the interests of absent Class Members. Plaintiff has retained counsel competent and experienced in class action litigation, including antitrust and commodities class action litigation.

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

168. 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.

169. 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.

DEFENDANTS' FRAUDULENTLY CONCEALED THEIR MISCONDUCT

170. Defendants and their co-conspirators concealed their wrongdoing in manipulating the prices of Treasury securities in the when-issued market and at the Treasury Department auctions. Thus, the statutes of limitations relating to the claims for relief alleged below were tolled due both to Defendants' and their co-conspirators affirmative acts of concealment and the inherently self-concealing nature of their private, unregulated conduct.

171. Defendants' and their co-conspirators' success in concealing their collusion was facilitated by their tremendous control over the market for Treasury securities by virtue of their positions as primary dealers in this market.

172. Neither Plaintiff nor Class Members 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 disclosing DOJ's investigation of the Treasury securities market. Plaintiff 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 their manipulation was so well hidden that Defendants and their co-conspirators kept U.S. regulators unaware of such conduct for years.

173. Only after recent public reports disclosed DOJ's investigation of the Treasury securities market did Plaintiff have a sufficient basis to investigate possible manipulation of the Treasury securities market by Defendants and their co-conspirators.

174. Reasonable due diligence could not have uncovered Defendants' and their co-conspirators' manipulative conspiracy because: (i) the Treasury Department auctions were held out as being set by an impartial auction based on market factors; (ii) Defendants' bids in the Treasury Department auctions are secret and not publicly available; (iii) Defendants' and their co-conspirators' trading positions and trading strategies in the when-issued market are not publicly available; (iv) the bilateral, non-exchange traded nature of when-issued market transactions make observing anticompetitive and/or manipulative behavior in that market exceedingly difficult; (v) the highly specialized and esoteric nature of the different aspects of the Treasury securities market makes it extraordinarily difficult for an ordinary person to assess ¡mproprieties; and (vi) neither Defendants nor their co-conspirators told Plaintiff or other Class Members that they were conspiring to fix, stabilize, maintain, and/or otherwise manipulate the prices of Treasury securities during the when-issued market or at the auctions.

175. Defendants and their co-conspirators also took active steps to conceal evidence of their misconduct from Plaintiff, the Class, regulators, and the public including, among other things: (i) holding out their activities in the when-issued market and at auction as good faith market-making conduct; (ii) maintaining the secrecy of their price-fixing scheme; (iii) avoiding any discussion in public fora of their collusive activities and manipulation of the when-issued market and Treasury Department auctions; and (iv) using non-public proprietary electronic communication platforms *(e.g.,* instant messaging, electronic chatrooms, etc.) to coordinate trading strategies in the when-issued market and auction behavior.

176. In addition, Defendants and their co-conspirators also failed to have the proper internal controls in place to detect misconduct concerning the manipulation of Treasury

securities. Such internal failures made it all the more difficult for Plaintiff, the Class, government regulators, and the public to become aware of Defendants' and their co-conspirators misconduct.

177. 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 lack of public information about material aspects of the conspiracy, collusion, and trading based on nonpublic information, the statutes of limitations was tolled for Plaintiff's claims.

FIRST CLAIM FOR RELIEF

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

178. Plaintiff hereby incorporates each preceding and succeeding paragraph as though fully set forth herein.

179. 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.*

180. During the Class Period, Defendants entered into an agreement to reduce competition amongst themselves by fixing and/or manipulating Treasury security prices before and during Treasury auctions and, as a result, the prices of Treasury securities, Treasury futures and options on Treasury futures traded on the CME.

181. This conspiracy to manipulate Treasury security prices and the benchmark price caused injury to both Plaintiff and the Class by depriving them of the benefit of accurate Treasury securities prices reflecting true market conditions for some period during and following Defendants' unlawful conduct, and thus Plaintiff and the Class received, upon execution of their trades, less in value than they would have received absent Defendants' wrongful conduct.

182. The conspiracy is *aper se* violation of Section 1 of the Sherman Act. Alternatively, the conspiracy resulted in substantial anticompetitive effects in the Treasury markets. There is no legitimate business justification for, or pro-competitive benefits from, Defendants' conduct. Furthermore, any business justification is outweighed by the anticompetitive effects of Defendants' conduct.

183. As a direct and proximate result of Defendants' violation of Section 1 of the Sherman Act, Plaintiff and the Class have been injured in their business and property throughout the Class Period.

184. Plaintiff and the Class are entitled to treble damages for the violations of the Sherman Act alleged herein. Plaintiff and the Class are also entitled to injunctive and other equitable relief, pursuant to 15 U.S.C. § 26.

SECOND CLAIM FOR RELIEF

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

185. Plaintiff incorporates by reference and re-alleges the preceding allegations as though fully set forth herein.

186. By their intentional misconduct, Defendants and their co-conspirators each violated Sections 6(c)(3) and 9(a)(2) of the Commodity Exchange Act (the "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 futures and options and over-the-counter Treasury forwards and options to be artificial during the Class Period.

187. Defendants' and their co-conspirators' trading and other activities alleged herein constitute market power manipulation of the prices of exchange-traded Treasury futures and

options and over-the-counter Treasury forwards and options in violation of Sections 9(a) and 22(a) of the CEA, 7 U.S.C. §§ 13(a) and 25(a), and Rule 180.2.

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

189. Plaintiff and others who transacted in exchange-traded Treasury futures and options and over-the-counter Treasury forwards and options during the Class Period transacted at artificial and unlawful prices resulting from Defendants' and co-conspirators' manipulation 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. Plaintiff and each member of the Class sustained and are entitled to actual damages for the violations of the CEA alleged herein.

THIRD CLAIM FOR RELIEF

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

190. Plaintiff incorporates by reference and re-alleges the preceding allegations as though fully set forth herein.

191. By their intentional misconduct, Defendants and their co-conspirators each violated Sections 6(c)(1) and 9(a)(2) of the Commodity Exchange Act (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 futures and options and over-the-counter Treasury forwards and options to be artificial during the Class Period.

192. Defendants' and their co-conspirators' trading and other activities alleged herein constitute market power manipulation of the prices of exchange-traded Treasury futures and

options and over-the-counter Treasury forwards and options in violation of Sections 9(a) and 22(a) of the CEA, 7 U.S.C. §§ 13(a) and 25(a), and Rule 180.1.

193. In violation of CEA Section 6(c)(1), and CFTC Rule 180.1, Defendants and co-conspirators also caused to be delivered for transmission false or misleading or inaccurate reports in connection with the Treasury Department auctions by fixing the bids during these auctions, thereby causing them to reflect artificial, non-competitive pricing for these securities. Defendants and co-conspirators did so either knowingly, intentionally, or acting in reckless disregard of the fact that such reports were false, misleading or inaccurate. Defendants also violated CFTC Rule 180.1 by deceiving their customers in the when-issued market through the sale of price-fixed when-issued Treasury securities. Customers in the when-issued market had a reasonable expectation that the prices of when-issued Treasury securities are reflective of natural market forces. By selling price-fixed Treasury securities to their unwitting customers, Defendants undermined their customers' reasonable expectations of a fair marketplace free from manipulation and collusion.

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

195. Plaintiff and others who transacted in exchange-traded Treasury futures and options and over-the-counter Treasury forwards 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. Plaintiff and each member of the Class sustained and are entitled to actual damages for the violations of the CEA alleged herein.

FOURTH CLAIM FOR RELIEF

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

196. Plaintiff incorporates by reference and re-alleges the preceding allegations as though fully set forth herein.

197. 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.

198. Plaintiff and each member of the Class are entitled to actual damages for the violations of the CEA alleged herein.

FIFTH CLAIM FOR RELIEF

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

199. Plaintiff incorporates by reference and re-alleges the preceding allegations as though fully set forth herein.

200. 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 Treasuries market, and willfully intended to assist these manipulations, which resulted in 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).

201. Plaintiff and each member of the Class are entitled to actual damages for the violations of the CEA alleged herein.

SIXTH CLAIM FOR RELIEF

UNJUST ENRICHMENT

202. Plaintiff incorporates by reference and re-alleges the preceding allegations as though fully set forth herein.

203. Because of the acts of Defendants and their co-conspirators as alleged herein, Defendants have been unjustly enriched at the expense of Plaintiff and the Class.

204. It would violate established principles of equity and good conscience for Defendants to keep their ill-gotten profits from their manipulation of the Treasuries market and the Treasury securities and exchange-traded Treasury futures and options that were directly tied to them.

205. Plaintiff and Class Members transacted in Treasury securities directly with Defendants in the when-issued market. By virtue of Defendants manipulation of these when-issued Treasury securities, Plaintiff and Class Members were deprived the benefits of a fair market, free from collusion and manipulation. Defendants reaped millions of dollar in profits at the expense of Plaintiff and members of the Class as result of their misconduct.

206. Furthermore, the Treasury derivatives market, which includes Treasury futures and options, are effectively a zero-sum game, meaning that when one individual gains money in a particular transaction, another must lose money on that same transaction. As a direct and foreseeable consequence of Defendants' manipulation of the Treasuries market, Defendants were able reap millions of dollars in profits at the expense of Plaintiff and members of the Class, who sold Treasury securities, including Treasury futures and options traded on the CME.

207. Accordingly, Plaintiff and the Class seek restoration of the monies of which they were unfairly and improperly deprived, as described herein, by way of transactions for the sale or purchase of Treasury securities entered into with Defendants or their co-conspirators.

PRAYER FOR RELIEF

Plaintiff demands 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 Plaintiff is designated as a class representative, and that Plaintiff's counsel is 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 are permanently enjoined and restrained from continuing and maintaining the conspiracy alleged in the Complaint and that the Court direct such other equitable relief as may be appropriate;

(D) That the Court award Plaintiff 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 Plaintiff and the Class their costs of suit, including reasonable attorneys' fees and expenses, as provided by law; and

(G) That the Court directs such further relief it may deem just and proper.

DEMAND FOR JURY TRIAL

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

Dated: July 23, 2015

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