

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

BREAKWATER TRADING LLC, BWT
PROFESSIONAL TRADING, LLC, and
ENDEAVOR TRADING, LLC,

Civil Action No. 17-6497

Plaintiffs,

v.

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

Defendants.

COMPLAINT AND JURY TRIAL DEMAND

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Plaintiffs BREAKWATER TRADING LLC (“Breakwater”), a top 15 liquidity provider for Treasuries, BWT PROFESSIONAL TRADING, LLC (“BWT”), a top Treasuries trader in terms of volume in the When Issued Roll during monthly Treasury Auctions, and ENDEAVOR TRADING, LLC (“Endeavor”), a top 20 liquidity provider for cash Treasuries, whose combined annual Treasuries and/or Treasury Predicated Instruments trading amounted to well over \$1 *trillion* in notional value during the Relevant Period (together, “Plaintiffs”), file this civil action under Section 1 of the Sherman Act, Section 4 of the Clayton Act, Section 22 of the Commodity Exchange Act, and common law for damages, costs of suit, and other relief as may be just and proper against defendants BANK OF AMERICA CORPORATION (“Bank of America”), BANK OF NOVA SCOTIA, NEW YORK AGENCY (“BNS”), BARCLAYS CAPITAL INC. (“Barclays”), BEAR, STEARNS & CO. INC. (“Bear Stearns”), BMO CAPITAL MARKETS CORP. (“BMO”), BNP PARIBAS SECURITIES CORP. (“BNP”), CANTOR FITZGERALD & CO. (“Cantor”), CIBC WORLD MARKETS CORP. (“CIBC”), CITIGROUP GLOBAL MARKETS INC. (“Citigroup”), COMMERZ MARKETS LLC (“Commerz”), COUNTRYWIDE SECURITIES CORPORATION (“Countrywide”), CREDIT SUISSE SECURITIES (USA) LLC (“Credit Suisse”), DAIWA CAPITAL MARKETS AMERICA INC. (“Daiwa”), DEUTSCHE BANK SECURITIES INC. (“Deutsche Bank”), GOLDMAN, SACHS & CO. (“Goldman”), HSBC SECURITIES (USA) INC. (“HSBC”), JEFFERIES LLC (“Jefferies”), J.P. MORGAN SECURITIES LLC (“JPMorgan”), MERRILL LYNCH, PIERCE, FENNER & SMITH INCORPORATED (“Merrill Lynch”), MIZUHO SECURITIES USA INC. (“Mizuho”), MORGAN STANLEY & CO. LLC (“Morgan Stanley”), NOMURA SECURITIES INTERNATIONAL, INC. (“Nomura”), RBC CAPITAL MARKETS, LLC (“RBC”), RBS SECURITIES INC. (“RBS”), SG AMERICAS SECURITIES, LLC (“SG”), TD SECURITIES

(USA) LLC (“TD”), and UBS SECURITIES LLC (“UBS”) (collectively, “Defendants”) for Defendants’ conspiracy, starting at least as early as January 1, 2007 and thereafter continuing (the “Relevant Period”), to fix and otherwise manipulate marketable U.S. Treasury Bills, Notes, Bonds, Floating Rate Notes (“FRNs”), and Treasury Inflation-Protected Securities (“TIPS”) (all together, “Treasuries”) markets and related Auctions and derivative financial products, including exchange-traded futures and options (“Treasury-Predicated Instruments”). Based upon personal knowledge, information, belief, and investigation of counsel, Plaintiffs specifically allege:

I. INTRODUCTION

1. This antitrust and commodities action concerns Defendants’ conspiracy to fix and manipulate the markets for marketable U.S. Treasuries and related Auctions and derivative financial products (*i.e.*, Treasury-Predicated Instruments), including Treasury-predicated futures and options traded on the Chicago Mercantile Exchange (“CME”).¹ Treasuries – universally regarded as the closest thing as one can get to “risk-free” return of principal and interest due – are debt instruments issued by the U.S. Treasury Department (“U.S. Treasury”) to help finance operation of the U.S. government. Treasuries and Treasury-Predicated Instruments are traded all over the world and serve as a global benchmark for a variety of financial arrangements. Interest rates, for example, on student-loan debt, asset-backed securities, and corporate bond issuances for multinational companies like McDonald’s and General Motors, are often explicitly tied to Treasuries valuations. Because Treasuries are so widely integrated into so many different kinds of financial arrangements either directly or by reference, the economic health of the U.S. – and

¹ Treasury securities are defined as the underlying commodity in the futures contract specifications. *See, e.g.*, http://www.cmegroup.com/trading/interest-rates/us-treasury/2-year-us-treasury-note_contract_specifications.html; http://www.cmegroup.com/trading/interest-rates/us-treasury/3-year-us-treasury-note_contract_specifications.html; http://www.cmegroup.com/trading/interest-rates/us-treasury/5-year-us-treasury-note_contract_specifications.html; http://www.cmegroup.com/trading/interest-rates/us-treasury/10-year-us-treasury-note_contract_specifications.html; http://www.cmegroup.com/trading/interest-rates/us-treasury/30-year-us-treasury-bond_contract_specifications.html?%3BsortField=exchange; http://www.cmegroup.com/trading/interest-rates/us-treasury/ultra-t-bond_contract_specifications.html.

indeed the world's economy – is highly dependent on the integrity of the primary and secondary Treasuries markets.

2. Each Defendant in this case is or was a Primary Dealer of Treasuries during the Relevant Period. Primary Dealers are entrusted to help the U.S. Federal Reserve (the “Fed”) effect U.S. monetary policy through their participation in Fed market-based operations and are obligated to: (i) participate in designated Treasuries Auctions held throughout the year; (ii) trade directly with the Fed; (iii) share information with the Fed’s trading desk to help the Fed formulate and implement U.S. monetary policy; (iv) act as Treasuries “market makers”; and (v) bid in accordance with Fed guidelines on Treasuries offered for sale by the U.S. Treasury at these Auctions.² While the U.S. Treasury has rules and the Fed audits the Auctions, neither the U.S. Treasury nor the Fed has any direct enforcement powers. As a result, relative to markets for listed securities and futures, there is little regulatory oversight over the Treasuries markets and related Auctions. Because Primary Dealers are entrusted to help the Fed implement U.S. monetary policy, the Primary Dealers are obligated to fill that regulatory gap by effectuating all Treasuries-related transactions in a manner that not only exemplifies the highest ethical standards but also “reinforces overall market integrity.”³ These “market integrity” obligations require each Primary Dealer to, among other things, “help maintain vigorous competition,” “not engag[e] in illegal activities such as price manipulation,” avoid pricing practices that “result in market distortions,” “avoid conduct that deliberately seeks to evade regulatory reporting requirements or impedes market transparency efforts,” “maintain a strong internal control environment sufficient to ensure that each of its business areas . . . acts in accordance with applicable laws regulations,

² See, e.g., Fed Operating Policy, [Administration of Relationships with Primary Dealers](#) (Jan. 11, 2010).

³ See Treasury Market Practices Group (“TMPG”), [Best Practices for Treasury, Agency Debt, and Agency Mortgage-Backed Securities Markets](#) (Rev. June 2015); TMPG, [Best Practices for Treasury, Agency Debt, and Agency Mortgage-Backed Securities Markets](#) (Rev. Apr. 2014).

self-regulatory organization rules, and best market practices,” including through use of “appropriate information barriers,” and, with respect to communications with any other Primary Dealer, avoidance of any discussion that has “as its purpose encouraging uniform action or eliminating competition” – even the appearance of impropriety is prohibited.⁴

3. These Primary Dealer-Defendants violated their market integrity obligations and otherwise abused their positions of trust to their own ends. Defendants conspired by, among other things, sharing confidential and competitively sensitive client order information to fix and otherwise manipulate the Treasuries and Treasuries-Predicated Instruments markets before, during, and after Treasuries Auctions. Reports confirm⁵ that Defendants used electronic chatrooms, instant messaging, and other difficult-to-track-and-trace electronic and telephonic methods to exchange confidential and competitively sensitive customer order flow information in order to coordinate trading strategies and effectuate transactions to artificially affect pricing in the primary and secondary Treasuries and Treasuries-Predicated Instruments markets before, during, and after Treasuries Auctions. Such activities injured Plaintiffs.

4. Independent expert analysis of Auction pricing data confirms that Treasury Auctions were manipulated during the Relevant Period. (*See infra* ¶¶ 130-155.) This independent analysis confirmed both upward and downward Treasuries pricing manipulation (likely predicated on Primary Dealers’ unique access to, and improper use of, non-public aggregated Indirect Bidder Auction order information that is uniquely and highly correlated with overall Auction demand), and that such manipulation had highly correlated effects across all maturities

⁴ *Id.*; TMPG, [Antitrust Guidelines for the Members of the Treasury Market Practices Group and Associated Working Groups](#) (Feb. 26, 2015).

⁵ Kevin Dugan, [Goldman Sachs win streak is focus of Treasury-rigging probe](#), New York Post (May 3, 2017); Kevin Dugan, [Goldman Sachs probed in alleged Treasury rigging](#), New York Post (Mar. 20, 2016); Alexandra Scaggs, Daniel Kruger, and Keri Geiger, [As U.S. Probes \\$12.7 Trillion Treasury Market, Trader Talk Is a Good Place to Start](#), Bloomberg (June 24, 2015).

of both Treasuries and Treasuries-Predicated Instruments. Indeed, the independent analysis revealed starkly more dramatic Treasury Auction manipulation events within the Relevant Period than the Treasuries manipulation event determined by the CFTC to have occurred on June 27, 2007 in an effort to move related ISDAFIX. Compare ¶¶ 128-129 with ¶¶ 139-143 and ¶¶ 144-148.

5. Defendants' abuse of trust is consistent with the unchecked recklessness which led to the 2008 Global Financial Crisis, and the collapse of Lehman Brothers and, later, MF Global (both Primary Dealers during the Relevant Period) as well as the discoveries by international, federal, and state investigators of certain Defendants' wide-spread and similar anti-competitive market manipulation misconduct across myriad financial markets (*e.g.*, LIBOR, FOREX, and ISDAFIX) over the same time period.⁶ The U.S. Department of Justice ("DOJ") – which has so far obtained substantial fines and guilty pleas for anticompetitive financial market misconduct from several Defendants (or their affiliated entities, including Barclays, Citigroup, Deutsche Bank, HSBC, JPM, RBS, and UBS) – is investigating Defendants' Treasuries misconduct.

6. The DOJ contacted at least three Defendants in June 2015 and shortly thereafter requested information concerning the when-issued Treasury market from all or nearly all Defendants.⁷ In April 2017, the DOJ issued an additional round of subpoenas to Defendants Morgan Stanley, RBS, UBS, and BNP Paribas in connection with its ongoing investigation.⁸ By May 2017, reports indicate that the DOJ's investigation centers on Defendants Goldman and

⁶ Evidently, the federal government's rescue of certain Defendant banks in 2008 and 2009 did not foster any remedial changes in the industry. Instead, that rescue not only enabled those Defendant banks to continue operating with the same degree of recklessness, but emboldened them to flagrantly disregard applicable law.

⁷ See Keri Geiger and Alexandra Scaggs, [U.S. Probes Treasuries Niche Some Investors Claim Is Rigged](#), Bloomberg (Nov. 9, 2015).

⁸ See Tom Schoenberg, [UBS, BNP, RBS Get Subpoenas in U.S. Treasuries Probe](#), Bloomberg (May 1, 2017); David Lynch, et al., [Treasuries probe shapes up to be test for White House](#), Financial Times (May 15, 2017).

Deutsche Bank.⁹ Various “chats and emails” produced to the DOJ reportedly show Goldman traders routinely sharing “sensitive price information with traders of other banks” and that, as a result, Goldman won almost every Treasury auction from 2007 to 2011 (often with bids submitted at the last possible moment).¹⁰ Counterparties to these collusive May 2017-reported Goldman communications included traders from Defendants Deutsche Bank, RBS, UBS, and BNP Paribas.¹¹

7. In addition to the DOJ’s investigation, the New York State Department of Financial Services has also opened its own Treasuries investigation and has sought information from at least eight Defendants: BNS, Barclays, BNP, Credit Suisse, Deutsche Bank, Goldman, Mizuho, and Société Générale.¹² The CFTC and SEC have each similarly opened their own Treasuries investigations.¹³

8. Plaintiffs bring this action for claims arising under federal antitrust and commodities law, as well as common law, to recover damages and other relief for the substantial injuries they and others similarly situated have sustained as a result of Defendants’ unlawful conduct.

II. JURISDICTION AND VENUE

9. This action arises under Section 1 of the Sherman Act, 15 U.S.C. § 1, Section 4 of the Clayton Act, 15 U.S.C. § 15(a), and Section 22 of the Commodity Exchange Act, 7 U.S.C. §25. The Court has subject matter jurisdiction under 28 U.S.C. §§ 1331, 1337(a), and 1367, and 15 U.S.C. § 15.

⁹ See Kevin Dugan, [DOJ subpoenas three European banks on Treasury rigging](#), New York Post (May 1, 2017).

¹⁰ See Kevin Dugan, [Goldman Sachs win streak is focus of Treasury-rigging probe](#), New York Post (May 3, 2017).

¹¹ *Id.*

¹² See, e.g., Kevin Dugan, [New York joins feds by launching probe into ‘Treasury rigging’](#), New York Post (Sept. 9, 2015); Gina Chon and Martin Arnold, [Watchdog in US Treasury market Probe](#), Financial Times (Sept. 9, 2015).

¹³ See Keri Geiger and Alexandra Scaggs, [U.S. Probes Treasuries Niche Some Investors Claim is Rigged](#), Bloomberg (Nov. 9, 2015).

10. Venue is proper in this district pursuant to 15 U.S.C. §§ 15(a), 7 U.S.C. §25, and 28 U.S.C. §§ 1391(b), (c), and (d) because during the Relevant Period, each Defendant resided, transacted business, was found, or had agents in this district, and a substantial portion of Defendants' alleged activity affected the interstate trade and commerce discussed below, including in this district.

11. Defendants' conduct was within the flow of, was intended to have a substantial effect on, and did have a substantial effect on, the interstate commerce of the United States, including in this district.

12. This Court has personal jurisdiction over each Defendant. Each Defendant has in this district and throughout the United States transacted business, maintained substantial contacts, and/or committed overt acts in furtherance of their conspiracy. Defendants' conspiracy has been directed at, and has had the intended effect of, causing injury to persons residing in, located in, or doing business throughout the United States, including in this district.

III. PARTIES

A. Plaintiffs

13. Plaintiff Breakwater Trading LLC ("Breakwater") is organized as a limited liability company under Delaware law and headquartered in Chicago, Illinois. At varying times throughout the Relevant Period, including from 2007-2009 Breakwater was a top 15 liquidity provider for Treasuries. Breakwater is not a hedge fund and is not a high-frequency trader. Throughout the Relevant Period, Breakwater's Treasuries transactions included both spot and futures trading, including in transactions directly involving at least one Defendant, which averaged, on a daily basis, over \$4 billion in notional value. Put differently, Breakwater's Treasuries and Treasury-Predicated instrument trading amounted to over \$1 trillion per year in notional value. Breakwater's Managing Member, Richard Stern, personally traded approximately

\$200 million per day in Treasuries and/or Treasury-Predicated Instruments notional value (amounting to roughly \$500 billion in notional value over the course of his career to date), and has personally participated in most Treasury Bond and Note Auctions since 2010. As a direct and proximate result of Defendants' collusion, manipulative conduct, and unlawful acts, Breakwater was injured in its business or property.

14. Plaintiff BWT Professional Trading, LLC ("BWT") is organized as a limited liability company under Delaware law and headquartered in New York, New York. Throughout the Relevant Period, BWT has often been a top trader in terms of volume in the When Issued Roll during monthly Treasury Auctions. BWT is not a hedge fund and is not a high-frequency trader. BWT "hand" traded Treasuries and/or Treasury-Predicated Instruments daily, including in transactions directly involving at least one Defendant – its Treasuries and/or Treasury-Predicated Instruments trading in aggregate amounted to over \$300 billion per year in notional value. BWT's founder and Managing Partner, Marc Schneider, has personally been an active and daily Treasuries and Treasury-Predicated Instruments trader from at least as early as 1991 to the present day. As a direct and proximate result of Defendants' collusion, manipulative conduct, and unlawful acts, BWT was injured in its business or property.

15. Plaintiff Endeavor Trading, LLC ("Endeavor"), organized as a limited liability company under Illinois state law, was, during portions of the Relevant Period, a top 20 liquidity provider for cash Treasuries. Endeavor traded Treasuries and/or Treasury-Predicated Instruments daily – its Treasuries and/or Treasury-Predicated Instruments trading in aggregate amounted to over \$500 billion per year. As a direct and proximate result of Defendants' collusion, manipulative conduct, and unlawful acts, Endeavor was injured in its business or property.

B. Defendants

16. Defendant Bank of America Corporation (“Bank of America”) is a Delaware corporation with its principal place of business located in Charlotte, North Carolina, which, during the Relevant Period, wholly acquired both (i) Defendant Countrywide Securities Corporation (“Countrywide”), a Delaware corporation with its principal place of business located in Calabasas, California, and (ii) Defendant Merrill Lynch, Pierce, Fenner & Smith Incorporated (“Merrill Lynch”), a Delaware corporation with its principal place of business located in New York, New York. During the Relevant Period, both of Bank of America’s predecessors-in-interest, Countrywide and Merrill Lynch, were and, in the case of Merrill Lynch, continue to be, Primary Dealers of Treasuries registered with the Federal Reserve Bank of New York which have transacted and/or continue to transact in Treasuries and/or Treasury-Predicated Instruments.¹⁴ As a result of its merger with Bank of America, Countrywide was removed from the list of Primary Dealers on July 15, 2008.¹⁵ Notwithstanding its merger with Bank of America, however, Merrill Lynch remains a Primary Dealer to this day.¹⁶ Merrill Lynch is also a Clearing Member of the CME, CBOT, NYMEX, COMEX, OTC IRS, OTC CDS, and OTC FX,¹⁷ a registered Broker-Dealer with the SEC,¹⁸ and a Futures Commission Merchant registered with the CFTC.¹⁹ In addition, Bank of America and Merrill Lynch are both represented on the Fed-sponsored Treasury Market Practices Group (“TMPG”) by James DeMare.²⁰ The TMPG is tasked with supporting the “integrity and efficiency” of the Treasury markets by, among other

¹⁴ See http://newyorkfed.org/markets/pridealers_current.html;

https://www.newyorkfed.org/markets/pridealers_current.html#tabs-2.

¹⁵ See https://www.newyorkfed.org/markets/pridealers_current.html#tabs-2.

¹⁶ See https://www.newyorkfed.org/markets/pridealers_current.html#tabs-1;

https://www.newyorkfed.org/markets/pridealers_current.html#tabs-3.

¹⁷ See <http://www.cmegroup.com/tools-information/clearing-firms.html>.

¹⁸ See <http://www.sec.gov/foia/docs/bdfoia.htm>.

¹⁹ See https://www.nfa.futures.org/NFA-registration/NFA-directory/nfa_fcm.csv.

²⁰ See <https://www.newyorkfed.org/TMPG/members.html>.

things, publishing “Best Practices,” “Antitrust Guidelines,” and other “guidance to market participants.”²¹ Bank of America is also represented by its Chief Investment Officer, Walter J. Muller III, on the Treasury Borrowing Advisory Committee (“TBAC”) which provides the U.S. Treasury with “observations . . . on the overall strength of the U.S. economy” and “recommendations on a variety of technical debt management issues.”²²

17. Defendant Bank of Nova Scotia, New York Agency (“BNS”) is the agency office of the Bank of Nova Scotia licensed by the New York State Department of Financial Services with its principal place of business located in New York, New York. During the Relevant Period, BNS was a Primary Dealer of Treasuries registered with the Federal Reserve Bank of New York and transacted in Treasuries and/or Treasury-Predicated Instruments.²³

18. Defendant Barclays Capital Inc. (“Barclays”) is a Connecticut corporation with its principal place of business located in New York, New York. During the Relevant Period, Barclays was a Primary Dealer of Treasuries registered with the Federal Reserve Bank of New York and transacted in Treasuries and/or Treasury-Predicated Instruments.²⁴ Barclays is also a Clearing Member of the CME, CBOT, NYMEX, COMEX, OTC IRS, and OTC CDS,²⁵ a registered Broker-Dealer with the SEC,²⁶ and a Futures Commission Merchant registered with the CFTC.²⁷ In addition, Barclays is represented on the TMPG by Jim Hraska²⁸ and on the TBAC by Ajay Rajadhyaksha.²⁹

²¹ See <https://www.newyorkfed.org/TMPG/about.html>.

²² See <https://www.treasury.gov/resource-center/data-chart-center/quarterly-refunding/Pages/who-is-tbac.aspx>; <https://www.treasury.gov/resource-center/data-chart-center/quarterly-refunding/Pages/members-index.aspx>.

²³ See http://newyorkfed.org/markets/pridealers_current.html.

²⁴ See http://newyorkfed.org/markets/pridealers_current.html.

²⁵ See <http://www.cmegroup.com/tools-information/clearing-firms.html>.

²⁶ See <http://www.sec.gov/foia/docs/bdfoia.htm>.

²⁷ See https://www.nfa.futures.org/NFA-registration/NFA-directory/nfa_fcm.csv.

²⁸ See <https://www.newyorkfed.org/TMPG/members.html>.

²⁹ See <https://www.treasury.gov/resource-center/data-chart-center/quarterly-refunding/Pages/members-index.aspx>.

19. Defendant BMO Capital Markets Corp. (“BMO”) is a Delaware corporation with its principal place of business located in New York, New York. During the Relevant Period, BMO was a Primary Dealer of Treasuries registered with the Federal Reserve Bank of New York and transacted in Treasuries and/or Treasury-Predicated Instruments.³⁰ BMO is also a Clearing Member of the CME, CBOT, NYMEX, and COMEX,³¹ and a registered Broker-Dealer with the SEC.³²

20. Defendant BNP Paribas Securities Corp. (“BNP”) is a Delaware corporation with its principal place of business located in New York, New York. During the Relevant Period, BNP was a Primary Dealer of Treasuries registered with the Federal Reserve Bank of New York and transacted in Treasuries and/or Treasury-Predicated Instruments.³³ BNP is also a Clearing Member of the CME, CBOT, NYMEX, and COMEX,³⁴ a registered Broker-Dealer with the SEC,³⁵ and a Futures Commission Merchant registered with the CFTC.³⁶

21. Defendant Cantor Fitzgerald & Co. (“Cantor”) is an affiliate of Cantor Fitzgerald, L.P., a Delaware limited partnership, with its principal place of business located in New York, New York. During the Relevant Period, Cantor was a Primary Dealer of Treasuries registered with the Federal Reserve Bank of New York and transacted in Treasuries and/or Treasury-Predicated Instruments.³⁷ Cantor is also a Clearing Member of the CME and CBOT,³⁸ a

³⁰ See http://newyorkfed.org/markets/pridealers_current.html.

³¹ See <http://www.cmegroup.com/tools-information/clearing-firms.html>.

³² See <http://www.sec.gov/foia/docs/bdfoia.htm>.

³³ See http://newyorkfed.org/markets/pridealers_current.html.

³⁴ See <http://www.cmegroup.com/tools-information/clearing-firms.html>.

³⁵ See <http://www.sec.gov/foia/docs/bdfoia.htm>.

³⁶ See https://www.nfa.futures.org/NFA-registration/NFA-directory/nfa_fcm.csv.

³⁷ See http://newyorkfed.org/markets/pridealers_current.html.

³⁸ See <http://www.cmegroup.com/tools-information/clearing-firms.html>.

registered Broker-Dealer with the SEC,³⁹ and a Futures Commission Merchant registered with the CFTC.⁴⁰

22. Defendant CIBC World Markets Corp. (“CIBC”) is a Delaware corporation with its principal place of business located in New York, New York. During the Relevant Period, CIBC was a Primary Dealer of Treasuries registered with the Federal Reserve Bank of New York and transacted in Treasuries and/or Treasury-Predicated Instruments.⁴¹ CIBC is also a Clearing Member of the CME⁴² and a registered Broker-Dealer with the SEC.⁴³

23. Defendant Citigroup Global Markets Inc. (“Citigroup”) is a New York corporation with its principal place of business located in New York, New York. During the Relevant Period, Citigroup was a Primary Dealer of Treasuries registered with the Federal Reserve Bank of New York and transacted in Treasuries and/or Treasury-Predicated Instruments.⁴⁴ Citigroup is also a Clearing Member of the CME, CBOT, NYMEX, COMEX, OTC IRS, OTC CDS, and OTC FX,⁴⁵ a registered Broker-Dealer with the SEC,⁴⁶ and a Futures Commission Merchant registered with the CFTC.⁴⁷ In addition, Citigroup is represented on the TMPG by Mark Tsesarsky,⁴⁸ and on the TBAC by Carey Lathrop.⁴⁹

24. Defendant Commerz Markets LLC (“Commerz”) is a Delaware limited liability company with its principal place of business located in New York, New York. Commerz was formerly known as Dresdner Kleinwort Securities LLC. As a result of the acquisition of

³⁹ See <http://www.sec.gov/foia/docs/bdfoia.htm>.

⁴⁰ See https://www.nfa.futures.org/NFA-registration/NFA-directory/nfa_fcm.csv.

⁴¹ See https://www.newyorkfed.org/markets/pridealers_current.html#tabs-2.

⁴² See <http://www.cmegroup.com/tools-information/clearing-firms.html>.

⁴³ See <http://www.sec.gov/foia/docs/bdfoia.htm>.

⁴⁴ See http://newyorkfed.org/markets/pridealers_current.html.

⁴⁵ See <http://www.cmegroup.com/tools-information/clearing-firms.html>.

⁴⁶ See <http://www.sec.gov/foia/docs/bdfoia.htm>.

⁴⁷ See https://www.nfa.futures.org/NFA-registration/NFA-directory/nfa_fcm.csv.

⁴⁸ See <https://www.newyorkfed.org/TMPG/members.html>.

⁴⁹ See <https://www.treasury.gov/resource-center/data-chart-center/quarterly-refunding/Pages/members-index.aspx>.

Dresdner Kleinwort Securities LLC by Commerzbank AG, the name was changed in April 2010. During the Relevant Period, Commerz's predecessor-in-interest Dresdner Kleinwort Securities LLC was a Primary Dealer of Treasuries registered with the Federal Reserve Bank of New York and transacted in Treasuries and/or Treasury-Predicated Instruments. Commerz is also a registered Broker-Dealer with the SEC.⁵⁰

25. Defendant Credit Suisse Securities (USA) LLC ("Credit Suisse") is a Delaware limited liability company with its principal place of business located in New York, New York. During the Relevant Period, Credit Suisse was a Primary Dealer of Treasuries registered with the Federal Reserve Bank of New York and transacted in Treasuries and/or Treasury-Predicated Instruments.⁵¹ Credit Suisse is also a Clearing Member of the CME, CBOT, NYMEX, COMEX, OTC IRS, OTC CDS, and OTC FX,⁵² a registered Broker-Dealer with the SEC,⁵³ and a Futures Commission Merchant registered with the CFTC.⁵⁴ Credit Suisse is also represented on the TBAC by Jon Kinol.⁵⁵

26. Defendant Daiwa Capital Markets America Inc. ("Daiwa") is a New York corporation with its principal place of business located in New York, New York. During the Relevant Period, Daiwa was a Primary Dealer of Treasuries registered with the Federal Reserve Bank of New York and transacted in Treasuries and/or Treasury-Predicated Instruments.⁵⁶ Daiwa

⁵⁰ See <http://www.sec.gov/foia/docs/bdfoia.htm>.

⁵¹ See http://newyorkfed.org/markets/pridealers_current.html.

⁵² See <http://www.cmegroup.com/tools-information/clearing-firms.html>.

⁵³ See <http://www.sec.gov/foia/docs/bdfoia.htm>.

⁵⁴ See https://www.nfa.futures.org/NFA-registration/NFA-directory/nfa_fcm.csv.

⁵⁵ See <https://www.treasury.gov/resource-center/data-chart-center/quarterly-refunding/Pages/members-index.aspx>.

⁵⁶ See http://newyorkfed.org/markets/pridealers_current.html.

is also a Clearing Member of the CME and CBOT,⁵⁷ a registered Broker-Dealer with the SEC,⁵⁸ and a Futures Commission Merchant registered with the CFTC.⁵⁹

27. Defendant Deutsche Bank Securities Inc. (“Deutsche Bank”) is a Delaware corporation with its principal place of business located in New York, New York. During the Relevant Period, Deutsche Bank was a Primary Dealer of Treasuries registered with the Federal Reserve Bank of New York and transacted in Treasuries and/or Treasury-Predicated Instruments.⁶⁰ Deutsche Bank is also a Clearing Member of the CME, CBOT, NYMEX, COMEX, OTC IRS, and OTC CDS,⁶¹ a registered Broker-Dealer with the SEC,⁶² and a Futures Commission Merchant registered with the CFTC.⁶³

28. Defendant Goldman, Sachs & Co., Inc. (“Goldman”) is a New York corporation with its principal place of business located in New York, New York. During the Relevant Period, Goldman was a Primary Dealer of Treasuries registered with the Federal Reserve Bank of New York and transacted in Treasuries and/or Treasury-Predicated Instruments.⁶⁴ Goldman is also a Clearing Member of the CME, CBOT, NYMEX, COMEX, OTC IRS, and OTC CDS,⁶⁵ a registered Broker-Dealer with the SEC,⁶⁶ and a Futures Commission Merchant registered with the CFTC.⁶⁷ In addition, Goldman is represented on the TMPG and on the TBAC by Elizabeth M. Hammack.⁶⁸

⁵⁷ See <http://www.cmegroup.com/tools-information/clearing-firms.html>.

⁵⁸ See <http://www.sec.gov/foia/docs/bdfoia.htm>.

⁵⁹ See https://www.nfa.futures.org/NFA-registration/NFA-directory/nfa_fcm.csv.

⁶⁰ See http://newyorkfed.org/markets/pridealers_current.html.

⁶¹ See <http://www.cmegroup.com/tools-information/clearing-firms.html>.

⁶² See <http://www.sec.gov/foia/docs/bdfoia.htm>.

⁶³ See https://www.nfa.futures.org/NFA-registration/NFA-directory/nfa_fcm.csv.

⁶⁴ See http://newyorkfed.org/markets/pridealers_current.html.

⁶⁵ See <http://www.cmegroup.com/tools-information/clearing-firms.html>.

⁶⁶ See <http://www.sec.gov/foia/docs/bdfoia.htm>.

⁶⁷ See https://www.nfa.futures.org/NFA-registration/NFA-directory/nfa_fcm.csv.

⁶⁸ See <https://www.newyorkfed.org/TMPG/members.html>; <https://www.treasury.gov/resource-center/data-chart-center/quarterly-refunding/Pages/members-index.aspx>.

29. Defendant HSBC Securities (USA) Inc. (“HSBC”) is a Delaware corporation with its principal place of business located in New York, New York. During the Relevant Period, HSBC was a Primary Dealer of Treasuries registered with the Federal Reserve Bank of New York and transacted in Treasuries and/or Treasury-Predicated Instruments.⁶⁹ HSBC is also a Clearing Member of the CME, CBOT, NYMEX, COMEX, OTC IRS, OTC CDS, and OTC FX,⁷⁰ a registered Broker-Dealer with the SEC,⁷¹ and a Futures Commission Merchant registered with the CFTC.⁷²

30. Defendant Jefferies LLC (“Jefferies”) is a Delaware limited liability company with its principal place of business located in New York, New York. During the Relevant Period, Jefferies was a Primary Dealer of Treasuries registered with the Federal Reserve Bank of New York and transacted in Treasuries and/or Treasury-Predicated Instruments.⁷³ Jefferies is also a Clearing Member of the CME, CBOT, NYMEX, and COMEX,⁷⁴ a registered Broker-Dealer with the SEC,⁷⁵ and a Futures Commission Merchant registered with the CFTC.⁷⁶

31. Defendant J.P. Morgan Securities LLC (“JPMorgan”) is a Delaware limited liability company with its principal place of business located in New York, New York. During the Relevant Period, JPMorgan was a Primary Dealer of Treasuries registered with the Federal Reserve Bank of New York and transacted in Treasuries and/or Treasury-Predicated Instruments.⁷⁷ During the Relevant Period JPMorgan also wholly acquired Defendant Bear, Stearns & Co. Inc. (“Bear Stearns”), a Delaware corporation with its principal place of business

⁶⁹ See http://newyorkfed.org/markets/pridealers_current.html.

⁷⁰ See <http://www.cmegroup.com/tools-information/clearing-firms.html>.

⁷¹ See <http://www.sec.gov/foia/docs/bdfoia.htm>.

⁷² See https://www.nfa.futures.org/NFA-registration/NFA-directory/nfa_fcm.csv.

⁷³ See http://newyorkfed.org/markets/pridealers_current.html.

⁷⁴ See <http://www.cmegroup.com/tools-information/clearing-firms.html>.

⁷⁵ See <http://www.sec.gov/foia/docs/bdfoia.htm>.

⁷⁶ See https://www.nfa.futures.org/NFA-registration/NFA-directory/nfa_fcm.csv.

⁷⁷ See http://newyorkfed.org/markets/pridealers_current.html.

located in New York, New York. JPMorgan's predecessor-in-interest, Bear Stearns, was, until October 1, 2008, a Primary Dealer of Treasuries registered with the Federal Reserve Bank of New York which transacted in Treasuries and/or Treasury-Predicated Instruments.⁷⁸ JPMorgan is also a Clearing Member of the CME, CBOT, NYMEX, COMEX, OTC IRS, OTC CDS, and OTC FX,⁷⁹ a registered Broker-Dealer with the SEC,⁸⁰ and a Futures Commission Merchant registered with the CFTC.⁸¹ In addition, JPMorgan Chase is represented on the TMPG by Sandra O'Connor,⁸² and on the TBAC by its Chief Operating Officer, Mathew E. Zames.⁸³

32. Defendant Mizuho Securities USA Inc. ("Mizuho") is a Delaware corporation with its principal place of business located in New York, New York. During the Relevant Period, Mizuho was a Primary Dealer of Treasuries registered with the Federal Reserve Bank of New York and transacted in Treasuries and/or Treasury-Predicated Instruments.⁸⁴ Mizuho is also a Clearing Member of the CME, CBOT, NYMEX, and COMEX,⁸⁵ a registered Broker-Dealer with the SEC,⁸⁶ and a Futures Commission Merchant registered with the CFTC.⁸⁷

⁷⁸ See https://www.newyorkfed.org/markets/pridealers_current.html#tabs-2.

⁷⁹ See <http://www.cmegroup.com/tools-information/clearing-firms.html>.

⁸⁰ See <http://www.sec.gov/foia/docs/bdfoia.htm>.

⁸¹ See https://www.nfa.futures.org/NFA-registration/NFA-directory/nfa_fcm.csv.

⁸² See <https://www.newyorkfed.org/TMPG/members.html>.

⁸³ See <https://www.treasury.gov/resource-center/data-chart-center/quarterly-refunding/Pages/members-index.aspx>.

⁸⁴ See http://newyorkfed.org/markets/pridealers_current.html.

⁸⁵ See <http://www.cmegroup.com/tools-information/clearing-firms.html>.

⁸⁶ See <http://www.sec.gov/foia/docs/bdfoia.htm>.

⁸⁷ See https://www.nfa.futures.org/NFA-registration/NFA-directory/nfa_fcm.csv.

33. Defendant Morgan Stanley & Co. LLC (“Morgan Stanley”) is a Delaware limited liability company with its principal place of business located in New York, New York. During the Relevant Period, Morgan Stanley was a Primary Dealer of Treasuries registered with the Federal Reserve Bank of New York and transacted in Treasuries and/or Treasury-Predicated Instruments.⁸⁸ Morgan Stanley is also a Clearing Member of the CME, CBOT, NYMEX, COMEX, OTC IRS, OTC CDS, and OTC FX,⁸⁹ a registered Broker-Dealer with the SEC,⁹⁰ and a Futures Commission Merchant registered with the CFTC.⁹¹ In addition, Morgan Stanley is represented on the TMPG by Thomas Wipf, who currently serves as the TMPG chair.⁹²

34. Defendant Nomura Securities International, Inc. (“Nomura”) is a New York corporation with its principal place of business located in New York, New York. During the Relevant Period, Nomura was a Primary Dealer of Treasuries registered with the Federal Reserve Bank of New York and transacted in Treasuries and/or Treasury-Predicated Instruments.⁹³ Nomura is also a Clearing Member of the CME, CBOT, NYMEX, COMEX, and OTC IRS,⁹⁴ a registered Broker-Dealer with the SEC,⁹⁵ and a Futures Commission Merchant registered with the CFTC.⁹⁶

35. Defendant RBC Capital Markets, LLC (“RBC”) is a Minnesota limited liability company with its principal place of business located in New York, New York. During the Relevant Period, RBC was a Primary Dealer of Treasuries registered with the Federal Reserve

⁸⁸ See http://newyorkfed.org/markets/pridealers_current.html.

⁸⁹ See <http://www.cmegroup.com/tools-information/clearing-firms.html>.

⁹⁰ See <http://www.sec.gov/foia/docs/bdfoia.htm>.

⁹¹ See https://www.nfa.futures.org/NFA-registration/NFA-directory/nfa_fcm.csv.

⁹² See <https://www.newyorkfed.org/TMPG/members.html>.

⁹³ See http://newyorkfed.org/markets/pridealers_current.html.

⁹⁴ See <http://www.cmegroup.com/tools-information/clearing-firms.html>.

⁹⁵ See <http://www.sec.gov/foia/docs/bdfoia.htm>.

⁹⁶ See https://www.nfa.futures.org/NFA-registration/NFA-directory/nfa_fcm.csv.

Bank of New York and transacted in Treasuries and/or Treasury-Predicated Instruments.⁹⁷ RBC is also a Clearing Member of the CME, CBOT, NYMEX, COMEX, and OTC IRS,⁹⁸ a registered Broker-Dealer with the SEC,⁹⁹ and a Futures Commission Merchant registered with the CFTC.¹⁰⁰

36. Defendant RBS Securities Inc. (“RBS”) is a Delaware corporation with its principal place of business located in Stamford, Connecticut. During the Relevant Period, RBS was a Primary Dealer of Treasuries registered with the Federal Reserve Bank of New York and transacted in Treasuries and/or Treasury-Predicated Instruments.¹⁰¹ RBS is also a Clearing Member of the CME, CBOT, NYMEX, and COMEX,¹⁰² a registered Broker-Dealer with the SEC,¹⁰³ and a Futures Commission Merchant registered with the CFTC.¹⁰⁴

37. Defendant SG Americas Securities, LLC (“SG”) is a Delaware limited liability company with its principal place of business located in New York, New York. During the Relevant Period, SG was a Primary Dealer of Treasuries registered with the Federal Reserve Bank of New York and transacted in Treasuries and/or Treasury-Predicated Instruments.¹⁰⁵ SG is also a Clearing Member of the CME, CBOT, NYMEX, COMEX, and OTC IRS,¹⁰⁶ a registered Broker-Dealer with the SEC,¹⁰⁷ and a Futures Commission Merchant registered with the CFTC.¹⁰⁸

⁹⁷ See http://newyorkfed.org/markets/pridealers_current.html.

⁹⁸ See <http://www.cmegroup.com/tools-information/clearing-firms.html>.

⁹⁹ See <http://www.sec.gov/foia/docs/bdfoia.htm>.

¹⁰⁰ See https://www.nfa.futures.org/NFA-registration/NFA-directory/nfa_fcm.csv.

¹⁰¹ See http://newyorkfed.org/markets/pridealers_current.html.

¹⁰² See <http://www.cmegroup.com/tools-information/clearing-firms.html>.

¹⁰³ See <http://www.sec.gov/foia/docs/bdfoia.htm>.

¹⁰⁴ See https://www.nfa.futures.org/NFA-registration/NFA-directory/nfa_fcm.csv.

¹⁰⁵ See http://newyorkfed.org/markets/pridealers_current.html. As of December 7, 2015, Societe Generale, New York Branch replaced SG as a Primary Dealer. See

https://www.newyorkfed.org/markets/pridealers_current.html#tabs-2.

¹⁰⁶ See <http://www.cmegroup.com/tools-information/clearing-firms.html>.

¹⁰⁷ See <http://www.sec.gov/foia/docs/bdfoia.htm>.

¹⁰⁸ See https://www.nfa.futures.org/NFA-registration/NFA-directory/nfa_fcm.csv.

38. Defendant TD Securities (USA) LLC (“TD”) is a Delaware limited liability company with its principal place of business located in New York, New York. During the Relevant Period, TD was a Primary Dealer of Treasuries registered with the Federal Reserve Bank of New York and transacted in Treasuries and/or Treasury-Predicated Instruments.¹⁰⁹ TD is also a registered Broker-Dealer with the SEC¹¹⁰ and a Futures Commission Merchant registered with the CFTC.¹¹¹

39. Defendant UBS Securities LLC (“UBS”) is a Delaware limited liability company with its principal place of business located in New York, New York. During the Relevant Period, UBS was a Primary Dealer of Treasuries registered with the Federal Reserve Bank of New York and transacted in Treasuries and/or Treasury-Predicated Instruments.¹¹² UBS is also a Clearing Member of the CME, CBOT, NYMEX, COMEX, OTC IRS, and OTC CDS,¹¹³ a registered Broker-Dealer with the SEC,¹¹⁴ and a Futures Commission Merchant registered with the CFTC.¹¹⁵

40. Various other entities and individuals currently unknown to Plaintiffs may have also participated as co-conspirators in the acts complained of and/or performed acts that aided and abetted and/or otherwise furthered the conspiracy’s objectives and unlawful conduct alleged herein.

¹⁰⁹ See http://newyorkfed.org/markets/pridealers_current.html.

¹¹⁰ See <http://www.sec.gov/foia/docs/bdfoia.htm>.

¹¹¹ See https://www.nfa.futures.org/NFA-registration/NFA-directory/nfa_fcm.csv.

¹¹² See http://newyorkfed.org/markets/pridealers_current.html.

¹¹³ See <http://www.cmegroup.com/tools-information/clearing-firms.html>.

¹¹⁴ See <http://www.sec.gov/foia/docs/bdfoia.htm>.

¹¹⁵ See https://www.nfa.futures.org/NFA-registration/NFA-directory/nfa_fcm.csv.

IV. FACTUAL ALLEGATIONS

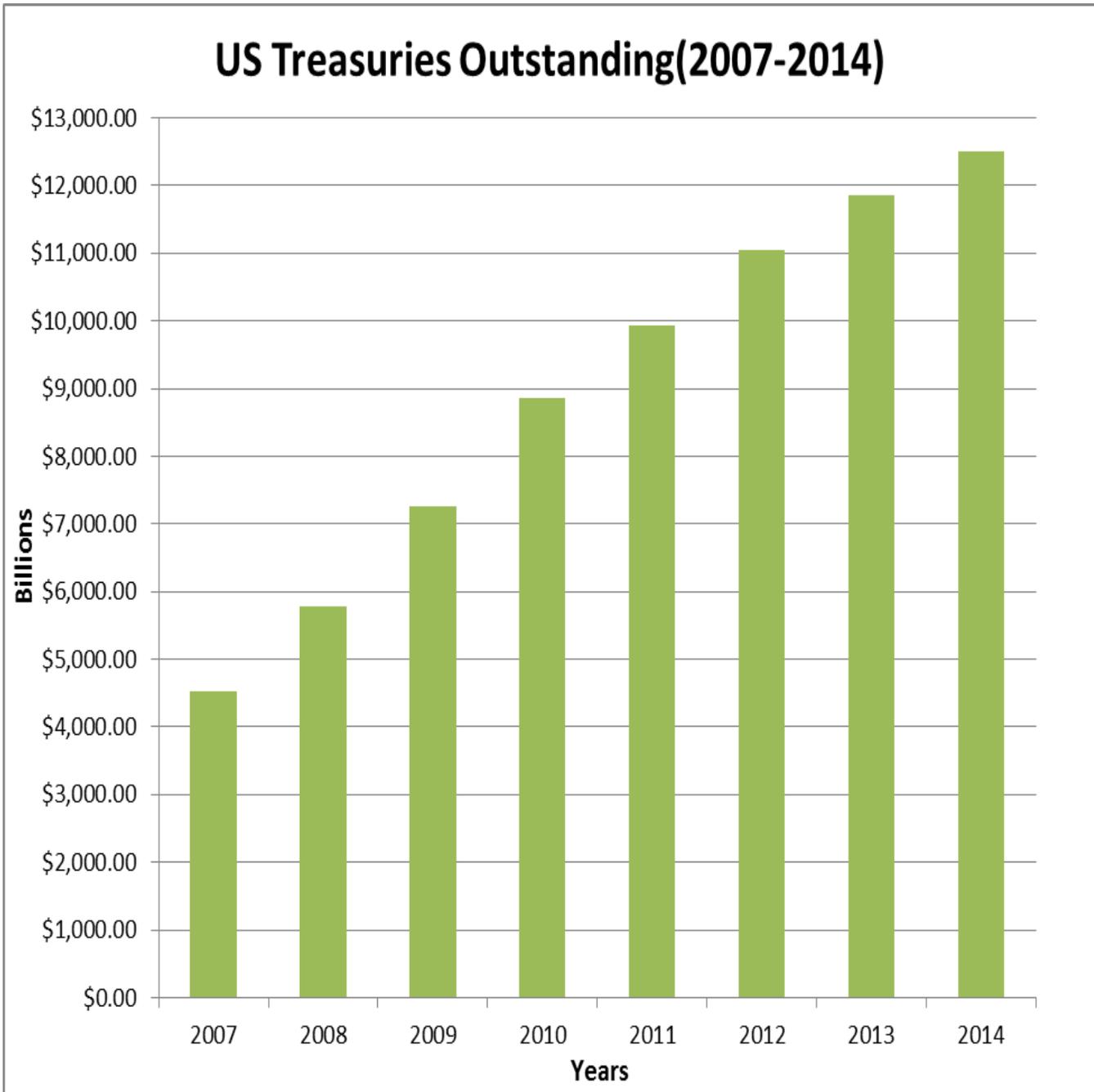
A. Treasuries Constitute a Worldwide Financial Benchmark and Are Critical to the Fed’s Implementation of U.S. Monetary Policy.

41. The Treasuries market – which is approximately a \$12.7 trillion market (of interest-bearing marketable coupon public debt) – is the world’s most liquid government securities market. It is the primary means by which the U.S. government finances itself and manages its debt load. U.S. debt is the largest in the world, presently over \$18.1 trillion according to the U.S. Treasury’s Bureau of Fiscal Service. In 2014 alone, the U.S. Treasury issued more than \$2.2 trillion in Treasury coupon securities.

42. Treasury Bonds and Notes represent loans to the U.S. government. Bondholders are creditors rather than equity- or share-holders. The U.S. government agrees to repay the face (or principal or par) amount of Treasury Bonds or Notes at maturity, plus the coupon¹¹⁶ at semi-annual intervals. Treasuries are often considered “riskless” investments given that the “full faith and credit” of the U.S. government backs these securities. The Treasury buyer can either (i) hold the Bond or Note until maturity, at which time the face value becomes due, or (ii) re-sell the Bond or Note in the secondary market prior to maturity. In the latter case, the investor recovers the market value of the bond or note, which may be more or less than its face value, depending upon prevailing yields. In the meantime, the investor receives semi-annual coupon payments every six months.

¹¹⁶ The “coupon” is the interest rate the debt issuer agrees to pay the holder of the applicable note or bond.

43. As shown in the chart below, the amount of outstanding marketable Treasuries has nearly tripled since 2007, from \$4.5 trillion in 2007 to \$12.5 trillion in 2014:



Source: sifma.org

44. Treasury Bills or T-Bills mature in one year or less and are currently offered in 4-, 13-, 26-, and 52-week maturities. T-Bills do not pay interest prior to maturity and instead are sold at a discount to the par value.

45. Cash Management Bills (“CMBs”) are occasionally offered to meet the U.S. Treasury’s short-term financial needs. While most CMBs are issued with a term of less than three months, their maturities are set on an issue-by-issue basis and can range anywhere from one day to about one year. CMBs are issued almost exclusively to Primary Dealers.

46. First introduced in 1997, Treasury Inflation-Protected Securities (“TIPS”) provide their holders with coupon payments every six months that are adjusted either upwardly or downwardly depending on fluctuations in the Consumer Price Index (“CPI”), a commonly used measure for inflation. TIPS are currently offered in 5-, 10-, and 30-year maturities.

47. First introduced in 2014, Floating Rate Notes (FRNs) pay a quarterly coupon that is indexed to the rate of the most recent 13-week Bill offering, and may therefore increase or decrease depending on interest rate fluctuations. FRNs are currently offered only in 2-year maturities.

48. The yield of Treasuries also offers a risk-free benchmark for other financial instruments in the private market and allows market participants, on a broad scale, to transfer interest rate risk.

49. To operate in this market, the U.S. Treasury sells Bills, Notes, Bonds, FRNs, and TIPS to institutional and individual investors through public auctions. This public auction process is designed to help the U.S. Government efficiently finance its debt at minimal cost. In 2010, for example, the Fed held 301 Treasury Auctions and issued roughly \$8.4 trillion in

Treasuries debt. Treasury Auctions occur regularly on a publicly-disclosed set schedule, an example of which is shown below:

U.S. Treasury Auction Schedule

	Maturity	Auctioned
Cash Mgt Bills	Usually 1-7 Days	As Needed
Treasury Bills	4-, 13- and 26-Week	Weekly
Treasury Bills	52-Week	Monthly
Treasury Notes	2-, 3-, 5- and 7-Year	Monthly
	10-Year	February, May, August & November with re-openings in other 8 months
Treasury Bonds	30-Year	February, May, August & November with re-openings in other 8 months
Treasury Inflation Protected Securities (TIPS)	5-Year	April with re-openings in August & December
	10-Year	January & July with re-openings in March, May, September and November
	3-Year	February with re-openings in June & October

Source: cmegroup.com

50. There are three steps to these Auctions: announcement of the Auction, bidding, and issuance of the purchased Treasuries.

1. Announcement of the Treasuries Auction.

51. The U.S. Treasury uses an auction process to sell marketable Treasuries through what is called the Treasury Automated Auction Processing System (“TAAPS”), which provides bidders direct access to Treasury Auctions. Some Auctions are held weekly (*e.g.*, Treasury Bill Auctions), some are announced just a few business days before they are held (*e.g.*, Treasury Note Auctions), and some are announced to take place on certain weeks in specific months (*e.g.*, Treasury Bond Auctions, TIPS Auctions, and FRN Auctions). These various Treasuries sold at Auction offer different maturity periods: for instance, Treasury Bills all mature within one year or sooner, Treasury Notes typically range in maturity periods from two to ten years, Treasury Bonds offer a 30-year maturity period, and TIPS typically have maturity periods of five, ten, or thirty years.

52. The Auction schedule is not random. It is designed so that Auction dates coincide with Treasury maturity dates, so that buyers can easily reinvest their money after the Treasury has repaid the principal on its debt.¹¹⁷

¹¹⁷ The Auction schedule is also designed to permit the U.S. Treasury to “re-open” or “re-issue” certain Treasuries. For example, the 13- and 26-week Treasury Bills are auctioned every week. After 13 weeks have elapsed, the old 26-week Bill has 13 weeks left to mature. In connection with its regular Auction of 13- and 26-week Bills, the U.S. Treasury may, in lieu of offering a new 13-week Bill, instead decide to re-open the original 26-week Bill (with an effective maturity of 13 weeks) and simply Auction (or re-issue) more of that old 26-week Bill.

53. As described by the Fed:

The modern auction process for treasury securities begins with a public announcement by the Treasury. The announcements are generally released several days before an auction; however Treasury can announce an auction on the same day and has done so in the past (typically only for CMB auctions). An auction announcement will contain the following information:

- Amount of the security Treasury is selling
- Auction date
- Issue date
- Original issuance date (in the case of a reopening)
- Maturity date
- Terms and conditions of the offering
- Customers eligible to participate
- Noncompetitive and competitive bidding close times
- Additional pertinent information

Once an auction is announced, bids for the security can be submitted through TreasuryDirect or through TAAPS. Recent announcements can be found on the TreasuryDirect.gov website.¹¹⁸

¹¹⁸ See <https://www.newyorkfed.org/aboutthefed/fedpoint/fed41.html>.

54. Reproduced below is an example of a typical Treasury Auction Announcement:

PUBLIC DEBT NEWS

Department of the Treasury • Bureau of the Public Debt • Washington, DC 20239



Embargoed Until 11:00 A.M.
March 03, 2011

CONTACT: Office of Financing
202-504-3550

TREASURY OFFERING ANNOUNCEMENT ¹

Term and Type of Security	29-Year 11-Month 4-3/4% Bond (Reopening)
Offering Amount	\$13,000,000,000
Currently Outstanding	\$16,366,000,000
CUSIP Number	912810QN1
Auction Date	March 10, 2011
Original Issue Date	February 15, 2011
Issue Date	March 15, 2011
Maturity Date	February 15, 2041
Dated Date	February 15, 2011
Series	Bonds of February 2041
Yield	Determined at Auction
Interest Rate	4-3/4%
Interest Payment Dates	August 15 and February 15
Accrued Interest from 02/15/2011 to 03/15/2011	\$3.67403 Per \$1,000
Premium or Discount	Determined at Auction
Minimum Amount Required for STRIPS	\$100
Corpus CUSIP Number	912803DQ3
Additional TINT(s) Due Date(s) and CUSIP Number(s)	None
Maximum Award	\$4,550,000,000
Maximum Recognized Bid at a Single Yield	\$4,550,000,000
NLP Reporting Threshold	\$4,550,000,000
NLP Exclusion Amount	\$5,400,000,000
Minimum Bid Amount and Multiples	\$100
Competitive Bid Yield Increments ²	0.001%
Maximum Noncompetitive Award	\$5,000,000
Eligible for Holding in Treasury Direct Systems	Yes
Eligible for Holding in Legacy Treasury Direct	No
Estimated Amount of Maturing Coupon Securities Held by the Public	\$0
Maturing Date	March 15, 2011
SOMA Holdings Maturing	\$0
SOMA Amounts Included in Offering Amount	No
FIMA Amounts Included in Offering Amount ³	Yes
Noncompetitive Closing Time	12:00 Noon ET
Competitive Closing Time	1:00 p.m. ET

¹Governed by the Terms and Conditions set forth in The Uniform Offering Circular for the Sale and Issue of Marketable Book-Entry Treasury Bills, Notes, and Bonds (31 CFR Part 356, as amended), and this offering announcement.

²Must be expressed as a yield with three decimals e.g., 7.123%.

³FIMA up to \$1,000 million in noncompetitive bids from Foreign and International Monetary Authority not to exceed \$100 million per account.

Source: treasurydirect.gov

2. Bidding at the Treasuries Auction.

55. There are two methods of bidding at a Treasury Auction: competitive and non-competitive.

56. A competitive bidder specifies the amount of the applicable Treasury, rate, yield, or discount margin that it will accept. If the bid's yield falls within the range of the bids accepted, the competitive bidder is sold the quantity bid for, unless that quantity is the "stop-out yield" or the highest yield accepted, in which case the competitive bidder would be sold on a *pro rata* basis only what remaining Treasuries were available in that Auction. Competitive bidders can submit one or more competitive bids. Those bids must identify either the minimum yield or discount rate at which that bidder is prepared to buy the quantity of Treasuries specified.

57. A non-competitive bidder, by contrast, agrees to accept the rate, yield, or discount margin determined at Auction, though that non-competitive bidder is generally limited to a maximum bid of \$5 million.

58. By virtue of the competitive bidding process, competitive bidders are not guaranteed to win any portion of the Auctioned Treasuries. They acquire Auctioned Treasuries only to the extent they submit winning bids. In contrast, non-competitive bidders are guaranteed receipt of Auctioned Treasuries (up to \$5 million) because they have agreed to acquire those Treasuries at whatever rate, yield, or discount margin is established by the winning competitive bids.

59. At the close of the Treasury Auction, the U.S. Treasury awards all non-competitive bids that comply with the Auction rules. The total quantity of this sale is subtracted from the initial offering to determine the remaining amount to be allocated among the range of yields accepted. The U.S. Treasury then accepts competitive bids for any remaining Treasuries that were auctioned in ascending order of their rate, yield, or discount margin (lowest to highest) until all Treasuries have been awarded and the stop-out yield is reached. Bids accepted at this price are prorated, or allocated proportionately, so that the amount of the Treasuries issued does not exceed the amount being offered. Competitive bids at yields higher than the stop-out yield are not accepted.

60. The competitive bidding process generally accounts for the overwhelming majority of Treasuries sold at Auction, whereas non-competitive bidding rarely accounts for more than 5% of an Auction's total Treasury sales. This is in part because all single non-competitive bids are generally limited to \$5 million per Auction.

61. The competitive bidding process is dominated by the Primary Dealers, who purchase Treasuries either for their own accounts or on behalf of their clients. While the Auction rules permit non-Primary Dealers to submit competitive bids, as a practical matter, the majority of Treasury purchase orders are funneled through Primary Dealers. In all cases, however, no one bidder and/or commonly-controlled group of accounts may receive more than 35% of the total amount of Treasuries offered in a single Auction. Indeed, agreements between Primary Dealers to collectively acquire more than 35% of the total amount of Treasuries at a given Auction, as is alleged herein, expressly violate applicable rules and regulations.

3. Issuance of Treasuries Acquired at Auction.

62. After the Auction, the U.S. Treasury uses the TAAPS system to establish the winning bidders (*i.e.* identifying the non-competitive bidders and then identifying the bidders who have accepted the lowest bid yields for the treasuries still outstanding). The U.S. Treasury then releases the applicable discount rate, the price, the highest yield offered, and other broadly pertinent information arising from the Auction. However it does not publish the winning bidders, winning bids, or the detailed list of accepted and rejected competitive bids. Some of the Treasuries, such as re-opened securities and TIPS, are issued with a stated interest rate applied to that Treasury's par amount and pay out semi-annual interest payments. Other Treasuries, such as Treasury Bills, are issued at a discount rate and then are paid out at their par amount at the time of maturity.

63. Below is an example of a published Treasuries Auction result:



PUBLIC DEBT NEWS

Department of the Treasury • Bureau of the Public Debt • Washington, DC 20239

For Immediate Release
March 10, 2011

CONTACT: Office of Financing
202-504-3550

TREASURY AUCTION RESULTS

Term and Type of Security	29-Year 11-Month Bond
CUSIP Number	912810QN1
Series	Bonds of February 2041
Interest Rate	4-3/4%
High Yield ¹	4.569%
Allotted at High	45.51%
Price	102.929408
Accrued Interest per \$1,000	\$3.67403
Median Yield ²	4.530%
Low Yield ³	4.459%
Issue Date	March 15, 2011
Maturity Date	February 15, 2041
Original Issue Date	February 15, 2011
Dated Date	February 15, 2011

	Tendered	Accepted
Competitive	\$39,244,300,000	\$12,981,221,100
Noncompetitive	\$18,797,500	\$18,797,500
FIMA (Noncompetitive)	\$0	\$0
Subtotal⁴	\$39,263,097,500	\$13,000,018,600⁵
SOMA	\$0	\$0
Total	\$39,263,097,500	\$13,000,018,600
	Tendered	Accepted
Primary Dealer ⁶	\$24,267,500,000	\$6,878,500,000
Direct Bidder ⁷	\$3,894,500,000	\$824,720,100
Indirect Bidder ⁸	\$11,082,300,000	\$5,278,001,000
Total Competitive	\$39,244,300,000	\$12,981,221,100

¹ All tenders at lower yields were accepted in full.

² 50% of the amount of accepted competitive tenders was tendered at or below that yield.

³ 5% of the amount of accepted competitive tenders was tendered at or below that yield.

⁴ Bid-to-Cover Ratio: $\$39,263,097,500 / \$13,000,018,600 = 3.02$

⁵ Awards to combined Treasury Direct systems = \$7,806,500.

⁶ Primary dealers as submitters bidding for their own house accounts.

⁷ Non-Primary dealer submitters bidding for their own house accounts.

⁸ Customers placing competitive bids through a direct submitter, including Foreign and International Monetary Authorities placing bids through the Federal Reserve Bank of New York.

Source: treasurydirect.gov

4. Treasuries Bought and Sold Around the Auction.

64. When the date of an Auction is made public, the process of “when-issued” (“WI”) trading commences and continues through the time the Treasury Auction price is set and the Treasuries subsequently issued. A significant percentage (roughly half) of the WI trading occurs on just the day of, and the day before, the Auction.

65. WI trading is effectively the trading of forward contracts on Treasuries; these contracts ensure the delivery of a specified quantity and type of Treasuries to the contract purchaser which are delivered after “issuance” by the U.S. Treasury. Because a new-issue Treasuries coupon is not determined until after the Auction process is completed, Treasuries offered during WI trading are quoted on a yield basis until just after the Auction. Generally, on the business day following the Auction, the WI Treasuries are quoted on a price basis. WI trading not only facilitates the distribution of newly-issued Treasuries, but also is designed to “concentrat[e] bidding interest in the hands of market participants that have a substantial financial incentive [*i.e.*, Primary Dealers] to identify correctly the price that balances demand with supply.”¹¹⁹

66. The WI market (i) serves as a price discovery mechanism to allow market participants to try to “identify correctly” the demand for the next issue of Treasuries and (ii) allows Primary Dealers to sell “soon to be issued” Treasuries prior to bidding at Auction. Selling Treasuries in the WI market prior to Auction is one of the permissible ways Primary Dealers can hedge their risk from Treasuries acquired at Auction. Primary Dealers can also hedge their risk

¹¹⁹ Kenneth D. Garbade and Jeffrey F. Ingber, [*The Treasury Auction Process: Objectives, Structure, and Recent Adaptions*](#), Federal Reserve Bank of New York Current Issues in Economics and Finance (Feb. 2005) at p. 2.

by selling the Treasuries acquired at Auction in the secondary market or by “taking offsetting positions in other Treasury securities or derivatives markets.”¹²⁰

67. In the absence of collusion, a Primary Dealer uses its own price discovery information (*i.e.*, including their own customers’ order flow) to enable that Primary Dealer to submit the most aggressive and competitive Treasuries bids to the Fed (*i.e.*, by bidding to acquire to-be-Auctioned Treasuries at fair prices) as indicated by current market conditions (*i.e.*, as reflected by their individual price discovery information). The culminating result is intended to provide the Fed with the most competitive bids aggregated across all Primary Dealers under current market conditions (whatever those may be) to thereby allow the U.S. Treasury to issue debt at fair market prices. As discussed in Part C below, Primary Dealers are strictly prohibited from sharing with each other their individually acquired price discovery information – even the appearance of such information-sharing is prohibited. By sharing their respective price discovery information, Primary Dealers subvert the Auction process to the detriment of all other market participants, including the U.S. Treasury and Plaintiffs.

68. The WI market is of critical importance to a wide range of market participants – including investment funds, derivative traders, hedge funds, and corporate bond issuers – because these newly-issued Treasuries – termed “on-the-run” (“OTR”) or “benchmark” Treasuries – will supplant the previously-issued or soon-to-be “off-the-run” Treasuries as the new industry standard by which a host of other financial instruments are priced, marketed, and sold.

69. For example, U.S. dollar denominated interest rate swaps are typically priced as a yield spread over/under the corresponding maturity OTR Treasury. Corporate debt is similarly

¹²⁰ See Michael J. Fleming and Joshua V. Rosenberg, [How Do Treasury Dealers Manage Their Positions?](#), Federal Reserve Bank of New York Staff Reports (Rev. Mar. 2008).

priced. Therefore, it is a core business requirement for participants in these markets and many others to hold OTR Treasuries to price and hedge their inventory. Because the WI market is the exclusive means by which a Treasuries purchaser may first acquire the next-Auctioned Treasuries, all purchasers, who must, for their own business purposes, hold OTR Treasuries, must either buy in the WI market or face the uncertainty of either bidding competitively in the Auction or acquiring securities in the post-Auction market – an uncertainty made all the worse by Defendants’ collusion.¹²¹ Significantly, Primary Dealers, as the dominant participants in this market, are keenly aware of the captive state of the other market participants.

70. A standard trading unit in the WI market is for a principal amount of \$1 million. After controlling for coupon yield and time to maturity, these OTR Treasuries are generally more expensive and liquid than somewhat older but still recently-issued (*i.e.*, “off-the-run”) Treasuries with similar maturities.

71. All WI market participants, including Primary Dealers, use the WI market to both buy and sell securities for future delivery. Primary Dealers use the WI market to sell Treasuries to those who must hold OTR Treasuries (as well as other investors, clients, and other traders) and could result in the Primary Dealers having a “short” position in the market. A short position means an agreement to deliver WI Treasuries at a future date. Therefore, for the Primary Dealers with a short position to profit, the price they have agreed to sell in the WI market must exceed the price they pay for these same Treasuries in the Auction.

72. Bids made in the WI market often reflect the underlying demand for the upcoming Treasuries Auction. Aggressive bidding in the WI market may pose market risks to

¹²¹ As confirmed by empirical study, the impact of Defendants’ manipulative conduct was exacerbated whenever effectuated in a low uncertainty environment, such as in a re-opening where no pricing surprises are expected. *See* Helina Laakkonen, [Relevance of uncertainty on the volatility and trading volume in the US Treasury bond futures market](#), Bank of Finland Research Discussion Papers (Feb. 23, 2015) at p. 18.

potential acquirers, such as exposing the aggregate demand for the to-be Auctioned Treasuries, which, unless properly controlled, can result in price-fixing and other market manipulation of the Treasuries' Auction price. Indeed, WI trading of Notes and Bonds prior to the close of bidding has been outlawed; it was first effectively prohibited from 1941 to 1975 and then again from 1977 to 1981.¹²²

73. Beyond the WI market and Auction, a post-Auction secondary market of Treasuries buying and selling also exists. There is no formal exchange for post-Auction Treasuries trading. These Treasuries trades are executed “over-the-counter between counterparties, in transactions that may occur over the phone and/or across Electronic Communication Networks (“ECNs”) or Interdealer Brokers (“IDBs”). In contrast, Treasuries futures and options are typically traded through an exchange, such as, most notably, the CME.

74. Each Primary Dealer has “trading desks” that “make markets” in Treasuries. These trading desks take risk positions for the Primary Dealer’s own account (*i.e.*, the Primary Dealer’s trading “book”), and/or make profits through charging a spread when making markets to clients. Because there are so many active market participants executing hundreds of thousands of trades per day, post-Auction Treasury markets are ordinarily extremely competitive and orderly, resulting in narrow profit spreads.

75. Because of their central role in the WI, Auction, and secondary Treasuries markets, Primary Dealers are uniquely privy to order flow information (*i.e.*, Treasuries demand

¹²² In early 1975, the Treasury removed the restriction on pre-Auction when-issued trading in Notes and Bonds in the course of revising its offering circulars to eliminate “obsolete” provisions. However, the Treasury re-imposed the restriction in July 1977, “after monitoring the development and expansion of trading in Treasury securities prior to the actual Auctions, and in some cases, prior even to the announcement of an offering” and after concluding that when-issued trading “does not contribute to the efficient marketing of new . . . issues and may, in fact, facilitate undesirable speculative activity in Treasury securities.” Kenneth D. Garbade, *The Institutionalization of Treasury Note and Bond Auctions, 1970-75*, FRBNY Economic Policy Review (May 2004) (citing Federal Reserve Bank of New York Circular no. 8147, July 15, 1977). The ban was again removed in 1981 after the dealer community advocated that pre-Auction when-issued trading could facilitate price discovery and new-issue distribution.

data). As a result, Primary Dealers are easily tempted to abuse such information to manipulate the Treasuries, Auctions, and related futures markets. By providing order flow information to its trading desk – information sharing that is not permitted – a Primary Dealer can enable its trading desk to take advantage of that information by, for example, “front running” the Primary Dealers’ own orders ahead of any others. By sharing order flow information with each other (*i.e.*, aggregating the market demand data), Primary Dealers can collude to fix and widen the spread and thus profit on Treasuries trades. Primary Dealers can also collude to fix and manipulate the prices of Treasuries for a variety of other purposes, including to capitalize on corresponding futures trades. Indeed, as to the futures markets, studies have shown, consistent with conduct permissible under the rules, that Primary Dealers routinely make significant investments in Treasuries futures and options (*i.e.*, Treasury-Predicated Instruments) to hedge the risk associated with their acquisition of the majority of newly-issued Treasuries. Collusion transforms these routine Primary Dealer futures transactions from risk-offsetting to profit-maximizing.

76. Defendants’ collusion – the unlawful sharing and aggregating of order flow information – altered the fundamental risk landscape of Treasuries trading across the WI, Auction, and secondary Treasuries markets. Whether Defendants’ used that aggregated information to maximize gains or minimize losses, Defendants’ unlawful information sharing skewed the trading risks decidedly in their favor to the detriment of all other market participants, including Plaintiffs.

5. Treasury Auction Re-Openings.

77. Certain Treasuries (*e.g.*, 10-year notes, 30-year bonds, TIPS, and FRNs) have re-openings, during which the U.S. Treasury issues additional net new amounts of a previously issued Treasury with the same maturity date and coupon interest rate but with a different issue

date and usually a different purchase price¹²³ and a slightly different formula to calculate price from yield.¹²⁴

78. The currently outstanding Treasury subject to the re-opening is usually trading as the OTR Treasury in the secondary market. Given that the security already exists, the coupon rate for the new re-opened portion is known prior to the Auction date for that new portion. This is in contrast to most Treasuries Auctions (*i.e.*, those not involving a re-opened Treasury), when the coupon rate is not known prior to the actual Auction.

79. Given the identical instrument is trading currently as the outstanding Treasury, the yield in the WI market for that re-opened portion of the already-issued Treasury is, by definition, extremely close in both yield level and the intraday yield path to the outstanding portion, since the WI Treasury is effectively the forward settlement portion of the outstanding Treasury (adjusted for a U.S. Treasury stipulated mathematical nuance).¹²⁵ The primary difference between the previously-issued Treasury and the re-opened Treasury is only the settlement date (in the case of the WI, the issue date) and a nuanced Auction price; all the other characteristics between them, including the coupon and maturity date, are identical. Any difference in yield between the OTR Treasury and the corresponding WI re-opened Treasury is a mathematically pure carry trade, making the WI re-opened Treasury market a no-surprise price discovery tool. In other words, market participants can purchase or sell virtually the same instrument in the OTR market or the WI market, as well as purchase it in the re-opened Auction. Any dramatic disconnect between the Auction yield (and therefore the OTR/WI spread) and the pre-Auction and post-Auction OTR/WI spread would be especially probative of unlawful price fixing and price manipulation.

¹²³ See <https://www.newyorkfed.org/aboutthefed/fedpoint/fed41.html>.

¹²⁴ See [31 CFR Part 356 Appendix B](#) (July 28, 2004).

¹²⁵ *Id.*

6. Treasury Futures, Options, and Swaps.

80. Treasury futures are traded through a centralized clearinghouse, typically the Chicago Mercantile Exchange (“CME”). CME’s treasury trading during the Relevant Period included the following treasury futures and option contracts: 2-year, 3-year, 5-year, and 10-year Treasury Note Futures; Treasury Bond Futures and Ultra Treasury Bond Futures; 2-year, 5-year, and 10-year Treasury Note Options; T-Bond Options and Ultra T-Bond Options.¹²⁶

81. CME Treasuries futures are highly liquid and transparent “standardized contracts for the purchase and sale of US government notes or bonds for future delivery.”¹²⁷ Each of these futures contracts has an “associated delivery bond basket that defines the range of bonds by maturity that can be delivered by the seller to the buyer in the delivery month.”¹²⁸ This “delivery mechanism ensures the integrity of futures prices by ensuring that they are very closely tied to the prices of US government bonds and their yields (interest rates).” As the futures contract nears its maturity/delivery date, its price generally converges with the price of the underlying Treasury.¹²⁹ In practice, the overwhelming majority of participants (over 90%) do not take delivery of the underlying Treasuries but instead either simply close out their futures position or roll it into a longer expiry futures contract.¹³⁰

82. Each Treasury futures contract has a face value at maturity of \$100,000 with the exceptions of 2-year and 3-year futures contracts which have a face value at maturity of \$200,000. Prices are quoted in points per \$2000 for the 2-year and 3-year contract and points per \$1000 for all the other Treasury futures. The fractional points are expressed in 1/32 consistent with the convention in the U.S. government bond market. The minimum tick size for the 30-year

¹²⁶ See, e.g., <http://www.cmegroup.com/trading/interest-rates/files/us-treasury-futures-and-options-fact-card.pdf>.

¹²⁷ See *The Basics of US Treasury Futures*, CME Group (Feb. 2014) at pp. 2, 4.

¹²⁸ See *id.* at 2.

¹²⁹ See *id.* at 4.

¹³⁰ See *id.*

(T-Bond) and Ultra T-Bond contracts is 1/32 of one point (\$31.25), for 10-year contracts is half of 1/32 of one point (\$15.625), and 2-year, 3-year (\$15.625), and for 5-year contracts are one-quarter of 1/32 of one point (\$7.8125).¹³¹

83. All Treasury futures transactions have two corresponding positions: a long and a short. The holder of the long futures position agrees to purchase the Treasuries underlying the future at an agreed upon price on an agreed upon future date. The holder of the short position agrees to sell those underlying Treasuries for that agreed-to price on that agreed-to date. All market participants can use Treasuries futures to efficiently manage yield curve and duration exposures and employ a myriad of trading strategies.

84. As noted above, instead of actually exchanging the Treasuries underlying the futures contract, market participants typically either (i) roll their positions into another contract month, or (ii) off-set or close-out their positions (*e.g.*, a long futures holder may take a short position in a new futures contract to off-set its liability on the same Treasuries underlying its long position). Indeed, it is unusual for market participants to actually take physical delivery of the underlying futures product. Instead, market participants typically rely on a clearinghouse, such as the CME, to net out the relevant transactions as discussed above so as to entirely avoid any physical delivery requirements.

85. The prices of these Treasury futures correlate directly to Treasury prices. When the market is functioning properly these futures prices are supposed to be a predictor of the prices at upcoming Treasury Auctions. Instead, however, Defendants similarly fixed and otherwise manipulated Treasuries futures prices. Indeed, Defendants, at times, fixed and otherwise manipulated Treasuries prices in the WI market and/or at Auction with the intent to move Treasuries futures prices.

¹³¹ *See id.*

86. The table below provides a summary description of the six Treasuries futures contracts that were traded over the CME during the Relevant Period:

Treasury Contracts Summary

	2-Year T-Note Futures	3-Year T-Note Futures	5-Year T-Note Futures	10-Year T-Note Futures	Classic T-Bond Futures	Ultra T-Bond Futures
Contract Size	\$200,000 face-value U.S. Treasury notes		\$100,000 face-value U.S. Treasury notes		\$100,000 face-value U.S. Treasury bonds	
Delivery Grade	T-notes with original maturity of not more than 5 years and 3 months and remaining maturity of not less than 1 year and 9 months from 1st day of delivery month but not more than 2 years from last day of delivery month	T-Notes with original maturity of not more than 5-1/4 years and a remaining maturity of not more than 3 years but not less than 2 years, 9 months from last day of delivery month	T-notes with original maturity of not more than 5 years and 3 months and remaining maturity of not less than 4 years and 2 months as of 1st day of delivery month.	T-notes maturing at least 6-1/2 years but not more than 10 years, from 1st day of delivery month.	T-bonds with remaining maturity of at least 15 years but no more than 25 years.	T-bonds with remaining maturity of at least 25 years but no more than 30 years
Invoice Price	Invoice price = settlement price x conversion factor (CF) + accrued interest, CF = price to yield 6%					
Delivery Method	Via Federal Reserve book-entry wire-transfer					
Contract Months	March quarterly cycle – March, June, September, December					
Trading Hours	Open Auction: 7:20 am-2:00 pm, Monday-Friday; Electronic: 6:00 pm - 4:00 pm, Sunday-Friday (Central Times)					
Last Trading & Delivery Day	Last business day of contract month; delivery may occur on any day of contract month up to and including last business day of month			Day prior to last seven (7) business days of contract month; delivery may occur on any day of contract month up to and including last business day of month		
Price Quote	In percent of par to one-quarter of 1/32nd of 1% of par (\$15.625 rounded up to nearest cent)	In percent of par to one-quarter of 1/32nd of 1% of par (\$7.8125 rounded up to nearest cent)	In percent of par to one-half of 1/32nd of 1% of par (\$15.625 rounded up to nearest cent)	In percent of par to 1/32nd of 1% of par (\$31.25)		

Source: cmegroup.com

87. Treasury options and options on Treasury futures, which may be traded over-the-counter or on a futures market, can be based on a given Treasury or on a Treasury futures contract. These options can be set up as either “calls” or “puts”.

88. A call option, which may be purchased for a premium, gives the holder of the option the right, but not the obligation, to buy a Treasury contract at a pre-determined price on a future date when the option expires.

89. A put option operates as the reverse of a call option. A holder of a put option has the right, but not the obligation, to *sell* a Treasury contract at a pre-determined price on a future date when the option expires. In addition to being an option holder, one may also elect to sell a call or put option and receive the premium charged to an option holder.

90. Like Treasury futures, Treasury options and Treasury futures options are priced based on the underlying Treasury prices, and therefore are directly correlated to Treasury prices manipulated by Defendants.

91. The table below provides a summary description of all five options on Treasuries futures:

OPTIONS ON FUTURES		
OPTION	CONTRACT	TICK SIZE
2-Year T-Note Options	1 2 -Year-T- Note Futures Contract	One-half of 1/64 of a point (\$15.625 rounded up to the nearest cent per contract)
5-Year T-Note Options	1 5-Year T-Note Futures Contract	1/2 of 1/64 of a point (\$7.8125 rounded up to the nearest cent per contract)
10-Year T-Note Options	1 10-Year T-Bond Futures Contract	1/64 of a point (\$15.625 rounded up to the nearest cent per contract)
T-Bond options	1 T-Bond Futures Contract	1/64 of a point (\$15.625 rounded up to the nearest cent per contract)
Ultra T-Bond options	1 Ultra T-Bond Futures Contract	1/64 of a point (\$15.625 rounded up to the nearest cent per contract)

Source: cmegroup.com

92. Interest rate swaps – which typically amount to an exchange between counterparties of a fixed or floating exchange rate over a notional dollar amount for a defined period of time – may also be directly impacted by Treasuries manipulation. For example, in Constant Maturity Treasury Swaps the swap relies on the yield from the Treasuries Auction to calculate the value of the swap. If the Auction yield is manipulated due to Defendants’ Treasuries manipulation then the corresponding swaps will be impacted.

93. As noted in the five-agency Joint Report by the U.S. Department of the Treasury, Board of Governors of the Federal Reserve System, Federal Reserve Bank of New York, U.S.

Securities and Exchange Commission, and U.S. Commodity Futures Trading Commission published this past July, “prices are tightly linked across [the Treasuries secondary market and the futures and options Treasuries market, and are] linked as well to activity in related markets such as short-term U.S. interest rate futures and U.S. interest rate swaps.”¹³²

94. When Defendants – sophisticated market participants who understood and, in fact, intended that their conduct in the Auction market would affect related Treasuries-Predicated Instruments markets – manipulated Treasuries prices downward in the Auction, there was a directly correlated artificial run-down in prices in related futures markets. For example, market participants with an already established long position were damaged by enduring the adverse price movement, liquidating all or part of their long position by selling at artificially lower prices, and/or acting to minimize the loss through other actions (*e.g.*, trading a spread or option) because of the manipulation. Market participants that went short (sold) as a result of the manipulated run-down in prices were damaged because they sold contracts at artificially lower prices and/or had been misled into acting when they would not have otherwise.

B. Plaintiffs Were Damaged By Defendants’ Price Fixing and Manipulation Conduct.

95. Market participants, including Plaintiffs, were damaged by Defendants’ price-fixing and manipulative conduct regardless of whether the manipulation had the intent and effect of moving the price of the affected Treasury instrument artificially higher or lower.

96. For example, during an upward price manipulation (decreased yield), market participants with an already established short position in any post-auction Treasury or Treasury-Predicated Instrument were damaged by losses resulting from the adverse price movement. Such

¹³² U.S. Department of the Treasury, Board of Governors of the Federal Reserve System, Federal Reserve Bank of New York, U.S. Securities and Exchange Commission, and U.S. Commodity Futures Trading Commission, [Joint Staff Report: The U.S. Treasury Market on October 15, 2014](#) (July 13, 2015) (“Joint Staff Report”) at 2.

damages include having to liquidate all or part of the short position by buying (covering) Treasuries and Treasury-Predicated Instruments at artificially high prices to cover the losses arising from the short position, and/or having to take other actions to minimize the losses resulting from the manipulated price (*e.g.*, covering a spread or option at an artificially adverse price). Market participants who went long (bought) during or as a result of the manipulated run-up in prices were damaged because they bought contracts at artificially higher prices (and at artificially decreased yields which continued throughout the maturity of the applicable Treasury instrument).

97. During a downward price manipulation (increased yield) the inverse occurs. Market participants with an already established long position prior to, during, and after an Auction were damaged by losses resulting from the adverse price movement. Such losses include having to liquidate all or part of their long position by selling at artificially lower prices, and/or acting to minimize the loss through other actions (*e.g.*, trading an offsetting spread or option at an artificially adverse price) because of the manipulation. Market participants that went short (sold) as a result of the manipulated run-down in prices were damaged because they sold contracts at artificially depressed prices.

98. Regardless of whether the Defendants' manipulation artificially moved the price higher or lower, market participants were damaged, including in transactions that were part of a

more sophisticated Treasuries trading strategy, such as those involving a roll,¹³³ yield curve,¹³⁴ yield spread,¹³⁵ basis,¹³⁶ spread,¹³⁷ and options¹³⁸ trades.

C. Primary Dealers Are Entrusted to Help the Fed Implement U.S. Monetary Policy and Are Thus Obligated to Adhere to the Highest Ethical Standards at Each and Every Stage of the Treasury Auction Process.

99. “[F]irst and foremost,” Primary Dealers serve as “counterparties” to the Fed “in its implementation of monetary policy” through “execution of open market operations.”¹³⁹ As such, Primary Dealers are expected to “act as responsible counterparties and market participants in their overall conduct and support of market efficiency and liquidity” and otherwise adhere to the highest ethical standards at each and every stage of the WI Treasury Auction process.¹⁴⁰

100. As a minimum prerequisite, the Fed “expects” Primary Dealers in the Treasuries Markets “to have [already] implemented” the Fed’s “Best Practices” guidelines.¹⁴¹ These Best Practices “affirm existing notions of good market conduct,” including “integrity, honesty, good faith, and mutual trust,” and stress “the importance of maintaining the integrity and efficiency” of the Treasuries markets with “transparency” in order to “help maintain vigorous competition”

¹³³ Roll transactions involve the buying and selling of the soon to be old security (currently OTR, soon-to-be off-the-run) in favor of the new security (the when-issued security and soon-to-be OTR), in order to maintain a position in the OTR and most liquid security market. Thus, there is an active market for the spread (*i.e.*, the price difference between the two instruments) in the roll.

¹³⁴ Yield curve transactions involve the buying and selling of two or more Treasuries to capture the yield difference(s) between them.

¹³⁵ Yield spread transactions involve the buying and selling of a Treasury and a non-Treasury debt instrument to capture the yield difference(s) between them.

¹³⁶ Basis transactions involve the buying and selling of a Treasury in both the spot and the corresponding futures market to capture the difference(s) in the basis value that would materialize upon delivery of the futures contract. “Buy the basis” means buying spot securities and selling futures; “sell the basis” means selling spot securities and buying futures.

¹³⁷ Spread transactions involve the buying and selling of Treasuries-Predicated Instruments having different delivery dates in order to capture the difference(s) in the spreads between them.

¹³⁸ An option trade provides the opportunity but not the obligation to purchase a Treasury at a given price on a future date.

¹³⁹ Fed. Res. Bank of N.Y., [Operating Policy: Administration of Relationships with Primary Dealers](#) (Jan. 11, 2010).

¹⁴⁰ *Id.*

¹⁴¹ *Id.*

and “promote trading integrity.”¹⁴² The Fed’s Best Practices make clear that Primary Dealers are obligated to:

- “follow[] all applicable laws at all times”;¹⁴³
- “not engage in illegal activities such as price manipulation”;¹⁴⁴
- “pursue pricing practices that have the objective of resulting in a transaction, [rather] than resulting in market distortions”;¹⁴⁵
- “not engage[] in conduct that deliberately seeks to evade regulatory reporting requirements or impedes market transparency efforts”;¹⁴⁶ and
- “maintain a strong internal control environment sufficient to ensure that each of its business areas . . . acts in accordance with applicable laws, regulations, self-regulatory organization rules, and best market practices,” including through the use of “appropriate information barriers.”

TMPG, [Antitrust Guidelines for the Members of the Treasury Market Practices Group and Associated Working Groups](#) (Feb. 26, 2015).

101. Even the appearance of impropriety is prohibited. Special “care should be taken to ensure that otherwise permissible activities do not mask or promote actions that are or could be interpreted as anticompetitive.”¹⁴⁷ Price-fixing, price-sharing, boycotts, and allocation

¹⁴² TMPG, [Best Practices for Treasury, Agency Debt, and Agency Mortgage-Backed Securities Markets](#) (Rev. June 2015); [Best Practices for Treasury, Agency Debt, and Agency Mortgage-Backed Securities Markets](#) (Rev. Apr. 2014). Since at least 2007, these and substantially similar Best Practices have been in effect. Indeed, the very inception of the TMPG and the promulgation of its Best Practices spring from the Fed’s consistent emphasis of “the importance of the integrity of the Treasury market, which is vital to maintaining its status as the deepest and most liquid sovereign debt market in the world.” Fed [Statement on Formation of Private-Sector Treasury Market Best Practices Group](#) (Feb. 9, 2007).

¹⁴³ *Id.*

¹⁴⁴ *Id.*

¹⁴⁵ *Id.*

¹⁴⁶ *Id.*

¹⁴⁷ TMPG, [Antitrust Guidelines for the Members of the Treasury Market Practices Group and Associated Working Groups](#) (Feb. 26, 2015).

agreements are strictly prohibited, and with respect to information sharing among Primary Dealers generally, “no discussion should have as its purpose encouraging uniform action or eliminating competition.”¹⁴⁸

D. Primary Dealers Are the Principle Conduit for Auctioned Treasuries.

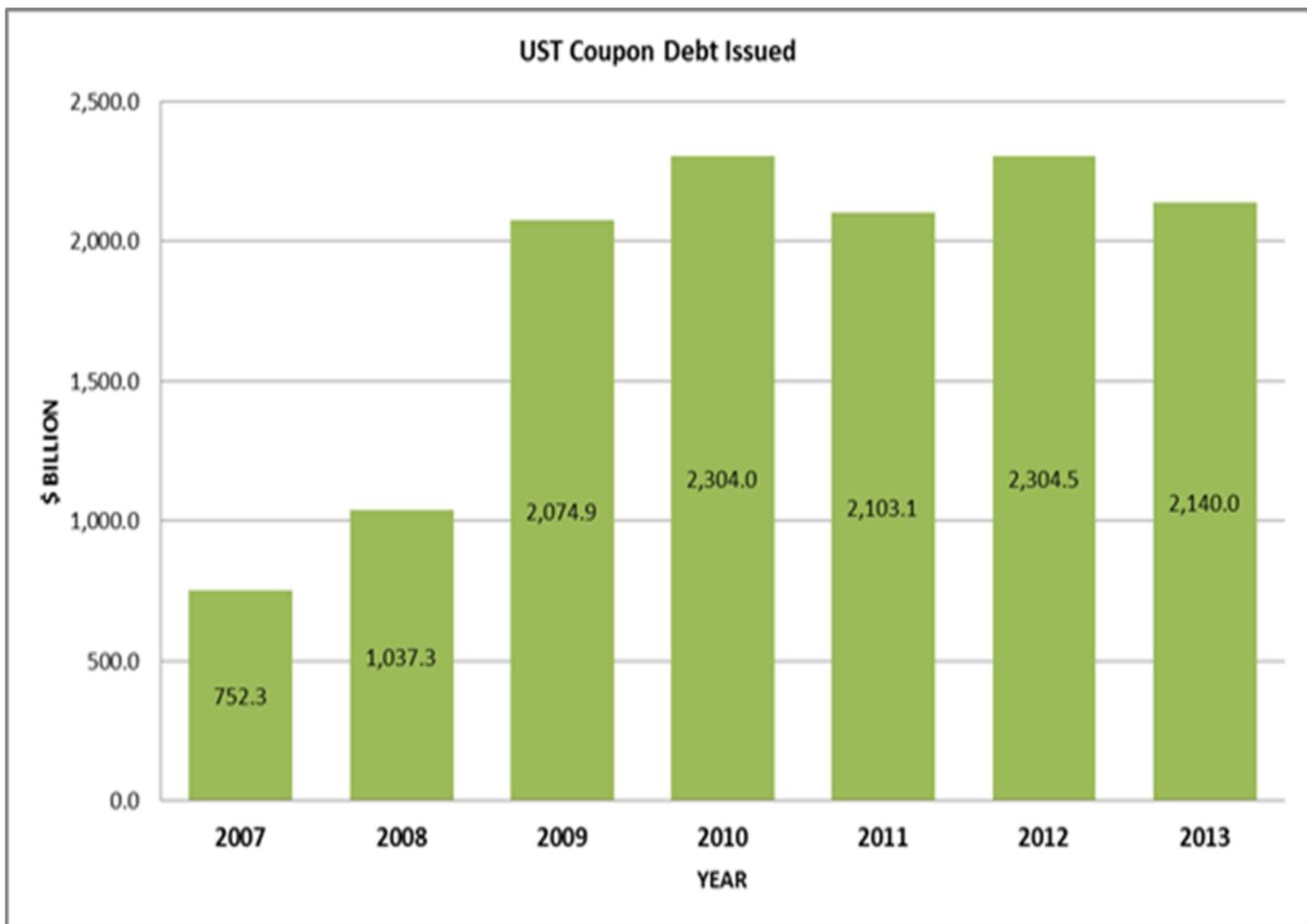
102. Primary Dealers (*i.e.*, Defendants) act as “middlemen” (or market makers) between the U.S. government and Treasury traders/investors, which is a worldwide multi-trillion dollar market. In 2014, for example, the U.S. Treasury issued \$7 trillion in Treasuries. Treasury-Predicated Instruments trading accounted for trillions more. Indeed, over the Relevant Period, Treasuries futures trading averaged \$67 trillion dollars in notional value per year.

103. There are three types of bidders involved in the Treasuries Auction process: Primary Dealers, Direct Bidders, and Indirect Bidders. The majority of an Auction’s Direct Bids originate from the Primary Dealers. Primary Dealers are a specified set of pre-cleared financial institutions (currently 22, each one a Defendant in this action) authorized to trade directly with the Federal Reserve Bank of New York (which handles the U.S. Treasury’s debt Auctions). Direct Bidders – entities which purchase Treasuries at Auction for their own account rather than on behalf of another party – may include hedge funds, pension funds, mutual funds, insurers, banks, and governments. Indirect Bidders – entities which purchase Treasuries at Auction through an intermediary (generally a Primary Dealer) – include financial institutions (such as foreign central banks, international non-governmental organizations such as the World Bank, and foreign quasi-governmental entities like the Norwegian Petroleum Fund, bond funds, and debt index funds) and domestic money managers making bids through Primary Dealers. Investment funds and foreign entity bidders constitute over 95% of all the Indirect Bids awarded at Auction, and the majority of investment fund and foreign entity bidders purchase Treasuries through one

¹⁴⁸ *Id.*

of the Primary Dealers. Thus, Primary Dealers are responsible for purchasing the majority of Treasuries issued by the U.S. Treasury.¹⁴⁹

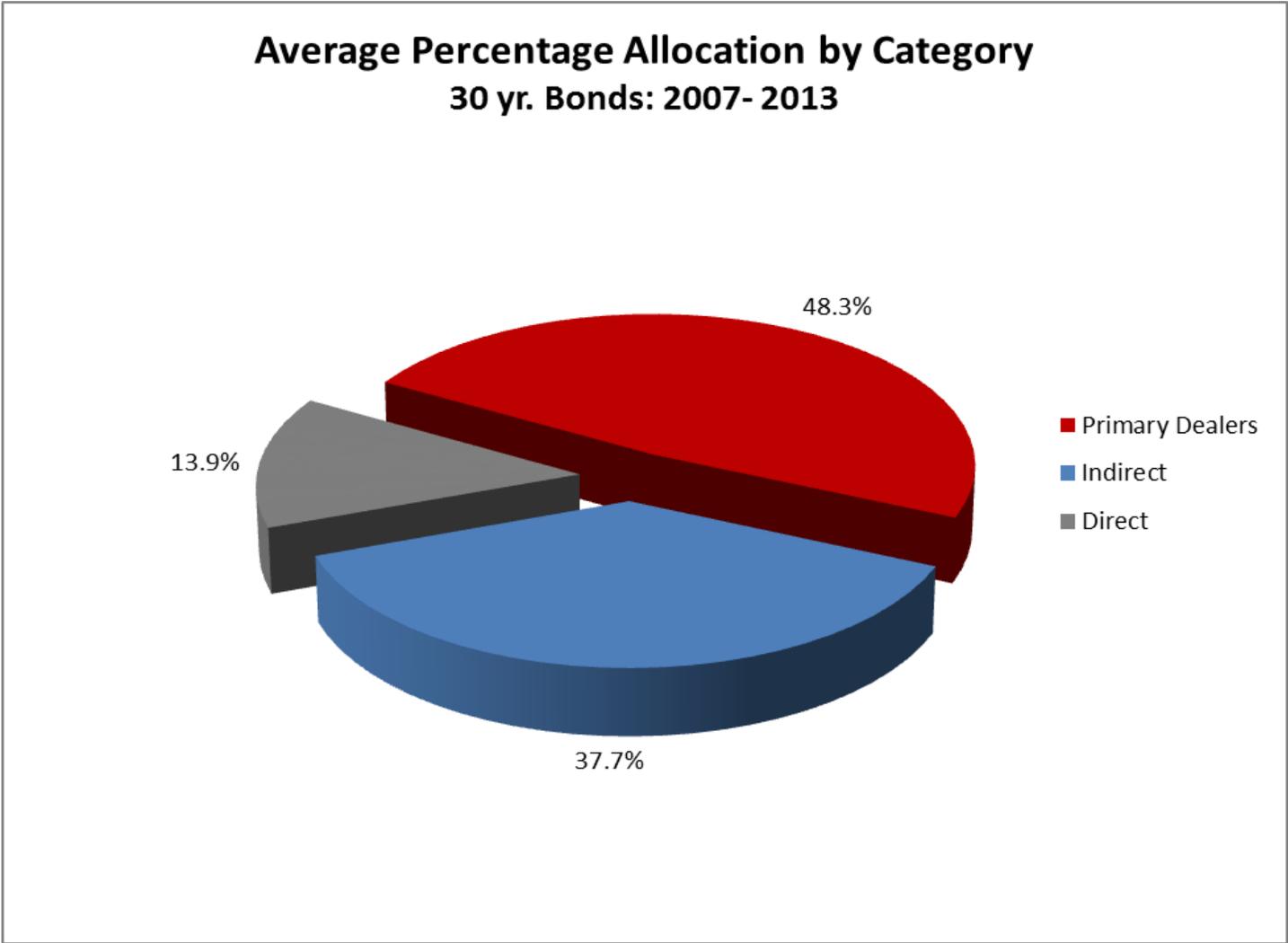
104. As depicted in the table below, during the Relevant Period, the U.S. Treasury has issued through Auctions \$12.7 trillion in marketable coupon debt. Since the beginning of the Relevant Period, the total amount of marketable coupon debt issued by the U.S. Treasury at Auction on an annual basis has more than doubled.



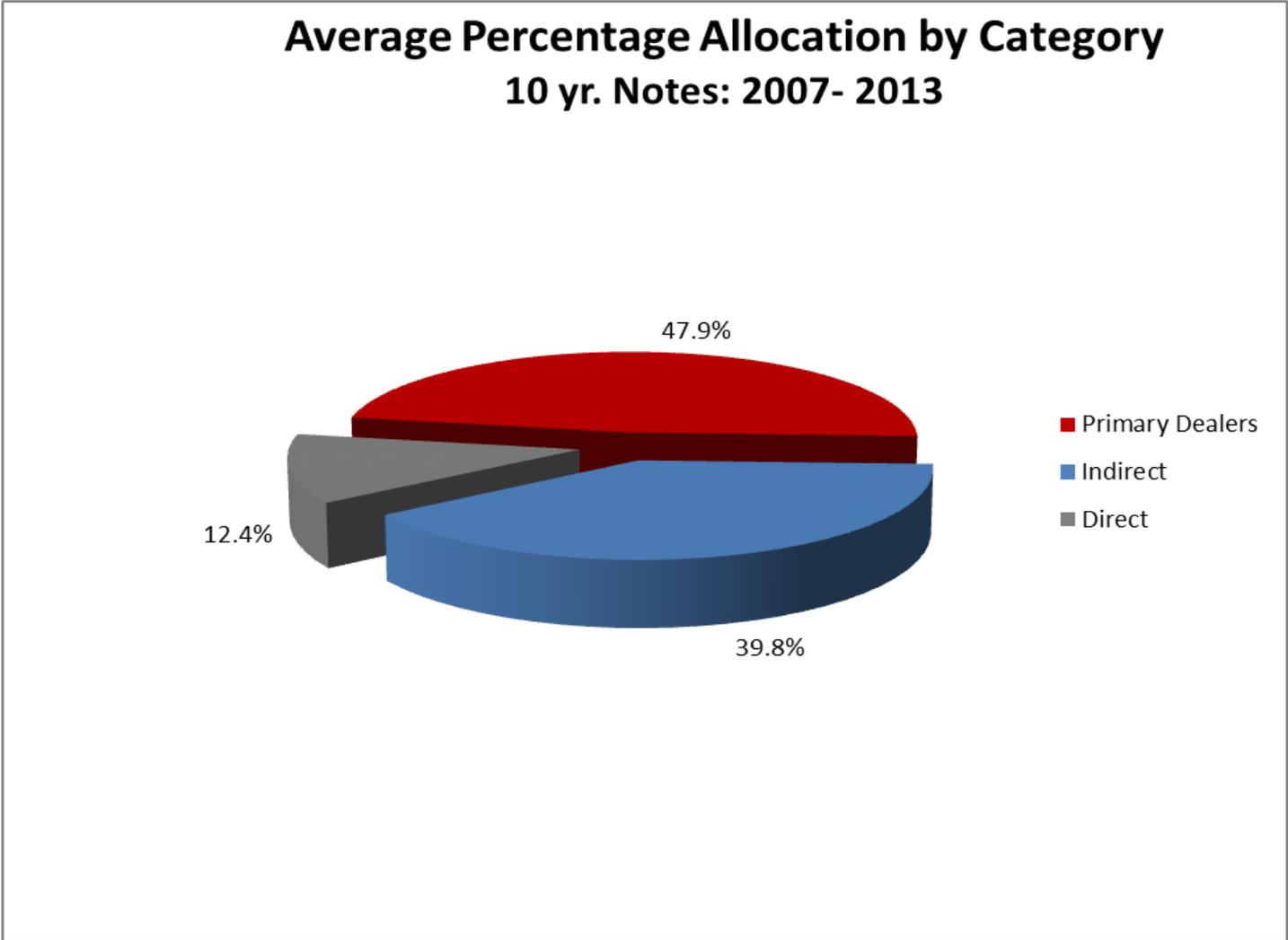
¹⁴⁹ Indeed, the Joint Staff Report observed, as recently as October 2014, that the Treasuries spot market remained “highly concentrated in the most active firms” with the ten “most active PTFs [principle trading firms]” accounting “for more than 90 percent of the trading activity of all PTFs” and the “ten most active-bank dealers” accounting “for nearly 80 percent of the trading activity of all banks.” [Joint Staff Report](#) at 4.

105. For the Treasuries Auctions held between 2007 and 2013, Primary Dealers purchased roughly 48-54% of all the marketable Treasuries issued at Auction, while Indirect Bidders purchased 33-41%, and Direct Bidders purchased the remainder. Together the Primary Dealers and Indirect Bidders account for the overwhelming majority of the Treasuries acquired at Auction during the Relevant Period.

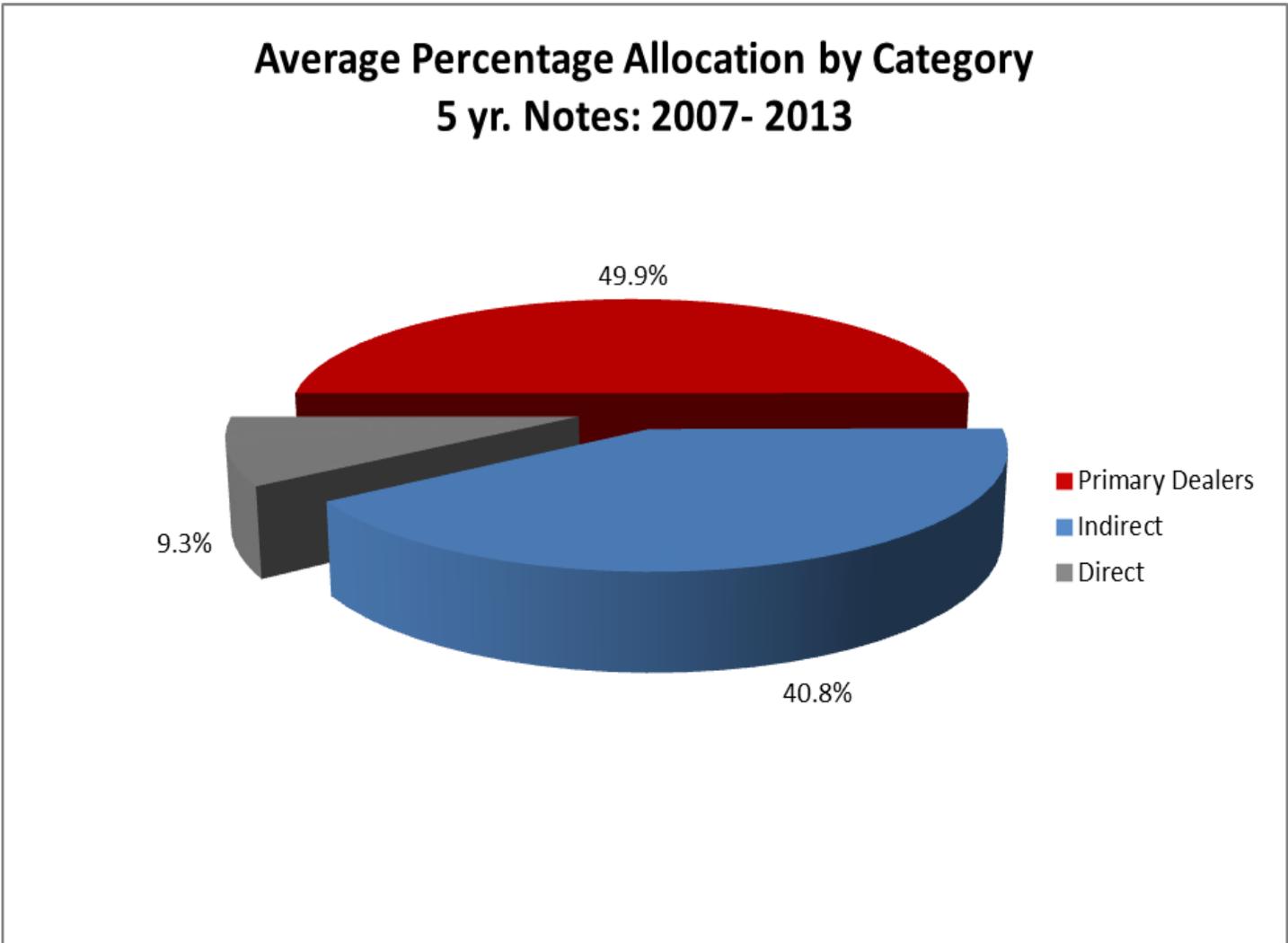
106. The pie chart below shows the average allocation among Primary Dealers, Direct Bidders, and Indirect Bidders of the 30-year Bonds acquired at the Auctions during the Relevant Period, with Primary Dealers and Indirect Bidders together accounting for 86% of the 30-year Bonds acquired at Auction:



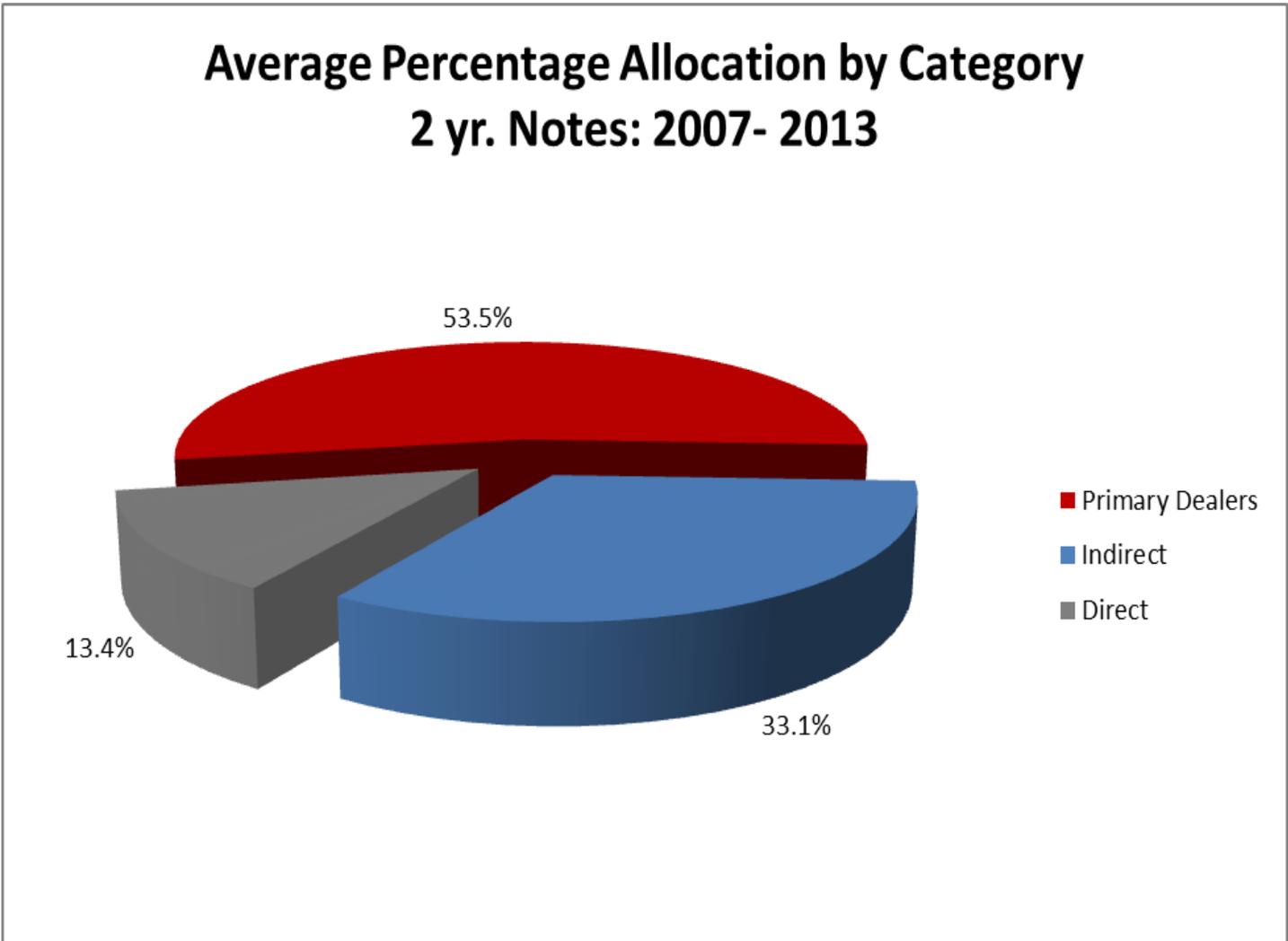
107. The pie chart below shows the average allocation among Primary Dealers, Direct Bidders, and Indirect Bidders of the 10-year Notes acquired at the Auctions during the Relevant Period, with Primary Dealers and Indirect Bidders together accounting for over 87% of the 10-year Notes acquired at Auction:



108. The pie chart below shows the average allocation among Primary Dealers, Direct Bidders, and Indirect Bidders of the 5-year Notes acquired at the Auctions during the Relevant Period, with Primary Dealers and Indirect Bidders together accounting for over 90% of the 5-year Notes acquired at Auction:



109. The pie chart below shows the average allocation among Primary Dealers, Direct Bidders, and Indirect Bidders of the 2-year Notes acquired at the Auctions during the Relevant Period, with Primary Dealers and Indirect Bidders together accounting for over 86% of the 2-year Notes acquired at Auction:

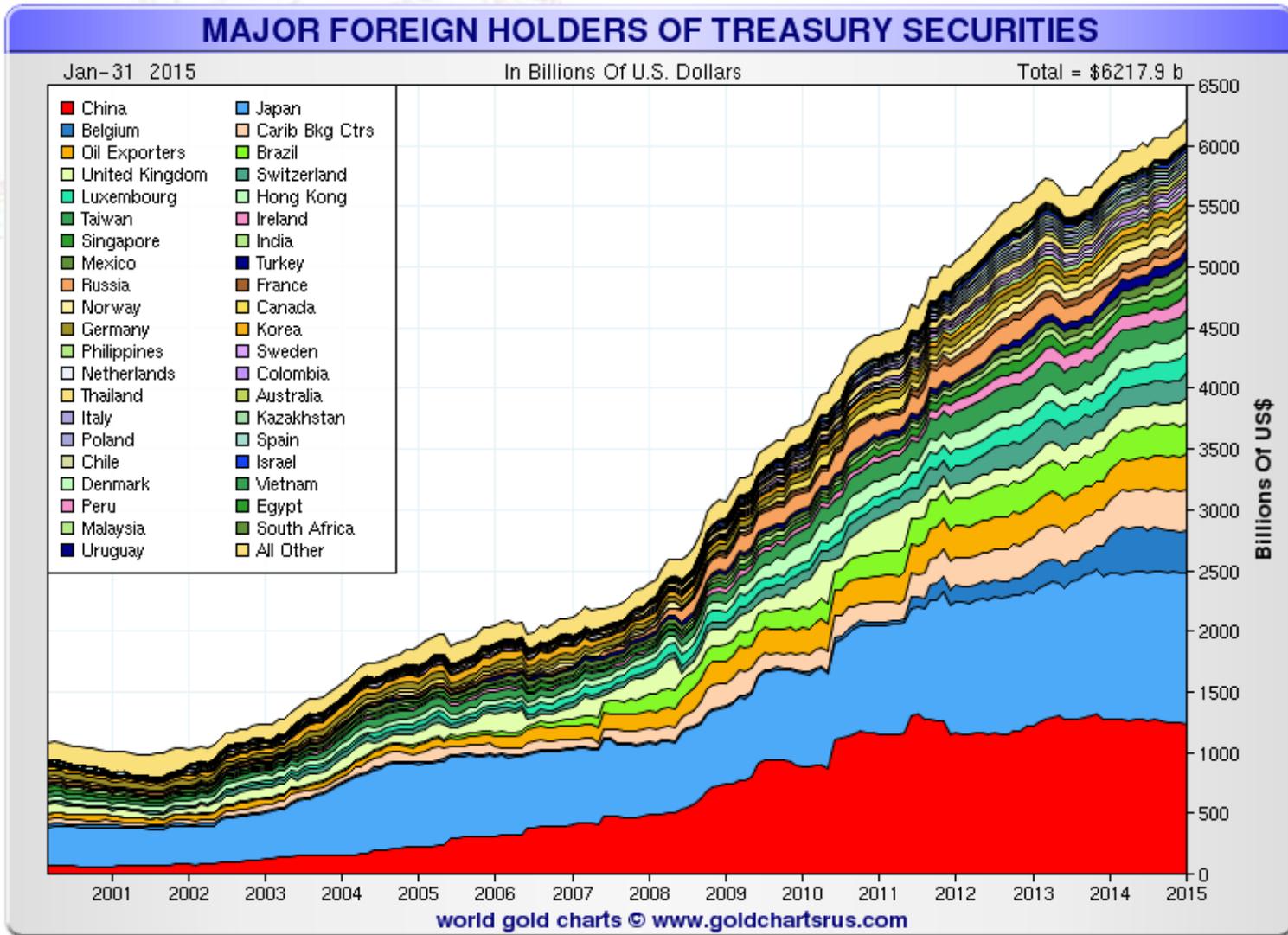


110. Given that most Indirect Bids are funneled through Primary Dealers, the Primary Dealers have access to significant and extremely valuable Auction order flow information not available to any other market participant. In fact, as depicted in the table below, Indirect Bids from Foreign Entity and Investment Fund bidders, which together accounted for over 95% of all Indirect Bids awarded at Auction, accounted for \$4.7 of the \$12.7 trillion in the total marketable coupon debt issued through the Auctions during the Relevant Period:

Auctioned Treasuries (in \$mm par)	INDIRECT BIDDER AUCTION AWARDS (1/1/07-12/1/13)				
	Total IB Awards	Foreign Entity	FE % of Total IB Awards	Investment Funds	IF % of Total IB Awards
2-year	\$985,881.00	\$592,523.00	60%	\$391,633.00	40%
3-year	\$827,080.00	\$502,630.00	61%	\$322,502.00	39%
5-year	\$1,087,020.00	\$578,827.00	53%	\$505,281.00	46%
7-year	\$825,541.00	\$407,147.00	49%	\$415,814.00	50%
10-year	\$662,897.00	\$311,521.00	47%	\$350,787.00	53%
30-year	\$354,979.00	\$97,133.00	27%	\$256,065.00	72%
TOTALS	\$4,743,398.00	\$2,489,781.00	52%	\$2,242,082.00	47%

1. During the Relevant Period Primary Dealers Had Access to Significant Auction Order Flow Information Originating from Foreign Entity Indirect Bidders.

111. As shown in the chart below, foreign holdings of U.S. Treasuries have increased by over \$3.5 trillion during the Relevant Period:



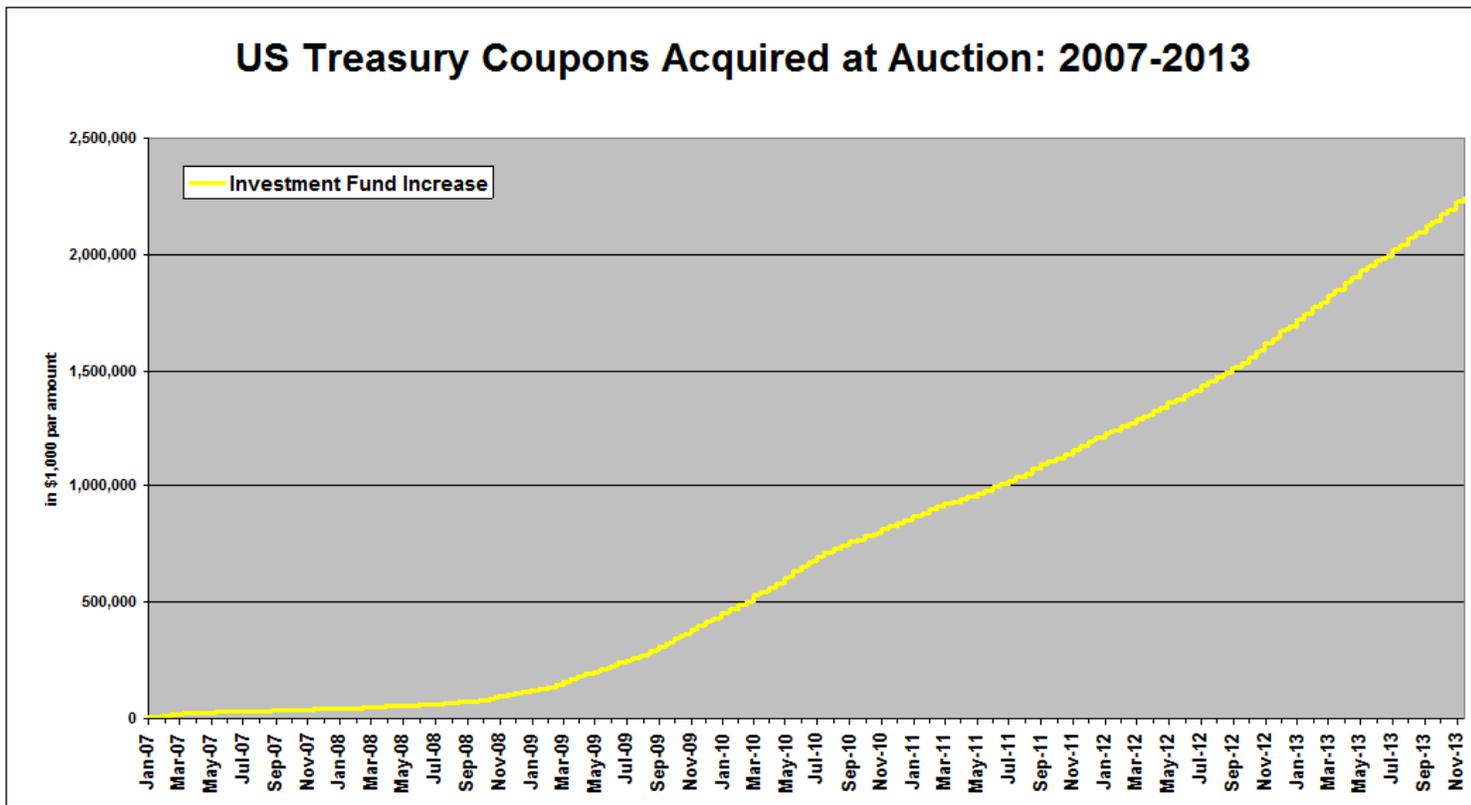
Source: smaulgld.com

Of that \$3.5 trillion, \$2.5 trillion was acquired by foreign entity Indirect Bidders through Auctions.

112. Because most foreign entities purchase Treasuries at Auction through a Primary Dealer, this meant that colluding Primary Dealers had access to up to an additional \$2.5 trillion worth of aggregated Treasury Auction demand information not available to any other market participant. And because foreign entity demand for Treasuries varies from Auction to Auction, this additional non-public demand information is especially valuable, even more so when aggregated through improper sharing among Primary Dealers.

2. During the Relevant Period Primary Dealers Had Access to Significant Auction Order Flow Information Originating from Investment Fund Indirect Bidders.

113. As shown in the chart below, Investment Fund acquisition of Treasury Coupons through Auctions increased by over \$2.2 trillion during the Relevant Period.



114. Because most Investment Fund Auction purchases of Treasuries are funneled through a Primary Dealer, this meant that colluding Primary Dealers had access to up to an

additional \$2.2 trillion worth of aggregated Treasury Auction demand information not available to any other market participant. And because Investment Fund demand for Treasuries varies from Auction to Auction, this additional non-public demand information is especially valuable, even more so when aggregated through improper sharing among Primary Dealers.

E. Defendants Abused Their Position as Primary Dealers By Conspiring to Fix and Otherwise Manipulate the Prices of Treasuries Defendants Sold in the When-Issued Market and Bought in the Auction Market.

115. The Treasuries market is vulnerable to collusion among Primary Dealers. While the U.S. Treasury has rules, and the Federal Reserve Bank of New York audits the Auctions, neither has direct enforcement powers and there is no cohesive regulatory oversight in the market. Primary Dealers have taken advantage of this gap in regulatory oversight to, among other things, unlawfully share competitively sensitive and proprietary information concerning client positions, Indirect Bidder Auction order flows, and other related information with other Primary Dealers, and otherwise manipulate market pricing through “spoofing” and other price manipulation tactics.

1. Primary Dealers Routinely Hire Each Other’s Employees.

116. Defendants’ routine hiring of each other’s Treasuries traders facilitated the means and incentives for collusion. For example, in 2011, Treasuries trader E. Glenn Hadden moved from Defendant Goldman to Defendant Morgan Stanley, notwithstanding long-standing allegations that he had engaged in improper Treasuries trading tactics while at Goldman.¹⁵⁰ In 2013, the CME fined both Goldman and Hadden after finding Hadden’s Treasuries trades violated applicable regulations.¹⁵¹ When Hadden subsequently left Morgan Stanley in 2014, he

¹⁵⁰ See Susanne Craig, [Morgan Stanley Trader Faces Inquiry on Possible Manipulation](#), New York Times (Dec. 2, 2012).

¹⁵¹ See Brett Philbin and Aaron Luccetti, [Goldman Sachs, Former Trader Fined](#), Wall Street Journal (May 31, 2013).

was replaced by Mitchell Nadel, who had previously worked at Defendant Bank of America.¹⁵² Similarly, in 2013, amid undisclosed controversy, a Treasuries trader for Defendant BNP moved to Defendant SG while his boss, after declining to comment regarding “the circumstances surrounding” the BNP trader’s departure, himself moved the following day to Defendant Barclays (after having previously worked for Defendants Deutsche Bank and Morgan Stanley).¹⁵³ Upon information and belief, many of the current Primary Dealer-Defendants used this “revolving door” to employ the same individuals as traders during the Relevant Period.

2. As Reports and Investigations Reveal, Primary Dealers Improperly Shared Order Flow Information.

117. In addition to hiring each other’s Treasuries traders, Primary Dealer Defendants shared their proprietary clients’ information with one another to coordinate their positions across all Treasuries instruments and derivatives trading.

118. Bloomberg News reported in June 2015, that the Defendant banks ignored their own guidelines prohibiting the sharing of clients’ pre-Auction yield size and bids. Further, the banks’ policies proscribing the sharing of this information are not enforced. The Bloomberg article specifically reports that, through its investigation, it learned that BNP Paribas SA and Cantor Fitzgerald do not have “a consistent understanding among traders and salespeople about whether they can share information about orders before auctions[.]” Cantor Fitzgerald “operates on an honor system,” according to one insider. The report further revealed that at Société Générale, SA, (the parent company of Defendant SG Americas Securities, LLC) “traders can get a pre-auction rundown of customers’ level of interest[.]”¹⁵⁴

¹⁵² See Lauren Tara Lacapra, [Morgan Stanley rates trading head leaves amid strategic shift](#), Reuters (Jan. 6, 2014).

¹⁵³ See, e.g., Min Zeng, [Société Générale Hires Veteran Bond Trader Klingman](#), Wall Street Journal (June. 28, 2013); [Barclays hires BNP Paribas treasury trader](#) (June 29, 2013); [BNP Paribas Corporate and Investment Banking Hires Kevin Walter as Head of US Treasury Trading](#), Reuters (Aug 3, 2010).

¹⁵⁴ Alexandra Scaggs, Daniel Kruger, and Keri Geiger, [As U.S. Probes \\$12.7 Trillion Treasury Market, Trader Talk Is a Good Place to Start](#), Bloomberg (June 24, 2015).

119. The ability and temptation of these Defendants to manipulate the market, and violate the antitrust laws, is difficult to deny. As Duke University Professor of Corporate and Securities Law, James Cox was quoted: “In the Treasury market, where you have a small number of participants and the sales volume is very high, it is a fertile area for harmful collusive behavior[.]”¹⁵⁵ Indeed, the U.S. Department of Justice’s Antitrust Division’s ongoing investigation into the Treasuries market grew, it is reported, “out of cases in which prosecutors established that traders were trying to manipulate interbank interest rates and align foreign-exchange trades.” In those cases, in which some of the parent corporations of certain Primary Dealer-Defendants here have already pleaded guilty, including Barclays, Citigroup, JPMorgan, RBS, and UBS, prosecutors claimed that traders “engaged in cartel-like behavior by sharing information, such as via chatrooms.”¹⁵⁶ The full extent of the collusion is not yet known but the probe into the wrongdoing in the Treasuries markets continues to deepen.

120. In August 2015, the New York Department of Financial Services began its own investigation into the matter, requesting information from several Primary Dealers, including BNS, Barclays, BNP, Credit Suisse, Deutsche Bank, Goldman, Mizuho, and Société Générale.¹⁵⁷ In October 2015 – after the DOJ’s initial probe of at least three Defendants in June 2015¹⁵⁸ – the DOJ requested documents and information concerning WI Treasuries trading from all or nearly all of the current Primary Dealers, all of which are Defendants here.¹⁵⁹ Indeed, in March 2016, two sources from the DOJ confirmed that chats and emails obtained from Goldman implicated

¹⁵⁵ *Id.*

¹⁵⁶ *Id.*

¹⁵⁷ See, e.g., Kevin Dugan, [New York joins feds by launching probe into ‘Treasury rigging,’](#) New York Post (Sept. 9, 2015); Gina Chon and Martin Arnold, [Watchdog in US Treasury market Probe,](#) Financial Times (Sept. 9, 2015).

¹⁵⁸ See Kevin Dugan, [Justice Department probes banks for rigging Treasuries market,](#) New York Post (Jun. 8, 2015).

¹⁵⁹ See Keri Geiger and Alexandra Scaggs, [U.S. Probes Treasuries Niche Some Investors Claim is Rigged,](#) Bloomberg (Nov. 9, 2015).

Goldman in the Treasuries manipulation scheme.¹⁶⁰ In April 2017, the DOJ reportedly issued another round of subpoenas to Defendants Morgan Stanley, RBS, UBS, and BNP Paribas.¹⁶¹ By May 2017, reports indicate that the DOJ’s investigation centers on Defendants Goldman and Deutsche Bank.¹⁶² Various “chats and emails” produced to the DOJ reportedly show Goldman traders routinely sharing “sensitive price information with traders of other banks” and that, as a result, Goldman won almost every Treasury auction from 2007 to 2011 (often with bids submitted at the last possible moment).¹⁶³ Counterparties to these collusive May 2017-reported Goldman communications included traders from Defendants Deutsche Bank, RBS, UBS, and BNP Paribas.¹⁶⁴ Reports also indicate that the CFTC and SEC have each launched their own Treasuries investigations.¹⁶⁵

3. Primary Dealers Have Been Found to Have Manipulated Treasuries Pricing Through Spoofing Schemes During the Relevant Period.

121. Spoofing is a price manipulation scheme that frequently uses the placement of “large and small orders on opposite sides of the market” accompanied by order cancellations, generally occurring rapidly within fractions of a second, in order to move the market price of the target instrument in the direction intended by the spoofer.¹⁶⁶

122. In January 2017, Defendant Citibank paid a \$25 million fine to settle charges brought by the CFTC that it had unlawfully employed spoofing tactics during the Relevant

¹⁶⁰ See Kevin Dugan, [Goldman Sachs probed in alleged Treasury rigging](#), New York Post (Mar. 20, 2016).

¹⁶¹ See Tom Schoenberg, [UBS, BNP, RBS Get Subpoenas in U.S. Treasuries Probe](#), Bloomberg (May 1, 2017); David Lynch, et al., [Treasuries probe shapes up to be test for White House](#), Financial Times (May 15, 2017).

¹⁶² See Kevin Dugan, [DOJ subpoenas three European banks on Treasury rigging](#), New York Post (May 1, 2017).

¹⁶³ See Kevin Dugan, [Goldman Sachs win streak is focus of Treasury-rigging probe](#), New York Post (May 3, 2017).

¹⁶⁴ *Id.*

¹⁶⁵ See Keri Geiger and Alexandra Scaggs, [U.S. Probes Treasuries Niche Some Investors Claim is Rigged](#), Bloomberg (Nov. 9, 2015).

¹⁶⁶ See *United States v. Coscia*, No. 16-3017, 2017 U.S. App. Lexis 14508 (7th Cir. Aug. 7, 2017) (affirming spoofing convictions).

Period to manipulate the market price of Treasury-Predicated Instruments.¹⁶⁷ In March 2017, the CFTC fined Defendant Citibank traders Stephen Gola and Jonathan Brims, \$350,000 and \$200,000, respectively, for their role in Citibank's unlawful spoofing of Treasury-Predicated Instruments.¹⁶⁸ In June 2017, Defendant Citigroup traders Jeremy Lao, Daniel Liao, and Shlomo Salant all admitted to the CFTC that they each employed unlawful spoofing tactics to manipulate Treasury-Predicated Instruments during the Relevant Period.¹⁶⁹ Reports indicate that the CFTC's investigation into the unlawful spoofing of Treasury-Predicated Instruments during the Relevant Period is ongoing.

F. Defendants' Treasuries Manipulation Conduct Is Substantially Similar to Defendants' Manipulation of Other Financial Markets.

123. Defendants' use of chat rooms and other clandestine communication channels to improperly share – and thereby take advantage of – client trade information is not a new pattern of conduct. The very same conduct forms the basis for the guilty pleas that have been entered and substantial fines that have already been paid as a result of violations involving LIBOR, FOREX, and ISDAFIX, each of which involved substantially similar collusive misconduct by and among many of the same Defendants over the same time period at issue here.¹⁷⁰

1. LIBOR

124. In LIBOR, starting in or around 2007, many of the same Defendants colluded by using clandestine communications, including through use of private chat rooms, to submit false rates to manipulate the LIBOR rate to their benefit. Like Treasuries, LIBOR is one of the key, widely-used interest rate benchmarks in the world. And, as in Treasuries, the LIBOR rate-setting

¹⁶⁷ See [January 19, 2017 CFTC Order Instituting Proceedings in re Citigroup Global Markets Inc., No. 17-06](#).

¹⁶⁸ See [March 30, 2017 CFTC Order Instituting Proceedings in re Stephen Gola, No. 17-12](#); [March 30, 2017 CFTC Order Instituting Proceedings in re Jonathan Brims, No. 17-13](#).

¹⁶⁹ See CFTC June 29, 2017 Press Release, CFTC Enters into Non-Prosecution Agreements with Former Citigroup Global Markets Inc. Traders, <http://www.cftc.gov/PressRoom/PressReleases/pr7581-17>.

¹⁷⁰ Similar misconduct is also alleged against many of the same Defendants in the Guaranteed Investment Contracts (“GICs”) and Credit Default Swaps (“CDS”) financial markets.

process was left largely unregulated and in the hands of the market-dominating defendant-banks. To date, Defendants Barclays, Deutsche Bank, UBS, and RBS and/or their corporate affiliates have settled criminal charges that each entered into an unlawful conspiracy to manipulate and otherwise fix the LIBOR rate in violation of Section 1 of the Sherman Act.¹⁷¹ Other Defendants are still under investigation in LIBOR. In all, over \$8 billion in fines have been levied to date against Defendants Barclays, Citigroup, Deutsche Bank, JPMorgan, SG, RBS, UBS, and/or their corporate affiliates, and other banks for their unlawful price fixing conduct in LIBOR.

2. FOREX

125. In FOREX, starting in or around 2003, many of the same Defendants colluded by using clandestine communications, including through use of private chat rooms, to swap competitively sensitive information, including customer order information, to manipulate and otherwise fix FOREX benchmark rates for their own benefit. Like Treasuries, FOREX is one of the largest financial markets in the world, trading over \$5 trillion a day. And as in Treasuries, the FOREX benchmark-setting process was left largely unregulated and in the hands of the market-dominating defendant-banks. In May 2015, Defendants Barclays, Citigroup, JPMorgan, and RBS and/or their corporate affiliates pled guilty to charges of unlawful conspiracy to manipulate and otherwise fix the FOREX rate in violation of Section 1 of the Sherman Act.¹⁷² Other Defendants are still under investigation in FOREX. In all, over \$10 billion in fines have been levied to date against Defendants Bank of America, Barclays, Citigroup, JPMorgan, RBS, UBS, and other banks to settle charges that they each participated in an unlawful conspiracy to fix FOREX rates.

3. ISDAFIX

¹⁷¹ See Department of Justice, [Deutsche Bank's London Subsidiary Agrees to Plead Guilty in Connection with Long-Running Manipulation of LIBOR](#) (Apr. 23, 2015).

¹⁷² See Department of Justice, [Five Major Banks Agree to Parent-Level Guilty Pleas](#) (May 20, 2015).

126. In ISDAFIX, starting in or around 2006, many of the same Defendants colluded by using clandestine communications, including through use of private chat rooms, to swap competitively sensitive information, including customer order information, to manipulate and otherwise fix ISDAFIX benchmark rates for their own benefit. Like Treasuries, ISDAFIX is another key financial benchmark rate. And as in Treasuries, the ISDAFIX rate-setting process was left largely unregulated and in the hands of the market-dominating defendant-banks. In May 2015, the CFTC found Barclays culpable for its ISDAFIX manipulation misconduct and imposed \$115 million in fines.¹⁷³ Other Defendants are still under investigation in ISDAFIX.

127. In the course of its investigation into ISDAFIX, the CFTC discovered that Barclays traders manipulated Treasuries pricing as part of its scheme to move the reference rates and spreads that affect ISDAFIX's rate setting.¹⁷⁴

128. As stated in the CFTC's May 2015 Enforcement Order, Barclays traders across multiple desks worked together to manipulate Treasuries downwardly on June 25, 2007 in order to increase the yield on those Treasuries and thereby increase the corresponding ISDAFIX rate. According to the CFTC:

First, at approximately 10:50 a.m., Swaps Trader 1 contacted Broker 1 on behalf of the NY Options Desk, and instructed the broker, "don't let 'em go down," referring to 5-year swap spreads. As 11:00 a.m. approached, he told the broker: "for the eleven o'clock fix I need to lift 5s up," "I want to keep it up," and "[i]f it gets hit down, you hit it right back up, don't let it go down." Swaps Trader 1 told the broker, "I can burn like, four, five hun-, four hundred [million notional]." After trading only \$200 million of 5-year swap spreads, and withdrawing his offer seconds before 11:00 a.m., he said to the broker: "We got it right? We got the fix, good job." Second, in parallel, also in the minutes leading up to 11:00 a.m., Options Trader 1 emailed traders on Barclays' U.S. Treasuries desk: "I have an

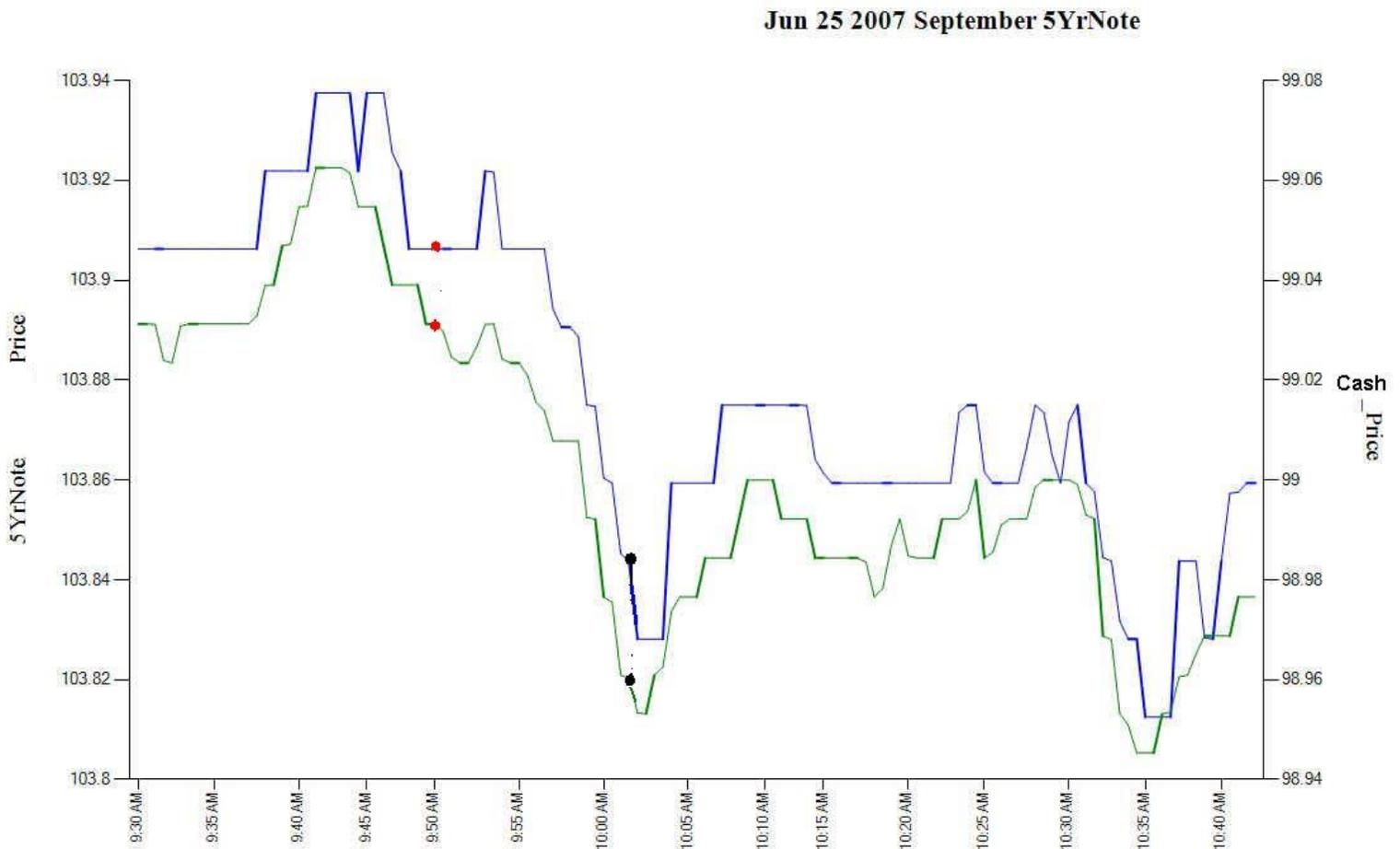
¹⁷³ See CFTC Release, [CFTC Orders Barclays to Pay \\$115 Million Penalty for Attempted Manipulation of and False Reporting of U.S. Dollar ISDAFIX Benchmark Swap Rates](#) (May 20, 2015).

¹⁷⁴ See *In re Barclays PLC*, CFTC Docket No. 15-26, May 20, 2015 Order Instituting Proceedings Pursuant to Sections 6(c) and 6(d) of the Commodity Exchange Act, Making Findings, and Imposing Remedial Sanctions (the "Enforcement Order") (a copy of which may be obtained *via* the following CFTC [link](#)) at pp. 10-11.

exercise at 11am this morning, I will need to sell 635 5s, but I want to push the screens down at 11, as much as . . . you can, so that I can get a better 11 am print” Lastly, another options trader (“Options Trader 4”) emailed the USD ISDAFIX submitter at approximately 10:54 a.m., instructing “We want higher 5s,” referring to the Bank’s 5- year USD ISDAFIX submission.

As determined by the CFTC, the above coordinated actions resulted in a downward manipulation of the 5-year U.S. Treasuries price in order to increase the 5-year ISDAFIX.

129. The following chart depicts the downward price manipulation resulting from the Barclays’ traders’ June 27, 2007 Treasuries fix:



From the initial request at 9:50am CT (10:50 am ET) (denoted by the red dot) to push the price of the 5-year Note downward, the futures market (denoted by the blue line) moved from a closing price of 103.90625 at 9:50am to a low of 103.84375 at 10:01am (denoted by the black

dot), a move of 8/128ths in the 11 minutes from the initial request to push the 5-year Note downward. In dollar terms, it is a \$625 move per one million dollars of notional value. In that timeframe, about 23,287 5-year Note futures contracts traded, a notional value of \$2.3287 billion. Therefore, during this brief 11 minute interval, the potential impact of this modest downward price manipulation move was \$1.455 million ($\$625 \times 2328.7 = \1.455 million) for the 5-year Treasury futures. As depicted by the green line, a similar price movement occurred in the spot market as a result of the manipulation.

G. Independent Expert Analysis of Empirical Evidence Confirms Treasuries Were Manipulated at Various Auctions Throughout the Relevant Period.

130. Plaintiffs have worked with consulting experts to review and analyze Treasuries Auction data from the Relevant Period. That review and analysis revealed starkly more dramatic upward and downward Treasuries manipulation events than the modest June 27, 2007 ISDAFIX Treasuries manipulation finding by the CFTC referenced in paragraphs 128-129 above. The independent review and analysis by Plaintiffs' consulting experts also revealed that manipulation events occurring over the Relevant Period had a highly correlated effect across all maturities of both spot Treasuries and Treasuries-predicated futures.

131. Plaintiffs' independent expert analysis of the Treasuries Auctions data is ongoing, but it has already revealed numerous instances of both upward and downward manipulation events at Auctions held throughout the Relevant Period. Given that Auction re-openings involve Treasuries that have previously been Auctioned, a coupon assigned, and are currently trading as the OTR instrument in the secondary market (thus making its WI market a pure carry trade and no-surprise price discovery tool), analysis of the data from Treasury Auction re-openings is especially illuminating. Among numerous other instances of manipulation events, Plaintiffs' independent consulting experts' analysis confirms that the March 10, 2011 Treasuries Auction

and the October 14, 2010 Treasury Auction were both manipulated, albeit in different directions, across all Treasuries maturities, including the re-opened portion of those Auctions. And, as shown below, the manipulation of the March 10, 2011 and October 14, 2010 Treasury Auctions was far more dramatic than the modest June 27, 2007 ISDAFIX Treasuries manipulation finding by the CFTC referenced in paragraphs 128-129 above.

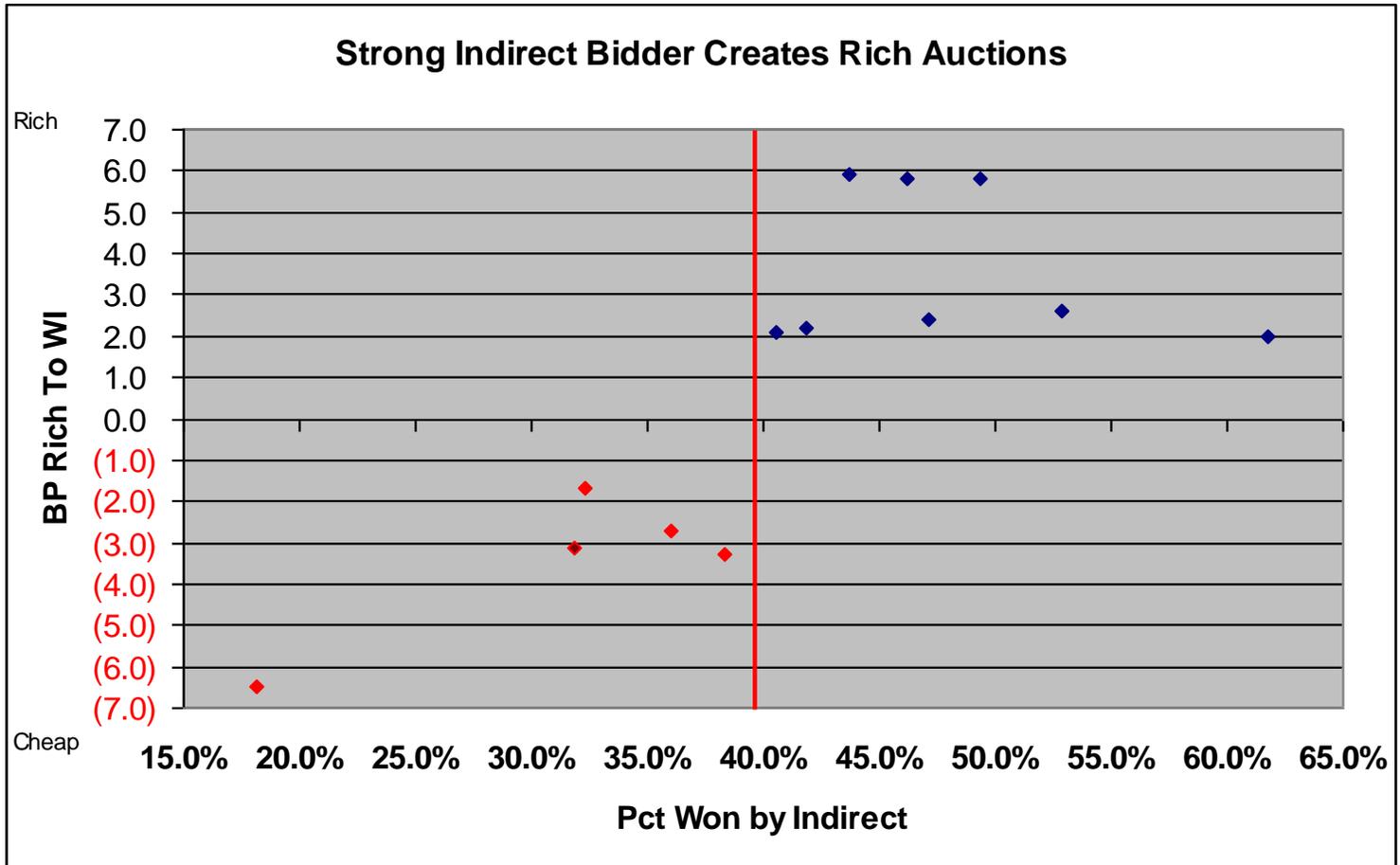
1. Analysis of Auction Data Indicates Primary Dealers’ Unlawful Use of the Indirect Bidders’ Auction Order Information.

132. One way in which Defendants colluded to manipulate Treasuries Auction pricing was by sharing confidential and competitively sensitive customer order information, particularly with respect to Indirect Bidder Auction orders.

133. Though customarily reported as a distinct class of trades, Indirect Bids are typically funneled through Primary Dealers. Aggregated information regarding the total amount and intensity of Indirect Bids in a given Auction is highly correlated with Treasuries Auction pricing. Independent expert analysis of Auction data indicates that Primary Dealers improperly used Indirect Bidder Auction Order information to position themselves advantageously vis-à-vis the to-be-Auctioned Treasuries in accordance with the improperly shared aggregated Indirect Bidder demand information to which only Primary Dealers had access.

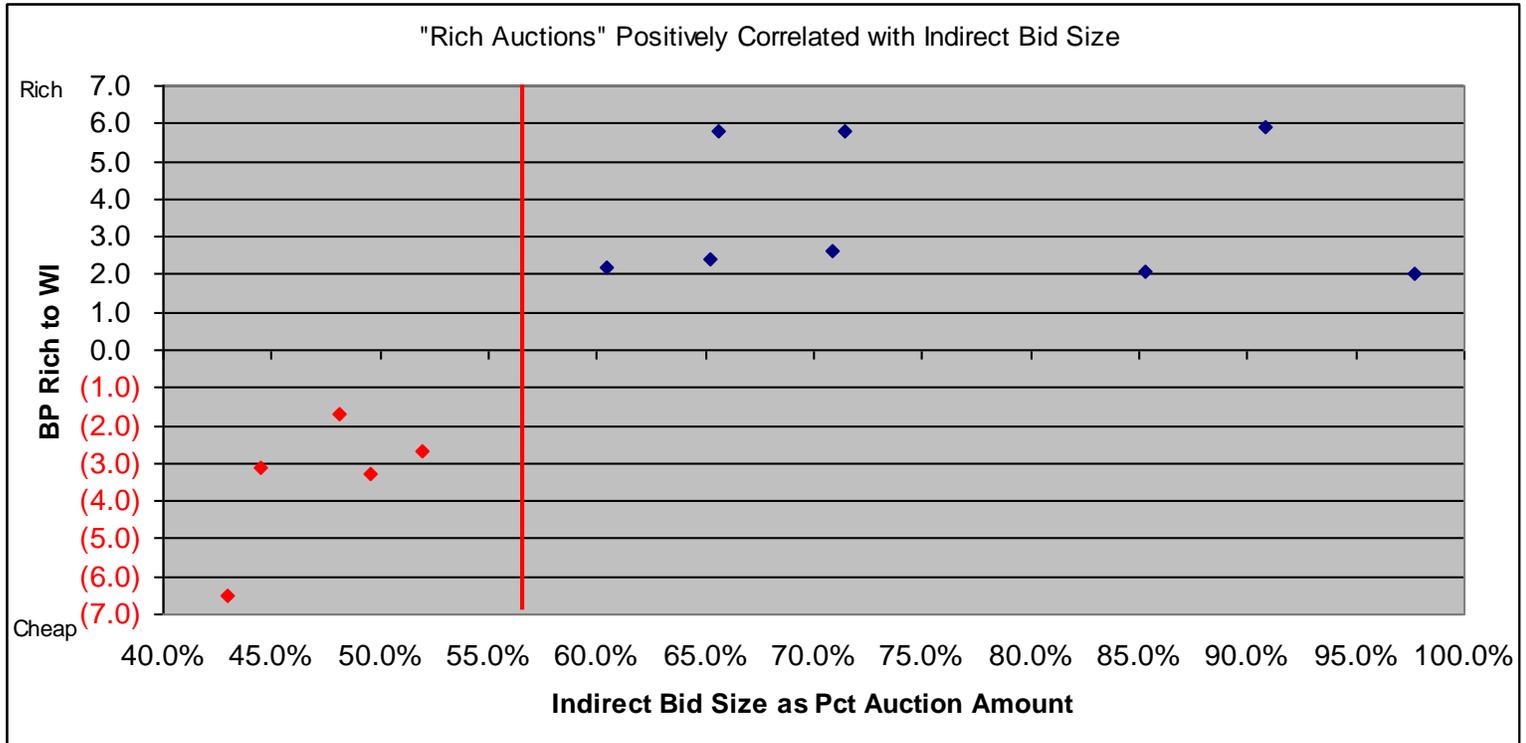
134. As depicted in the chart below, aggregated Indirect Bidder Auction demand is highly correlated to overall Treasuries Auction market demand. The red line represents the average allocation of Indirect Bids awarded at re-opened Auctions over the Relevant Period. The diamonds represent a sampling of re-opened 30-year Bond Auctions. Blue diamonds reflect strong Indirect Bidder demand (*i.e.*, Auction awards above their historical award average); red diamonds reflect weak Indirect Bidder demand (*i.e.*, Auction awards below their historical award average). The y-axis measures the “market tail” – the difference between the WI yield and the

Auction yield. Because, by definition, the WI market is an up-to-the-moment assessment of the “fair value” of the subject Treasury the difference between the WI yield at the time of the Auction and the actual yield established by the Auction should be minimal. Indeed, a variation of more than 1-1.5 basis points would be unusual; a variation of 2 basis points would be indicia of extreme pricing behavior; a variation beyond 2-2.5 basis points would almost certainly be the result of pricing manipulation. The zero line represents the ideal WI to Auction yield for a typical Auction. An Auction whose WI yield is above its Auction yield (*i.e.*, the price set at Auction was higher than the expected market price as indicated by the WI) can be characterized as rich and subject to high demand; an Auction whose WI yield is below its Auction yield (*i.e.*, the price set at Auction was below the expected market price as indicated by the WI) can be characterized as cheap and subject to low demand.



As demonstrated in the chart above, the strength or weakness of Indirect Bidder demand is indicative of whether an Auction will be rich (in high demand) or cheap (in low demand). And the variation of two or more basis points from the zero line further indicates that each of these reopened Auctions was manipulated.

135. As depicted in the chart below, the total size of the Indirect Bids tendered as a percent of the offering amount of Treasuries at Auction, is also highly indicative of resultant Treasury Auction yields. The red line represents the average size of Indirect Bids tendered on 30-year Bonds offered at Auctions over the Relevant Period. The diamonds represent the same sampling of re-opened Auctions.



As demonstrated in the chart above, the size of Indirect Bidder demand is indicative of whether an Auction will be rich (in high demand) or cheap (in low demand). And the variation of two or more basis points from the zero line further indicates that each of these reopened Auctions was manipulated.

136. The charts above indicate that Treasury Auction pricing was manipulated, and that the Primary Dealer-Defendants improperly used Indirect Bidder information to accomplish that manipulation. By sharing Indirect Bidder Auction information through clandestine communication channels, including in-person conversations, private chatrooms, and text messages, Primary Dealers unlawfully exploited their inside information edge by exchanging aggregated Indirect Bidder demand with other client order flow information and manipulating Treasuries Auction pricing to their benefit.

137. When the aggregated Indirect Bidder order information indicated high demand and intensity, Defendants knew there was a significant probability that the Auction would be

oversubscribed and took various actions to maximize their profits accordingly. In such situations, Defendants would collude to (artificially) decrease or avoid increasing the price of Treasuries in the WI market leading up to the Auction, coordinate Auction bidding strategies, and position themselves (*via, e.g.,* long WI, OTR, and/or futures) to reap artificially high returns in the secondary and the Treasury-Predicated Instruments markets by exploiting their knowledge – unlawfully obtained by sharing Indirect Bidder order flow information – in those markets and during the resultant rise in prices post-Auction.

138. When the aggregated Indirect Bidder order information indicated weak demand, Defendants knew there was a significant probability that the Auction would be undersubscribed and took various actions to maximize their profits accordingly. In such situations, Defendants would collude to (artificially) increase or avoid depressing the price of Treasuries in the WI market leading up to the Auction, coordinate auction bidding strategies, and position themselves (*via, e.g.,* short WI, OTR, and/or futures) to reap artificially high returns in the secondary and treasury-predicated markets by exploiting their knowledge – unlawfully obtained by sharing Indirect Bidder order flow information – in those markets and during the resultant decline in prices post-Auction.

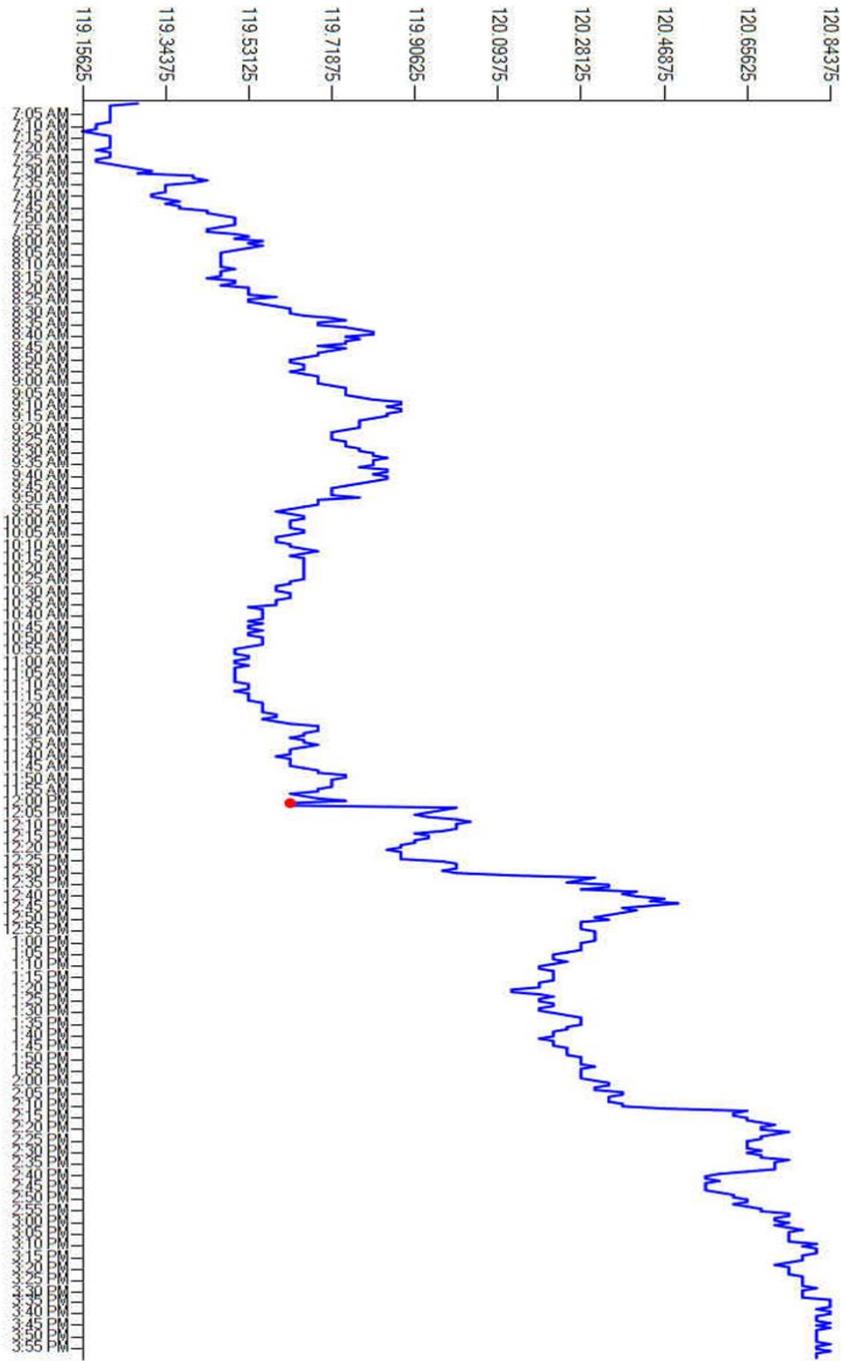
2. The March 10, 2011 Treasuries Auction Was Manipulated.

139. Analysis of the Treasuries Auctions data indicates manipulation of the March 10, 2011 Auction, a re-opening. During that Auction, the Primary Dealers colluded to avoid increasing the price in the WI market in the minutes leading up to the setting of the Auction price when the actual market price, as revealed moments after the setting of the Auction price, was precipitously higher. The effect of colluding to avoid a rise in the WI market price to accurately reflect demand known only to the colluding Primary Dealers was effectively the same as manipulating the Treasuries Auction price downward. Defendants immediately capitalized on the

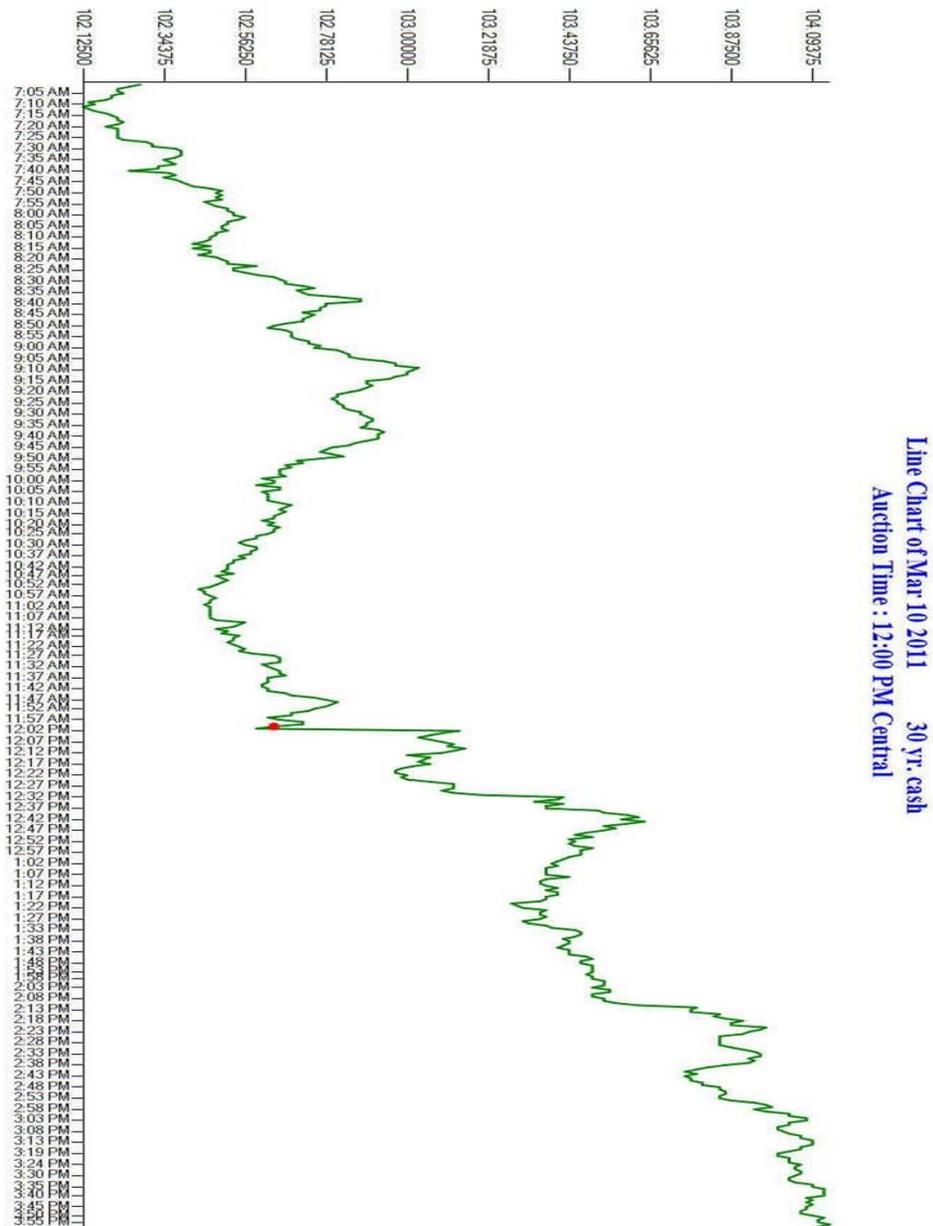
significant post-Auction differential. Each of the following charts depict the March 10, 2011 manipulation and its effect in both the spot and futures Treasuries markets. The red dot in each chart indicates the Auction time. As revealed in the charts below, the March 10, 2011 manipulation was far more dramatic than the modest June 27, 2007 ISDAFIX Treasuries manipulation finding by the CFTC referenced in paragraphs 128-129 above.

140. The chart below shows the entire day's trading of 30-year Treasury futures on March 10, 2011. Note that at the moment of the Auction the downward pricing movement is, post-Auction, immediately and dramatically reversed. This dramatic disconnect and precipitous shift between the pre-Auction and post-Auction Treasuries price is indicative of, and highly correlated with, collusion and manipulation.

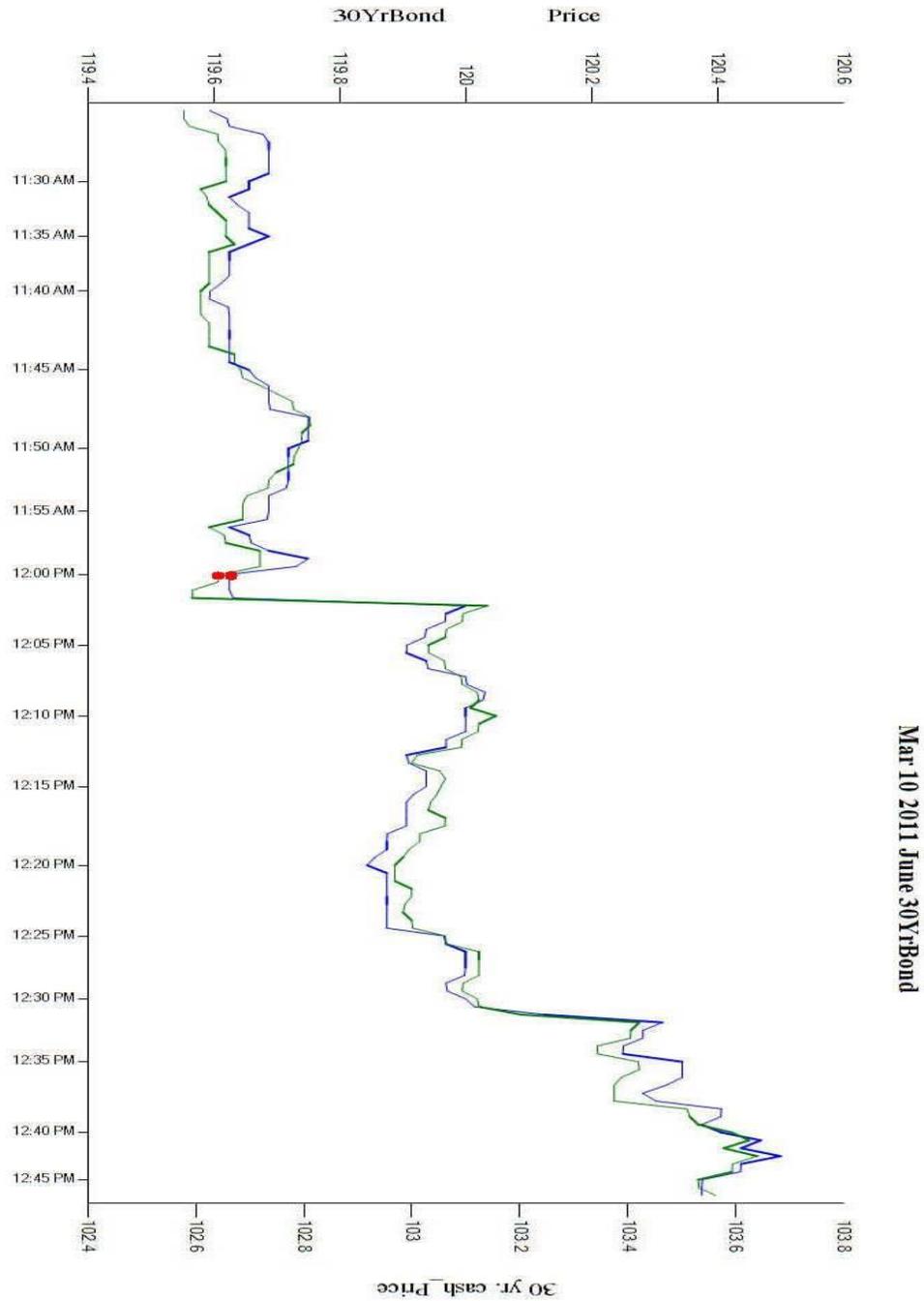
**Line Chart of Mar 10 2011 June 30YrBond
Auction Time : 12:00 PM Central**



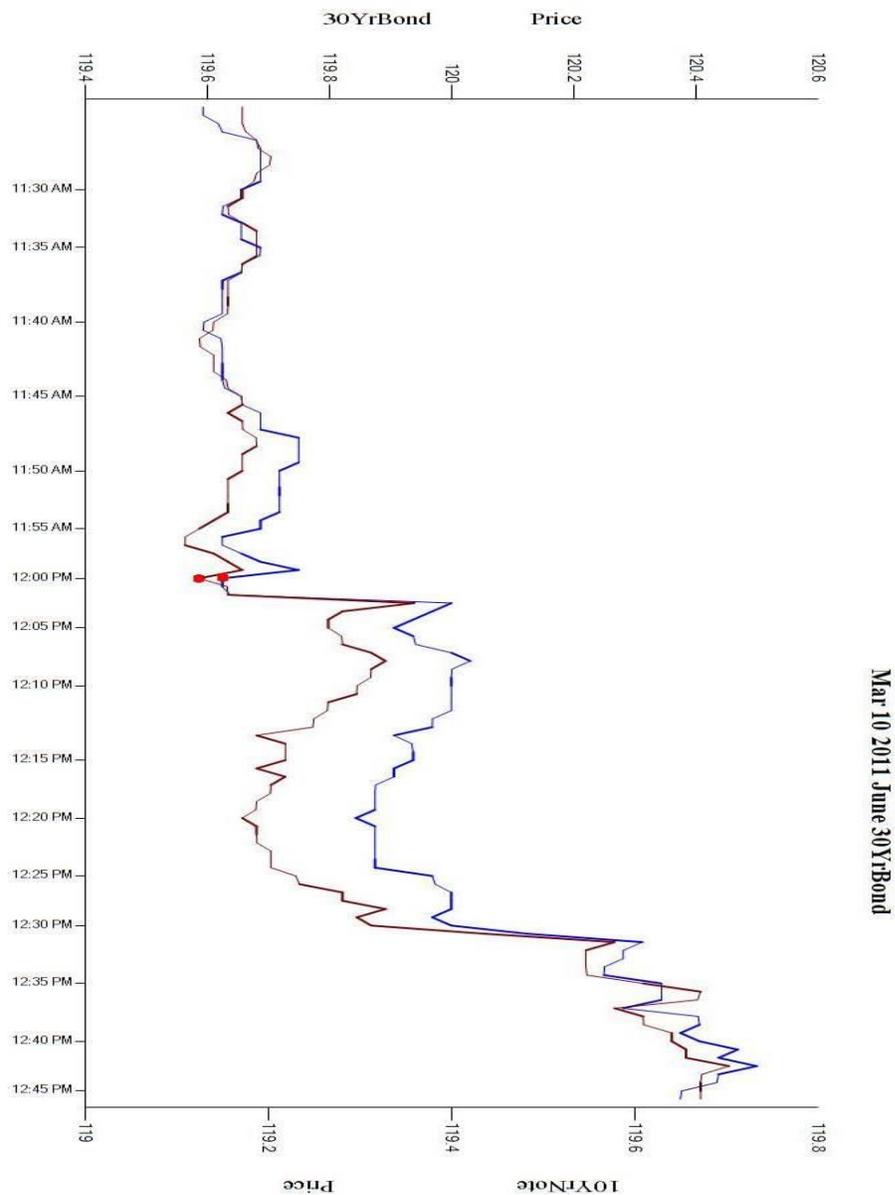
141. The chart below depicts the entire day's trading of 30-year Treasuries on March 10, 2011. Note that the futures trading depicted above is highly correlated with the spot trading of the same Treasuries maturity depicted below, and especially at the moment of the setting of the Auction price, where the pre-Auction downward pricing movement is, post-Auction, immediately and dramatically reversed.



142. The high positive correlation between spot and futures Treasuries pricing generally, and especially at the moment and extent of the post-Auction dramatic price reversal on March 10, 2011 is depicted in the following chart. The blue line shows 30-year Treasuries futures trading; the green line shows the spot Treasuries trading for the same 30-year maturity.



143. Similarly, highly correlative dramatic price reversals can be seen across all Treasuries. For example, the below chart shows the same blue line for the 30-year futures compared to the 10-year futures trading (noted in dark red) during the same time interval. Again, the chart shows especially high price correlation at the moment and to the extent of the post-Auction dramatic price reversal on March 10, 2011.

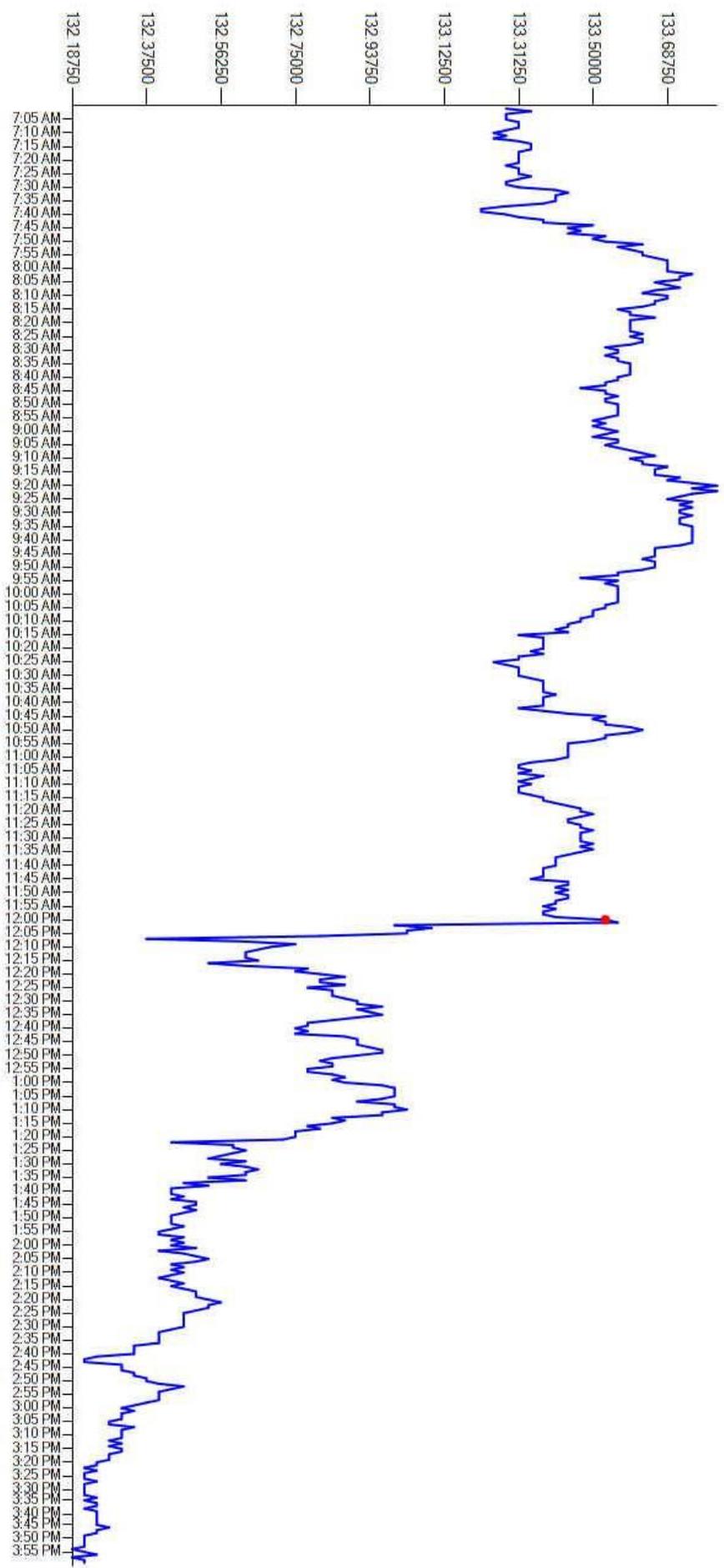


3. The October 14, 2010 Treasuries Auction Was Manipulated.

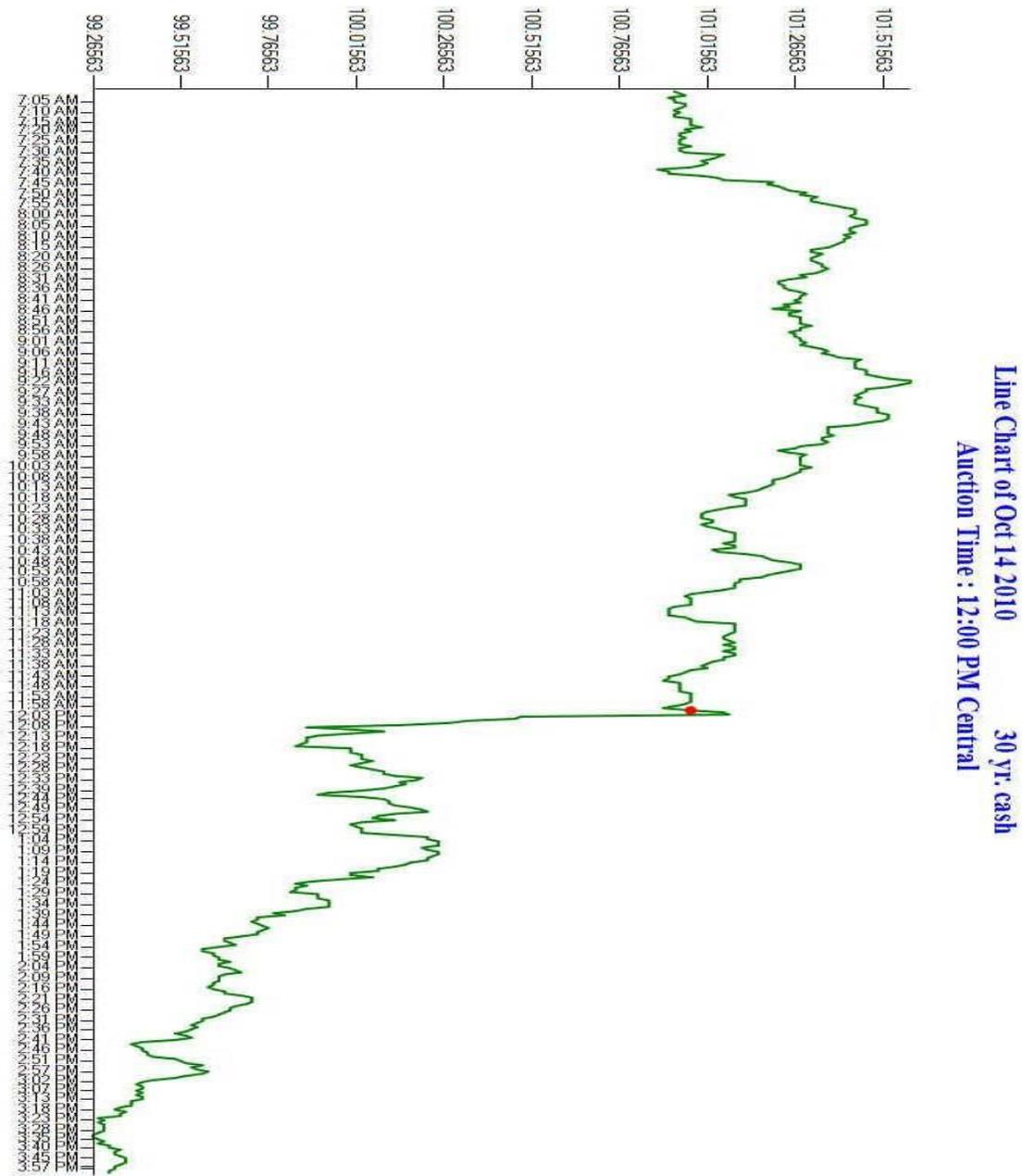
144. Defendants also manipulated Treasuries Auction pricing in the other direction. For example, analysis of the Treasuries Auctions data indicates that on October 14, 2010, a re-opening, Treasuries pricing was manipulated to avoid suppressing the price in the minutes leading up to the setting of the Auction price when the actual market price, as revealed moments after the setting of the Auction price, was precipitously lower. By manipulating the Treasuries Auction price upward, Defendants immediately capitalized on the significant post-Auction differential. Each of the following charts depict the October 14, 2010 manipulation and its effect in both the spot and futures Treasuries markets. The red dot in each chart indicates the Auction time. As revealed in the charts below, the October 14, 2010 manipulation was far more dramatic than the modest June 27, 2007 ISDAFIX Treasuries manipulation finding by the CFTC referenced in paragraphs 128-129 above.

145. The chart below shows the entire day's trading of 30-year Treasury futures on October 14, 2010. Note that at the moment of the Auction the upward pricing movement is, post-Auction, immediately and dramatically reversed. This dramatic disconnect and precipitous shift between the pre-Auction and post-Auction Treasuries price is indicative of, and highly correlated with, collusion and manipulation.

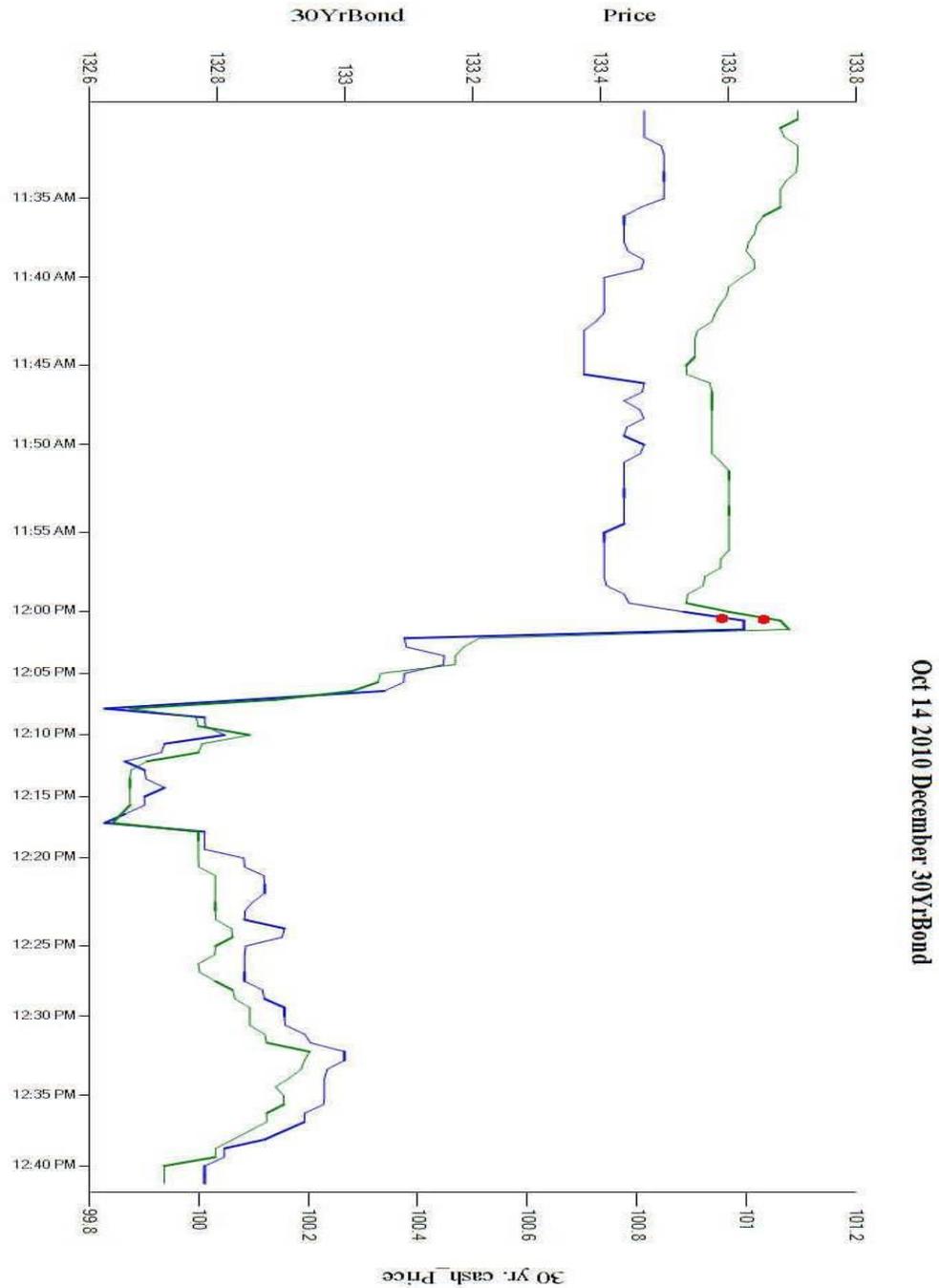
Line Chart of Oct 14 2010 December 30YrBond
Auction Time : 12:00 PM Central



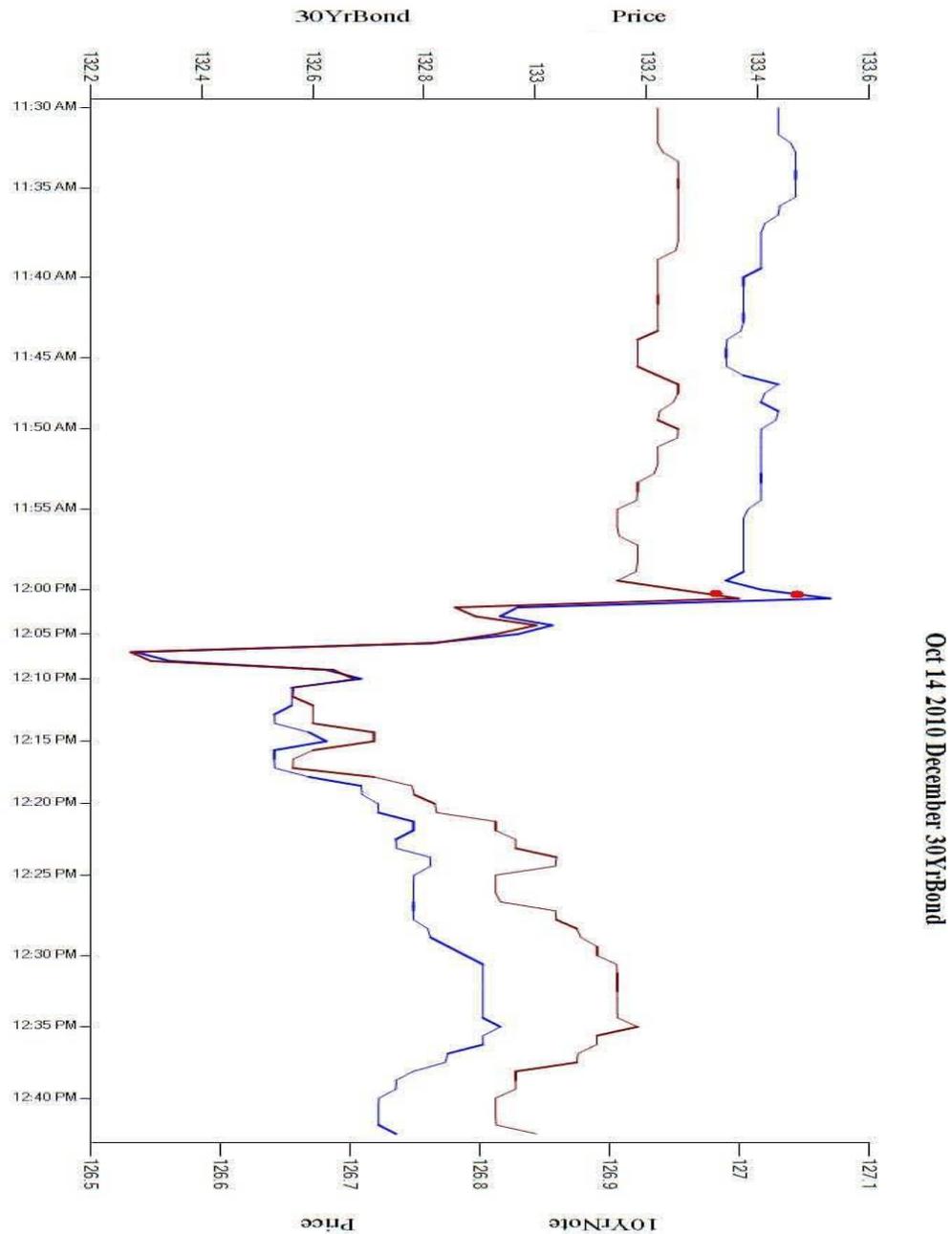
146. The chart below depicts the entire day's trading of 30-year Treasuries on October 14, 2010. Note that the futures trading depicted above is highly correlated with the spot trading of the same Treasuries maturity depicted below, and especially at the moment of the setting of the Auction price, where the pre-Auction upward pricing movement is, post-Auction, immediately and dramatically reversed.



147. The high positive correlation between spot and futures Treasuries pricing generally and especially at the moment and to the extent of the post-Auction dramatic price reversal on October 14, 2010 is depicted in the chart below. The blue line shows 30-year Treasuries futures trading; the green line shows spot Treasuries trading for the same maturity.



148. Similarly, highly correlative dramatic price reversals can be seen across all Treasuries. For example, the below chart shows the same blue line for the 30-year futures compared to the 10-year futures trading (noted in dark red) during the same time interval. Again, the chart shows especially high price correlation at the moment and to the extent of the post-Auction dramatic price reversal on October 14, 2010.



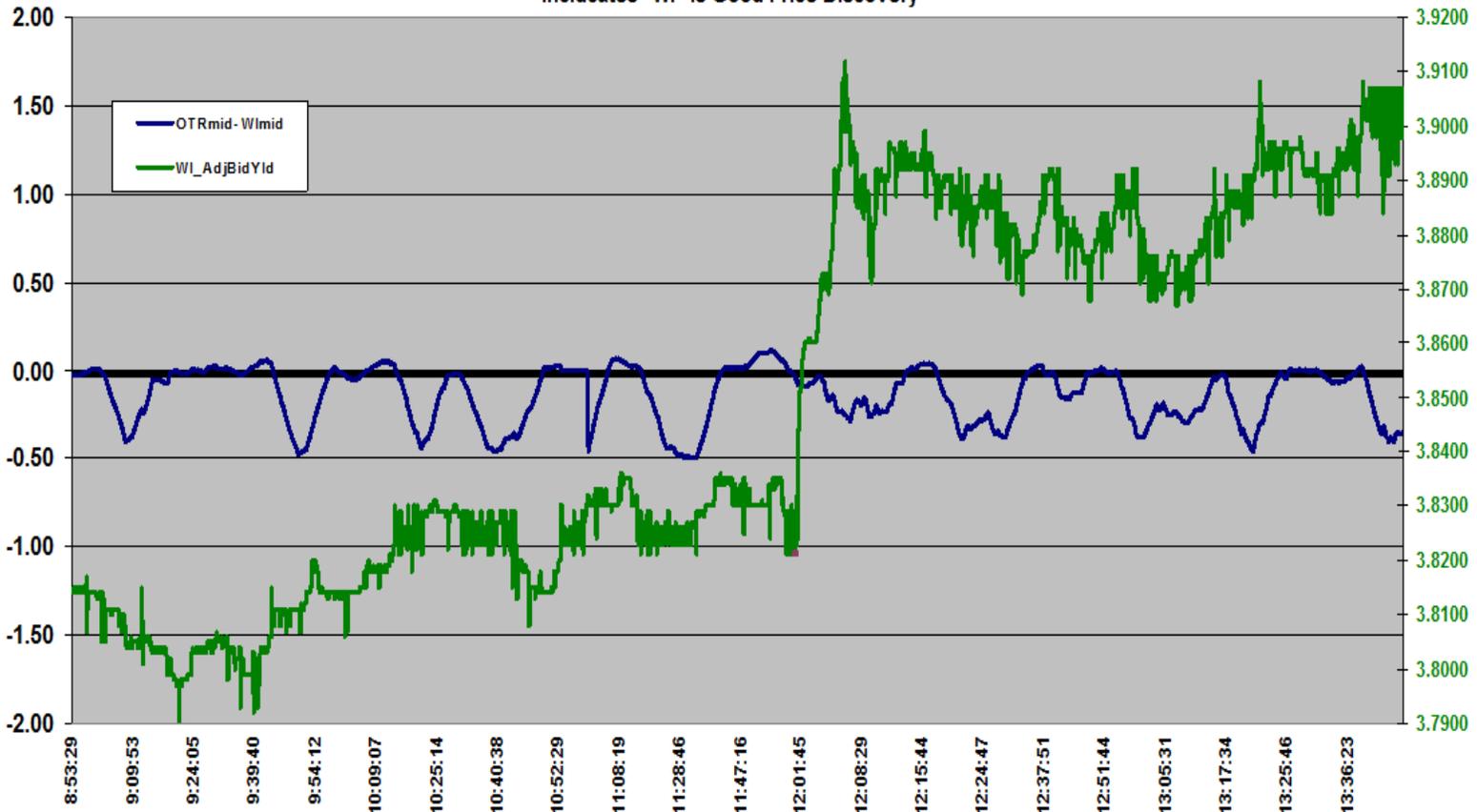
4. Comparative OTR and WI Pricing Analysis of the Auction's Re-Opened Treasuries Confirms the Alleged Manipulation.

149. That the October 14, 2010 and other Auctions were manipulated is further evidenced by a comparative pricing analysis of the outstanding portion of the OTR 30-year Treasury Bond and the soon-to-be Auctioned WI portion (*i.e.*, the re-opening) of the same 30-year Treasury Bond. As discussed above, because the previously-issued Treasury is already trading in the market place, there should be no pricing surprises at the Auction for the re-opened portion of the same Treasury. Any variances in price between the outstanding OTR Treasury and the same Treasury in the WI re-opening should generally be small and stable. When Defendants collude, however, as is indicated by independent analysis of the data, pricing surprises are clearly evident.

150. The below chart illustrates the dramatic and unexpected price movement in the re-opened portion of the October 14, 2010 Auction. In the chart below, the red dot represents the Auction time. The green line shows the yield (right axis) of the WI 30-year Treasury Bond on October 14, 2010, a re-opening auction. The blue line shows the yield differential between the existing portion of the OTR 30-year Treasury Bond and the WI (re-opened) portion of the same 30-year Treasury Bond. This spread is called the OTR/re-opened-WI roll. If the WI Treasury represented a completely new security, instead of a new portion of the existing security, this roll should reflect the yield difference from the current OTR (soon-to-be off-the-run) bond versus the new, soon-to-be OTR bond. In the case of a re-opening, this spread will also reflect a yield difference, but that yield difference, resulting from the cost-of-carry and the minor math formulae applicable to re-opened Treasuries, will generally be very small and very stable. Importantly, the WI portion of a re-opened instrument is regarded as a premier price discovery

market for the new portion of the bond. In plain terms, there should be no surprising sharp directional move in price or yield due to the Auction.

Consistency of 30yr OTR- WI Spread
 Before / After "Surprise" Auction
 Incidcates "WI" is Good Price Discovery



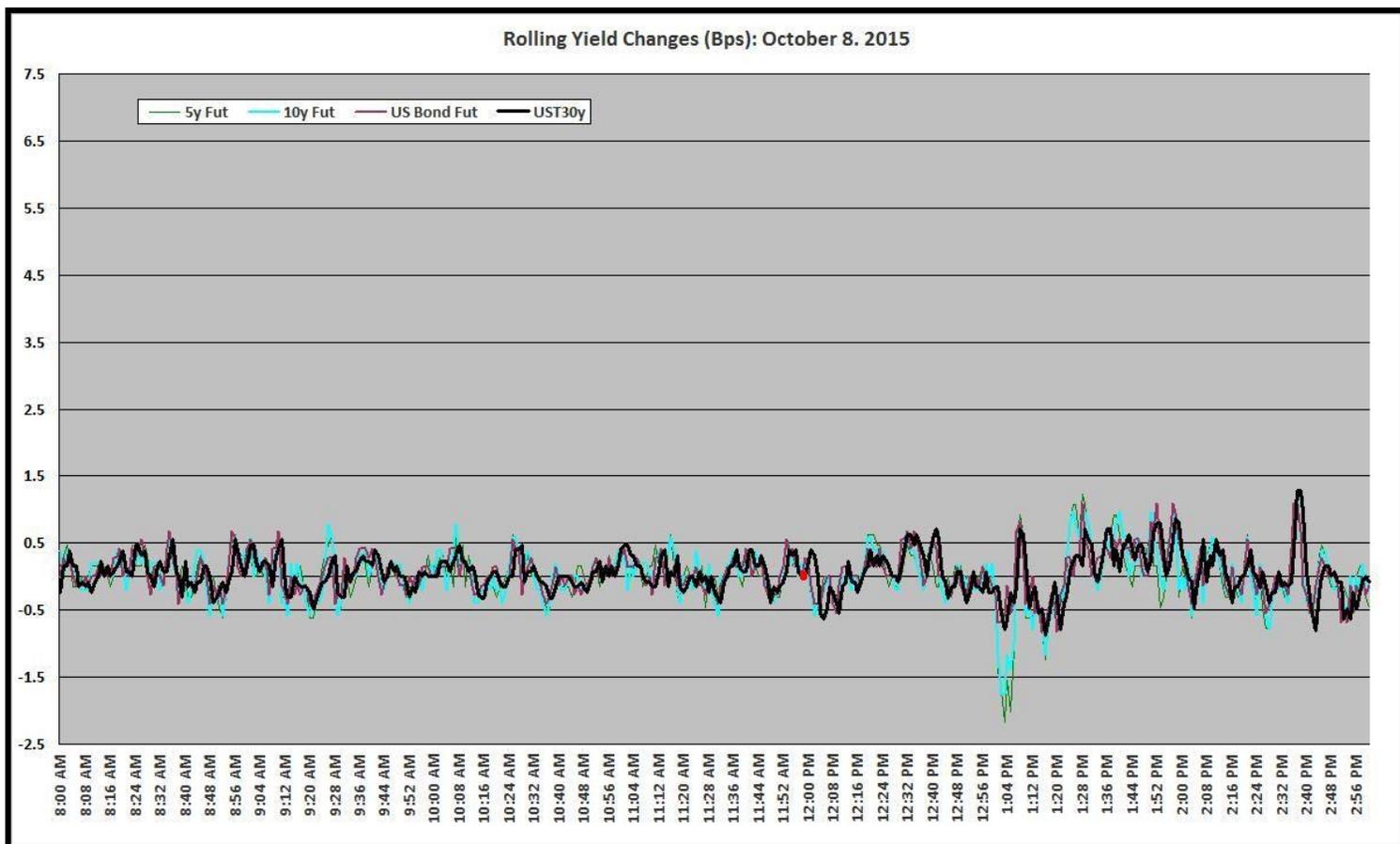
The significant upward jump in yield immediately after the Auction's announcement demonstrates a pricing surprise and clearly evidences manipulation. Before, during, and after the Auction, the OTR/WI roll is relatively stable and in a consistent small range of approximately .5 basis points. If the catalyst to the significant post-Auction upward jump in yield had been an unexpected news event or grossly unanticipated supply-demand imbalance, the OTR/WI roll would be expected to demonstrate greater volatility and mimic a similarly sharp move. The clear lack of sharp movement in the OTR/WI roll indicates that no unexpected news event or unanticipated supply-demand imbalance occurred. This relatively stable OTR-WI roll further

demonstrates Defendants' collusion to fix and otherwise manipulate the re-opened portion of the Auction.

5. Analysis of Market Tails Further Confirms the Alleged Manipulation.

151. By definition, the WI market is the market's up-to-the-moment assessment of the "fair value" of the subject Treasury. As a result, the difference between the WI price at the time of the Auction and the actual price established by the Auction, commonly referred to as a "market tail," should be very small. Indeed, a variation of more than 1-1.5 basis points would be unusual; a variation of 2 basis points would be indicative of extreme pricing behavior; a variation beyond 2-2.5 basis points would almost certainly be the result of pricing manipulation.

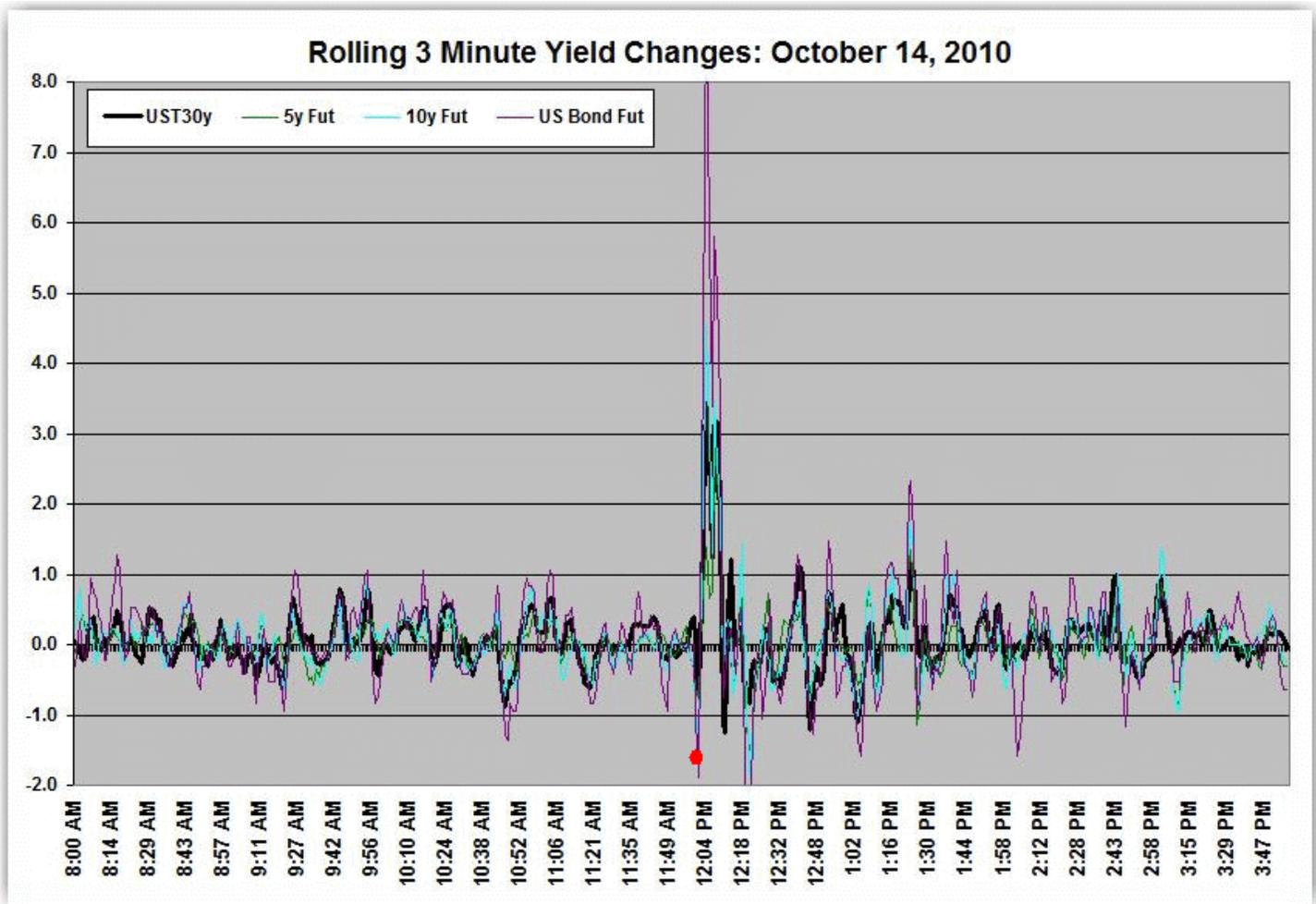
152. One common, generally accepted way to measure the market's intraday variation is to examine yield changes over short-term rolling periods. Plaintiffs' independent experts used overlapping rolling three-minute changes in yield (measured in basis points) as our benchmark to investigate the October 15, 2015 Auction re-opening of the 30-year Bond. That October 15, 2015 Auction was selected since it took place after the DOJ had opened its investigation and had contacted the Defendants, including with document requests. Accordingly, that Auction should represent a manipulation-free 30-year Bond Auction re-opening. Analysis of the rolling three-minute changes in yield for October 15, 2015 Auction re-opening of the 30-year Bond, depicted in the chart below, clearly shows that in the moments leading up to, during, and for the hour immediately after the announcement of the Auction results (depicted by the red dot) the longer maturities of the Treasury market did not vary by more than 1 basis point (and in fact largely stayed within .5 basis points) and reflects a nearly invisible impact from announcement of the auction results and, by extension, a near-zero market tail:



At 1 pm, an hour after the setting of the Auction price, and well past the observed time lags to digest Auction-related news, the U.S. Treasury market suddenly picks up volatility (up to nearly 2 basis points) and remains in this elevated volatility state for the rest of the trading day. This change in volatility is not due to Auction-related news, but rather is a response to the Fed’s Open Market Committee’s 1 pm release of its minutes from the unusually contentious meeting from September 2015.¹⁷⁵

153. In stark contrast, the same analysis applied to the October 14, 2010 30-year Bond Auction re-opening, as well as to corresponding bond and other related futures contracts, depicted in the chart below, confirms that the October 14, 2010 Auction was clearly manipulated. The red dot depicts the Auction time.

¹⁷⁵ See [Minutes of the Federal Open Market Committee](#) (Sept. 16-17, 2015).



As shown above, in the moments immediately after the announcement of the Auction results, the market yields spiked 4-8 basis points. No market-related news at that time could have otherwise accounted for this radical variation. Thus, the extreme variation is very strong evidence of price manipulation.

154. The manipulation of the October 14, 2010 Auction, depicted in the charts above, resulted in a \$143 million movement in Auction pricing, nearly 100 times greater than the modest June 27, 2007 ISDAFIX Treasuries manipulation finding by the CFTC referenced in paragraphs 128-129 above.

155. In sum, the foregoing charts demonstrate that the March 2011 and October 2010 Auctions were clearly fixed and otherwise manipulated. Other Auctions throughout the Relevant Period were similarly manipulated. No group of market participants, other than the Primary Dealer-Defendants, had the information, means, and opportunity necessary to manipulate the Treasuries Auctions. In addition, such manipulation could not have occurred absent Primary Dealer-Defendant collusion. By inappropriately exchanging confidential and competitively sensitive information, including client and Indirect Bidder order flow data, Defendants executed coordinated Auction bidding and trading strategies with the intent and effect of manipulating Treasuries and Treasuries-Predicated Instruments pricing during the WI market, pre-Auction, at Auction, and in the post-Auction secondary Treasuries markets.

V. FRAUDULENT CONCEALMENT

156. Defendants engaged in a successful, unlawful price-fixing and price-manipulation conspiracy which, by its very nature, was inherently self-concealing.

157. Defendants used non-public methods of communication, such as in-person conversations, private chatrooms, and text messages, to conceal their agreements to manipulate Treasuries prices.

158. Throughout the Relevant Period, despite the fact that Plaintiffs regularly monitored their investments, there were limits to what could be done or uncovered, given that so much of the Treasuries market was shrouded in secrecy due to Defendants' conduct.

159. Further, reasonable due diligence could not have uncovered Defendants' conspiracy because: (1) Defendants' trades and trading strategies are not public information; (2) the highly specialized and esoteric nature of the different aspects of the Treasuries market makes it virtually impossible for ordinary market participants to detect misconduct; and (3) neither

Defendants nor their co-conspirators told Plaintiffs that they were conspiring to manipulate the prices of Treasuries.

160. Plaintiffs were entitled to rely on the federal government's intimate involvement in and actual reliance on the Treasuries market and to trust that government officials were far more likely to detect misconduct in the Treasuries and Treasury-Predicated Instruments markets than in markets operated primarily by, and for the benefit of, private entities.

161. Since at least as early as 2007, the Federal Reserve Bank of New York's Treasury Market Practices Group ("TMPG") has published a set of best practice recommendations for the Treasuries market. According to the TMPG, "[t]hese best practices *aim to promote market integrity* and efficiency by recommending general guidelines for promoting market liquidity, maintaining a robust control environment, managing positions responsibly, and promoting efficient market clearing."¹⁷⁶ Plaintiffs were entitled to rely on Defendants' adherence to those best practice recommendations, particularly as senior business managers and legal and compliance professionals affiliated with certain Defendants are and have been members of the TMPG.

162. Moreover, the CME is a self-regulatory organization, *i.e.*, the CFTC has delegated to the CME primary regulatory authority over firms operating under its auspices. Plaintiffs, who traded Treasury-Predicated Instruments on the CME, were entitled to rely on the CME's exercise of its authority to expose misconduct in the markets for Treasury-Predicated Instruments traded on the CME.

163. As a result, until recently, none of the Plaintiffs had knowledge of any of the foregoing violations. Nor could they have discovered through reasonable diligence that Defendants and their co-conspirators had engaged in the foregoing violations, since Defendants

¹⁷⁶ http://www.newyorkfed.org/TMPG/best_practices.html (emphasis added).

and their co-conspirators actively and fraudulently concealed these violations to obscure their illegal activity.

164. Defendants and their co-conspirators wrongfully concealed and carried out their illegal conduct in a manner that was designed to and did preclude detection.

165. Defendants and their co-conspirators' fraudulent concealment tolled the statute of limitations applicable to Plaintiffs' claims.

VI. CLAIMS FOR RELIEF

COUNT ONE: VIOLATION OF SECTION 1 OF THE SHERMAN ACT 15 U.S.C. § 1, *et seq.*

166. Plaintiffs repeat and incorporate by reference all preceding paragraphs and allegations.

167. Defendants are direct, horizontal competitors, and engaged in unlawful contracts, combinations, and conspiracies in an unreasonable restraint of interstate trade or commerce in violation of Section 1 of the Sherman Act, 15 U.S.C. § 1.

168. The unlawful contracts, combinations, and conspiracies consisted of continuing agreements, understandings, and concerts of action between and among Defendants, the substantial terms of which were to illegally fix, raise, reduce, maintain, or stabilize the prices at which Treasuries were bought and sold during the Relevant Period.

169. All of the Defendants knowingly participated in the conspiracy alleged herein.

170. Defendants' unlawful conduct was through mutual understandings, combinations, or agreements by, between, and among Defendants.

171. Defendants' conspiracy is a *per se* violation of the Sherman Act and is an unreasonable and unlawful restraint of trade.

172. Defendants' conspiracy, and the resulting impact on the prices of Treasuries, occurred in and affected interstate commerce.

173. The contract, combination, or conspiracy had anticompetitive effects, as alleged herein.

174. As a direct, intended, foreseeable, and proximate result of Defendants' conspiracy and overt acts taken in furtherance thereof, Plaintiffs have suffered injury to their business or property.

175. The injury to Plaintiffs are of the type the antitrust laws were designed to prevent and flow from that which makes Defendants' acts unlawful.

176. Plaintiffs are entitled to treble damages, attorneys' fees, reasonable expenses, and costs of suit for the violation of the Sherman Act alleged herein.

COUNT TWO:
MANIPULATION IN VIOLATION OF THE COMMODITY EXCHANGE ACT
7 U.S.C. § 1, *et seq.*

177. Plaintiffs repeat and incorporate by reference all preceding paragraphs and allegations.

178. By their intentional misconduct, Defendants and their co-conspirators each violated Sections 6(c)(3) and 9(a)(2) of the Commodity Exchange Act ("CEA"), 7 U.S.C. §§ 9(3), 13(a)(2), and CFTC Rule 180.2, and manipulated the prices of Treasuries, causing those prices to be artificial during the Relevant Period.

179. Defendants knew that their wrongful acts would cause prices to be artificial during the Relevant Period.

180. Defendants intended that their wrongful acts would result in prices being artificial during the Relevant Period.

181. Defendants' and their co-conspirators' trading and other activities alleged herein constitute market manipulation of prices of Treasuries, in violation of Sections 6(c)(3), 9(a), and 22(a) of the CEA, 7 U.S.C. §§ 9(3), 13(a) and 25(a), and Rule 180.2.

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

183. Plaintiffs' Treasuries transactions during the Relevant Period were executed at artificial and unlawful prices as a result of Defendants' and their co-conspirators' manipulations in violation of the CEA, 7 U.S.C. § 1, et seq., and Rule 180.2. As a direct result of these artificial and unlawful prices, Plaintiffs were injured and suffered damages.

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

184. Plaintiffs repeat and incorporate by reference all preceding paragraphs and allegations.

185. By their intentional misconduct during the Relevant Period, Defendants and their co-conspirators each violated Sections 6(c)(1) and 9(a)(2) of the CEA, 7 U.S.C. §§ 9(1), 13(a)(2), and CFTC Rule 180.1, and caused prices of Treasuries to be artificial during the Relevant Period.

186. Defendants' and their co-conspirators' trading and other activities alleged herein constitute market manipulation of prices of Treasuries, in violation of Sections 6(c)(1), 9(a), and 22(a) of the CEA, 7 U.S.C. §§ 9(1), 13(a) and 25(a), and Rule 180.1.

187. Defendants knew that their wrongful acts would cause prices to be artificial during the Relevant Period.

188. Defendants intended that their wrongful acts would result in prices being artificial during the Relevant Period.

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

190. Plaintiffs' Treasuries transactions during the Relevant Period were executed at artificial and unlawful prices as a result of Defendants' and their co-conspirators' manipulations in violation of the CEA, 7 U.S.C. § 1, et seq., and Rule 180.1. As a direct result of these artificial and unlawful prices, Plaintiffs were injured and suffered damages.

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

191. Plaintiffs repeat and incorporate by reference all preceding paragraphs and allegations.

192. 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.

193. Plaintiffs are each entitled to actual damages sustained in Treasuries for the violations of the CEA alleged herein.

COUNT FIVE:
**AIDING AND ABETTING MANIPULATION IN VIOLATION OF THE COMMODITY
EXCHANGE ACT**
7 U.S.C. § 1, *et seq.*

194. Plaintiffs repeat and incorporate by reference all preceding paragraphs and allegations.

195. 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' Treasuries manipulations, and willfully intended to assist these manipulations, which resulted in Treasuries pricing becoming artificial during the Relevant Period in violation of Sections 13 and 22(a)(1) of the CEA, 7 U.S.C. §§ 13c(a), 25(a)(1).

196. Plaintiffs are each entitled to actual damages sustained in Treasuries for the violations of the CEA alleged herein.

COUNT SIX:
BREACH OF IMPLIED COVENANT OF GOOD FAITH AND FAIR DEALING

197. Plaintiffs repeat and incorporate by reference all preceding paragraphs and allegations.

198. Defendants entered into bilateral contracts with Plaintiffs for the purchase and/or sale of Treasuries and/or Treasury-Predicated Instruments in the WI and secondary markets. Implied in these bilateral agreements were covenants that the counterparties would deal with each other in good faith and would not engage in any conduct to deprive the other of the benefits of their respective agreements. Also implied was a promise by the Defendants, as Primary Dealers and market makers for both Treasuries and Treasury-Predicated Instruments, that the prices of the Treasuries and Treasury-Predicated Instruments would not be manipulated to Defendants' benefit and Plaintiffs' detriment.

199. With either a knowing intent or a reckless disregard for the lawful interests of Plaintiffs, Defendants breached their implied covenants of good faith and fair dealing by conspiring to manipulate and otherwise fix the prices of Treasuries and Treasury-Predicated Instruments to either reduce their transaction liability or increase their transaction profits at the expense of Plaintiffs.

200. Defendants' manipulation of the Treasuries deprived Plaintiffs of the benefits of their bargain. Had Defendants not engaged in such manipulation, Plaintiffs' Treasuries and Treasury-Predicated Instrument transactions would have been more profitable, whether reflected as gains or as diminished losses. As a direct and proximate result of Defendants' knowing, intentional, and bad faith violation of their implied covenants of good faith and fair dealing, Plaintiffs suffered damages in amounts to be determined at trial. Plaintiffs seek all losses caused by Defendants' manipulation, including loss of interest and lost profits and all losses on all affected Treasuries and Treasury-Predicated Instrument transactions.

COUNT SEVEN:
UNJUST ENRICHMENT

201. Plaintiffs repeat and incorporate by reference all preceding paragraphs and allegations.

202. Defendants unjustly enriched themselves at the expense of Plaintiffs. Defendants knowingly acted in an unfair, unconscionable, and oppressive manner toward Plaintiffs by manipulating Treasuries and Treasury-Predicated Instrument prices, in conscious and/or reckless disregard of Plaintiffs' rights.

203. Defendants were unjustly enriched because they either: (i) paid Plaintiffs less for Treasuries securities and/or Treasury-Predicated Instruments than they would have otherwise paid absent Defendants' collusion; (ii) received payments from Plaintiffs for Treasury options

that expired “out of the money” when such options would have otherwise been “in the money” absent Defendants’ collusion; or (iii) received more from Plaintiffs on floating rate Treasury-Predicated interest rate swaps in which Defendants were counterparties than they would have otherwise absent Defendants’ collusion.

204. Defendants worked in concert and conspired to manipulate Treasury and Treasury-Predicated Instrument prices. Although each Defendant may not have profited off each and every transaction, the conspiracy, as a whole and over time, enabled all Defendants to profit at the expense of Plaintiffs. Accordingly, any Defendant not technically in privity on a given transaction is nevertheless a co-conspirator as to each affected transaction.

205. Each defendant was aware of the conspiracy, knowingly participated in and furthered its objectives, and committed overt acts in furtherance of the conspiracy. Defendants also acted with malice and intent to injure Plaintiffs.

206. Plaintiffs seek restoration of all monies which Defendants unjustly, unfairly, and/or improperly deprived from Plaintiffs.

VII. PRAYER FOR RELIEF

207. WHEREFORE, Plaintiffs pray that the Court:

208. Conduct a prompt trial on the merits before a jury on all claims and defenses;

209. Enter joint and several judgments against Defendants and in favor of Plaintiffs;

210. Award damages (*i.e.*, three times overcharges) in an amount to be determined at trial, plus interest in accordance with law;

211. Award Plaintiffs their costs of suit, including reasonable attorneys’ fees as provided by law; and

212. Award such further and additional relief as is necessary to correct for the anticompetitive market effects caused by Defendants' unlawful conduct, as the Court may deem just and proper under the circumstances.

VIII. JURY DEMAND

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

Dated: August 25, 2017

Respectfully submitted,

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