UNITED STATES DISTRICT COURT FOR THE
SOUTHERN DISTRICT OF NEW YORK

IN RE LONDON SILVER FIXING, LTD. ANTITRUST LITIGATION	14-MD-02573-VEC 14-MC-02573-VEC
This Document Relates to: ALL ACTIONS	The Honorable Valerie E. Caproni

THIRD CONSOLIDATED AMENDED CLASS ACTION COMPLAINT

TABLE OF CONTENTS

Plaintiffs Norman Bailey, Robert Ceru, Christopher DePaoli, John Hayes, Laurence Hughes, KPFF Investment, Inc., Kevin Maher, Eric Nalven, J. Scott Nicholson, and Don Tran (collectively "Plaintiffs"), individually and on behalf of those similarly situated, bring this class action for treble damages, disgorgement, restitution, injunctive and other relief, against Defendants, for their violations of law from at least January 1, 2007, through December 31, 2013 ("Class Period"),[1] and, upon knowledge, information, belief, and investigation of counsel, allege:

SUMMARY OF ALLEGATIONS

1. Throughout the Class Period three of the world's largest silver bullion banks—Deutsche Bank,[2] HSBC, and The Bank of Nova Scotia (collectively the "Fixing Members")—and their co-conspirators dictated the price of silver during a daily, secret, and unregulated meeting known as the London Silver Fixing (the "Silver Fix").

2. The Silver Fix was supposed to serve a "price discovery" function, determining the global benchmark price per ounce of silver (the "Fix price") based on supply and demand fundamentals resulting from a competitive silver auction among the Fixing Members. Instead the Silver Fix, which was closed to outside observers and free from any regulatory oversight, was

[1] For purposes of this complaint, Plaintiffs adopt the class period as sustained by the Court in its Opinion and Order dated October 3, 2016, ("October 3 Order") ECF No. 151. Plaintiffs respectfully reserve the right to appeal any adverse rulings from the October 3 Order. Any changes to this complaint based on the October 3 Order, including the length of the Class Period, the claims asserted or other changes are made without prejudice to Plaintiffs' right to appeal any such rulings at the appropriate time.

[2] The claims against Deutsche Bank asserted herein are the subject of a proposed settlement which has been presented to the Court for preliminary approval. At such time as the proposed settlement is given Final Approval by the Court and the Effective Date achieved (as those terms are defined in the Settlement Agreement Plaintiffs and the Deutsche Bank Defendants entered into on September 6, 2016), the claims against Deutsche Bank will be dismissed in accordance with the terms of the Settlement Agreement.

used to both conceal and facilitate Defendants' agreement to manipulate and fix silver prices and the prices of silver financial instruments during the Class Period.

3. Plaintiffs incorporate factual allegations based on the more than 350,000 pages of documents and 75 audio tapes that Deutsche Bank produced as part of the cooperation provisions of its Settlement Agreement with Plaintiffs (collectively, the "DB Cooperation Materials"). The DB Cooperation Materials provide direct, "smoking gun" evidence of a conspiracy among the Fixing Members and several other silver market makers, including at least UBS, Barclays, Standard Chartered, Fortis, and Merrill Lynch, to illegally manipulate the price of silver and silver financial instruments at artificial, anticompetitive levels through multiple means.

4. **<u>Silver Fix Manipulation</u>**: The DB Cooperation Materials confirm that Defendants rigged the Silver Fix during the Class Period by, among other means, coordinating manipulative silver transactions in advance of the daily fixing call. For example, in the chat below Fortis Trader B, who also engaged in manipulative conduct while employed by HSBC (¶¶ 234, 281-6, 322) and Standard Chartered (¶¶ 286, 288-90) during the Class Period, conspires with Deutsche Bank Silver Fix Trader-Submitter A to "smash" the Fix lower through coordinated selling:

> <u>Deutsche Bank [Trader-Submitter A]</u>: I got the fix in 3 minutes
>
> <u>Fortis [Trader B]</u>: I'm bearish
>
> <u>Deutsche Bank [Trader-Submitter A]</u>: Hahahaha
>
> <u>Fortis [Trader B]</u>: Massively … Really wanna sell sil
>
> * * *
>
> <u>Fortis [Trader B]</u>: Let's go and smash it together[3]

[3] DB_PM_SLVR_0051080.

5. But the Fixing Members were not the only ones involved in manipulating the Fix price. The DB Cooperation Materials demonstrate that other Defendants, including UBS, also conspired to "smash" the Silver Fix in a direction that would financially benefit their silver trading positions. For example, in the chat below UBS Trader A and Deutsche Bank Trader B discuss how UBS "smashed" the Fix lower to benefit a short silver options position:

> **May 11, 2011**
>
> Deutsche Bank [Trader B]: . . . the fix dude u guys WERE THE SILVER MARKET
>
> UBS [Trader A]: why u say that?
>
> Deutsche Bank [Trader B]: haha on the fixes
>
> UBS [Trader A]: someone told u?
>
> Deutsche Bank [Trader B]: my ldn
>
> UBS [Trader A]: ah ok
>
> Deutsche Bank [Trader B]: u guys short some funky options
>
> Deutsche Bank [Trader B]: well you told me too but i told no one u just said you sold on fix
>
> UBS [Trader A]: we smashed it good
>
> Deutsche Bank [Trader B]: fking hell UBS now u make me regret not joining
>
> UBS [Trader A]: btw keep it to yourself[4]

6. These chats, and others like them, which demonstrate that Defendants manipulated the Silver Fix, are consistent with economic evidence showing a dysfunction in the normal competitive process of silver pricing during the Class Period. *See* Part III.A-E *infra*. Defendants' use of illegitimate transactions to affect the Fix price also explains why the large

---

[4] DB_PM_SLVR_0209648-50.

drop in silver prices observed around the start of the Silver Fix is both inconsistent with the competitive forces of supply and demand and unexplained by other macroeconomic factors.[5] *See* Part III.F *infra*.

7. **Bid-Ask Spread Manipulation**: Manipulating the Silver Fix, however, was only one part of Defendants' comprehensive scheme to fix the price of silver and silver financial instruments. The DB Cooperation Materials show that Defendants, some of the largest silver market makers in the world, also conspired to fix the "bid-ask spread," *i.e.*, the difference between the "bid price" at which they offered to buy silver and the "ask price" at which they offered to sell silver, in the broader, public silver market. The chat below, for example, which involves Barclays Trader A and Deutsche Bank Trader B, depicts an anticompetitive agreement between the two Defendants to fix the spread at 7 cents for 50,000 ounces of silver and 10 cents for 100,000 ounces, *i.e.*, 1 "lac":[6]

December 28, 2011

Deutsche Bank [Trader B]: bro i think we make 50k 7 cents

Deutsche Bank [Trader B]: 1 lac 10cents

Barclays [Trader A]: today?

Barclays [Trader A]: yea

Deutsche Bank [Trader B]: ok cause i was 7 cents

Deutsche Bank [Trader B]: think is too tight

Barclays [Trader A]: bro yday i made 300 oz $1

---

[5] *See* Andrew Caminschi, *Any Silver Linings? London Silver Fixing Impact on Public Markets Before and After the Introduction of Contemporaneous Futures Trading* (hereinafter *Silver Linings*), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2461098 (finding multiple deviations in silver market behavior around the Silver Fix).

[6] A "lac" or "lakh" is a unit in the Indian number system equal to 100,000.

Deutsche Bank [Trader B]: nice[7]

8. Multiple chats demonstrate that Defendants routinely discussed and agreed to quote artificial, anticompetitive spreads in the silver market during the Class Period, illegally increasing the profitability of their market making activities by systematically overcharging and underpaying Plaintiffs and other Class members who transacted in silver and silver financial instruments. *See* ¶¶ 230-43.

9. Defendants conspired to maintain these anticompetitive spreads by continuously sharing incoming and pending order flow and client information, including the prices they quoted to specific customers. Defendants used this illegally acquired information to enforce the artificial prices quoted by their co-conspirators in the event a client tried to avoid paying the cartel price by shopping around. For example, in one instance, after a customer refused to trade at a five-cent wide spread with Deutsche Bank, UBS agreed to enforce that spread by offering a worse price, explaining that "if they call me in 1 lac i will quote 7-8 cents."[8] This collusive misconduct removed competition from the silver market and maintained spreads at artificial levels throughout the Class Period.

10. **Coordinated Manipulative Trading**: Plaintiffs' review of the DB Cooperation Materials has also identified at least six different manipulative trading strategies, referred to by code names like "muscle" and "blade," that Defendants implemented to manipulate and maintain the price of physical silver and silver financial instruments at artificial levels during the Class Period. *See* ¶¶ 249-67.

---

[7] DB_PM_SLVR_0195920.

[8] DB_PM_SLVR_0199828-29.

11. Defendants coordinated their manipulative trading activity to maximize its impact on silver prices by, for example: (1) conspiring to execute large transactions when they knew the silver market was illiquid (¶¶ 257-58); (2) uneconomically buying silver to provide artificial support for prices at an agreed-upon level (¶ 257); (3) placing false "spoof" bids and offers to create the false impression of supply and demand where none existed (¶¶ 261-63); and (4) withholding pricing information from the silver market by entering secret, unreported transactions with other cartel members. ¶¶ 265-66.

12. To further increase their influence over silver prices, Defendants agreed to deploy these manipulative trading strategies according to their own set of rules and procedures. For example, UBS and Deutsche Bank silver traders agreed to follow the "11 oclock" rule, whereby they would short silver at the same time each day (*see, e.g.*, ¶ 253), and to use a countdown sequence—"3 2 1 boom"—to ensure their manipulative transactions were entered at the same time. ¶ 255.

13. Chats also show that Defendants often called for "reinforcement,"[9] enlisting other silver traders to join the conspiracy by trading in the same direction as their manipulation, exacerbating the impact of their manipulative conduct on the price of silver and silver financial instruments. For example, UBS Trader A and Deutsche Bank Trader B recruited Barclays to join their "mafia" and manipulate silver prices as indicated in the conversation below:

June 8, 2011

UBS [Trader A]: im gonna sell a lil more we need to grow our mafia a lil get a third position involved

Deutsche Bank [Trader B]: ok calling barx[10]

[9] DB_PM_SLVR_0211650.

[10] DB_PM_SLVR_0201897.

14. This coordinated manipulative conduct was intended to capitalize on the zero-sum nature of derivatives trading, including in COMEX silver futures contracts, and to extract illicit profits for Defendants from Plaintiffs and other Class members who held the opposite position. For example, as one UBS trader commented while planning a series of manipulative silver transactions with Deutsche Bank on April 1, 2011, "if we are correct and do it together, we screw other people harder."[11] Thus, Defendants knew any profit resulting from their illegitimate trading activity flowed directly from harm caused to Plaintiffs and the Class.

15. **Sharing Proprietary Information**: The DB Cooperation Materials show that Defendants shared proprietary information about their silver trading positions to align interests with their co-conspirators and maximize the returns generated by their comprehensive scheme to fix the price of silver and silver financial instruments. *See* ¶¶ 274-312. Aligning silver positions incentivized cartel member to manipulate prices in the same direction and, as Barclays' Trader A explained, ensured that "we are one team one dream":

April 6, 2011

Barclays [Trader A]: you are short right

Barclays [Trader A]: haha

Barclays [Trader B]: we are one team one dream

Deutsche Bank [Trader B]: haha

Deutsche Bank [Trader B]: of course short

Deutsche Bank [Trader B]: short 1 lac

Barclays [Trader A]: nice[12]

---

[11] DB_PM_SLVR_0301637-38, 41.

[12] DB_PM_SLVR_0204208-9.

16. Defendants also illegally shared proprietary information about their incoming silver order flow heading into the start of the Silver Fix in order to coordinate illegitimate transactions in advance of the daily auction. For example, in the chat below, Deutsche Bank Silver Fix Trader-Submitter A and an unknown trader at Defendant Fortis Bank plan to enter manipulative transactions based on inside information regarding Deutsche Bank's silver order flow and intention to sell silver during the Fix:

> **August 22, 2007**
>
> Deutsche Bank [Trader-Submitter A]: SEEMS SOME BUYING PRE SIL FIX IN THE SYSTEMS
>
> Fortis [Unknown]: WE'LL SELL 70'S TOGETHER
>
> Deutsche Bank [Trader-Submitter A]: AT THIS RATE MATE WE CAN SELL 11.80'S BOTH MKTS ARE AS THIN AS IVE EVER SEEN THEM IN MY 5 YEARS OF TRADING THESE
>
> Deutsche Bank [Trader-Submitter A]: ILL BE A LIGHT SELLER ON THE FIX SO WATCH YOUR SCREEN[13]

17. **Stop-Loss Triggering & Front Running**: This open exchange of information among Defendants described above and below facilitated other types of manipulative conduct, including for example coordinated trading to trigger stop-loss orders and front running.[14] *See* ¶¶ 313-27. The Swiss Financial Market Supervisory Authority ("FINMA")[15] disclosed this misconduct in a November 2014 report, which described how UBS and other Defendants would

---

[13] DB_PM_SLVR_0272908.

[14] A stop-loss order is a type of delayed order that is executed only when the price of silver drops to a certain level.

[15] *See Foreign Exchange Trading at UBS AG: Investigation Conducted by FINMA*, FINMA (Nov. 12, 2014) http://www.finma.ch/e/aktuell/Documents/ubs-fx-bericht-20141112-e.pdf (hereinafter "UBS FINMA Report").

"jam" clients, triggering stop-loss orders, and front run silver transactions to create artificial prices for Defendants' benefit.

18. The DB Cooperation Materials confirm FINMA's findings and show that UBS routinely conspired with at least Deutsche Bank to trigger stop-loss orders. This practice was so common that the UBS and Deutsche Bank traders involved jokingly referred to themselves as the "STOP BUSTERS:"

> **<u>June 8, 2011</u>**
>
> <u>UBS [Trader A]</u>: and if u have stops….
>
> <u>UBS [Trader A]</u>: oh boy
>
> <u>Deutsche Bank [Trader B]</u>: HAHA
>
> <u>Deutsche Bank [Trader B]</u>: who ya gonna call!
>
> <u>Deutsche Bank [Trader B]</u>: STOP BUSTERS
>
> <u>Deutsche Bank [Trader B]</u>: deh deh deh deh dehdehdeh deh deh deh deh dehdehdeh
>
> <u>Deutsche Bank [Trader B]</u>: haha[16]

19. The DB Cooperation Materials, while extensive, are just the "tip of the iceberg" regarding Defendants' manipulative conduct. Plaintiffs anticipate receiving additional documents and information from Deutsche Bank regarding Defendants' conspiracy to fix the price of silver and silver financial instruments that will further support Plaintiffs' claims. Additionally, investigations into the Silver Fix continue and both the fraud division of the U.S. Department of Justice ("DOJ") and the U.S. Commodity Futures Trading Commission ("CFTC") are still investigating at least 10 banks, including each of the Fixing Members as well as Defendants

---

[16] DB_PM_SLVR_0201923.

Barclays and UBS, for rigging the precious-metals markets by manipulating, among other things, the Silver Fix.[17]

20. Given these ongoing government investigations into the Silver Fix, the direct evidence that has been obtained by Plaintiffs as a result of the Deutsche Bank settlement, and the significant amount of economic evidence presented in this Complaint, Plaintiffs believe that further evidentiary support for their claims, as alleged herein, will be revealed after a reasonable opportunity for discovery.

PARTIES

I. Plaintiffs

21. Plaintiff Norman Bailey ("Bailey") is a natural person who resides in Ontario, Canada. Plaintiff Bailey transacted Chicago Board of Trade ("CBOT") silver futures contracts, Commodity Exchange, Inc. ("COMEX") silver futures contracts and options during the Class Period at artificial prices proximately caused by Defendants' unlawful manipulation and restraint of trade. As a result, Bailey was damaged and suffered legal injury resulting in a net loss on silver futures and options contracts transacted during the Class Period.

22. Plaintiff Robert Ceru ("Ceru") is a natural person who resides in the State of New York. Plaintiff Ceru purchased and/or sold physical silver during the Class Period at artificial prices proximately caused by Defendants' unlawful manipulation and restraint of trade and as a consequence thereof was damaged and suffered legal injury.

23. Plaintiff Christopher DePaoli ("DePaoli") is a natural person who resides in the State of California. Plaintiff DePaoli transacted COMEX silver futures contracts, COMEX

---

[17] *See* Jean Eaglesham and Christopher M. Matthews, *Big Banks Face Scrutiny Over Pricing of Metals*, THE WALL STREET JOURNAL (Feb. 23, 2015), http://www.wsj.com/articles/big-banks-face-scrutiny-over-pricing-of-metals-1424744801.

"miNY" silver futures contracts and options, and NYSE LIFFE mini silver futures contracts during the Class Period at artificial prices proximately caused by Defendants' unlawful manipulation and restraint of trade. As a result, DePaoli was damaged and suffered legal injury resulting in a net loss on silver futures and options contracts transacted during the Class Period.

24. Plaintiff John Hayes ("Hayes") is a natural person who resides in the State of Florida. Plaintiff Hayes transacted COMEX silver futures contracts, CBOT mini silver futures contracts, and options on NYSE LIFFE silver futures contracts during the Class Period at artificial prices proximately caused by Defendants' unlawful manipulation and restraint of trade and as a consequence thereof was damaged and suffered legal injury.

25. Plaintiff Laurence Hughes ("Hughes") is a natural person who resides in the State of California. Plaintiff Hughes transacted COMEX "miNY" silver futures contracts during the Class Period at artificial prices proximately caused by Defendants' unlawful manipulation and restraint of trade. As a result, Hughes was damaged and suffered legal injury resulting in a net loss on silver futures contracts transacted during the Class Period.

26. Plaintiff KPFF Investment, Inc. f/k/a KP Investment, Inc. ("KPFF") is a California corporation with its principal place of business located in Irvine, California. Plaintiff KPFF purchased and/or sold physical silver during the Class Period at artificial prices proximately caused by Defendants' unlawful manipulation and restraint of trade. As a result, KPFF was damaged and suffered legal injury resulting in a net loss on physical silver transacted during the Class Period.

27. Plaintiff Kevin Maher ("Maher") is a natural person who resides in the State of New York. Plaintiff Maher transacted COMEX silver futures contracts and options during the Class Period at artificial prices proximately caused by Defendants' unlawful manipulation and

restraint of trade. As a result, Maher was damaged and suffered legal injury resulting in a net loss on futures and options contracts transacted during the Class Period.

28. Plaintiff Eric Nalven ("Nalven") is a natural person who resides in the State of Florida. Plaintiff Nalven transacted CBOT mini silver futures contracts, NYSE LIFFE mini silver futures contracts, and COMEX silver futures contracts during the Class Period at artificial prices proximately caused by Defendants' unlawful manipulation and restraint of trade. As a result, Nalven was damaged and suffered legal injury resulting in a net loss on silver futures contracts transacted during the Class Period.

29. Plaintiff J. Scott Nicholson ("Nicholson") is a natural person who resides in the State of Washington. Plaintiff Nicholson transacted COMEX silver futures contracts during the Class Period at artificial prices proximately caused by Defendants' unlawful manipulation and restraint of trade. As a result, Nicholson was damaged and suffered legal injury resulting in a net loss on silver futures contracts transacted during the Class Period.

30. Plaintiff Don Tran ("Tran") is a natural person who resides in the State of California. Plaintiff Tran transacted options on COMEX silver futures during the Class Period at artificial prices proximately caused by Defendants' unlawful manipulation and restraint of trade. As a result, Tran was damaged and suffered legal injury resulting in a net loss on options contracts transacted during the Class Period.

II. Defendants

A. Deutsche Bank Defendants

31. Defendant Deutsche Bank AG is a German *aktiengesellschaft* with its principal place of business located in Frankfurt, Germany. It owns 100% of the equity and voting interests in Defendants Deutsche Bank Americas Holding Corporation, DB U.S. Financial Markets

Holding Corporation, Deutsche Bank Securities, Inc., Deutsche Bank Trust Corporation, Deutsche Bank Trust Company Americas, and Deutsche Bank AG, New York Branch.

32. Deutsche Bank AG was a member of the London Silver Market Fixing, Ltd. during the entire Class Period until August 14, 2014, when it withdrew from the London Bullion Market Association's ("LBMA") Silver fixing panel.

33. Deutsche Bank AG has a branch located in this District at 60 Wall Street, New York, NY 10005. This branch is registered as a foreign branch with the New York State Department of Financial Services ("NYDFS"). Deutsche Bank AG was a Non-Clearing Member Firm of the New York Mercantile Exchange ("NYMEX") and Commodity Exchange Inc., ("COMEX") during at least part of the Class Period.

34. Deutsche Bank AG filed its U.S. Resolution Plan on July 1, 2014 with the U.S. Federal Reserve Board, the Federal Deposit Insurance Corporation, and the Financial Stability Oversight Counsel because it has over $50 million in U.S.-nonbank assets. Deutsche Bank AG designated eight U.S. material entities: Deutsche Bank AG New York Branch; Deutsche Bank Securities Inc.; Deutsche Bank Trust Corporation; Deutsche Bank Trust Company Americas; DB Services Americas, Inc.; DB Services New Jersey, Inc.; Deutsche Bank Americas Holding Corp.; and Deutsche Bank National Trust Company.

35. Defendant Deutsche Bank AG New York Branch is a wholesale branch of Deutsche Bank AG. It is licensed by the New York State Department of Financial Services and regulated by the Federal Reserve. Deutsche Bank AG and Deutsche Bank AG New York Branch are also regulated by the CFTC as registered swap dealers.

36. Defendant Deutsche Bank Securities, Inc. is a Delaware corporation and wholly-owned subsidiary of Deutsche Bank U.S. Financial Markets Holding Corporation, which is a

wholly-owned subsidiary of Taunus Corporation, which in turn is wholly-owned by Deutsche Bank AG. It is a registered broker-dealer and investment advisor with the Securities Exchange Commission and a registered Futures Commission Merchant and commodity pool operator with the CFTC. It is a member of the Financial Industry Regulatory Authority, the Securities Investor Protection Corporation and the National Futures Association, with 21 registered branches located throughout the U.S. and total assets of $226 billion. It is a member of the New York Stock Exchange and registered with the CFTC.

37. Defendant Deutsche Bank Trust Corporation is a New York-chartered bank holding company regulated by the Federal Reserve and wholly-owned subsidiary of Deutsche Bank AG. It is a registered bank and financial holding company under the Bank Holding Company Act of 1956.

38. Defendant Deutsche Bank Trust Company Americas is a New York banking corporation and wholly-owned subsidiary of Deutsche Bank Trust Corporation, which is a wholly-owned subsidiary of Deutsche Bank AG. It is a licensed New York State-chartered insured depository institution regulated by the NYDFS, member of the Federal Reserve, an FDIC-insured bank, and a transfer agent registered with the Securities Exchange Commission.

39. Defendant Deutsche Bank Americas Holding Corporation is a Delaware corporation with its principal place of business located at 60 Wall Street, New York, NY 10005. It is a second tier holding company for Deutsche Bank AG subsidiaries in the United States.

40. Defendant DB U.S. Financial Markets Holding Corporation is a Delaware corporation with its principal place of business located at 60 Wall Street, New York, NY 10005. It is a second tier holding company for Deutsche Bank AG subsidiaries in the United States.

41. Defendants Deutsche Bank AG; Deutsche Bank Americas Holding Corporation; DB U.S. Financial Markets Holding Corporation; Deutsche Bank Securities, Inc.; Deutsche Bank Trust Corporation; Deutsche Bank Trust Company Americas; and Deutsche Bank AG, New York Branch, are collectively referred to herein as "Deutsche Bank" or "Deutsche."

42. Deutsche Bank AG operates an electronic platform, Autobahn, which allows market participants to electronically trade commodities, including silver. Since 1996, Autobahn has provided 24-hour access to Deutsche Bank's customers, including those in the United States.

43. Deutsche Bank was the fifteenth most active silver market maker during the Class Period, based on public silver quotes. *See* ¶ 200. This does not include trading through Deutsche Bank's Autobahn service.

44. Deutsche Bank is a member of the unlawful combination and conspiracy alleged herein, from which, to Plaintiffs' knowledge, it has not effectively withdrawn.

B. HSBC Defendants

45. Defendant HSBC Holdings plc is a British public limited company with its principal place of business in London. It owns 100% of the equity and voting interests in Defendants HSBC North America Holdings Inc., HSBC Bank (U.S.A.), N.A., and HSBC USA Inc.

46. HSBC maintains COMEX-registered silver depositories (vaults) in which it stores silver at 1 West 39th St., SC 2 Level, New York, NY, and 425 Sawmill River Rd. Ardsley, NY.[18]

---

[18] *Ltr to David Stawick*, http://www.cftc.gov/stellent/groups/public/@rulesandproducts/documents/ifdocs/rul082310nymexandcomex001.pdf

As of January 22, 2015, HSBC's COMEX-registered New York silver vaults held nearly 35 million metric tons of physical silver.[19]

47. HSBC Holdings plc filed its U.S. Resolution Plan with the U.S. Federal Reserve Board on July 1, 2013. HSBC Holdings plc identified six U.S. material entities: HSBC North America Holdings Inc.; HSBC USA Inc.; HSBC Bank USA, National Association; HSBC Securities (USA) Inc.; HSBC Technology & Services (USA) Inc.; and HSBC Finance Corporation. HSBC Holdings plc identified that one of its three U.S. global markets core business lines is metals, which provides a hub for its U.S. clients to engage in spot, forwards, swaps, lending, and custodial services.

48. Defendant HSBC North America Holdings Inc. is a Delaware corporation and the top level holding company for HSBC Holdings plc's operations in the U.S. Its principal place of business is located at 452 Fifth Avenue, New York, NY 10018.

49. Defendant HSBC USA Inc. is a Maryland corporation and an intermediate level holding company for HSBC Holdings plc's operations in the U.S. Its principal subsidiary is HSBC Bank USA, National Association.

50. Defendant HSBC Bank USA, N.A. is HSBC Holdings plc's principal U.S. banking subsidiary and is a national banking association chartered by the Office of the Comptroller of the Currency, with 253 branches in the U.S. and 22 representative offices in the U.S., including 165 branches in the State of New York. Its main office is in McLean, Virginia, and its principal executive offices are located at 452 Fifth Avenue, New York, NY. Its domestic operations are located primarily in the State of New York. HSBC Bank USA, N.A. is subject to regulation by the Office of the Comptroller of the Currency, the Federal Deposit Insurance

---

[19] http://www.cmegroup.com/delivery_reports/Silver_stocks.xls.

Corporation, the Consumer Financial Protection Bureau and the Federal Reserve Board. HSBC Bank USA, National Association is the key metals risk management arm of HSBC.

51. HSBC Bank USA, N.A. was a member of the London Silver Market Fixing Ltd. during the entire Class Period.

52. HSBC Bank USA, N.A. is a member of the LBMA London Silver Fixing Panel.

53. HSBC Bank USA, N.A. was a COMEX Division Non-Clearing Member Firm during at least part of the Class Period.

54. HSBC Securities (USA) Inc. is a Delaware corporation and is a registered broker-dealer of securities under the Securities Exchange Act of 1934; a registered Futures Commission Merchant with the CFTC; and a registered swap dealer with the CFTC. It is a member of the Financial Industry Regulatory Authority, the New York Stock Exchange, Inc., CME Group, Inc. ("CME"), Intercontinental Exchange ("ICE"), LCH Clearnet Ltd. ("LCH"), and the Options Clearing Corporation. It is eligible to clear over-the-counter derivatives at the CME, ICE, and LCH.

55. HSBC Securities (USA), Inc. was a NYMEX Clearing Member Firm during at least part of the Class Period.

56. Defendants HSBC Holdings plc, HSBC North America Holdings Inc., HSBC Bank (U.S.A.), N.A., and HSBC USA Inc. are collectively referred to herein as "HSBC."

57. HSBC is one of the world's largest metals custodians and the only over-the-counter market maker with foundations in gold, silver, platinum, and palladium. It has a metals trading hub and analyst teams in New York, out of which its offers services for everything in the precious metals value chain—including financing, exploration and development, operations, reclamation, storage and manufacturing, hedging, vaulting, and leasing.

58. As a dealer in precious metals, HSBC "frequently maintains large open positions on U.S. futures markets," including entering into cash, forward, and options transactions with its U.S. clients and market participants.[20]

59. HSBC was the sixth most active U.S. market maker in the silver spot market during the Class Period, based on public silver quotes. This does not include trading through HSBC's private platform.

60. HSBC is a member of the unlawful combination and conspiracy alleged herein, from which, to Plaintiffs' knowledge, it has not effectively withdrawn.

C. Bank of Nova Scotia Defendants

61. Defendant The Bank of Nova Scotia, commonly known as Scotiabank, is a Canadian bank with its principal place of business in Toronto. It owns 100% the equity and voting interests in Defendants Scotia Capital (USA) Inc., Scotiabanc Inc., Scotia Holdings (US) Inc., Scotia Capital (USA) Inc., and The Bank of Nova Scotia Trust Company of New York.

62. The Bank of Nova Scotia's U.S. core business lines include its Global Banking and Markets division, known as ScotiaMocatta. ScotiaMocatta "deals in precious and base metals trading, finance, and physical metal distribution." ScotiaMocatta operates as a business through The Bank of Nova Scotia New York Agency. ScotiaMocatta operates its precious metals wholesale services at 250 Vesey Street, 24th floor, New York, NY, 10281.

63. Scotiabank maintains a COMEX-registered silver depository (vault) in which it stores silver at 230-59 International Airport Center Blvd., Building C, Ste. 120, Jamaica, Queens,

[20] http://www.cftc.gov/ucm/groups/public/@newsroom/documents/file/metalmarkets032510_charles.pdf.

NY.[21] The Bank of Nova Scotia, through its ScotiaMocatta division, holds nearly ten million troy ounces of exchange-eligible silver bullion in this vault.[22] As of October 31, 2012, Scotiabank had assets in precious metals, including silver, totaling approximately $12,387,000,000. As of January 22, 2015, Scotiabank's COMEX-registered New York silver vault held more than 9 million metric tons of physical silver.[23]

64. The Bank of Nova Scotia was a COMEX Clearing Member during at least part of the Class Period.

65. The Bank of Nova Scotia reported to the CFTC that its New York-based traders held COMEX futures and options positions during at least part of the Class Period.[24]

66. The Bank of Nova Scotia filed its U.S. Resolution Plan on December 20, 2013 to the U.S. Federal Reserve Board, the Federal Deposit Insurance Corporation and the Financial Stability Oversight Counsel. The Bank of Nova Scotia reported that its Global Banking and Markets division offers a wide range of products in the U.S., including capital markets products and services, such as precious and base metals through ScotiaMocatta.

67. The Bank of Nova Scotia is a registered Swaps Dealer with the National Futures Association and regulated by the CFTC.

---

[21] http://www.cftc.gov/stellent/groups/public/@rulesandproducts/documents/ifdocs/rul082310nymexandcomex001.pdf

[22] *See* CME Group, Warehouse Depositories and Stocks, *at* http://www.cmegroup.com/trading/energy/nymex-delivery-notices.html (CME Report dated Jan. 23, 2014); CFTC Archives, http://www.cftc.gov/files/submissions/rules/approvals/2006/comexscotiamocatta.pdf ("ScotiaMocatta Depository (SMD) is a division, not a subsidiary, of The Bank of Nova Scotia.").

[23] http://www.cmegroup.com/delivery_reports/Silver_stocks.xls.

[24] ScotiaMocatta Commitments of Traders (CFTC), available at http://www.scotiamocatta.com/scpt/scotiamocatta/prec/pmcftc_weekly.pdf.

68. The Bank of Nova Scotia participates in a number of payment, clearing and settlement systems in the United States, including the Federal Reserve Wire Network, the Clearing House Interbank Payments System, the National Securities Clearing Corporation, the Fixed Income Clearing Corporation, the Depository Trust & Clearing Corporation, the Chicago Mercantile Exchange and the Bank of New York Mellon. The Bank of Nova Scotia conducts a material number of value amount transaction on the Chicago Mercantile Exchange and with the Bank of New York Mellon.

69. Defendant Scotia Capital (USA) Inc. is a New York corporation and registered broker dealer in securities with the U.S. Securities and Exchange Commission, and member of the Financial Industry Regulatory Authority and New York Stock Exchange, with its principal place of business located at 1 Liberty Plaza, New York, NY 10006. Scotia Capital (USA) Inc. is a wholly-owned subsidiary of Scotia Capital Inc., which is a wholly-owned subsidiary of The Bank of Nova Scotia.

70. Defendant Scotiabanc Inc. is a Delaware corporation with its principal place of business located at 711 Louisiana Street, Suite 1400, Houston, Texas 77002. Scotiabanc Inc. is a wholly owned subsidiary of Defendant Scotia Holdings (US) Inc.

71. Defendant Scotia Holdings (US) Inc. is a Delaware corporation with its principal place of business located at 600 Peachtree Street NE, Atlanta, GA 30308-2219. Scotia Holdings (US) Inc. is a wholly-owned subsidiary of BNS Investments Inc. The sole common shareholder of BNS Investments Inc. is The Bank of Nova Scotia and the sole preferred shareholder is Scotia Ventures Limited, which is a wholly-owned subsidiary of The Bank of Nova Scotia.

72. Defendant The Bank Of Nova Scotia Trust Company Of New York is trust company regulated by the NYDFS and the Federal Reserve Bank of New York and a subsidiary

of Scotia Holdings (US) Inc., with its principal place of business located at One Liberty Plaza, 165 Broadway, 26th Floor, New York, NY 10006.

73. Defendants The Bank of Nova Scotia, Scotiabanc Inc., Scotia Holdings (US) Inc., Scotia Capital (USA) Inc., and The Bank of Nova Scotia Trust Company of New York are collectively referred to herein as "Bank of Nova Scotia."

74. The Bank of Nova Scotia was the number one most active U.S. market maker in the silver spot market during the Class Period, based on public silver quotes. The Bank of Nova Scotia was a member of London Silver Fixing Ltd. during the entire Class Period until August 14, 2014 and the unlawful combination and conspiracy alleged herein, from which, to Plaintiffs' knowledge, it has not effectively withdrawn.

D. UBS Defendants

75. Defendant UBS AG ("UBS") is a corporation organized under the laws of Switzerland with its principal place of business in Zurich, Switzerland. It has operations in over 50 countries, including in the United States. UBS maintains branches in several U.S. states, including Connecticut, Illinois, Florida, and New York, with its U.S. headquarters in New York and Stamford, Connecticut. UBS is registered with the Office of the Comptroller of the Currency ("OCC"), the Connecticut Department of Banking, and the CFTC as a swap dealer. UBS is licensed and supervised by the Board of Governors of the Federal Reserve System.

76. Throughout the Class Period, UBS was the third most active market maker in the silver spot market. According to the UBS FINMA Report, during the Class Period, UBS engaged in silver spot market trading from Stamford, Connecticut.[25]

---

[25] *See* UBS FINMA Report at 12 (locating precious metals trading in Stamford, Zurich, and Singapore).

77. UBS AG's 2013 U.S. Resolution Plan describes the Investment Bank division of UBS AG, which contains three Core Business Lines. The Investment Bank is the largest division by owned assets, accounting for 53% of the consolidated total for UBS AG. One of the three Core Business Lines is the "Investor Client Services Foreign Exchange" ("ICS FX") which is described as follows: "ICS FX provides a full range of G10 and emerging markets currency and precious metals services globally. Through ICS FX, UBS is a market-maker in the professional spot, forwards and options markets. ICS FX also provides clients trading, investing and hedging across the spectrum of gold, silver, platinum and palladium related offerings." The 2013 UBS U.S. Resolution Plan also describes main products and underlyings that the UBS Group uses as "an established precious metals ability in both flow and non-vanilla OTC products incorporating both physical and non-physical trading… The vanilla OTCs are in forwards, swaps and options. The non-vanilla OTC business relates to cash-settled forwards similar in nature to nondeliverable forwards, meaning there is no physical delivery of the underlying."

78. In its 2013 Resolution Plan, UBS AG designated the following Material Entities in the U.S.: UBS AG New York WM Branch; UBS AG London Branch; UBS AG Stamford Branch; UBS Bank USA; UBS Financial Services Inc.; UBS Global Asset Management (Americas) Inc.; UBS O'Connor LLC; UBS Realty Investors LLC; UBS Securities LLC; and UBS Services LLC.

79. UBS AG was a Non-Clearing Member Firm in both the NYMEX and COMEX during at least part of the Class Period.

80. Subsidiaries UBS Securities LLC and UBS Financial Services Inc. and other U.S.-registered broker-dealer entities are subject to the regulations of the Securities Exchange

Commission, the Financial Industry Regulatory Authority, the New York Stock Exchange, the Municipal Securities Rulemaking Board, the U.S. Department of the Treasury, and the CFTC.

81. In December 2014, UBS Group AG (previously a wholly-owned subsidiary of UBS AG) became the publicly-traded holding company for UBS AG and its subsidiaries. UBS Group AG shares will be listed on the SIX Swiss Exchange and the New York Stock Exchange. UBS AG announced on December 17, 2014 that its shares would be delisted in January 2015. As of December 17, 2014, over 96.68% of UBS AG stock was acquired by UBS Group AG. As a foreign private issuer, UBS AG and UBS Group AG are required to be in compliance with corporate governance standards applicable to foreign private issuers and jointly file an Annual Report on Form 20-F with the Securities Exchange Commission and submit its quarterly Financial Reporting to the SEC under Form 6-K.

82. On November 12, 2014, FINMA ordered UBS to pay 134 million Swiss francs (approximately $139 million) to settle the FX and precious metals probe that began in 2008. Following the settlement, FINMA reported, "[t]his conduct was partly coordinated with other banks" and "electronic communications platforms played a key role." According to BLOOMBERG NEWS, FINMA said it found "serious misconduct" by UBS and a "clear attempt to manipulate fixes in the precious metal market," including Silver Fixing, during its investigation into precious metals and FX trading at UBS. FINMA's investigation found that UBS was "front running" precious metals trades, *i.e.*, using its advance knowledge of large transactions that would influence prices, to generate illegitimate profits in the silver market. FINMA Director Mark Branson said in a conference call, "The behavior patterns in precious metals were somewhat similar to the behavior patterns in foreign exchange."

83. UBS, as alleged further herein, participated in the unlawful combination and conspiracy with the Fixing Members by, among other things, manipulating the Silver Fix, conspiring to fix spreads in the silver market, coordinating manipulative silver transactions, and sharing proprietary information with co-conspirator banks.

E. Barclays Defendants

84. Defendant Barclays Bank PLC is a British public limited company headquartered at 1 Churchill Place, London E14 5H, England. Barclays Bank PLC maintains a branch in this District registered with the NYDFS located at 745 Seventh Avenue, New York, New York 10019, and a foreign representative office located at 1301 Sixth Avenue, New York, NY 10019. Barclays Bank PLC is a provisionally registered swap dealer with the CFTC. Defendant Barclays Capital Inc. is a wholly-owned subsidiary of Barclays Bank PLC that engages in investment banking, wealth management, and investment management services. Defendant Barclays Capital Inc. ("BCI") is incorporated under the laws of Connecticut and operates its principal place of business at 745 Seventh Avenue, New York, New York 10019. BCI is a wholly-owned subsidiary of Barclays Bank PLC and engages in investment banking, wealth management, and investment management services. BCI has a Commodities Group that "handles trading in precious metals and energy."[26] BCI's Commodities Group "delivers a fully integrated and global service for base and precious metals and energy products in all major currencies."[27] BCI is registered with the CFTC as a Futures Commission Merchant and is also a clearing member of the Chicago Mercantile Exchange. Defendant Barclays Capital Services Ltd. is a wholly-owned

[26] Jack W. Plunkett, PLUNKETT'S INVESTMENT & SECURITIES INDUSTRY ALMANAC 2008.

[27] *Commodities: Getting Real on Risk and Return (Sponsored statement: Barclays Capital)*, RISK, *available at* http://www.risk.net/structured-products/advertisement/1528361/commodities-getting-real-risk-return.

subsidiary of Barclays PLC that provides investment banking services. Defendants Barclays Bank PLC, BCI, and Barclays Capital Services Ltd. are referenced collectively in this Complaint as "Barclays."

85. Barclays' core business lines and/or critical operations in the United States are headquartered in New York. Barclays' incentive to publicize its presence in New York and the United States is such that it is committed to pay $200 million over 20 years for naming rights for the Barclays Center in Brooklyn, NY.[28]

86. In September of 2008, Barclays announced its agreement to acquire New York-based Lehman Brothers' "North American investment banking and capital markets operations and supporting infrastructure."[29] Barclays added that "[t]he transaction will create a premier integrated global bulge bracket investment banking company with a leading presence in all major markets and across all major lines of business including…commodities trading." *Id.* Two months later, BCI announced that it "expanded its commodities team by about a third to more than 300 people th[at] year." Benoit de Vitry, BCI's "head of commodities" was concurrently quoted "by phone from New York."[30]

---

[28] *See* Richard Sandomir, *Arena Names Can Spell Embarrassment* (July 4, 2012), *available at* http://www.nytimes.com/2012/07/05/sports/arena-names-can-spell-embarrassment.html?_r=1.

[29] Press Release, Barclays Announces Agreement to Acquire Lehman Brothers North American Investment Banking and Capital Markets Business (Sept. 17, 2008), *available at* *http*://www.newsroom.barclays.com/r/1435/barclays_announces_agreement_to_acquire_lehman_brothers.

[30] Chanyaporn Canjaroen, *Barclays Expands Commodities Team, Expects More in "Bull Cycle"*, BLOOMBERG (Nov. 14, 2008).

87. In December of 2009, BCI hosted in New York its fifth annual U.S. Commodities Investor Conference.[31] Its concurrent press release touted the presence of "Barclays Capital experts in…metals."[32]

88. In August of 2013, Barclays announced that BCI's Robert Bogucki would "take on the additional role of head of commodities trading for the Americas."[33]

89. Barclays was the eleventh most active U.S. market maker in the silver spot market during the Class Period, based on public silver quotes. *See* ¶ 200.

90. Barclays, as alleged further herein, participated in the unlawful combination and conspiracy with the Fixing Members by, among other things, conspiring to fix spreads in the silver market, coordinating manipulative silver transactions, and sharing proprietary information with co-conspirator banks.

F. Fortis Defendants

91. Defendant BNP Paribas Fortis S.A./N.V ("BNP"), successor in interest to Fortis Bank S.A./N.V. ("Fortis Bank"), is a Belgian bank that, through various affiliates, does business throughout the world, including the United States. BNP completed its acquisition of Fortis Bank in May 2009. BNP's website for its American affiliate states: "BNP Paribas has been present in the United States since the late 1800s and currently has over 16,000 employees in North America. The region is a key hub for the Bank's global network of 75 countries and nearly

---

[31] *Barclays Capital Finds Institutional Investors Ready for Record Commodity Investment in 2010*, Business Wire, Jan. 10, 2009, *available at* http://www.businesswire.com/news/home/20091210005789/en/Barclays-Capital-Finds-Institutional-Investors-Ready-Record.

[32] *Id*.

[33] *Barclays names commodities trading chief for the Americas*, Reuters, Aug. 2, 2013, *available at* http://uk.reuters.com/article/uk-barclays-commodities-idUKBRE9710VH20130802.

190,000 employees."[34] BNP maintains a branch in this District located at 787 Seventh Avenue, New York, New York 10019. BNP is the successor in interest to the Belgian portion of Fortis Bank. BNP and Fortis Bank are collectively referred to in this Complaint as "Fortis."

92. Fortis Bank operated a bank branch in this District at 787 Seventh Avenue, New York, New York during the Class Period. Fortis Bank was licensed, supervised, and regulated by the NYDFS to do business in this state from 2002 until its acquisition by BNP.

93. Fortis Bank announced in September 2007 that it had established a commodities derivatives operation in New York, which included base and precious metals trading.[35] Fortis' "metal activities cover the full range of products in the base and precious metals arena where [they] act in a market-making capacity for both listed and over-the-counter products."[36]

94. Fortis Bank published marketing materials during the Class Period called "Fortis Metals Monthly," which detailed its precious metals trading, including for silver. In these materials, Fortis Bank identifies several traders located in New York for customers to contact in order to trade precious metals. Former New York-based Fortis Bank Director Steven Silverstein developed "[e]xtensive experience cross-selling *metals*, FX and IRS derivatives, and other bank products" during his tenure at Fortis during the Class Period.[37]

---

[34] *BNP Paribas in the US*, BNP Paribas, *available at* http://usa.bnpparibas/en/bnp-paribas/bnp-paribas-us/.

[35] *See Fortis Launches Commodity Derivatives Operations in New York*, TRADE & FORFAITING REVIEW (Sep. 5, 2007), available at http://www.tfreview.com/news/commodities/fortis-launches-commodity-derivatives-operations-new-york.

[36] *Committed to Commodities*, FORTIS BANK, *available at* http://www.orvico.nl/upload/diagram_2/FORTIS_%20GCG.pdf.

[37] *See* https://www.linkedin.com/in/stsilverstein (emphasis added).

95. Fortis, as alleged further herein, participated in the unlawful combination and conspiracy with the Fixing Members by, among other things, conspiring to fix spreads in the silver market, coordinating manipulative silver transactions, and sharing proprietary information with co-conspirator banks.

G. Standard Chartered Defendants

96. Defendant Standard Chartered Bank ("Standard Chartered") is incorporated under the laws of England and Wales, with its headquarters in London, England. Standard Chartered is licensed by the NYDFS with a registered address at 1095 Avenue of the Americas, No. 37, New York, New York 10036. Standard Chartered's New York Branch is the headquarters of Standard Chartered's "Americas" business.

97. Standard Chartered's metals trading business, which offers both physical and derivatives products to its customers, operates out of the bank's offices in six cities, including New York.[38] Standard Chartered's website includes a claim that it "provide[s] commodity trading…to the Bank's clients" in part via "on-the-ground presence in . . . New York."[39] In 2009, Standard Chartered announced the appointment of New York-based Mohammed Grimeh as the Bank's Head of Trading and Deputy Head of Global Markets, a position entailing "managing . . . commodities trading across G10 . . . markets," including the United States.[40]

---

[38] Jeremy East, *Precious Metals International Context*, ALCHEMIST (2014), *available at* http://www.lbma.org.uk/assets/blog/alchemist_articles/Alch75East.pdf.

[39] Press Release, Standard Chartered, We've appointed Cengiz Belentepe as Global Head of Commodities, Financial Markets (Sept. 15, 2016), *available at* https://www.sc.com/en/news-and-media/news/global/2016-09-15-cengiz-belentepe-appointed-as-global-head-commodities.html.

[40] Press Release, Standard Chartered Argentina, Standard Chartered Appoints Head of Trading and Deputy Head of Global Markets, Americas (Jan. 12, 2009), *available at* https://www.sc.com/ar/press-releases/jan-12-09/en/.

98. Standard Chartered was the eighth most active U.S. market maker in the silver spot market during the Class Period, based on public silver quotes. *See* ¶ 200.

99. Standard Chartered, as alleged further herein, participated in the unlawful combination and conspiracy with the Fixing Members by, among other things, coordinating manipulative silver transactions, and sharing proprietary information with co-conspirator banks.

H. Merrill Lynch Defendants

100. Defendant Bank of America Corporation ("BAC") is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business located at 100 North Tryon Street, Charlotte, North Carolina 28255. BAC operates an investment banking division located in this District at the Bank of America Tower, One Bryant Park, 1111 Avenue of the Americas, New York, New York 10036. Defendant Bank of America, N.A. ("BANA") is a federally-chartered national banking association with its principal place of business located at 101 South Tyron Street, Charlotte, North Carolina 28255. BANA is an indirect, wholly-owned subsidiary of BAC. BANA is a provisionally registered swap dealer with the CFTC. Defendant BANA is named as a successor-in-interest to Defendant Merrill Lynch.

101. Defendant Merrill Lynch, Pierce, Fenner & Smith Inc. ("Merrill Lynch") is a Delaware corporation with its headquarters at One Bryant Park, New York, New York 10036, and is a wholly-owned subsidiary of Bank of America Corporation. Merrill Lynch is the primary broker-dealer for BAC. Merrill Lynch is registered with the CFTC as a Futures Commission Merchant and the U.S. Securities and Exchange as broker-dealer. Merrill Lynch is a clearing member of the CME, COMEX, and NYMEX. BAC, BANA, and Merrill Lynch are collectively referred to in this Complaint as "Merrill Lynch."

102. Merrill Lynch, as alleged further herein, participated in the unlawful combination and conspiracy with the Fixing Members by participating in chatrooms to share and obtain proprietary information to coordinate positions in the silver market with co-conspirator banks.

I. Jane Doe Defendants

103. Jane Doe Defendants Nos. 1-100 are other entities or persons, including banks, interdealer brokers, cash brokers and other co-conspirators whose identities are currently unknown to Plaintiffs. The Jane Doe Defendants participated in, furthered, and/or combined, conspired, aided and abetted, or agreed with others to perform the unlawful acts alleged herein.

J. Agents and Co-conspirators

104. Other entities and individuals unknown to Plaintiffs at this time participated as co-conspirators and performed acts in furtherance of the conspiracy. Whenever reference is made to any act, deed, or transaction of any corporation or partnership, the allegation means that the corporation or partnership engaged in the act, deed or transaction by or through its officers, directors, agents, employees, representatives, parent, predecessors, or successors-in-interest while they were actually engaged in the management, direction, control or transaction of business, or affairs of the corporation or partnership.

JURISDICTION, VENUE, AND COMMERCE

105. This action arises under Section 22 of the Commodity Exchange Act, 7 U.S.C. § 25, Section 1 of the Sherman Antitrust Act, 15 U.S.C. § 1, and Sections 4 and 16 of the Clayton Act, 15 U.S.C. §§ 15 and 26, respectively. Silver is a “commodity” and is the “commodity underlying” silver financial instruments, including COMEX silver futures contracts, as those terms are defined within the Commodity Exchange Act.

106. This Court has federal question subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1337.

107. The Court may exercise supplemental jurisdiction pursuant to 28 U.S.C. § 1367 over Plaintiffs' claims under the laws of the several states.

108. Venue is proper in this District pursuant to 15 U.S.C. §§ 15(a) and 22, and 28 U.S.C. § 1391(b), (c) and (d), because during the Class Period, Defendants resided, transacted business, were found, or had agents in this District, and a substantial portion of the alleged activity affected interstate trade and commerce in this District.

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

110. During the Class Period, Defendants used the instrumentalities of interstate commerce, including interstate wires, the U.S. mail, and domestic futures exchanges, including for example, COMEX and the CBOT, to effectuate their illegal scheme.

111. COMEX and the CBOT are both divisions of the CME. To facilitate continuous trading of silver futures contracts and options, the CME developed an electronic trading platform called GLOBEX. Beginning in 2006, the GLOBEX platform rapidly became the dominant method for trading silver futures contracts. Chats among Defendants' traders show that they routinely used the GLOBEX platform to transact in silver futures and options contracts on COMEX and/or the CBOT, purposefully directing their manipulative conduct at the United States by transacting in silver futures and options contracts on a domestic exchange while simultaneously engaging in manipulative conduct to create artificial prices in the U.S. market that financially benefited those positions.[41]

[41] *See e.g.*, DB_PM_SLVR_0202464, DB_PM_SLVR_0272953 (Barclays); DB_PM_SLVR_0272808, DB_PM_SLVR_0044004 (Fortis); DB_PM_SLVR_0268647, DB_PM_SLVR_0270914 (Standard Chartered).

112. Defendants' manipulation, conspiracy, and conduct alleged herein was in U.S. import commerce and/or had direct, substantial and reasonably foreseeable effects on U.S. domestic commerce. Such effects give rise to Plaintiffs' claims, within the meaning of the Foreign Trade Antitrust Improvements Act.

113. Silver and silver financial instruments, like COMEX silver futures and options contracts, are commodities that trade in interstate commerce. Defendants' purposefully directed their restraint of trade and intentional manipulation of silver and silver financial instrument prices at the United States, causing harm to Plaintiffs and members of the Class. Billions of dollars of silver and silver financial instruments were traded in the United States during the Class Period. Defendants, as Fixing Members and sophisticated market participants, know that the results of the Silver Fix are (and knew that they were during the Class Period) disseminated in the United States, and are (and were during the Class Period) used to price silver and silver financial instruments, including COMEX silver futures and options contracts. For these reasons, Defendants knew that by purposefully directing their manipulative conduct, including their manipulation of the Silver Fix, at the United States, they could generate illicit profits by manipulating and fixing the prices of silver financial instruments such as COMEX silver futures and options contracts traded in the United States to artificial levels for their financial benefit.

114. Defendants' conduct had a substantial effect on the intrastate commerce of each of the fifty United States and its territories.

115. This Court has personal jurisdiction over each Defendant, because each Defendant transacted business, maintained substantial contacts, is located and/or they or their co-conspirators committed overt acts in furtherance of their illegal conspiracy, in the United States,

including in this District. The scheme was purposefully directed at, and had the intended effect of, causing injury to persons residing in, located in, or doing business in this District.

116. The Court has quasi in-rem jurisdiction over at least certain of the Defendants by virtue of their substantial physical assets located in New York, including caches of COMEX-registered silver bullion held in vaults in New York by at least HSBC and Bank of Nova Scotia.

SUBSTANTIVE ALLEGATIONS

I. THE FIXING MEMBER DEFENDANTS, BY DOMINATING THE SILVER FIX, CONTROLLED THE PRICE OF SILVER

117. Prior to and during the Class Period, silver prices were set each business day by the concerted action of the Fixing Members, through an "old-fashioned and opaque,"[42] process called the Silver Fix.

118. The Silver Fix "was born in the late 19th century when a handful of London bullion dealers agreed to meet daily under a cloud of cigar smoke to set the price for the 'devil's metal.'"[43] The original members of the 1897 Silver Fix were: (i) Mocatta & Goldsmid; (ii) Sharps & Wilkins; (iii) Pixley & Abell; and (iv) Samuel Montagu & Co.

119. Until August 14, 2014, this "venerable City of London institution"[44] was orchestrated by the London Silver Market Fixing, Ltd. Each business day the three Fixing Members—Defendants Deutsche Bank, HSBC, and Bank of Nova Scotia—met on a secure

---

[42] *London's silver price fix dies after nearly 120 years*, THE FINANCIAL TIMES (May 14, 2014), http://www.ft.com/intl/cms/s/0/db3188b8-db46-11e3-94ad-00144feabdc0.html?siteedition=intl#axzz38yxp1nAQ.

[43] *London's silver price fix dies after nearly 120 years*, THE FINANCIAL TIMES (May 14, 2014), http://www.ft.com/intl/cms/s/0/db3188b8-db46-11e3-94ad-00144feabdc0.html?siteedition=intl#axzz38yxp1nAQ.

[44] *What's The London Silver Fix, And Why's It Going Away?* THE WALL STREET JOURNAL (May 14, 2014), http://blogs.wsj.com/moneybeat/2014/05/14/whats-the-london-silver-fix-and-whys-it-going-away/.

conference call at 12:00 P.M. London time to fix the price of physical silver. The Silver Fix, which typically took less than 10 minutes, was conducted as a "Walrasian" or simultaneous auction led by one of the Fixing Members who was designated as the "Chairman." The Chairman position rotated among the Silver Fix panel members each year. No other silver market participants were allowed to run or participate in the daily auction.

120. The Silver Fix ostensibly started with the Chairman's determination of the U.S. Dollar "spot price" of silver, *i.e.*, the cash price of silver for immediate delivery. This became the opening price for the auction. Each Fixing Member then examined its order book, which contained orders from clients' brokerage accounts along with proprietary orders from that Fixing Member's own precious metals trading desk. Based on these orders, each Fixing Member declared how many bars of silver (around 1,000 troy ounces each) it was willing to buy or sell at the opening price in 50-bar increments.

121. After each participant placed its orders, the transactions were netted against each other. If the amount of buying interest was equal to the amount of selling interest the Silver Fix was complete. Otherwise, the Chairman would adjust the price upward or downward and the process would be repeated until the total amount of silver bought was within 300 bars of the total amount sold. For example, if at the opening price the Fixing Members expressed interest in buying a total of 1000 bars of silver but only 300 bars were offered for sale, the Chairman would progressively raise the price, inducing the sellers to offer more silver, until the difference between the buyers' and sellers' offers totaled 300 bars or less.

122. If for some reason this 300-bar threshold could not be reached, the Chairman could unilaterally fix the price of silver and the Fixing Members would divide the excess supply or demand pro-rata among themselves. For example, if there was one buyer and two sellers and

the buyer was willing to purchase 300 bars more than what was being offered, the buyer would reduce its buying interest by 100 bars and each of the sellers would increase its selling interest by 100 bars, collectively absorbing the 300 bar difference. Once this "price-setting ritual"[45] was completed, the final Fix price was published to the market.

123. This is what was supposed to happen. During the Class Period, no one outside the conspiracy knew what actually happened inside the Silver Fix. Throughout the Class Period, the Fixing Members and their co-conspirators maintained complete control over the Silver Fix and the resulting Fix price. The Fixing Members have never allowed anyone to view the Silver Fix, audit its results, or observe the daily auction. No other market participants were allowed to contribute to Silver Fix. No one, except for the Fixing Members and their co-conspirators, could influence the Fix price.

124. This dominant position of control over the Silver Fix and the Fix price gave the Fixing Members and their co-conspirators control over the price of silver throughout the Class Period. The Fix price is "globally regarded as the international benchmark" for silver and "globally accepted as the basis for pricing a variety of transactions, including many financial instruments."[46] "The guiding principal behind the Fixing is that all business, whether for large or small amounts, is conducted solely on the basis of a single published Fixing price."[47] The global acceptance and use of the Fix price is possible because silver, the forty-seventh element

[45] *Century old London silver fixing firm closes shop*, RESOURCE INVESTOR (May 14, 2014), http://www.resourceinvestor.com/2014/05/14/century-old-london-silver-fixing-firm-closes-shop?ref=hp.

[46] *See London is Home to the International Benchmark Prices for Gold and Silver*, LBMA, https://web.archive.org/web/20140619063614/http://www.lbma.org.uk/pricing-and-statistics (last visited June 19, 2014).

[47] *A Guide to the London Precious Metals Markets*, LONDON BULLION MARKET ASSOCIATION, at 14, http://www.lbma.org.uk/assets/market/OTCguide20081117.pdf.

on the periodic table, has the exact same elemental properties regardless of where it is located; an ounce of silver in a COMEX depository located in New York contains the exact same metal as an ounce of silver held in a London vault. Thus, by controlling the Fix price, the Fixing Members and their co-conspirators controlled the *global* price of silver, not just the price of silver traded in the London market, *i.e.*, the price of London "Good Delivery" silver bars.[48]

II. THE FIX PRICE DIRECTLY IMPACTS THE VALUE OF MULTIPLE SILVER INVESTMENTS

125. Consistent with its global benchmark status, The Fix price was used to price, benchmark, and/or settle billions of dollars in physical silver and silver financial instruments each day during the Class Period. As a "global benchmark that is used by everyone from jewelers to miners to price their deals,"[49] the Silver Fix and resulting Fix price "plays a crucial role in the roughly $30 billion a year global trade in silver. It affects the price of jewelry, helps determine the value of numerous silver investments, and impacts the earnings of mining companies that sell raw material to metals refiners."[50] Central banks also use the Fix price as a benchmark for buying and selling silver for their reserves. During the Class Period, the silver and silver financial instruments that Plaintiffs and the Class transacted were priced, benchmarked, and/or settled to the Fix price.

---

[48] London "Good Delivery" silver bars are produced in a format, e.g., size, shape, and weight that meet London Bullion Market Association guidelines. The silver contained in these bars is exactly the same as the silver used in other bars worldwide.

[49] *Curtain to fall on London's historic silver benchmark*, MARKETWATCH (May 14, 2014), http://www.marketwatch.com/story/curtain-to-fall-on-londons-historic-silver-benchmark-2014-05-14.

[50] *Curtain to Fall on London's Historic Silver Benchmark*, THE WALL STREET JOURNAL (May 14, 2014), http://online.wsj.com/articles/SB10001424052702304908304579561202115402582.

A. Physical Silver

126. Physical silver is traded "over-the-counter" ("OTC") between private parties. Because there is no centralized OTC market, the price of silver in these transactions is determined by reference to the Fix price, which the Fixing Members set through the Silver Fix throughout the Class Period.

127. Physical silver is traded in many different forms. Outside of the Silver Fix, which is itself an auction for 1000-ounce silver bars, investors buy and sell silver bars, coins, and "rounds," coin-sized pieces of silver with no face value, of various sizes. Because physical silver is traded in various amounts, the silver market is accessible to large bullion banks, like the Defendants, and also to smaller investors, including Class members. Regardless of the format, physical silver bars, coins, rounds, and other products are always priced based on the Fix price, which determines the price per ounce of silver.[51]

128. Physical silver may be held directly by an investor and stored, for example, in a safe deposit box, or kept with a bullion bank, like Defendants Deutsche Bank, HSBC, Bank of Nova Scotia or UBS, who acts as a custodian for the account holder. Silver stored with a bullion bank is kept in either an "allocated" or "unallocated" account. An allocated account gives the account holder an entitlement to a specific, designated silver stock, which is segregated, and for which the account holder is provided a list of bar numbers, weights and quality of each bar. An unallocated account gives the account holder a general entitlement to silver from the bank's stock but specific bars or coins are not set aside or assigned to the account holder. In both cases, because the bank holds the silver, ownership is typically represented by certificates, such as

[51] For example, the prices of silver bars and coins traded on the American Precious Metals Exchange are equal to the spot price of silver plus a premium, which can represent the cost of production as well as the collectable value of some rare coins. *See First Time Buyers FAQs*, APMEX, http://www.apmex.com/first-time-buyer.

silver certificates sold by Bank of Nova Scotia, which "may look and feel like paper, but they're every bit as valuable as the precious metals they represent," and convertible to silver bullion.[52]

B. Silver Financial Instruments

129. The Silver Fix and resulting Fix price also directly impact the prices of numerous exchange-traded financial instruments, such as silver futures and options contracts, as well as OTC transactions, such as silver swaps and silver forward agreements. In each case, the Silver Fix impacts the value of these financial instruments by determining the price per ounce of physical silver, which is the "commodity underlying" exchange traded silver futures and options contracts, and the actual metal being exchanged in OTC transactions.

130. For instance, silver futures and options contracts are traded on the COMEX, short for Commodity Exchange, Inc., which is a division of the New York Mercantile Exchange. COMEX is a Designated Contract Market pursuant to Section 5 of the CEA, 7 U.S.C. § 7. COMEX specifies the terms of trading for silver futures and options contracts, including the trading units, price quotation, trading hours, trading months, minimum and maximum price fluctuations and margin requirements. Silver futures and options contracts also traded on the NYSE LIFFE exchange[53] and on the CBOT[54] during the Class Period.

---

[52] Bank of Nova Scotia website, at http://www.scotiamocatta.com/products/certificates.htm.

[53] NYSE LIFFE exchange silver futures and options are now traded within the United States on the Intercontinental Exchange ("ICE"). *See* https://www.theice.com/products/Futures-Options/Foreign-Exchange#/products/31500923/Mini-Silver-Future; ICE website, at https://www.theice.com/products/Futures-Options/Foreign-Exchange#/products/31500927/Options-on-1000oz-Mini-Silver-Future.

[54] *An Introduction to Trading CBOT Electronic Gold and Silver*, CHICAGO BOARD OF TRADE, http://insigniafutures.com/Docs/CBOT_preciousMetals.pdf.

131. The commodity underlying each silver futures contract is physical silver. For example, a COMEX silver futures contract is "priced based on," *i.e.*, it derives its value from, an underlying 5,000 ounces of physical silver. If the price of silver changes, so does the value of the COMEX silver futures contract. The futures contracts traded on the NYSE LIFFE exchange and CBOT are different only in that they are priced based on a different underlying amount of physical silver, 1000 ounces and 2500 ounces respectively.

132. The pricing relationship between a silver futures contract and the underlying physical silver is a product of how futures contracts are structured. Each futures contract represents a bilateral agreement between two parties, a buyer and a seller of silver, who are commonly referred to as a "long" and a "short." As a silver futures contract nears "expiration," *i.e.*, the last trading day, the long and short halves of each contract become obligations to exchange physical silver. The longs (as the buyers) are obligated to pay for and take delivery of physical silver, while the shorts (as sellers) are required to deliver physical silver to the buyers. Because each silver futures contract represents an obligation to exchange physical silver in the future, the value of these contracts is directly tied to the price of physical silver.

133. This process of exchanging silver between buyer and seller is called "settlement." All futures contracts are settled following their expiration, however, in most cases this does not result in an exchange of the physical commodity. Market participants have the option to offset or "financially settle" their futures positions. In financial settlement, instead of taking or making delivery of the physical silver, investors in either the long or short position can offset their obligations with contracts for an equal but opposite position. For example, the buyer of a silver futures contract, who is long, can settle his obligation to take delivery of physical silver by selling futures contracts to initiate an equal but opposite short position.

134. The difference between the two contract prices, meaning the difference between the price at which the initial contract was purchased and the price at which the later offsetting contract was sold, is the profit or loss on that transaction. Investors with long positions, as buyers of the underlying commodity, generally benefit as the price of the commodity rises since they are able to sell an offsetting short contract at a higher price. Those with short positions, as sellers of the underlying commodity, generally benefit as the price of the commodity decreases because they are able to buy an offsetting long contract at a lower price.

135. Similarly, there are two types of options on exchange traded silver futures contracts, commonly known as "calls" and "puts." A call option gives the holder the right, but not the obligation, to buy a silver futures contract at a specified price, known as the "strike price," prior to some date in the future, at which point the option to purchase that contract "expires." Conversely, a put option gives the holder the right, but not the obligation, to sell a silver futures contract at the strike price prior to the expiration date. Because the silver futures contracts underlying options are priced based on a certain amount of physical silver, the prices of option on those futures contracts are also directly impacted by the Fix price.

136. Figure 1 (below) displays the daily closing price of COMEX silver futures contracts and the results of the Silver Fixing from January 2004 through December 2013. Consistent with the direct pricing relationship described above, over this 10 year period, the price of COMEX silver futures contracts, represented by the dotted line, tracks the results of the daily Silver Fix. This demonstrates that the prices of COMEX silver futures contracts are directly impacted by changes in the Fix price, which determines the value of the physical silver underlying each COMEX silver futures contract.

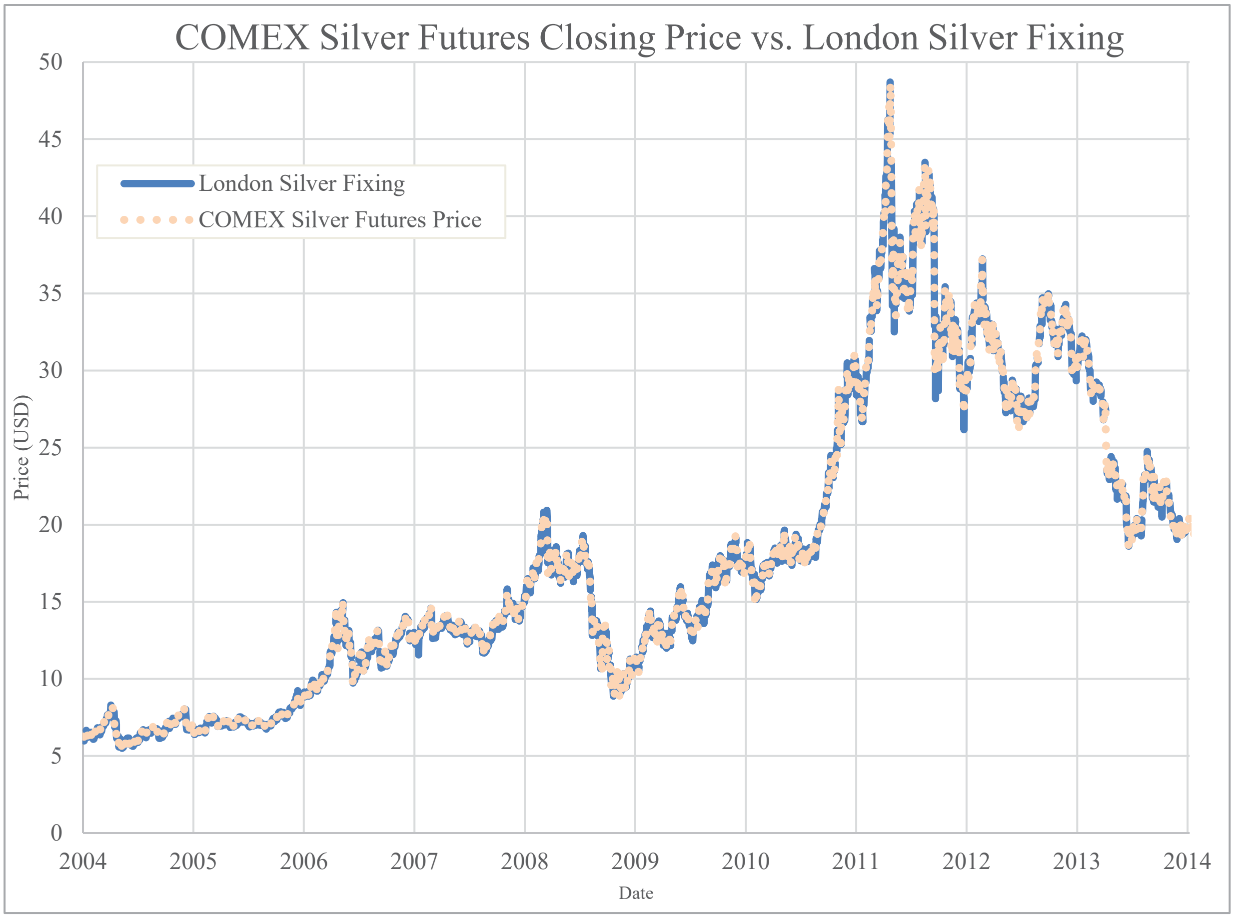


FIGURE 1

137. Plaintiffs confirmed the relationship between COMEX silver futures contracts and the Silver Fixing shown in Figure 1 by using a regression analysis. A regression analysis is a statistical tool that is used to evaluate the relationship between two variables. Comparing the daily closing prices of front month COMEX silver futures, *i.e.*, the contract closest to expiration, to the results of that day's Silver Fix, showed a statistically significant relationship between the price of COMEX silver futures contracts and the Fix price. The regression analysis indicates that 99.85% of the variation in the price of COMEX silver futures contracts between January 1, 2004 and December 31, 2013 is explained by the results of the Silver Fix. This is consistent with the expected relationship between the prices of COMEX silver futures contracts and the price per ounce of the underlying physical silver.

138. The Silver Fix and the Fix price also impacted the value of silver financial instruments traded in OTC markets during the Class Period, including silver swaps and silver forward agreements.

139. A silver swap is a cash-settled agreement in which two parties agree to a series of cash flows based on an agreed notional quantity of silver. One party typically pays a fixed price for the amount of silver listed in the contract while the other pays a variable "floating price," *i.e.* one subject to change over time, equal to the daily Fix price.

140. A silver forward agreement is like a silver futures contract in that it represents a bilateral agreement to buy or sell a certain amount of physical silver on some future date. The only difference between a silver forward agreement and a silver futures contract is that a silver forward agreement is not traded on a public exchange.

141. Defendants, as some of the largest silver market participants, understood the direct impact of the Silver Fix on the prices of silver and silver financial instruments. To capitalize on this relationship, Defendants executed a comprehensive strategy that involved (a) using their dominant position of control over the Silver Fix to cause a dysfunction in silver pricing; (b) improperly sharing private information, which they used to place trades in the silver market, exploiting the pricing dysfunction created by the Silver Fix; (c) maintaining an artificially wide, fixed bid-ask spread in the silver market; and (d) coordinating the use of several manipulative trading strategies to illegally profit from the artificial silver prices they created.

III. ECONOMETRIC ANALYSIS DEMONSTRATES THAT THE SILVER FIX CAUSES ARTIFICIAL SILVER PRICES

142. Implementing the first part of their manipulative strategy, Defendants caused silver prices and the prices of silver financial instruments to be artificial throughout the Class Period by manipulating the Fix price. The result of this manipulative conduct is an observable

dysfunction in the competitive pricing dynamics of the silver market occurring around the time of the Silver Fix. Plaintiffs uncovered this dysfunction in market behavior using well established econometric techniques, including some of the same methodology that was used to discover the LIBOR manipulation[55] and the breakdown of competitive market forces in conjunction with other precious metals benchmarks.[56]

A. The Silver Fix Marks a Statistically Significant Change in Pricing Dynamics

143. The first indication that competitive market forces break down around the start of the Silver Fix is the consistent and abnormally large drop in silver prices that begins before the start of the Fixing Members' daily conference call.

---

[55] *See*, *e.g.*, R. Abrantes-Metz, M. Kraten, A. Metz, & G. Seow, *LIBOR Manipulation?* JOURNAL OF BANKING & FINANCE 36 (2012), 136-150 (available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1201389).

[56] *See*, *e.g.*, *Fixing a Leaky Fixing: Short-Term Market Reactions to the London PM Gold Price Fixing*, Journal of Futures Markets 34 (2014); *see also Silver Linings*, *supra* note 5.

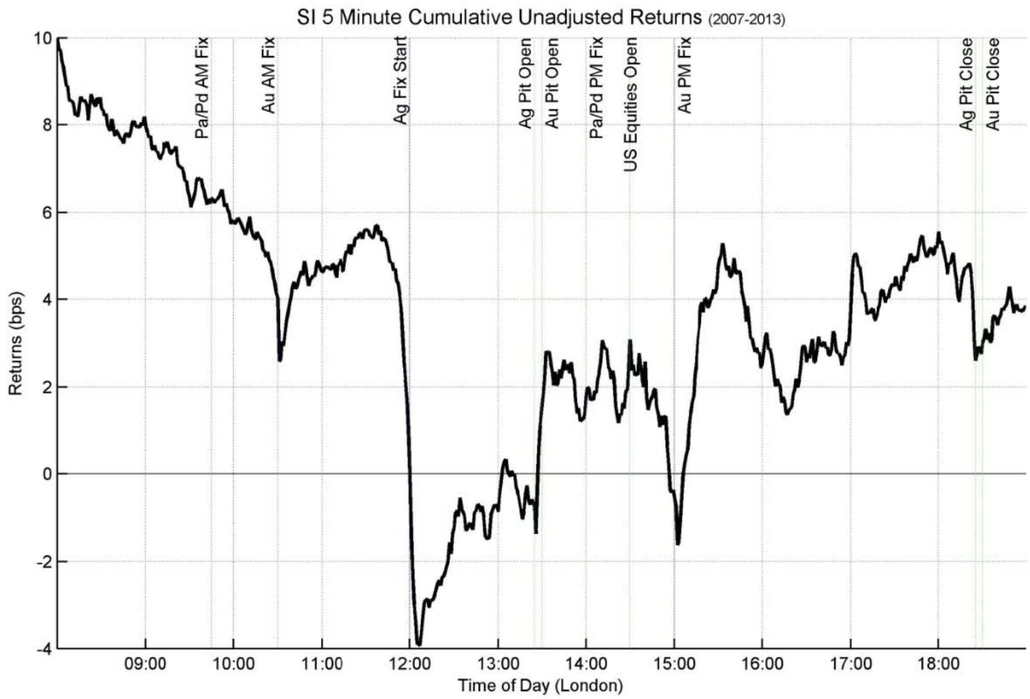


FIGURE 2

144. Figure 2 displays the cumulative unadjusted returns of COMEX silver futures contracts between January 1, 2007 and December 31, 2013. Cumulative unadjusted returns, which measure the change in value of a long position, represent the price level of COMEX silver futures contracts throughout the day. Thus a decrease in cumulative unadjusted returns indicates a decrease in the prices of COMEX silver futures contracts. Figure 2 shows that COMEX silver futures cumulative unadjusted returns begin to decrease just before the start of the Silver Fix. This 10 basis point drop in COMEX silver futures prices, which is by far the largest of the day, causes silver prices to reach their nadir just after the Silver Fix starts, in many cases before the Fix price is released to the market.

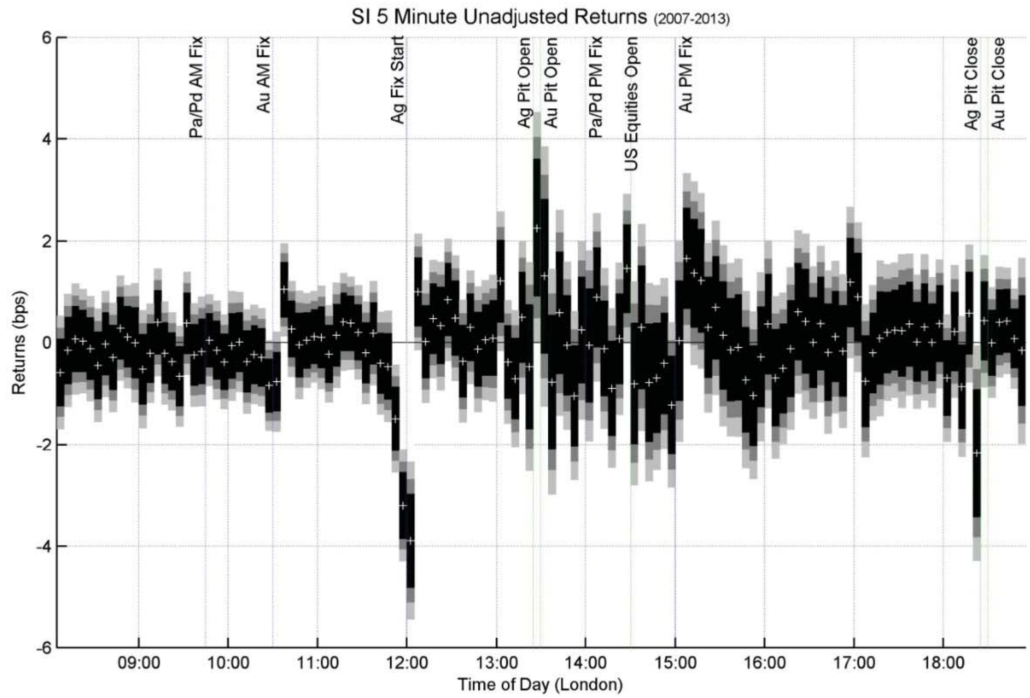


FIGURE 3

145. The drop in COMEX silver futures prices observed during the Silver Fix is not just the largest price drop of the day, it is also highly statistically significant and represents a distinct break from other market activity. In order to compare the pricing dynamics around the Silver Fix to those observed during the rest of the day, Figure 3 measures the statistical significance of the unadjusted returns in the COMEX silver futures market, between January 1, 2007 and December 31, 2013. Figure 3 demonstrates that the drop in price around the Silver Fix has several unique features that stand out from other parts of the day.

146. First, the Silver Fix causes a break in market activity observed before the 12 P.M. conference call, visible in Figure 3 as a gap in an otherwise unbroken pattern of returns; nowhere else throughout the trading day is a similar break in the chart observed. Figure 3 shows that prior to the start of the Silver Fix, pricing dynamics are relatively consistent. The unadjusted returns occupy a 4 basis point wide band, consistently varying between +2 basis points and -2 basis

points for each five minute interval. This pattern persists through the A.M. Platinum/Palladium and Gold Fixings, which, although they are associated with a price decrease in Figure 2, do not cause a statistically significant break from the prior returns displayed in Figure 3. However, in the 10 minutes leading up to the start of the Silver Fix, the unadjusted returns breakout from their observed range, with multiple five-minute intervals showing negative returns. The Silver Fix is the *only* part of the day where there is such a concentration of negative returns.

147. Second, price drops around the time of the Silver Fix are all highly statistically significant, indicating that those drops are not attributable to general market noise. Only during the Silver Fix is there a series of price drops well outside the 99.9% confidence interval. This is unique and distinguishes the Silver Fix from other times of the day.

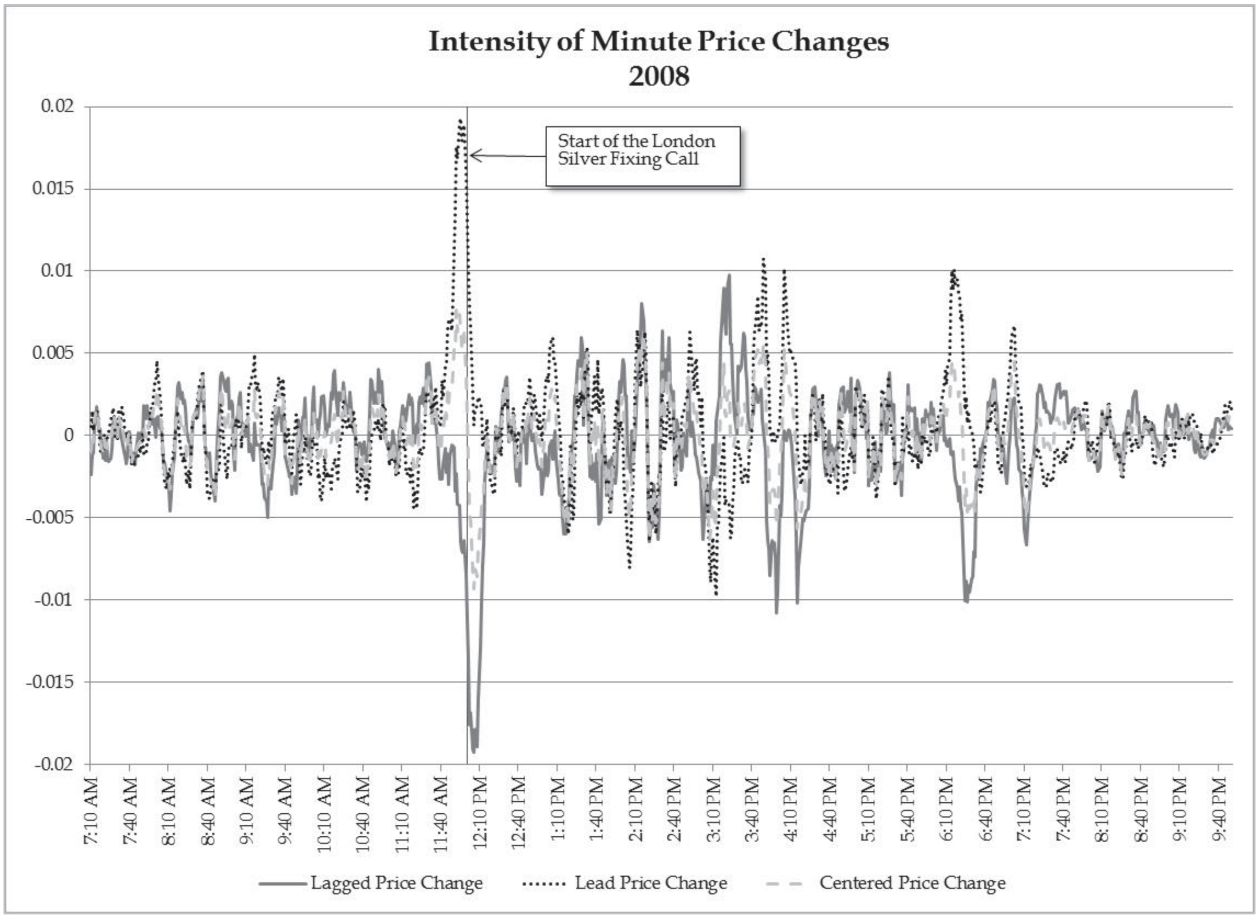


FIGURE 4

148. The same break from pricing behavior is also visible in the spot market for physical silver. Figure 4 examines the pricing dynamics in the silver spot market by comparing the magnitude of the change in silver prices across every minute of the day between 7:00 A.M. and 10:00 P.M. London time during 2008. Examples for additional years displaying similar activity are attached to this complaint as Appendix A. The change in price at each minute is calculated by comparing the current price of silver to the price 10 minutes before (the "lagged price change"), 10 minutes after (the "lead price change") and the average of the price at those two times (the "centered price change"). The result is a series of spikes representing the intensity of the change in silver prices over time. If the price at a given minute is very different from the

price 10 minutes before or 10 minutes after, the difference is represented by a large spike, while smaller price changes will create smaller spikes.

149. Figure 4 shows a large price spike around 12:00 P.M. London time, coincident with the start of the Silver Fix. This large price change is a distinct break from silver market dynamics observed both before and after the Silver Fix. In fact, nowhere else in Figure 4 is there a change in silver prices of similar magnitude. The intensity of the price changes occurring during the Silver Fix is so large that it even dwarfs those that occur when the COMEX trading floor opens in New York at 1:30 P.M. London time. This dramatic spike in intensity before the broader market opens is statically significant and not the result of general market noise.

150. Large price spikes, specifically around the start of the Silver Fix when the Fixing Members have their daily, scheduled, unsupervised meeting, are highly suggestive of manipulation. Large price spikes are only created when the price of silver in a given minute is significantly different from the lagging and leading prices. For example, the large spike in Figure 4 indicates that the prices during the Silver Fix were significantly different from those 10 minutes before and 10 minutes after the Silver Fix, producing a high intensity price change. That this kind of price change consistently occurs at a time when the Fixing Members are on the phone discussing where to set the Fix price is highly indicative of manipulative conduct during the Silver Fix.

B. Silver Prices Drop During the Silver Fix at an Abnormally High Frequency

151. Absent manipulation, there is no legitimate reason that high intensity price changes, or statistically significant negative returns should only occur during the Silver Fix. Supply and demand laws (and logic) dictate that if silver legitimately went "on sale" every day at the time of the Silver Fix, buyers should flock to purchase silver at the lower Fix price, buoying silver prices by increasing demand and reducing the intensity of any price change.

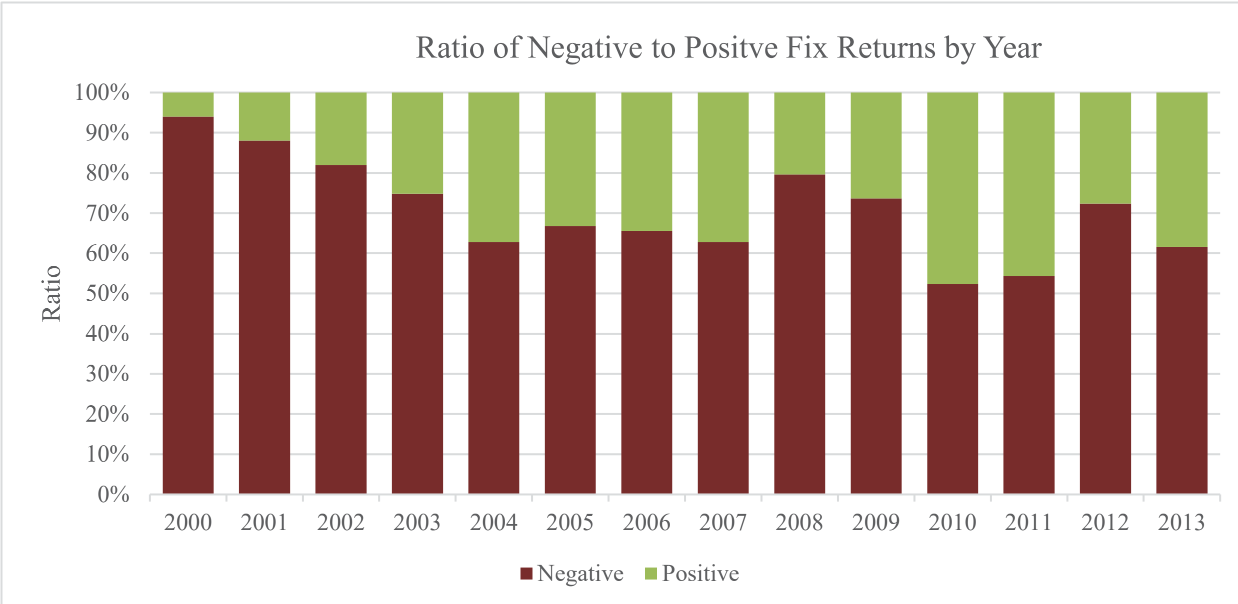


FIGURE 5

152. Yet the Silver Fix overwhelmingly generated negative returns, representing a decrease in silver prices, during the Class Period. Figure 5 displays the proportion of days with negative returns in red relative to the proportion of days with positive returns, indicating an increase in silver prices, in green. Figure 5 shows that during *every year* there are more days where the price of silver decreases during the Silver Fix than there are days where the price of silver increases. Often times, the number of "Down Days," with negative returns during the Silver Fix, substantially outnumber the "Up Days," with positive returns during the Silver Fix, by a ratio of 2 to 1.

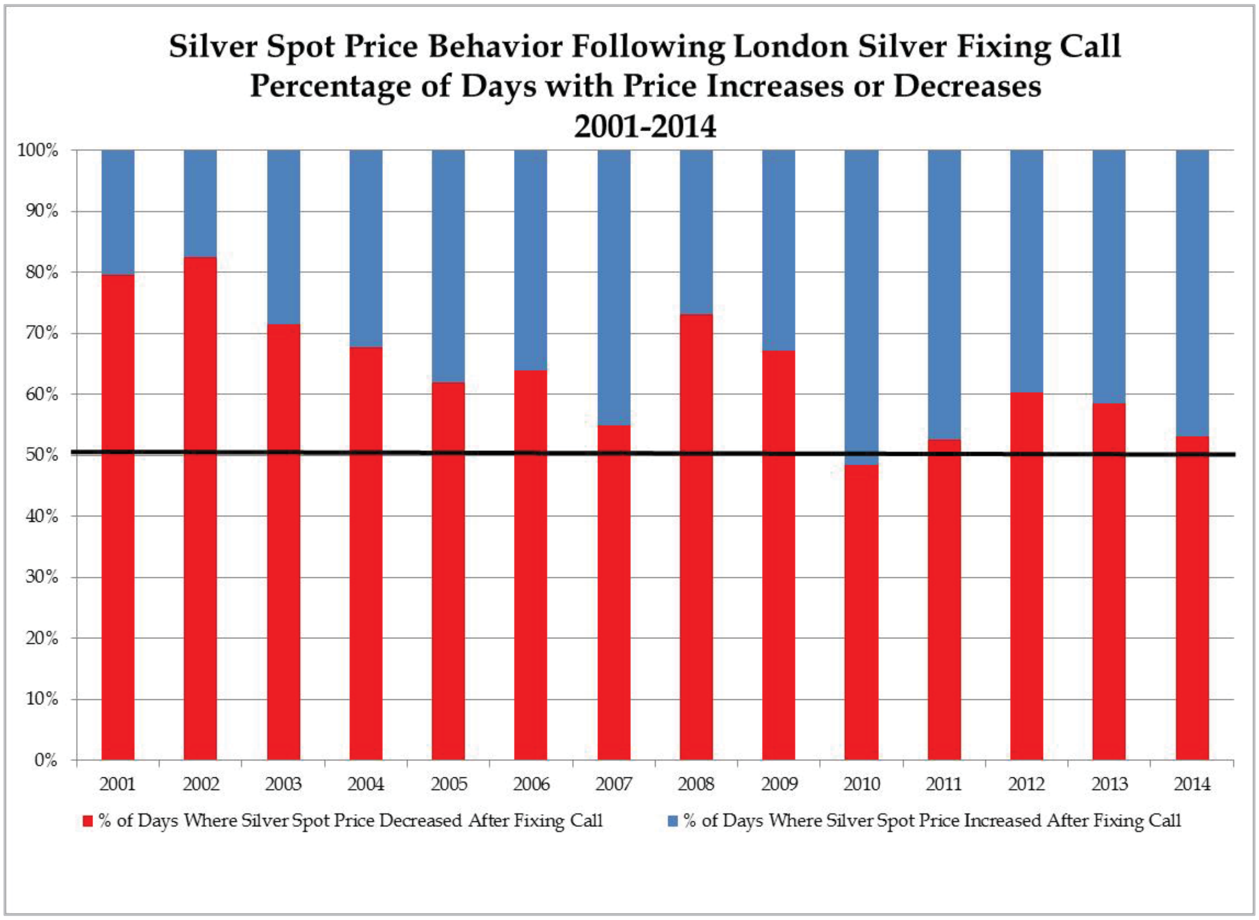


FIGURE 6

153. This abnormally high ratio of days with negative returns is driven in part by the results of the Silver Fix. Figure 6 displays the behavior of spot market silver prices by analyzing how often in a given year the price of silver at noon London time was greater than or less than the Fix price released a few minutes later. Figure 6 shows that in every year except for 2010, the percentage of days where the Fix price is lower than the price of silver at the start of the call is significantly larger, at times reaching 60%, 70% or 80% of the days during the year, than the number of days where the Fix price ends up higher. This indicates manipulation of the Fix price; in a market without manipulation, the Fix price should be evenly distributed, with roughly 50% of fixings higher and 50% lower than the price of silver at the start of the Silver Fix.

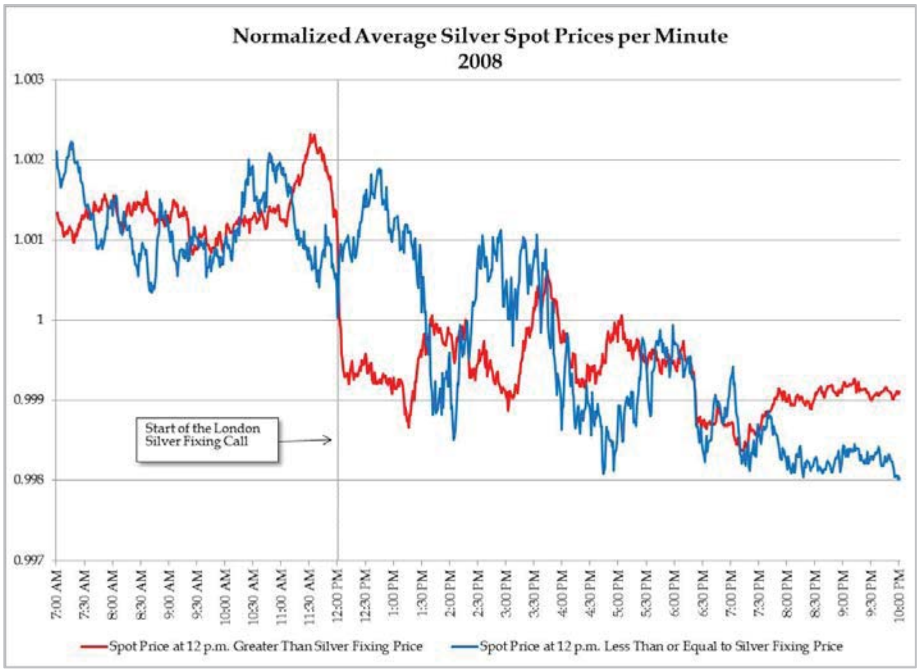


FIGURE 7

154. In addition to the skewed distribution of Fix prices, physical silver prices decrease during the Silver Fix regardless of what they are at noon London time. Figure 7 shows the normalized average spot market price of silver during 2008 for two different groups of days. The first group, represented by the red line, depicts the average price per minute across the year for days where physical silver prices at the start of the Silver Fix are greater than the Fix price. The second group, represented by the blue line, shows the average price per minute across the year for days where physical silver prices at the start of the Silver Fix are less than or equal to the Fix price. Additional charts covering other years are attached to this complaint as Appendix B.

155. Figure 7 shows a large drop in physical silver prices for days in both groups beginning before the start of the Silver Fix. This indicates manipulation during the Silver Fix because it violates supply and demand mechanics. For example, on days where physical silver prices are *less than* the Fix price at 12 P.M. London time, prices should increase. That prices decrease indicates a dysfunction in pricing dynamics during the Silver Fix.

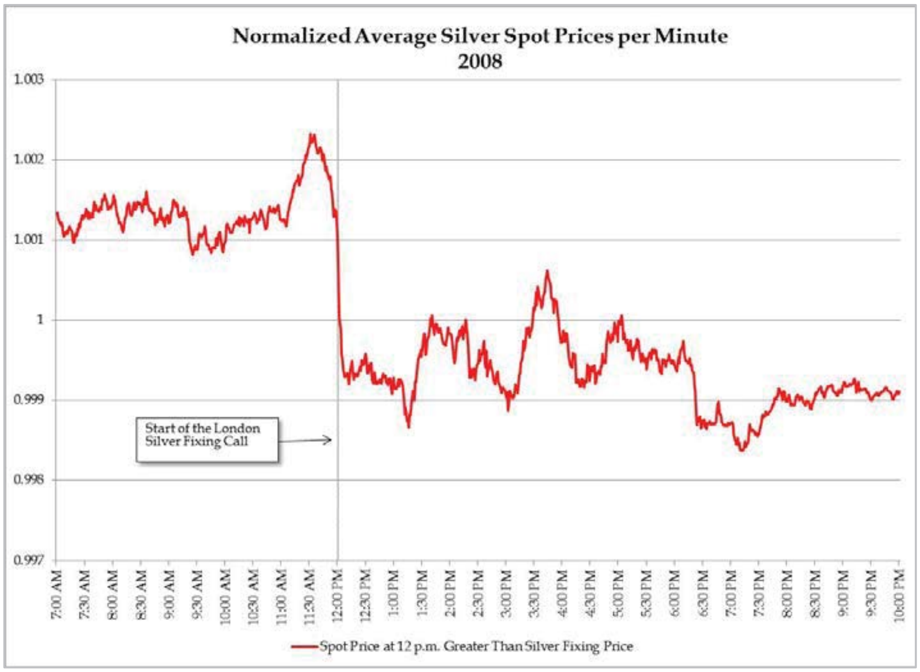


FIGURE 8

156. Figure 8 separates out the "red group" from Figure 7, displaying the normalized average spot market silver price for days during 2008 when the spot market price of silver was greater than the Fix price at noon London time. Additional examples covering other years are also included in Appendix B. Significantly, the drop in silver prices seen in Figure 8 begins before the Silver Fix starts. These drops occur during nearly every year of the Class Period for days in the red group, with the intensity of the drops increasing dramatically after 2004.

C. The Decrease in Silver Prices During the Silver Fix Is Abnormally Large

157. The sheer size of the drop in silver prices observed during the Silver Fix evinces Defendants' manipulation. As with the abnormally high frequency of negative returns, there is no legitimate reason why the size of the drops in silver prices observed during the Silver Fix should be any larger than observed price increases. Absent manipulation, selling that occurs during the Silver Fix and drives prices lower should be met with an increase in demand as more buyers show up to purchase silver at discount prices. Thus, the size of price increases and decreases around the Silver Fix should be about the same.

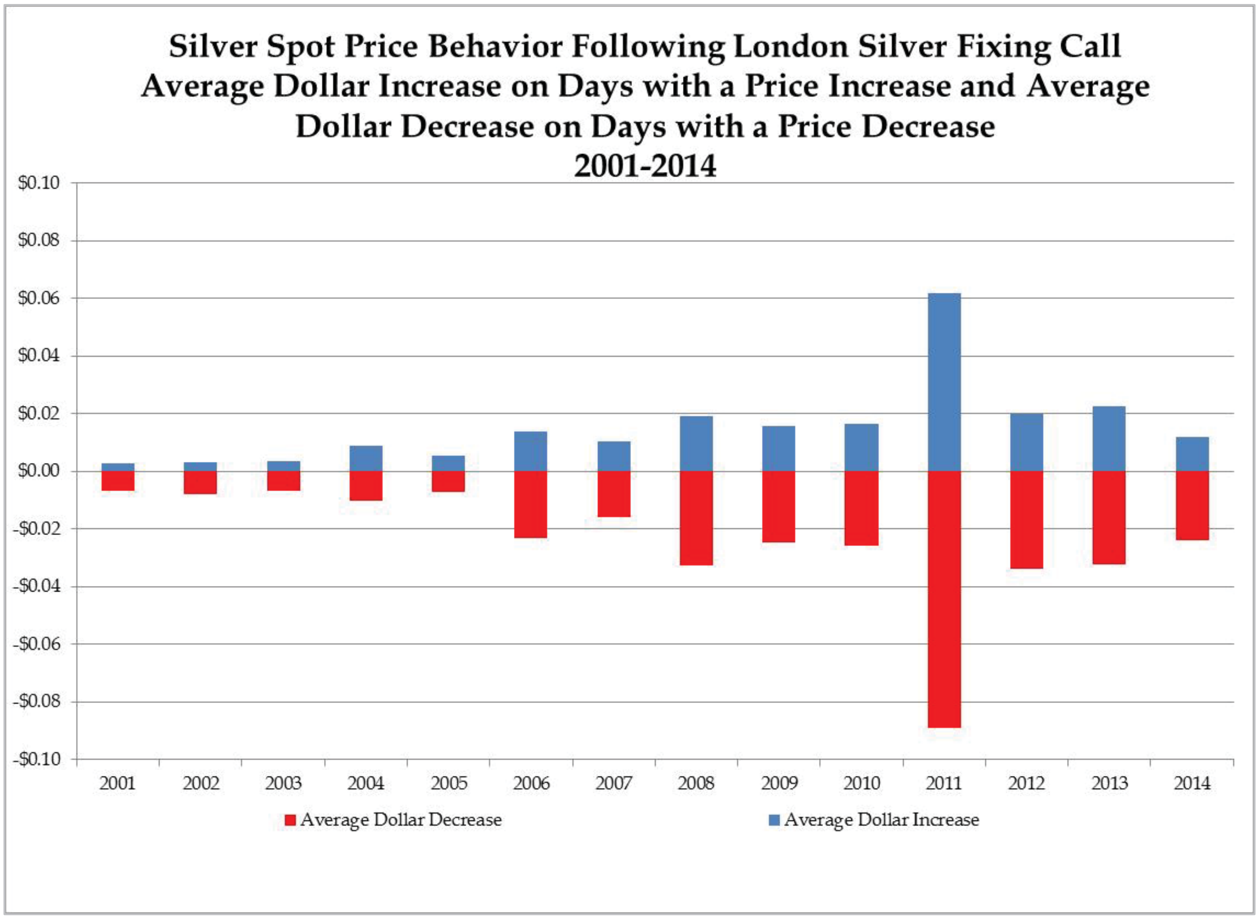


FIGURE 9

158. But just like the frequency of Down Days, where silver prices dropped during the Silver Fix, outnumbered Up Days where prices increased, throughout the Class Period, so did the size of those price decreases relative to price increases. Figure 9 displays the average dollar increase and decrease in spot market silver prices following the Silver Fix between 2001 and 2014. Figure 9 demonstrates that in absolute dollar terms, the size of price decreases are on average significantly larger than the size of price increases that occur during the Silver Fix.

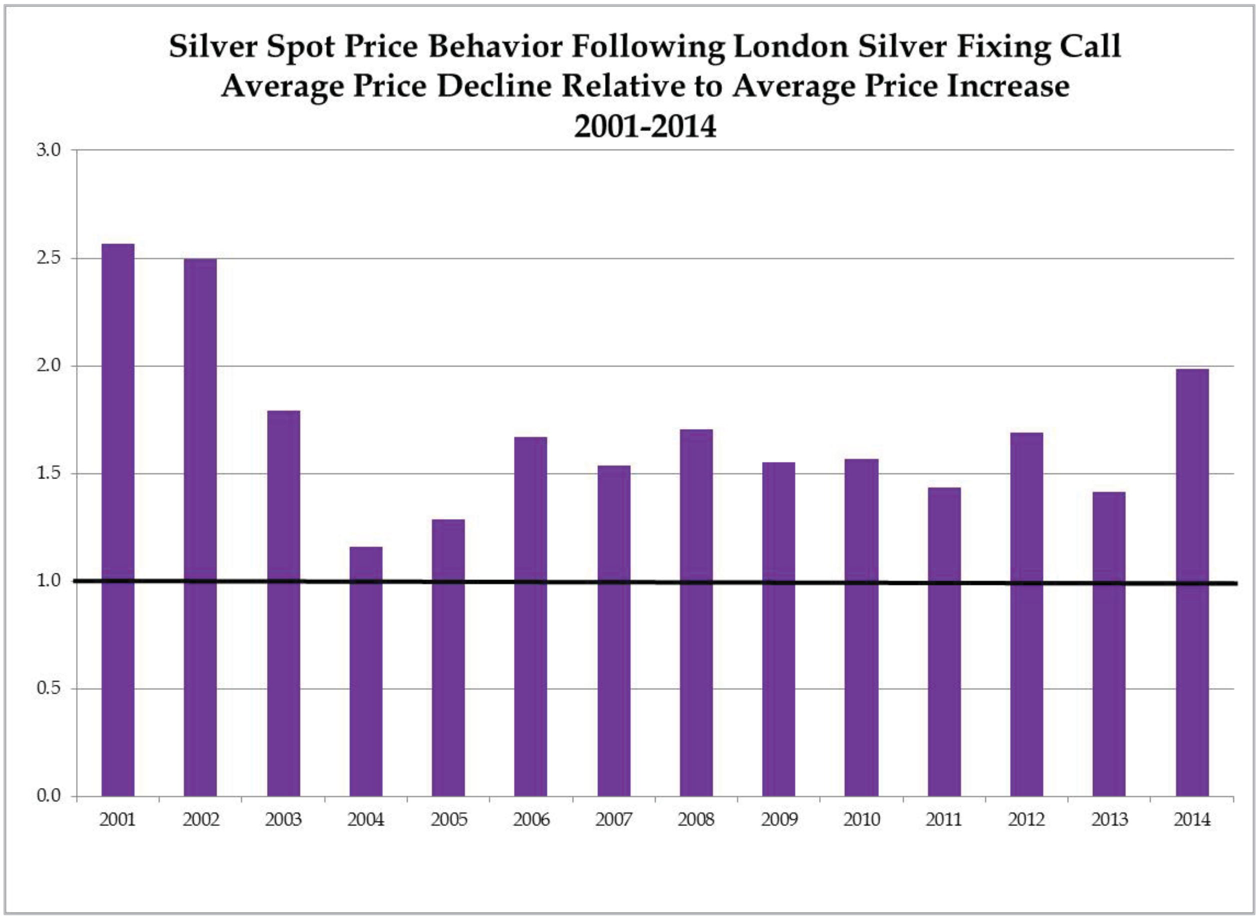


FIGURE 10

159. To make the comparison easier, Figure 10 demonstrates the difference in size between the price increases and price decreases displayed in Figure 9 above. Here the distinction is clear. On average, the size of price decreases around the Silver Fixing have been 1.5 times larger than corresponding price increases.

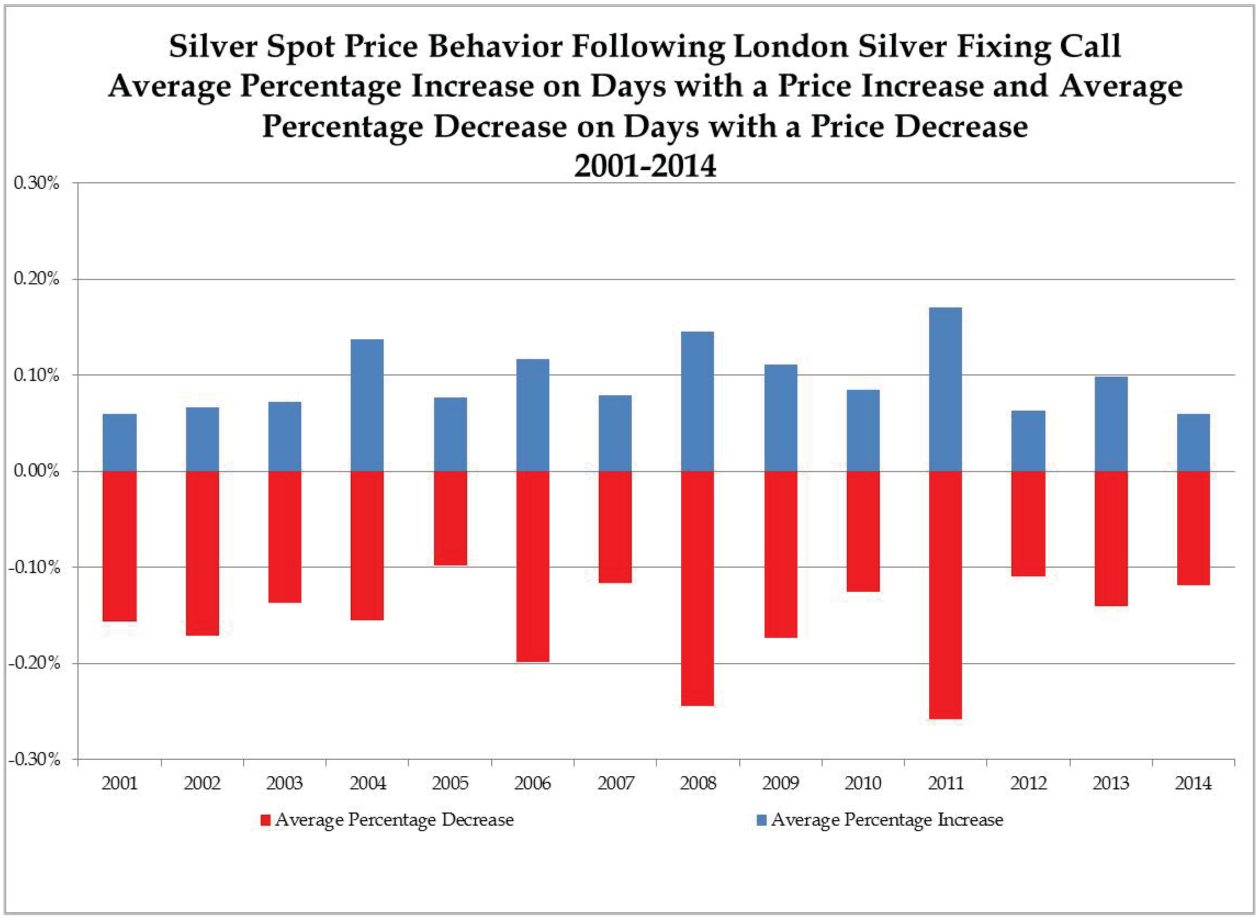


FIGURE 11

160. Figure 11 further highlights the asymmetry between price increases and decreases around the Silver Fixing by showing that not only is the absolute dollar change or size of price decreases around the Silver Fix larger, as indicated in Figures 9 and 10 above, but so is the relative price change in terms of percentage. Figure 11 demonstrates that the red bars, which show the percent decrease in silver prices, are significantly larger during most years than the blue bars, which represent the percentage price increase.

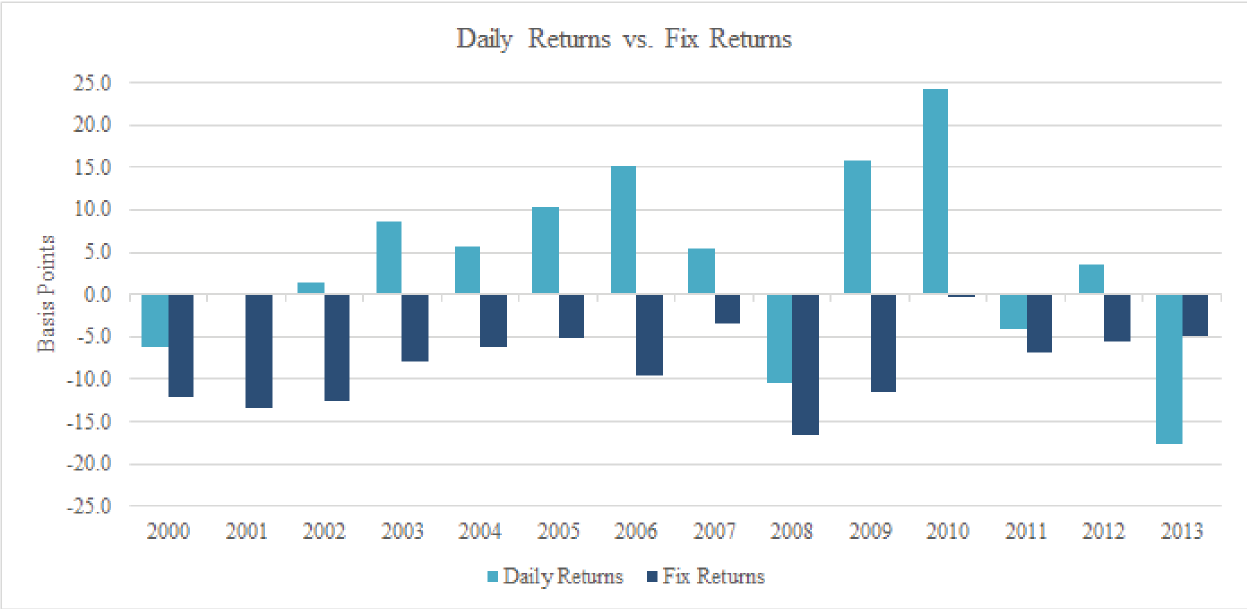


FIGURE 12

161. These large price drops during the Silver Fix are significantly different from the pricing dynamics observed during the rest of the day. Figure 12 underscores just how dysfunctional pricing dynamics are during the Silver Fix in relation to those in the broader public silver markets by comparing the average "daily returns," *i.e.*, the change in value of a long position in the spot market across the whole trading day, to the returns for spot market silver during the Silver Fix. Figure 12 shows that during every year except for 2008, the average returns during the Silver Fix were negative, representing a decrease in price, while the average daily returns across the whole trading day were positive, demonstrating an increase in price. This contrast shows how the Silver Fix causes a breakdown in competitive market forces and indicates manipulative conduct by the Defendants.

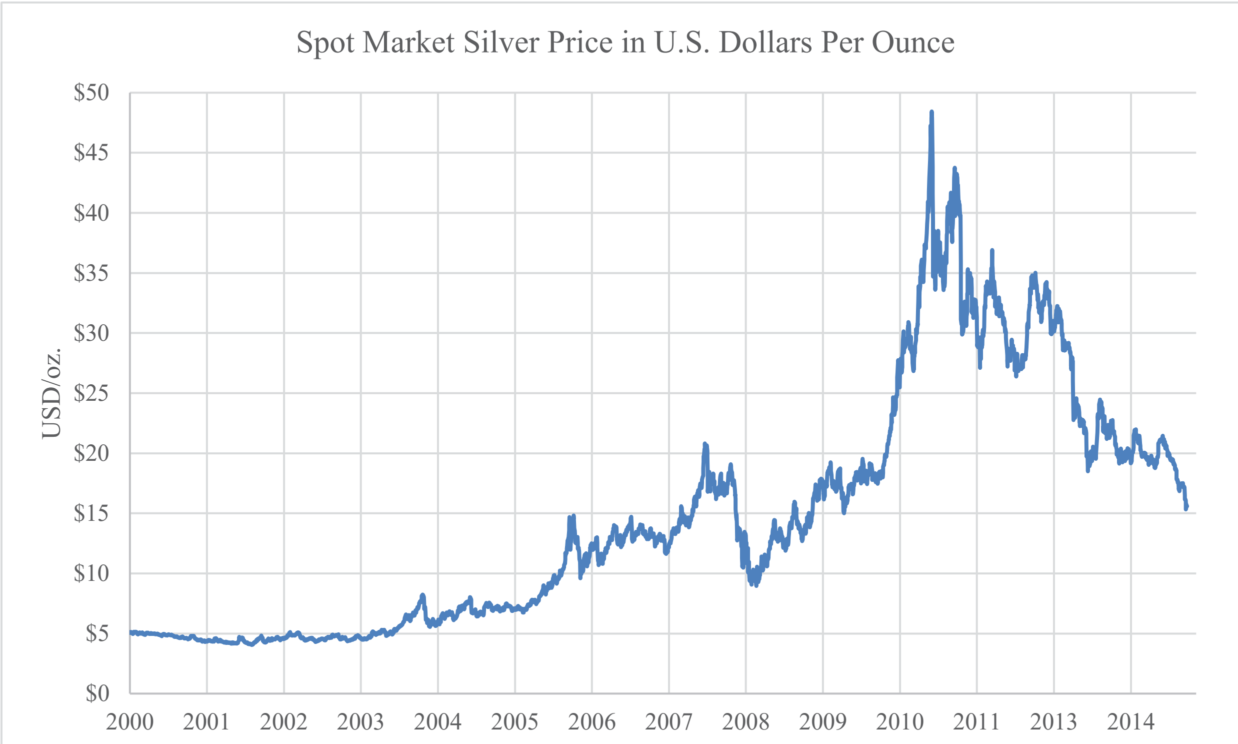


FIGURE 13

162. The difference in returns generated during the Silver Fix compared to the rest of the trading day is also remarkable because it ignores all broader market trends, further signifying a dysfunction in competitive pricing dynamics and manipulation by the Defendants. Figure 13 displays the spot market price of silver in U.S. dollars per ounce between January 1, 2000 and November 10, 2014, and shows the overall increase in the price of silver that occurred during the Class Period. For example, on January 1, 2005, silver begins a historic bull run, increasing in price from $6.78 per ounce to $48.44 per ounce on April 28, 2011. During this period, when the price of silver is continuously increasing, the Silver Fix consistently causes a large decrease in silver prices during the daily conference call. This stark contrast is indicative of manipulative conduct as the price behavior during the Silver Fix is the complete opposite of that observed in the general market.

D. Prices Drop on an Abnormal Spike in Trade Volume and Price Volatility, Indicative of Trading by the Fixing Members and Co-Conspirators

163. In addition to its high frequency, large size, and ability to defy broader market trends, the decrease in silver prices observed around the Silver Fix occurs coincident with a spike in both trading volume and price volatility. These spikes, which normally occur when new pricing information is released to the market, indicate trading by the Fixing Members and their co-conspirators based on private information from inside the Silver Fix.

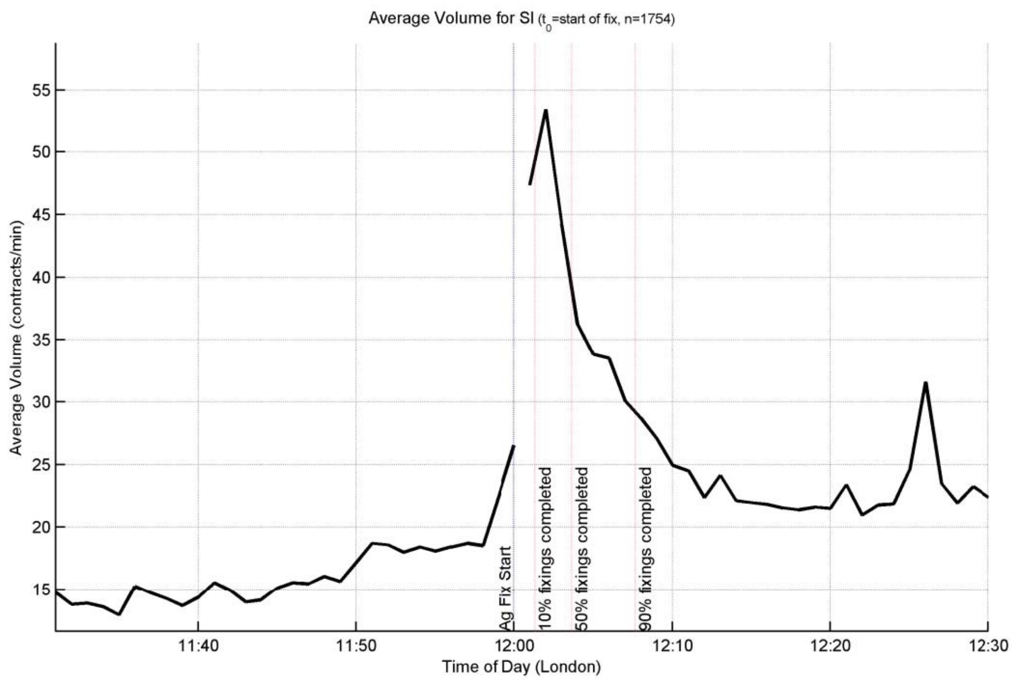


FIGURE 14

164. Figure 14 shows the average volume of COMEX silver futures contracts traded between 11:30 A.M. and 12:30 P.M London time from January 1, 2007 through December 31, 2013. Figure 14 demonstrates that trading volume begins to increase just prior to the start of the Silver Fix and gaps upward at noon London time, reaching its peak at 12:02 P.M. after increasing more than threefold, from around 15 contracts per minute before the start of the Silver Fix to over 50 contracts per minute, just 2 minutes after the Silver Fix starts.

165. This spike in volume is significant because it almost always occurs while the Silver Fix is still in progress. Figure 14 indicates the percentage of Silver Fixes that have completed with a series of vertical red lines. The average Silver Fix lasts around 4 minutes. The spike in trading volume in Figure 14 occurs just after the first red line, while roughly 90% of the Silver Fixes are still in progress. Thus, for almost every trading day, volume spikes while the Fixing Members are still on the phone *before* the Fix price is released to the public.

166. This sharp increase in trading volume during the Silver Fix goes against well-established economic principles, which dictate that trading volume should increase *after* new information, like the Fix price, is released to the public and not before. For example, if news came out of a global shortage in silver, trading volume should increase in response to this news as the market adjusts and incorporates the new information into silver prices. Unless that information is leaked to certain market participants in advance of the public, trading volume should remain stable until *after* news of the shortage is made public.

167. The Fix price, which is the global benchmark price of silver, should have the same effect on the market. Trading volume should increase *after* the Fix price is released to the public as the market reacts to this new pricing information and not before. A spike in volume *before* the Silver Fix is over, while the Fix price is still private information known only to the Fixing Members, shows the Fixing Members and their co-conspirators traded based on private information of the Fix price disclosed from inside the Silver Fix.

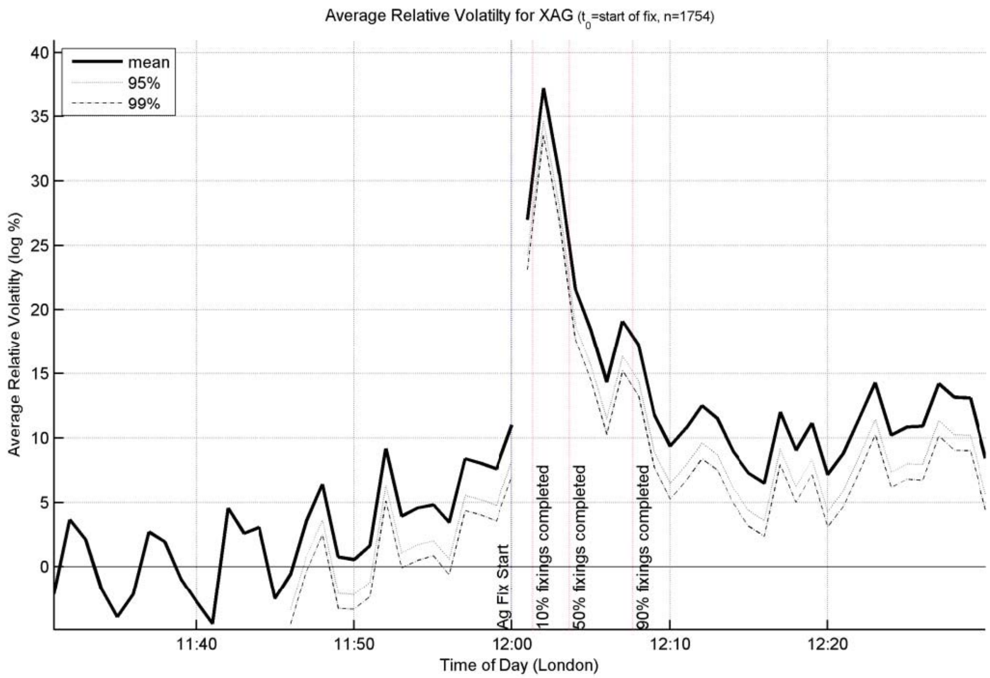


FIGURE 15

168. Similar results are observed in the silver spot market, where price volatility unexpectedly increases during the Silver Fix. Figure 15 displays the average relative price volatility in the silver spot market between 11:30 A.M. and 12:30 P.M. London time from January 1, 2007 through December 31, 2013. Like the increase in trading volume that occurs in the COMEX silver futures market, price volatility in the spot market begins increasing prior to the start of the Silver Fix and peaks just 2 minutes later at 12:02 P.M. London time, after increasing by close to 40%, while almost 90% of Silver Fixes are still in progress.

169. The spike in volatility shown in Figure 15 also defies well-established economic principles, which dictate that price volatility should increase in response to new information being released to the market and not before. Increasing volatility before the Fix price is released indicates trading by the Fixing Members and their co-conspirators based on private information from inside the Silver Fix. Manipulative trading before the release of the Fix price, did in fact occur in the spot market during the Class Period and is demonstrated in Part III.E. below.

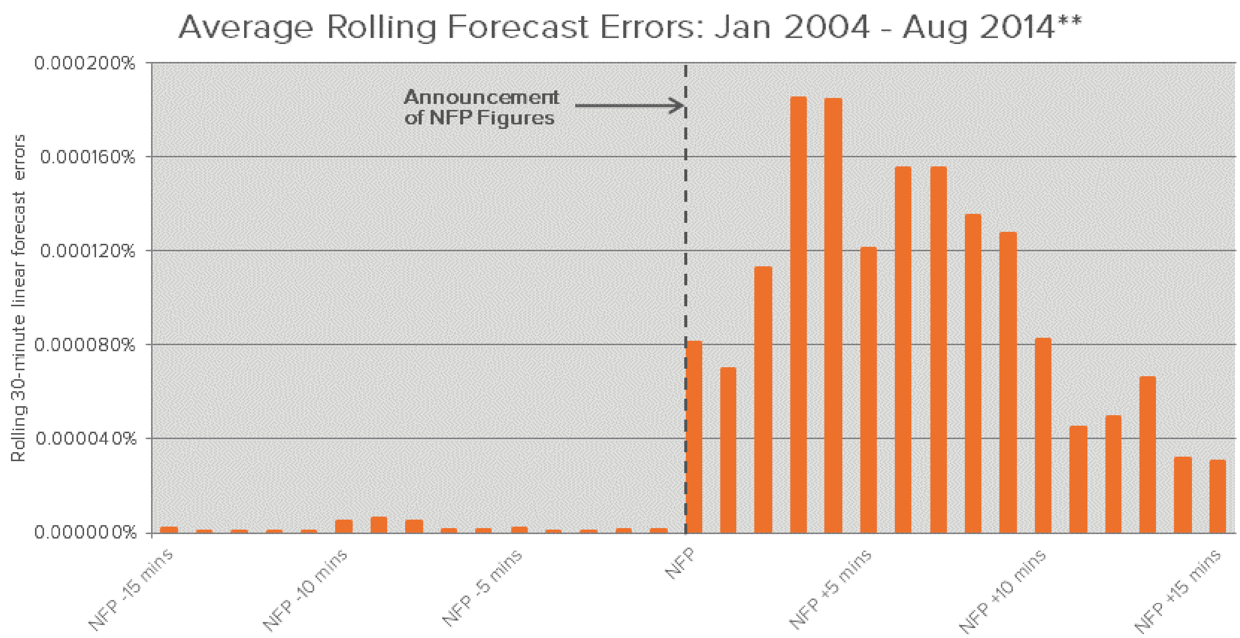


FIGURE 16

170. To verify that the spikes in volume and volatility displayed in Figures 14 and 15 above are being caused by Fixing Members and their co-conspirators trading based on private information from inside the Silver Fix, Plaintiffs looked at how silver prices reacted to other information being released to the market by examining the "average rolling forecast errors," *i.e.*, how much the average price of silver in each minute differs from the price in the immediately preceding minute, on days where major economic announcements occur. For example, Figure 16 displays the average rolling forecast errors in the silver market between January 1, 2004 and August 2014, on days where the U.S. Bureau of Labor and Statistics publishes its report on non-farm payroll ("NFP") data, a key economic announcement. Figure 16 shows that consistent with well-established economic principles, silver prices do not react until *after* the NFP data is announced, exhibiting low rolling forecast errors prior to the new information being released to the market.

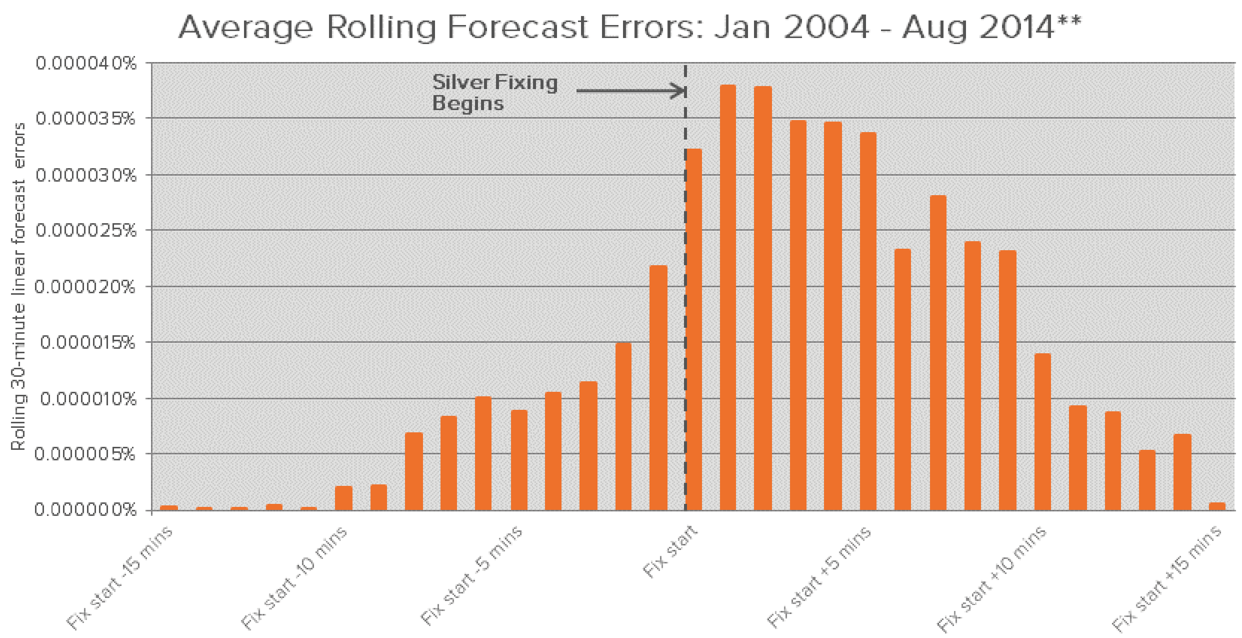


FIGURE 17

171. In contrast to the silver market's reaction to the release NFP data, Figure 17 displays the average rolling forecast errors in silver prices during the time of Silver Fix for the same set of days examined in Figure 16 above. Figure 17 demonstrates that the rolling forecast errors begin to increase 10 minutes prior to the start of the Silver Fix, consistent with the start of the large price drop examined in Figure 2 above. Forecast errors peak 2 to 3 minutes after the Fixing Members meet on the phone, coincident with the spike in trading volume and price volatility displayed in Figures 14 and 15 above. These results are drastically different from the market response to the NFP data, information which the Fixing Members do not have access to and unlike the Fix price cannot leak to their co-conspirators prior to publication.

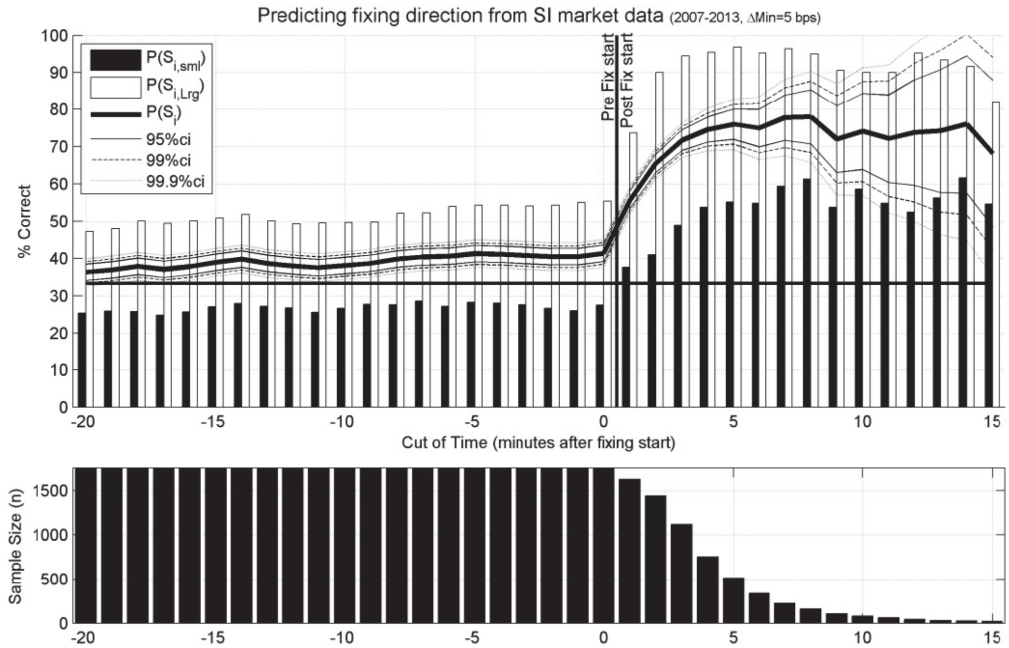


FIGURE18

172. Further demonstrating that the spikes in volume and volatility are the product of the Fixing Members and their co-conspirators trading based on private information from inside the Silver Fix is the fact that market returns during the Silver Fix predict the direction of the Fix price with an astonishing level of accuracy. Figure 18 contains two charts demonstrating the predictive power of trades placed in the COMEX silver futures market during the 20 minutes before (-20 to 0) and 15 minutes after (0 to 15) the start of the Silver Fix between January 1, 2007, and December 31, 2013.

173. The top half of Figure 18 shows the percentage of ongoing Silver Fixes for which the price direction (*i.e.*, higher or lower than the price at noon London time) was correctly predicted by the market price direction (*i.e.*, increasing or decreasing) during the specified time interval. The solid black line displays the total percentage of ongoing Silver Fixes where the price direction was correctly predicted, while the black and white vertical bars represent the

percentage of correct predictions for two different subsets of days (a) those where the returns, *i.e.*, change in price, during the Silver Fix were "small;" and (b) those where they were "large."

174. Figure 18 shows that trades placed just after the start of the Silver Fix, but before the Fix price is released to the public, are highly predictive of the Fix price direction. For example, once the Fixing Members start their daily, secret, unregulated conference call, trades executed after the Fix starts but before the results are publicly released predict the Fix price direction with 83.6% accuracy. In contrast, trades placed during the 20 minutes prior to the start of the Silver Fix, *i.e.*, before the Fixing Members all meet on the phone, have a limited predictive value, correctly predicting the direction of the Fix price about 40% of the time.

175. The predictive value of trades placed while the Fixing Members are on the phone increases even further when there are large returns, *i.e.*, more than 5 basis points on average, to be gained by trading in advance of the public release of the Fix price. The white vertical bars in Figure 18 report the ability of market activity to predict the results of Silver Fixes that generate these large returns and demonstrate more than 90% accuracy for trades placed during the 2 to 7 minute intervals, and 96.9% accuracy during minute 5. The analysis in Figure 18 only measures the ability of market returns to predict the results of *ongoing* Silver Fixes, the information driving the high predictive value of these trades placed in the minutes after the start of the Fixing Members' call must be coming from inside the Silver Fix. That large economic incentives, indicated by large returns, show higher accuracy is indicative of informed trading and manipulation by the Defendants during the Silver Fix.

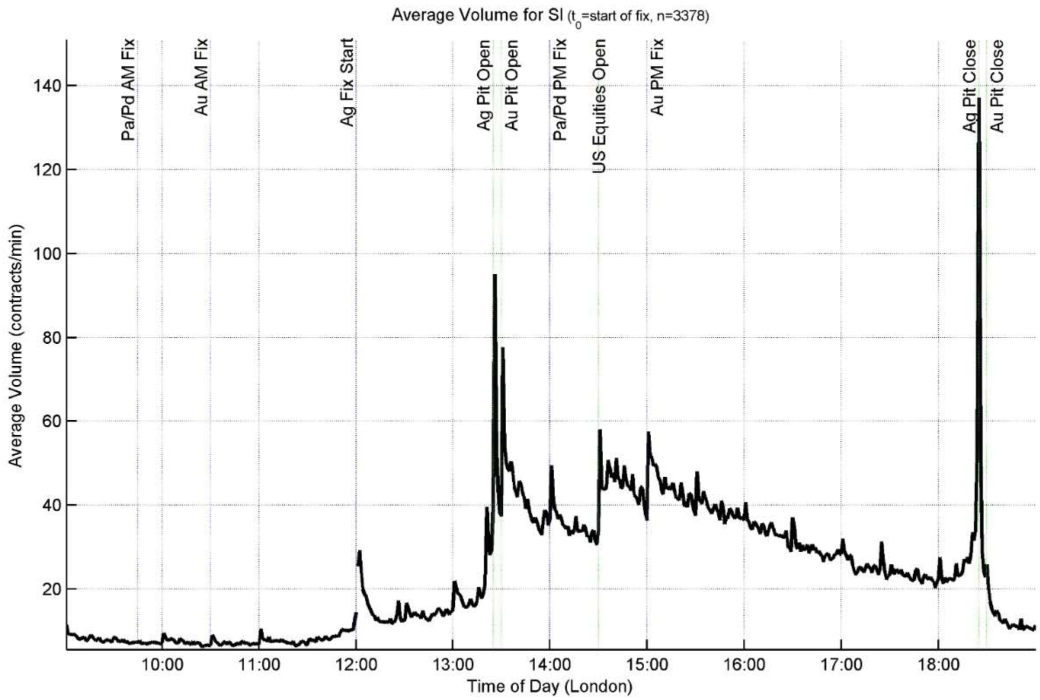


FIGURE 19

176. The Silver Fix's role as a source of private information for the Defendants is also supported by where the Silver Fix takes place in the context of the trading day. Figure 19 shows the average trading volume of COMEX silver futures contracts between January 1, 2000 and December 31, 2013. Figure 19 demonstrates that while the Silver Fix represents a local spike in trading volume it occurs almost an hour and a half before the start of COMEX silver pit hours, where much of the COMEX silver futures volume is traded. As a result, the increased trading volume during the Silver Fix is most plausibly explained as trading by the Fixing Members, who are already scheduled to meet at that time, and their co-conspirators, who are given access to private information from inside the Silver Fix.

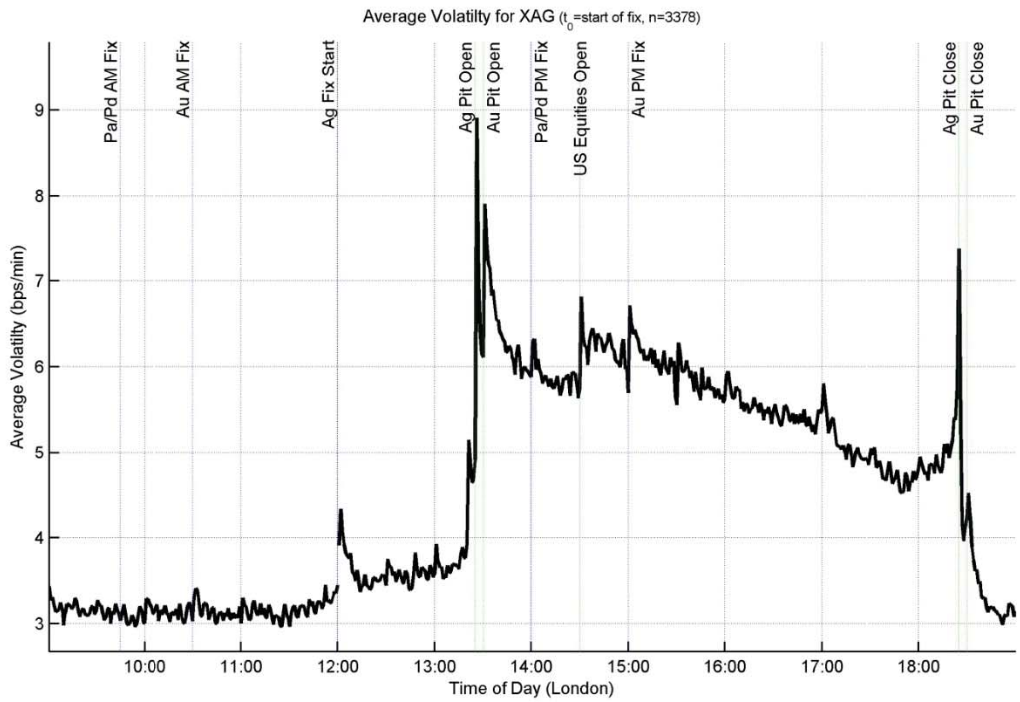


FIGURE 20

177. This is also true of the price volatility spike observed in the silver spot market. Figure 20 displays the average price volatility in the spot silver market between January 1, 2000 and December 31, 2013. Just like the spike in trading volume, the local spike in volatility during the Silver Fix occurs almost an hour and a half before the COMEX pit opens. As a result, the volatility spike during the Silver Fix is most plausibly explained as trading by the Fixing Members and their co-conspirators, and not the result of broader public market forces.

E. Spot Market Activity Directly Connects the Defendants to the Dysfunction in Silver Pricing Observed During the Silver Fix

178. The characteristic features of the dysfunction in silver pricing described above are also visible in Defendants' spot market activity, directly connecting the large drop in silver prices and increase in price volatility as silver prices decrease rapidly, to each Defendant's conduct. To demonstrate this, Plaintiffs used Defendants' public spot market quotes during the Class Period to isolate days where the Defendants' spot market quotes corresponded to a "reversion" or change in the direction of prevailing market silver prices. Plaintiffs chose to screen for reversion days because a sudden change in price direction is consistent with the kind of manipulative conduct identified in the UBS FINMA Report[57] as part of "clear attempts to manipulate fixes in the precious metals markets."[58]

179. FINMA uncovered that UBS implemented a comprehensive manipulative strategy involving use of confidential, proprietary, non-public information shared among co-conspirators to engage in (a) the "repeated front running. . . of silver fix orders," *i.e.*, orders placed before the start of the Silver Fix that guarantee execution at the Fix price; (b) triggering of client stop-loss orders, forcing clients to sell silver to UBS at artificially lower prices; (c) improperly alerting co-conspirators of large incoming or pending trades so they could trade in advance of those orders.[59] While each tactic caused a sharp change in the silver price trend that benefitted the Defendants, the triggering of client stop-loss orders, *i.e.*, standing orders to sell silver if the price dropped below a certain level, results in sharp decrease in silver prices identical to the pricing dysfunction observed during the Silver Fix.

[57] *See* UBS FINMA Report, *supra* note 15 at 12.

[58] *See* Elena Logutenkova & Nicholas Larkin, *UBS Precious Metals Misconduct Found By Finma in FX Probe*, BLOOMBERG L.P. (Nov. 12, 2014).

[59] *See* UBS FINMA Report, *supra* note 15 at 10, 12.

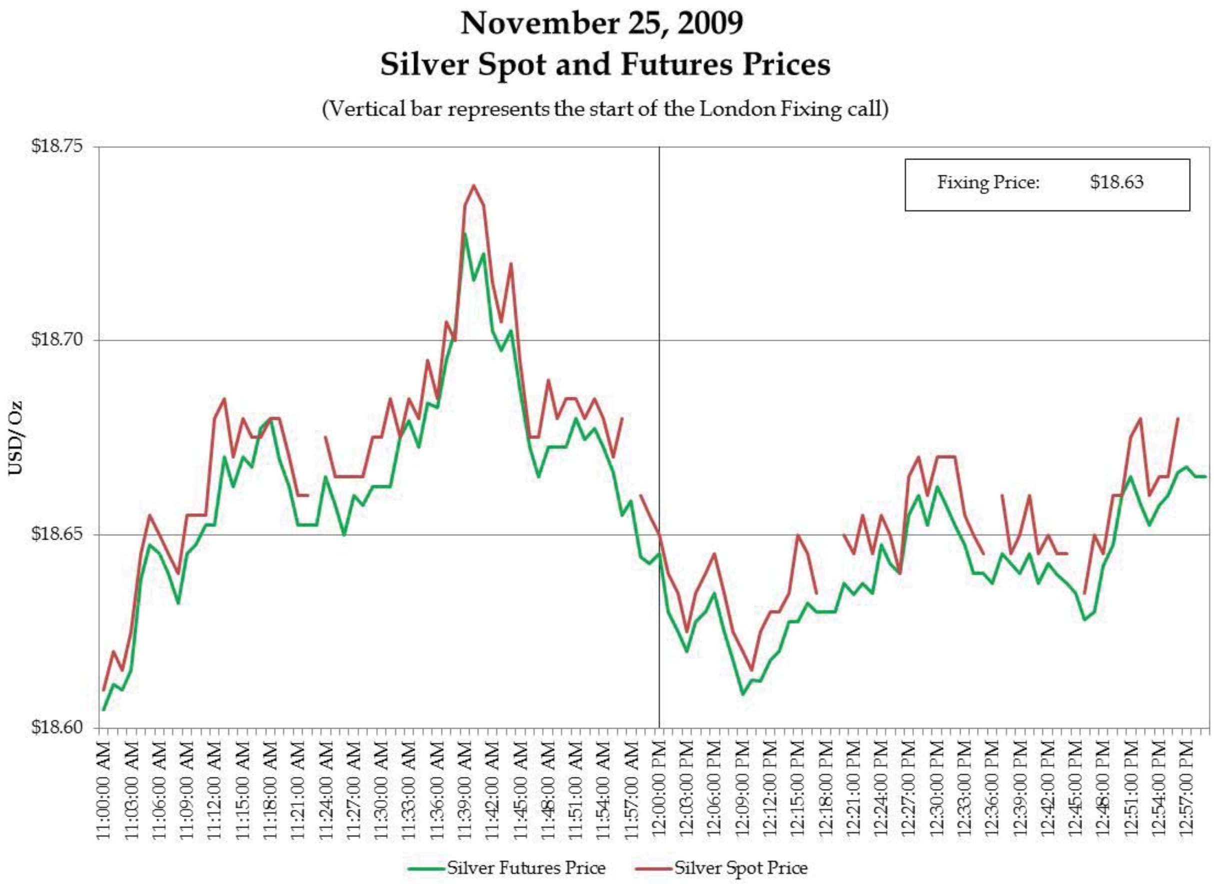


FIGURE 21

180. Figure 21 identifies one of these reversion days, displaying the prices of COMEX silver futures contracts and spot market silver between 11:00 A.M. and 1:00 P.M. London time on November 25, 2009. Additional example charts for days with similar pricing behavior are attached to this complaint as Appendix C. Figure 21 shows that on November 25, 2009, the prices of COMEX silver futures contracts and spot market silver were *increasing* prior to 11:40 A.M. London time, then the price trend suddenly changed direction, and silver prices began decreasing into the start of and throughout the Silver Fix.

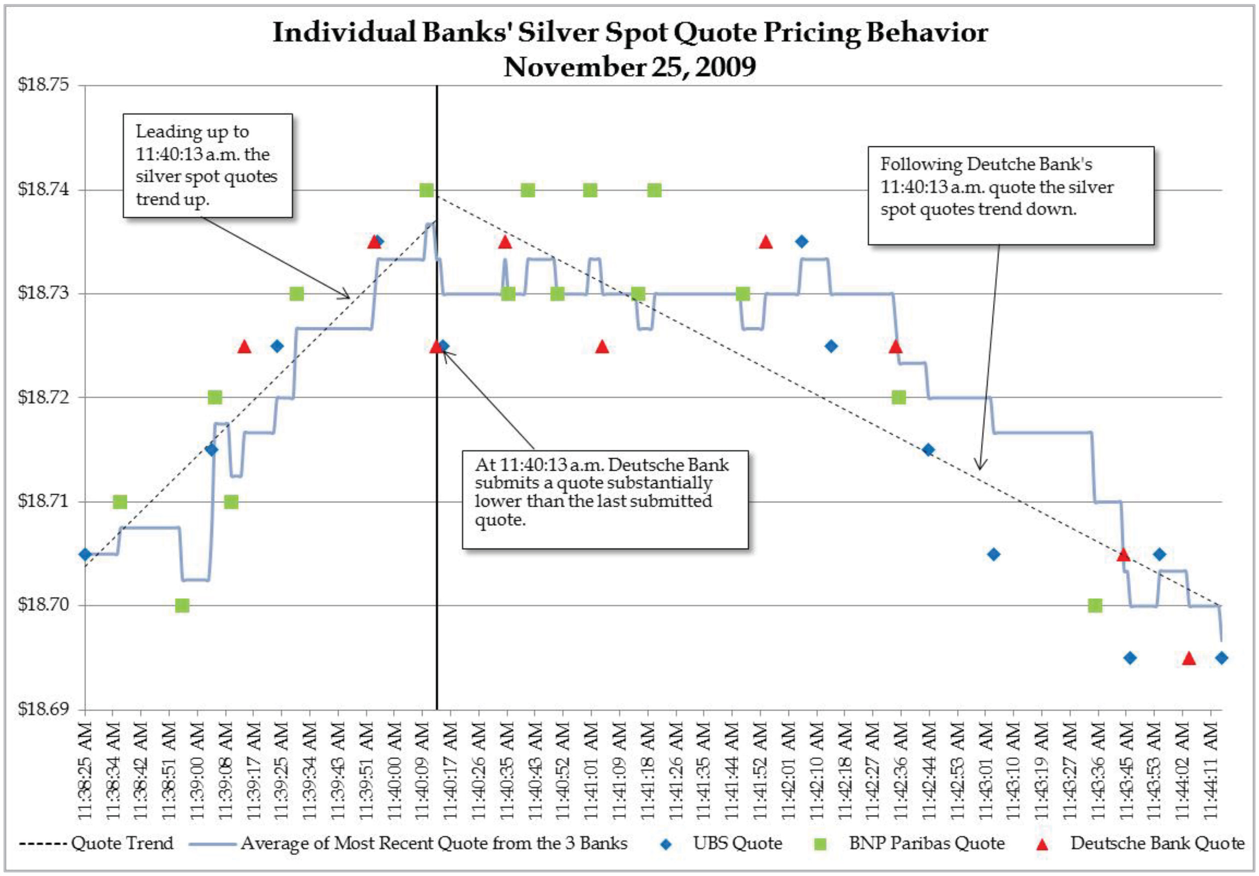


FIGURE 22

181. Focusing on the individual price quotes in the spot market, Figure 22 shows the evolution of spot silver prices between 11:38 A.M. and 11:44 A.M. London time on November 25, 2009. During this time period three banks, Defendant UBS, Defendant Deutsche, and BNP Paribas are publicly quoting silver prices in the spot market around the time of the Silver Fix.

182. Figure 22 shows that the price of silver in the spot market was increasing until, at 11:40:13 A.M. London time, Defendant Deutsche submits a price quote that is substantially lower than the prevailing quotes in the market at that time. Almost immediately, Defendant UBS, the blue diamond, drops its spot market quote to the same level as Deutsche. These lower price quotes by Defendants Deutsche and UBS coincide with a change in the trend of spot silver prices, which continues throughout the Silver Fix, and is consistent *inter alia* with the stop-loss trigging behavior identified in the UBS FINMA Report.

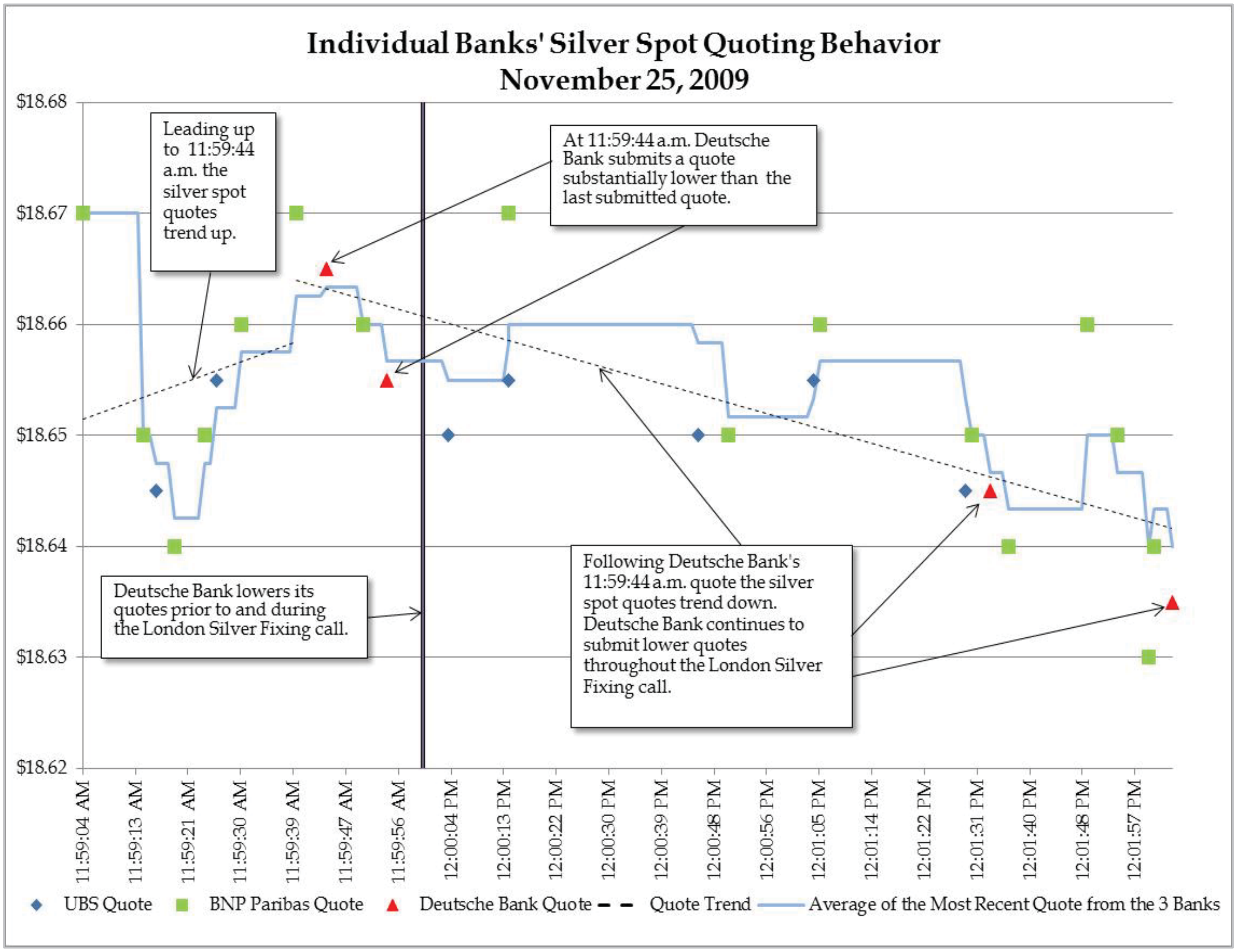


FIGURE 23

183. Moving closer to the start of the Silver Fix, Figure 23 shows that Defendants Deutsche and UBS consistently submit price quotes that are lower than prevailing market prices. For example, beginning at 11:59:44 A.M., Deutsche Bank submits a quote substantially lower than the last quote submitted by BNP Paribas, which starts a reversion in the spot market price trend. UBS follows suit, lowering its next price quote to $18.65, lower than Defendant Deutsche Bank, and significantly lower than the average market price. Following Defendant Deutsche Bank's quote at 11:59:44 A.M., silver prices start trending downward into the beginning of the Silver Fix. Throughout the Fix, Deutsche and UBS continue to place quotes on the lower end of other contemporaneous price quotes in the market leading the price of silver consistently lower.

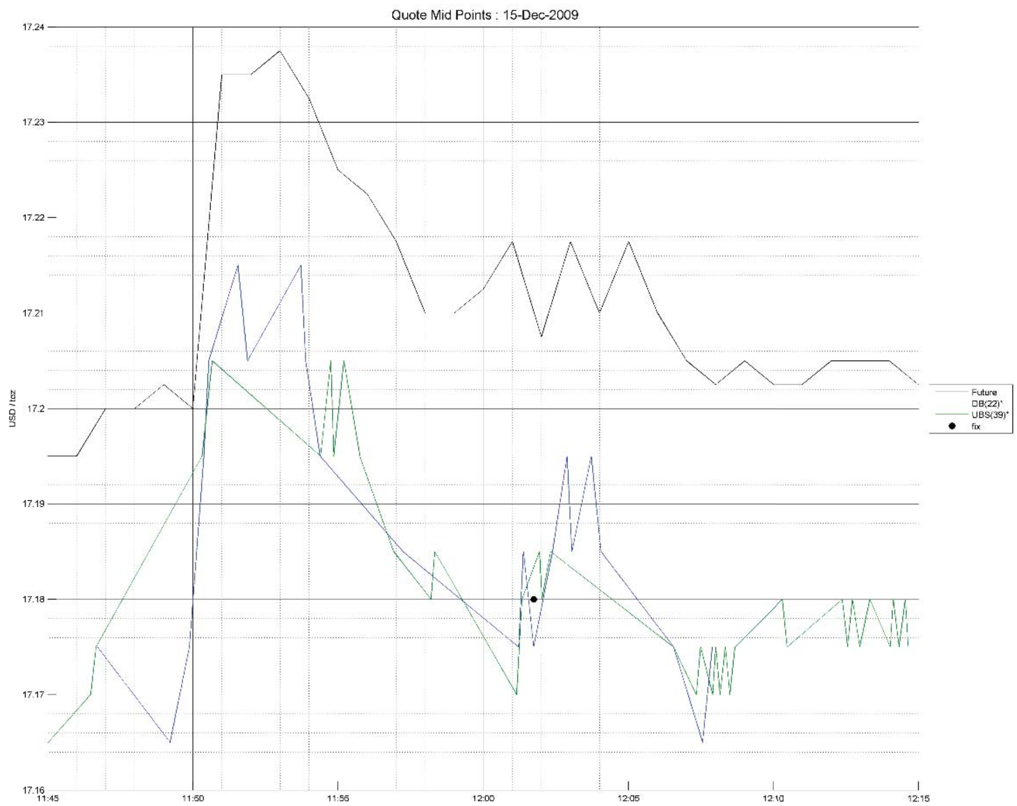


FIGURE 24

184. Plaintiffs identified more than 850 days during the Class Period where Defendants' spot market activity caused silver market price trends to reverse direction. For example, Figure 24 displays the spot market activity between 11:45 A.M. and 12:15 P.M. London time on December 15, 2009. Only 2 market makers, Defendants Deutsche and UBS, indicated by the blue and green line respectively, were publicly quoting silver prices at this time. Figure 24 demonstrates that on December 15, 2009, silver prices were increasing until UBS initiates a downtrend by quoting continuously lower prices from 11:51 A.M. until around 12:01 P.M. Deutsche follows UBS, reversing the direction of its quotes at 11:54 A.M. Both Defendants quote lower prices together, at times below Fix price levels, in the minutes before the Fix price is released. This string of lower price quotes drives the prices of COMEX silver futures contracts, indicated by the solid black line, and the overall price of silver lower.

FIGURE 25

185. Figure 25 is another example, displaying the mid-point of spot market quotes and COMEX silver futures prices between 11:45 A.M. and 12:15 P.M. on June 12, 2009. On June 12, 2009, there are three banks, Defendants Bank of Nova Scotia, UBS, and Fortis, represented by the green, red, and blue lines respectively, publicly quoting silver prices in the spot market around the start of the Silver Fix. Noticeably, all three banks, suddenly begin quoting lower silver prices around 5 minutes before the start of the Silver Fix at 11:55 A.M. Following these price quotes, the prices of COMEX silver futures contracts, which was previously increasing, change direction, starting a downtrend that pushes COMEX silver futures prices to the level of the Silver Fix by 12:02 P.M., almost three minutes before the Fix Price is released. This downtrend reverses once the Defendants' lower silver price quotes stop.

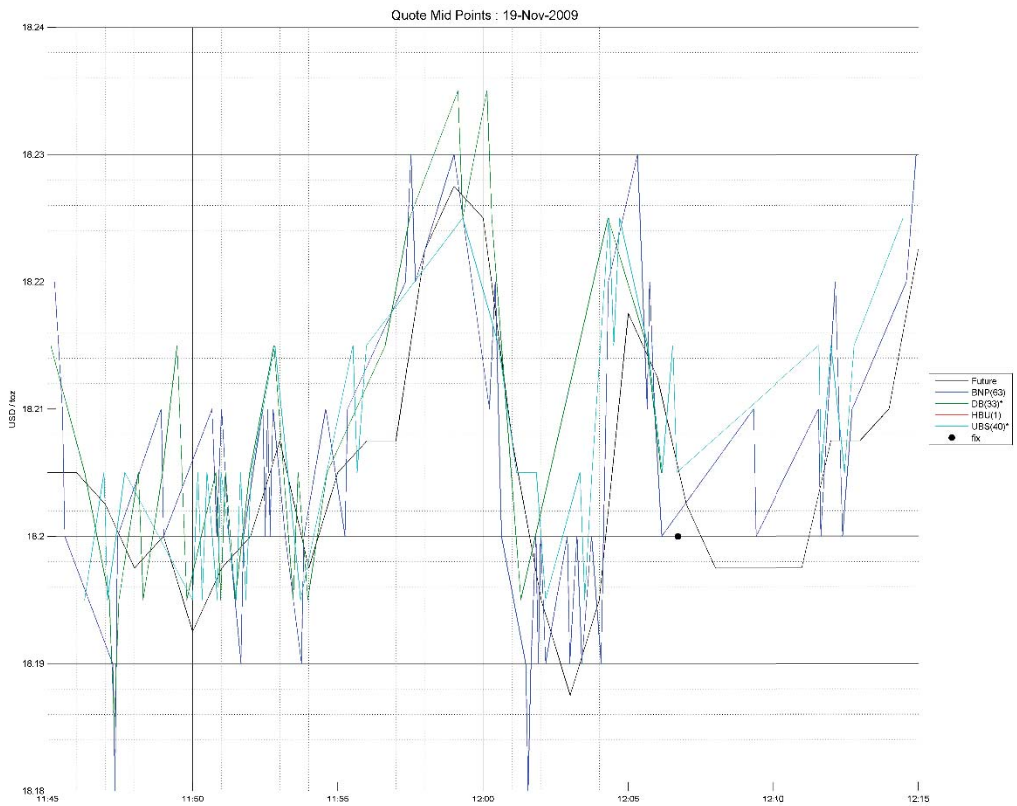


FIGURE 26

186. Figure 26 shows the spot market activity on another day where the Defendants caused prevailing silver market price trends to reverse direction. Figure 26 displays the spot market activity between 11:45 A.M. and 12:15 P.M. London time on November 19, 2009. Figure 26 shows that on November 19, 2009, only three market makers, Defendants Deutsche, UBS, and Fortis, represented by the green, teal, and blue lines respectively, actively quoting public silver prices before and during the Silver Fix. Prior to the start of the Silver Fix, the prices of COMEX silver futures contracts, represented by the solid black line, were increasing. However, once the Silver Fix starts, all three Defendants lower their spot market quotes, precipitating a reversal in the increasing price trend that pushes COMEX futures prices below the Fix Price.

.

FIGURE 27

187. The evidence of collusion and manipulation is even more compelling when the Defendants miraculously change the direction of their quotes in advance of an extremely short Silver Fix. For example, Figure 27 displays the mid-point of all bank spot market quotes between 11:30 A.M. and 12:30 P.M. London time on November 15, 2012. The Fix price, including the time it was released to the public, is indicated with a solid black dot. On November 15, 2012, the Silver Fix lasted less than 1 minute, yet Defendants UBS and Bank of Nova Scotia, began lowering their quotes *4 minutes before* the Silver Fix started. This sharp reversion indicates collusion among the Defendants and a planned manipulation of silver prices before the start of the Silver Fix.

FIGURE 28

188. Figure 28 is yet another example where Defendants Bank of Nova Scotia and UBS cause a reversion in the overall silver price trend. Figure 28 displays the spot market activity between 11:30 A.M. and 12:30 P.M. on May 30, 2013. The price of COMEX silver futures contracts is indicated by the solid black line while the Fix price is indicated at the time it was released using a solid black dot. On May 30, 2013, the Silver Fix took about 2 minutes to complete. Despite this short amount of time, Defendants Bank of Nova Scotia and UBS, dramatically lower their spot market quotes beginning more than 1 minute before the start of the Silver Fix. This causes a reversion in the COMEX futures contract price trend, which changes direction coincident with the change in Defendants spot market quotes, again indicating a planned manipulation of silver prices.

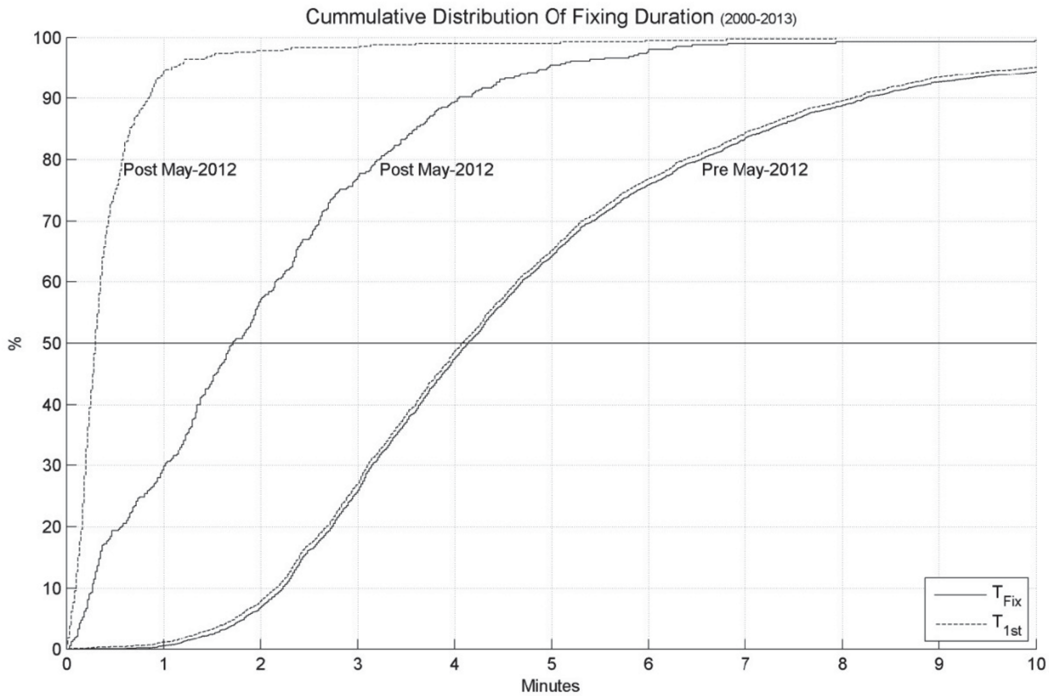


FIGURE 29

189. The last two examples presented in Figures 27 and 28, correspond to another marker of collusion that did not emerge until 2012 – the shortening of the Fixing Members' daily conference call. Figure 29 displays the cumulative distribution of the Silver Fix's duration from 2000 through 2013. The curve on the far right represents the length of the Silver Fix prior to May 2012. Tracing this curve shows that from January 2000 through May 2012, the Silver Fixing lasted, on average, about 4 minutes. The middle curve displays the cumulative distribution of the length of the Silver Fixing after May 2012. Significantly, during this time period, the average length of the Silver Fix decreases dramatically to <u>less than 2 minutes</u>. The shortening of the Silver Fix indicates it was not a legitimate auction and that Defendants colluded before the start of the Silver Fix about what the Fix price would be.

190. The results indicated by the curve on the far left, which displays the cumulative distribution of "first updates," *i.e.*, notification about the current price of silver that are not the final Fix price, after May 2012 are even more surprising. Though the Fixing Members are not

required to post updates about the Silver Fix while it is in progress, after May 2012, updates became frequent and occurred on average <u>less than 30 seconds</u> after the Silver Fix started. Again these near-instantaneous price updates demonstrate that the Silver Fix was not operating as a legitimate price discovery mechanism and instead was producing a Fix price that was pre-determined by the Defendants.

191. The shortening length of the Silver Fix and rapid updates are just two more factors demonstrating that silver markets were rigged during the Class Period as Defendants conspired to manipulate and fix the price of silver and silver financial instruments. Combined with the dramatic changes in price direction observed in the spot market, the anomalous spikes in price volatility and trade volume that occur while the Fixing Members are still on the phone, the consistent drop in silver prices that occurs during the Silver Fix, the ability of market returns to predict the direction of the Fix price with amazing accuracy, the statistically significant break in the behavior observed during the Silver Fix, and the evidence of collusion with third parties revealed in the UBS FINMA Report and DB Cooperation Materials, there is an overwhelming amount of evidence that the Fixing Members and their co-conspirators conspired to manipulate and fix the prices of silver and silver financial instruments for their benefit. This conclusion is further supported by the fact that nothing else, neither macroeconomic factors nor contemporaneous silver market activity explains the dysfunction in pricing seen during the Silver Fix.

F. The Dysfunction in Silver Pricing Dynamics During the Silver Fix Is Not Caused by Legitimate Supply and Demand Factors

1. Silver Prices During the Silver Fix Are Not Caused by Macroeconomic Activity

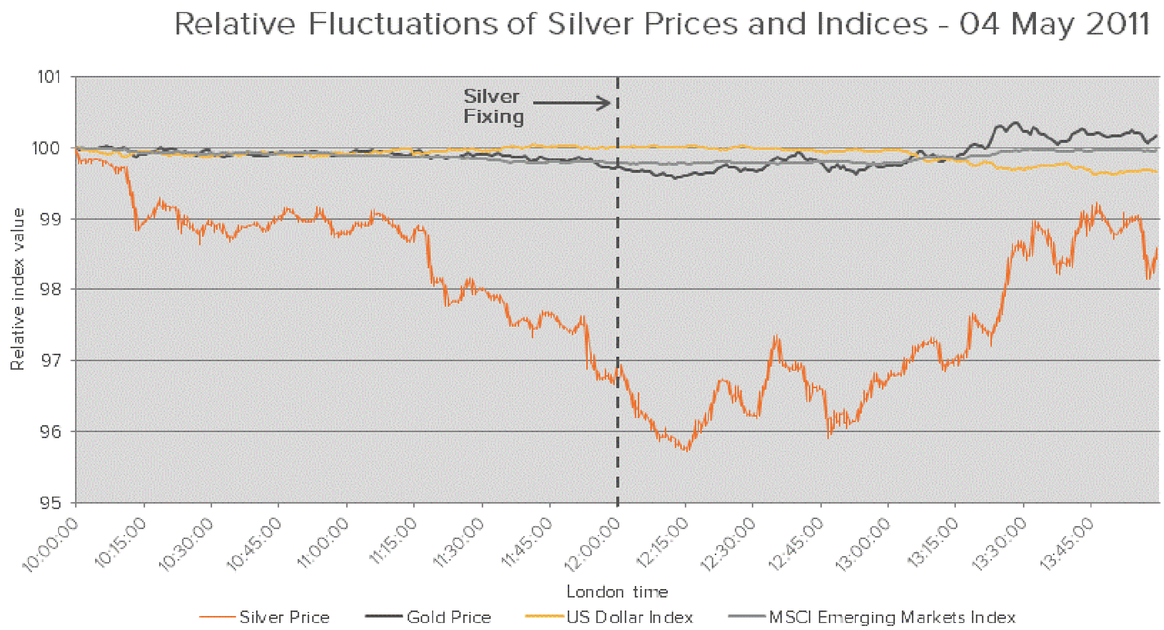
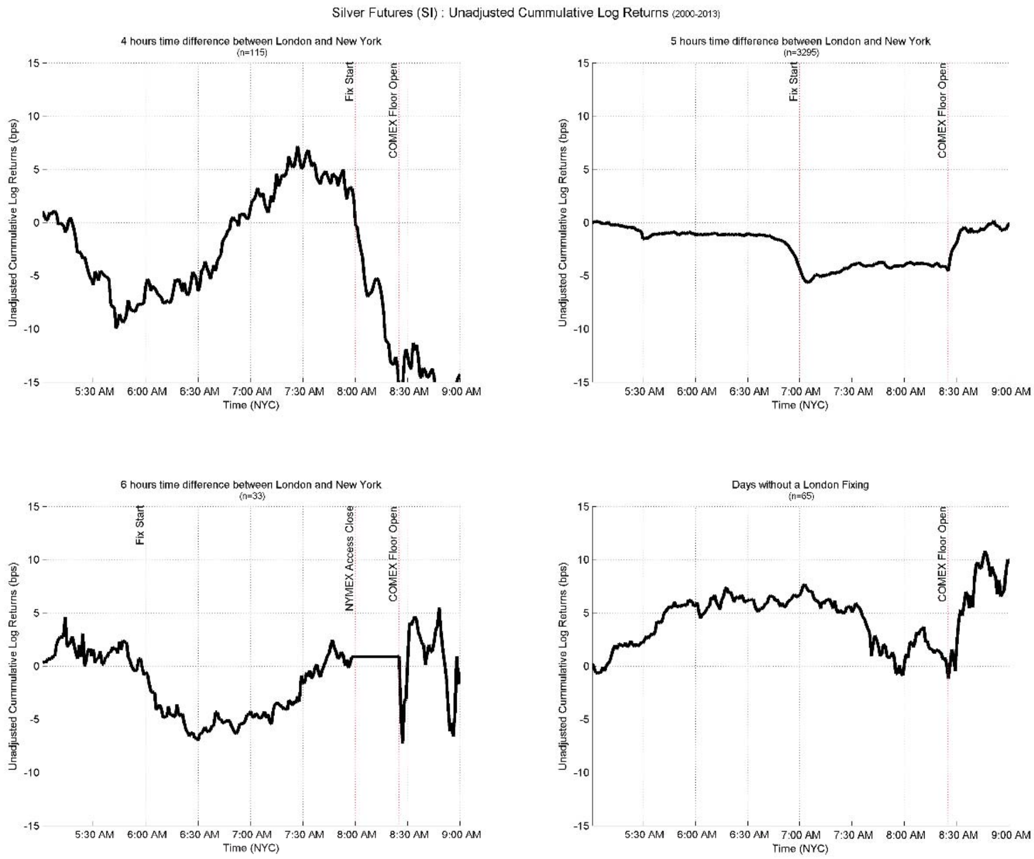


FIGURE 30

192. To rule out other potential explanations for the dysfunction in pricing dynamics observed during the Silver Fix, Plaintiffs compared silver price activity during the Fixing Members' daily conference call to contemporaneous activity in other markets. For example, Figure 30 compares the normalized silver prices on May 4, 2011, to the normalized prices of gold, the U.S. Dollar index, which measures the value of the dollar against a basket of other currencies, and the MSCI Emerging Markets Index. If the change in silver pricing dynamics observed at the time of the Silver Fix were the product of macroeconomic activity, *e.g.*, a natural disaster or housing crisis, all example indices should be impacted. Figure 30 shows, while silver prices drop during the Silver Fix the prices the other example indices do not react in the same way. Similar results were observed throughout the Class Period and rule out macroeconomic factors as the cause of the dysfunction in silver pricing during the Silver Fix.

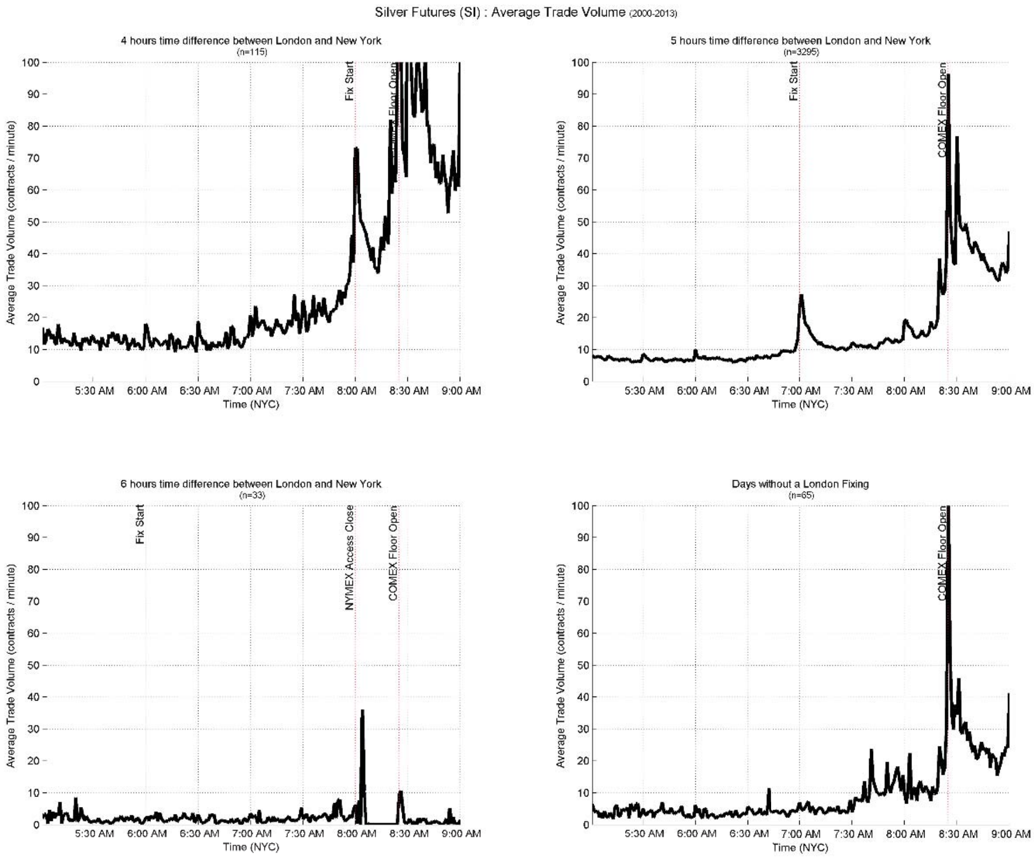
2. The Drop in Silver Prices Follows the Start of the Silver Fix



<u>FIGURE 31</u>

193. To rule out the possibility that the pricing dysfunction observed during the Silver Fix was caused by market activity, Plaintiffs measured the cumulative adjusted returns of COMEX silver futures contracts, splitting the results into groups based on the time difference between New York and London. As London does not follow daylight savings time, the time of the Silver Fix relative to the time in New York changes throughout the year. Figure 31 displays the cumulative unadjusted returns on days where New York time was 4, 5, and 6 hours behind London time, in addition to those days where the COMEX silver futures market was open but there was no Silver Fix, *e.g.*, due to a British holiday. The drop in COMEX silver prices *always* aligns with the start of the Silver Fix and prices *increase* at the Fix time on days with no fixing.

3. The Spike in Trading Volume Follows the Start of the Silver Fix



<u>FIGURE 32</u>

194. Plaintiffs conducted the same analysis for COMEX silver futures volume, calculating the average number of silver futures contracts traded each minute and dividing the results into groups based on the time difference between New York and London. Figure 32 shows the average trading volume for COMEX silver futures contracts on days where New York time is 4, 5, and 6 hours behind London, as well as the trading volume on days with no Silver Fix. As with the drop in silver prices, the anomalous spike in trading volume follows the Silver Fix throughout the year. Significantly, while trading volume always increases after the start of the Silver Fix, volume does not increase at the same time on days where there is no fixing, indicating that the volume spike is caused by the Defendants' trading during the Silver Fix.

G. The Dysfunction in Silver Pricing During the Silver Fix Had a Persistent Impact on Silver Prices Well Beyond the End of the Fixing Call

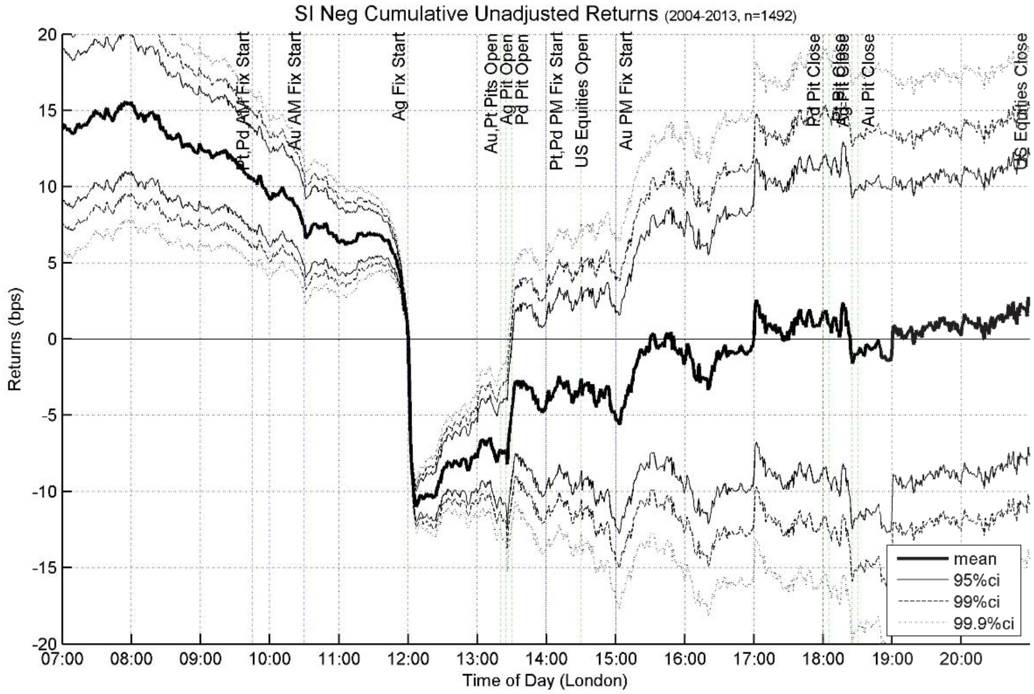


FIGURE 33

195. While the observed drop in silver prices and spikes in trading volume and price volatility always occur around the time of the Silver Fix, the impact of this pricing dysfunction lasts well beyond the end of the Fixing Members daily conference call. Figure 33 displays the cumulative unadjusted returns in the COMEX silver futures market between January 1, 2004 and December 31, 2013, on Down Days where the price of silver decreased during the Silver Fix. Separating the Down Days from Up Days, where the price of silver increased during the Silver Fix, removes the "cancellation effects" that result from combining both Up and Down days in Figure 2 above, and demonstrates the true impact of the abnormally large and frequent drop in silver prices that occurs during the Silver Fix.

196. Figure 33 demonstrates that on Down Days during the Class Period, the price of silver COMEX futures contracts drops more than 15 basis points at the start of the Silver Fix,

substantially more than the net result of including both Up and Down Days in Figure 2. Figure 33 also shows that this large price drop has a lasting impact on the prices of COMEX silver futures contracts, extending well beyond the end of the Silver Fix. Following the solid black line, which indicates the mean cumulative unadjusted returns throughout the day, the price of silver on Down Days *does not* recover fully from the price drop that occurs at the start of the Silver Fix.

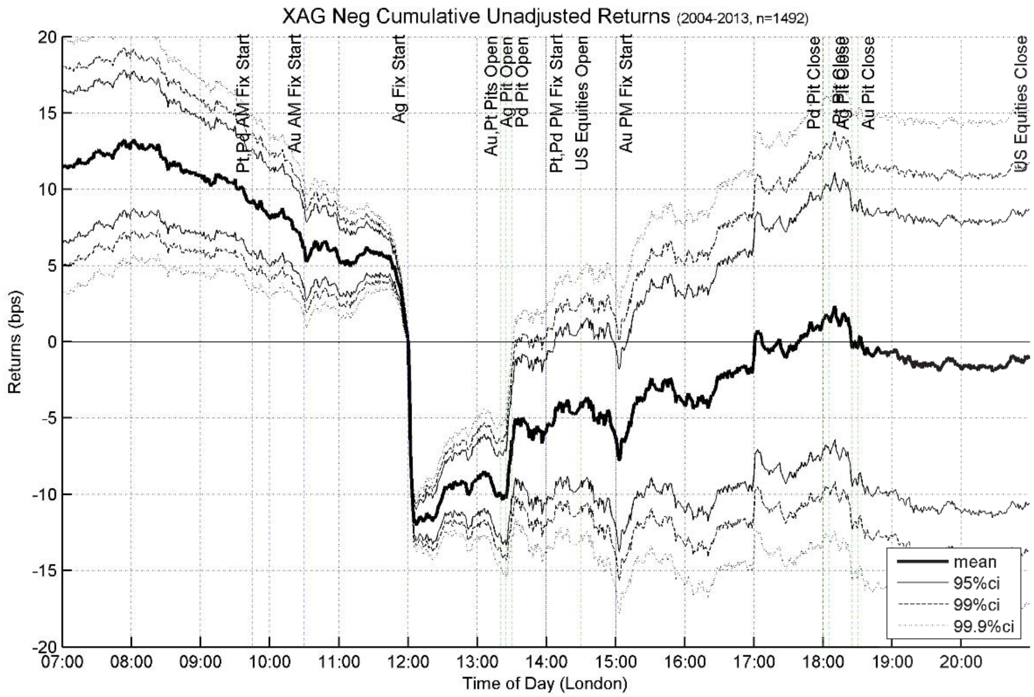


FIGURE 34

197. The same is true for silver prices in the spot market. Figure 34 shows the price of spot market silver between 7:00 A.M. and 8:00 P.M. London time on Down Days between 2004 and 2013. As observed in the COMEX silver futures market, the price drop around the start of the Silver Fix is more than 15 basis points, substantially larger than the net change in price displayed in Figure 2 above. Similar to the COMEX silver futures market, the impact of this price drop is felt long after the end of the Silver Fixing, as the spot market price of silver *never recovers* to pre-Silver Fix levels.

198. Together Figures 33 and 34 demonstrate that the Silver Fix has a persistent (and cumulative) impact on the price of silver. As displayed in both figures, the prices of COMEX silver futures contracts and physical silver do not recover from the price drops induced by the Silver Fix on Down Days, beginning the next trading day lower. Because there are substantially more Down Days than Up Days, and the size of price drops around the Silver Fix are substantially larger than any price increase, the result of the dysfunction in silver pricing caused by the Silver Fix is a persistent suppression of silver prices throughout the Class Period. As a result, the Silver Fix affected the prices of silver and silver financial instruments well beyond the end of the Fixing Member's daily conference call and the release of the Fix price.

IV. DEFENDANTS USED THE DYSFUNCTION IN SILVER PRICES CREATED BY THE SILVER FIX TO GENERATE INCREASED PROFITS

A. Informed Traders with Advance Knowledge of the Fix Price Benefit Financially by Taking Advantage of the Dysfunction in Silver Pricing

199. By creating a dysfunction in silver pricing through the Silver Fix, the Fixing Members and their co-conspirators created an "arbitrage condition," capable of generating risk-free returns, for anyone part of their conspiracy. Using this manufactured pricing dysfunction to their financial benefit, "informed traders" with advance knowledge of the Fix price direction established positions in the market that would increase in value once the Fix price was released to the public. By trading in advance of the public release of the Fix price, informed traders gained a considerable advantage over uninformed traders.

200. To measure the size of this informational advantage, Plaintiffs calculated the "difference in returns," *i.e.*, the difference between the adjusted returns[60] available to informed traders, with directional insight into the results of the Silver Fix, and the unadjusted returns of uninformed traders with no insight into the direction of the Fix price. The adjusted returns represent the returns on trades placed by the Fixing Members and their co-conspirators, who know the Fix price prior to its public release.

[60] Adjusted returns are calculated using statistical methods to estimate how knowledge of the Fix price direction would increase or decrease the unadjusted returns available to an uninformed trade. *See Silver Linings* at 42.

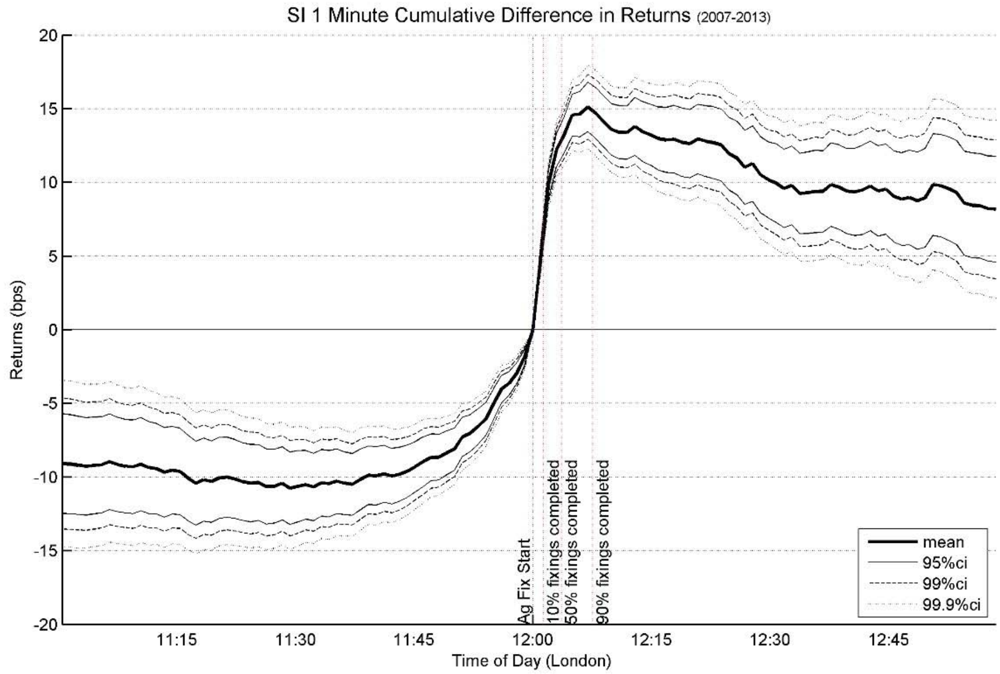


FIGURE 35

201. Having an informational advantage generated significant returns for informed traders in the COMEX silver futures market. Figure 35 displays the cumulative difference in returns experienced by an informed trader with directional insight into the results of the Silver Fix and an uninformed trader with no directional insight, between 11:00 A.M. and 1:00 P.M. London time between January 1, 2007 and December 31, 2013.

202. Figure 35 shows that there are statistically significant advantages available to informed traders on either side of the Silver Fix. For example, an informed trader that initiates a position at 11:45 A.M., when the average returns are -10 basis points, and closes that position at 12:05 P.M., when returns are +15 basis points, captures the entire 25 basis point price move. To understand just how large this advantage is, a 10 basis point per day return results in an annual return of 28%. A gain of 25 basis points per day would be more than double that, allowing an informed trader to return more than 87% per year simply by using their advance information.

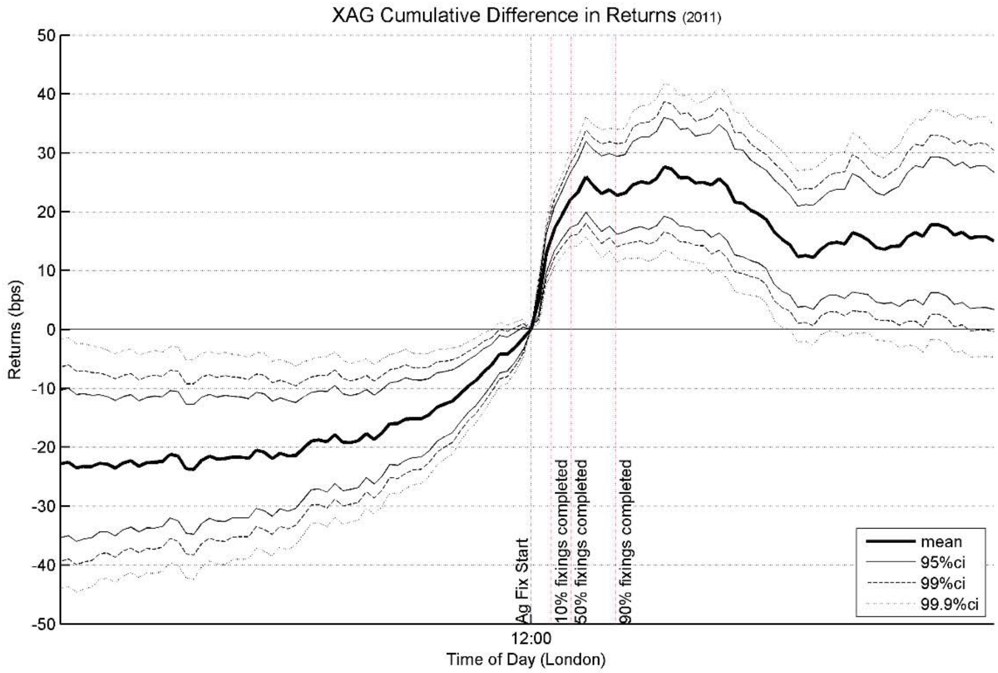


FIGURE 36

203. The same is true in the spot silver market. Figure 36 displays the cumulative difference in returns observed in the spot silver market between 11:00 A.M. and 1:00 P.M. London time during 2011. Following the black line, which indicates the average difference in returns, Figure 36 shows that there are advantages on both sides of the Silver Fix available to informed traders. At its maximum, the informed trader has a more than 40 basis point advantage over the uninformed trader; slightly more than 20 basis points on either side of the Silver Fix. A 40 basis point return amounts to a gain of 172% per year.

204. These outsized returns provided a serious motive for collusion among the Defendants. While an informed silver trader could generate around <u>25 basis points per day</u> in the COMEX silver futures market and more than <u>40 basis points per day</u> in the spot market, an uninformed trader who was long silver between 2000 and 2013, would return about +4 basis points per day. The potential to generate 5 or even 10 times more than the public market created an irrestible incentive for Defendants to coordinate trades and share private information.

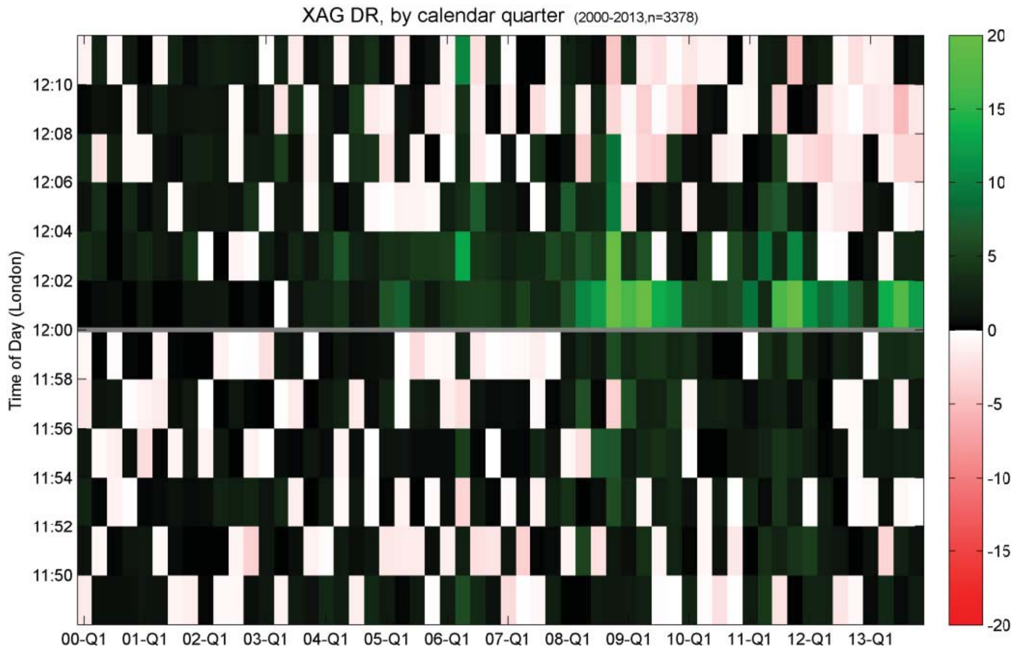


FIGURE 37

205. With advance knowledge of the Fix price direction, informed traders, including the Fixing Members and their co-conspirators, consistently generated large returns during the Silver Fix throughout Class Period. Figure 37 shows the difference in returns for informed and uninformed traders between 11:50 A.M. and 12:10 P.M. London time on a quarterly basis from Q1 2000 through Q4 2013. Areas of positive returns are indicated with shades of green while areas of negative returns are in red. Noticeably, since 2000, trades placed in the 2 minute window after the start of the Silver Fix show a positive return for informed traders during <u>all but one</u> of the 56 calendar quarters. These consistent positive returns are *only* available immediately after the start of the Silver Fix, before the release of the Fix price, and thus were only available to the Fixing Members and their co-conspirators, who gained access to the Fix price direction before the rest of the silver market.

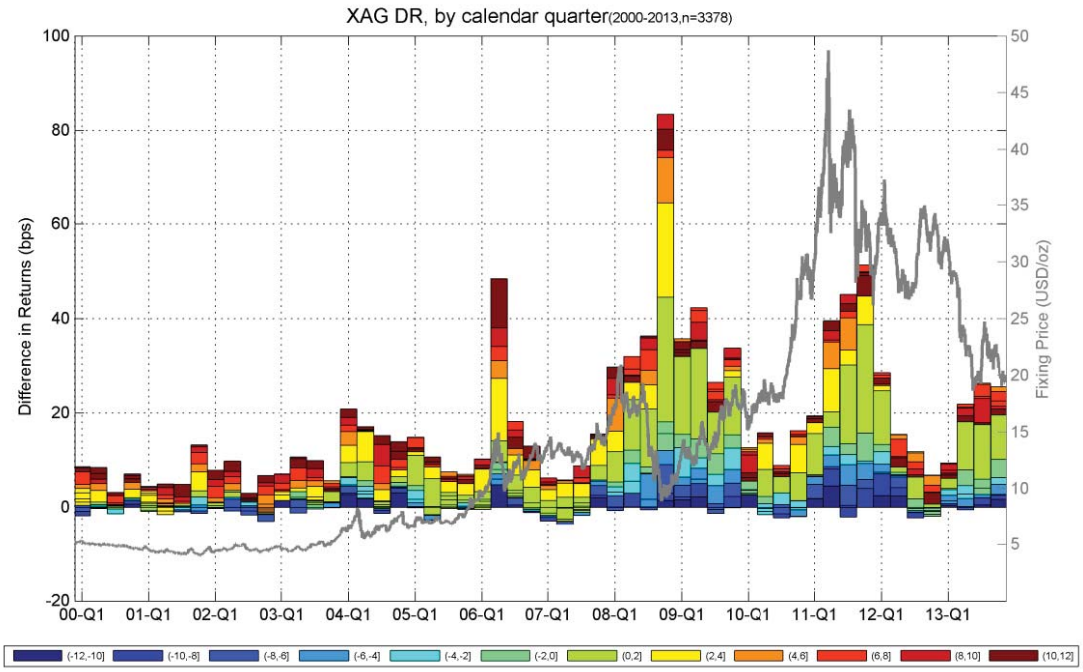


FIGURE 38

206. Because the Fixing Members and their co-conspirators were trading based on information that was exclusively within their control, they were able to generate returns like those displayed in Figures 35 and 36 above, regardless of the actual price of silver. Figure 38 displays the same information in Figure 37 above, the difference in returns between informed and uninformed traders in the spot silver market, but overlays the price of silver, represented by the Fix price. Figure 38 demonstrates that regardless of what the price of silver was throughout the Class Period there were significant returns available to informed traders, like the Fixing Members and their co-conspirators, with directional insight into the results of the Silver Fix.

207. To provide specific examples of the power of trading on advance information, Plaintiffs used proprietary software to analyze the time and sales data for COMEX silver futures contracts during the period of 11:55 A.M. - 12:05 P.M. London time (the "Target Window") for each trading day between January 1, 2007 and August 14, 2014 (the "Analysis Period"). Plaintiffs selected this ten minute window because it includes trading activity during the Silver Fix, which begins at noon London time, but prior to the publication of the Fix price to the general public, which on average was at 12:04 P.M. London time.

208. The analysis split the Target Window into two halves, the five minute period before the start of the Silver Fix, 11:55 A.M. - 12:00 P.M. London time (the "Pre-Fixing Window"), and the five minute period after the start of the Silver Fixing, 12:00 P.M. – 12:05 PM London time (the "Post-Fixing Window"). Plaintiffs then calculated the average price trend for COMEX silver futures contracts during the Pre-Fixing Window and compared that to the average price trend during the Post-Fixing Window on days within the Analysis Period where the total trading volume during the Target Window was at least 100 contracts.

209. Similar to the analysis of Defendants' spot market quotes, Plaintiffs screened for days where the slope of the price trend observed during the Pre-Fixing Window changed direction during the Post-Fixing Window. Plaintiffs further narrowed the results to include only those days where the change in slope was accompanied by an increase in trading volume during the Post-Fixing Window, consistent with the spike in trading volume displayed in Figure 14 above. Plaintiffs' analysis uncovered hundreds of days throughout the Analysis Period where market activity in the nearby most active COMEX silver futures contract around the start of the Silver Fix met this pattern, identifying a tradable advantage to the Fixing Members and their co-conspirators.

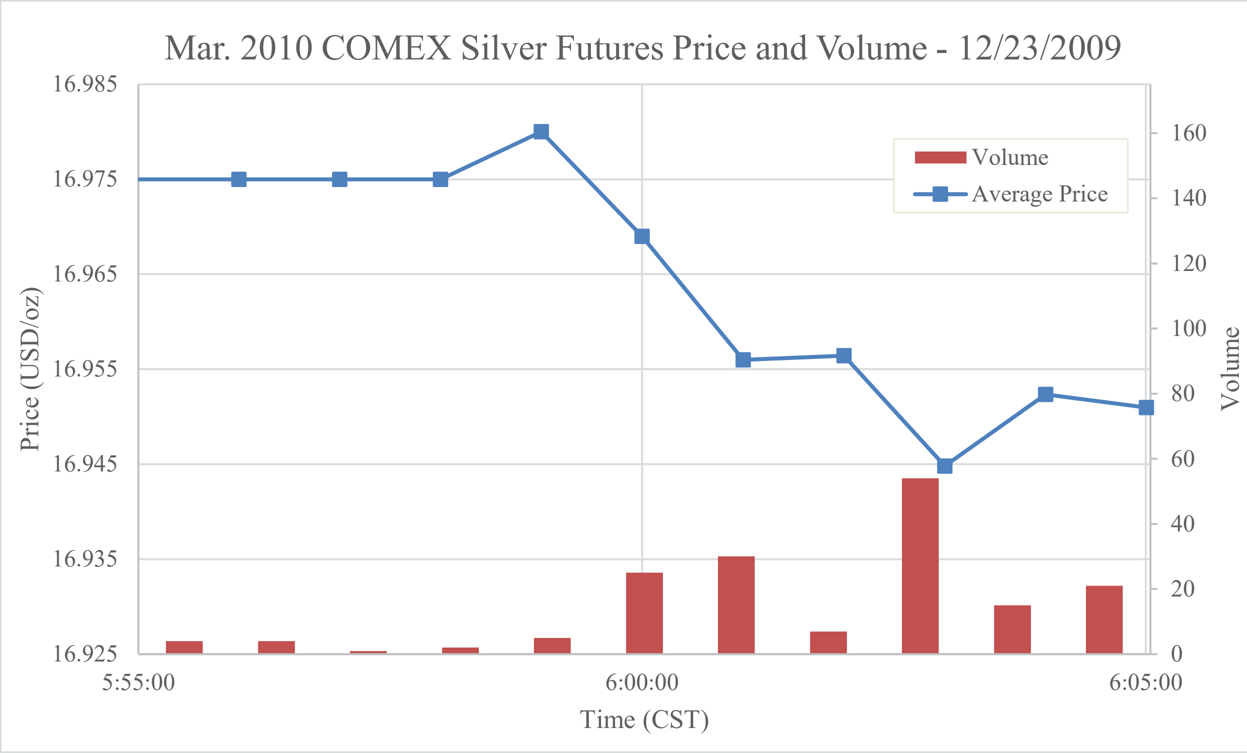


FIGURE 39

210. For example, Figure 39 shows the average price and trading volume for the March 2010 COMEX silver futures contract on December 23, 2009. Figure 39 shows that the price of COMEX silver futures begins to decrease around 5:59 A.M. CST, changing direction one minute before the start of the Silver Fix. Once the Silver Fix starts at 6:00 A.M. CST (noon London time), trading volume increases from less than 5 contracts per minute to 30 contracts per minute between 6:01 A.M. and 6:02 A.M. CST.

211. On December 23, 2009, the Fix price was $16.92 per troy ounce, lower than the price of COMEX silver futures contracts at the start of the Silver Fix. As a result, this decrease in COMEX silver futures prices correctly predicted the Fix price direction, indicating manipulative trading from inside the Silver Fix. To profit from advance knowledge of the Fix price on December 23, 2009, an informed trader would initiate a short position that would increase in value as the price of COMEX silver futures contracts decreased.

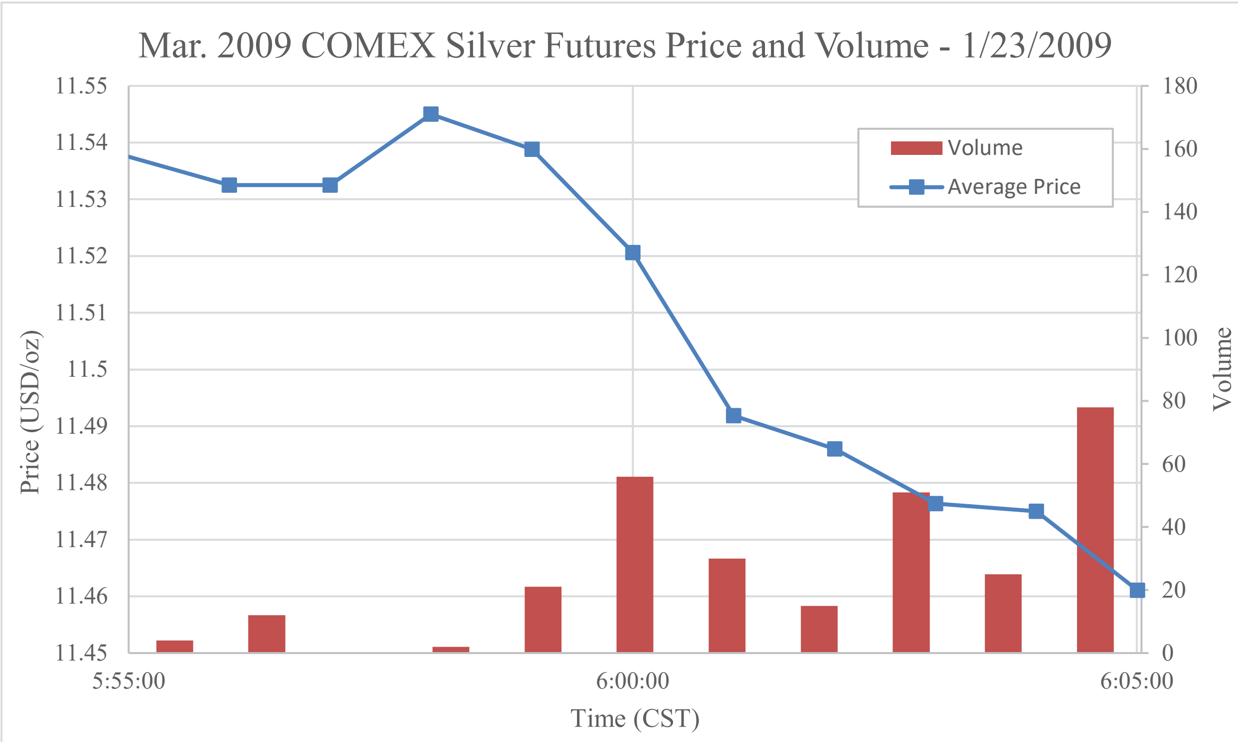


FIGURE 40

212. Figure 40 is another example, showing the average price and trading volume of the March 2009 COMEX silver futures contract during the five minutes before and after the start of the Silver Fix on January 23, 2009. Figure 40 shows that in the minute leading up to and immediately after the start of the Silver Fix, the trading volume for the March 2009 COMEX silver futures contracts increases significantly while the price of the March 2009 COMEX silver futures contract declines.

213. The price drop identified in Figure 40 also correctly predicted the direction of the Fix price, $11.46 per troy ounce, on January 23, 2009, while the increasing volume during the Silver Fix indicates manipulative trading by the Defendants and their co-conspirators. As with Figure 39 above, to profit by trading based on private information from within the Silver Fix on January 23, 2009, an informed trader would establish a short position in the market that would increase in value while the price of silver decreased through the Silver Fix.

214. Plaintiffs also analyzed COMEX silver futures data for large spikes in trading volume occurring during the 30 minutes before the start of the Silver Fix, corresponding to the time period displayed in the difference in return charts, Figures 35 and 36 above. Plaintiffs again screened for days where the spike in volume occurring before the Fix was followed by a change in price trend of COMEX silver futures contracts, but this time limited the results to include only those days where the change in price direction correctly predicted the results of the Silver Fix. This analysis uncovered hundreds of days with the same trading pattern.

215. Distinct from the pattern identified in Figures 39 and 40, which indicates manipulative trading by the Fixing Members and their co-conspirators during the Silver Fix, a large spike in volume and coincident change in price trend that predicts the results of the Silver Fix in the 30 minutes before it starts indicated collusion among the Defendants regarding the Fix price. Collusion in advance of the Silver Fix allowed informed traders, like the Defendants and their co-conspirators, to take full advantage of the difference in returns displayed in Figures 35 and 36 above; providing roughly a 25 basis point per day gain in the COMEX silver futures market and up to a 40 basis point per day gain in the spot silver market.

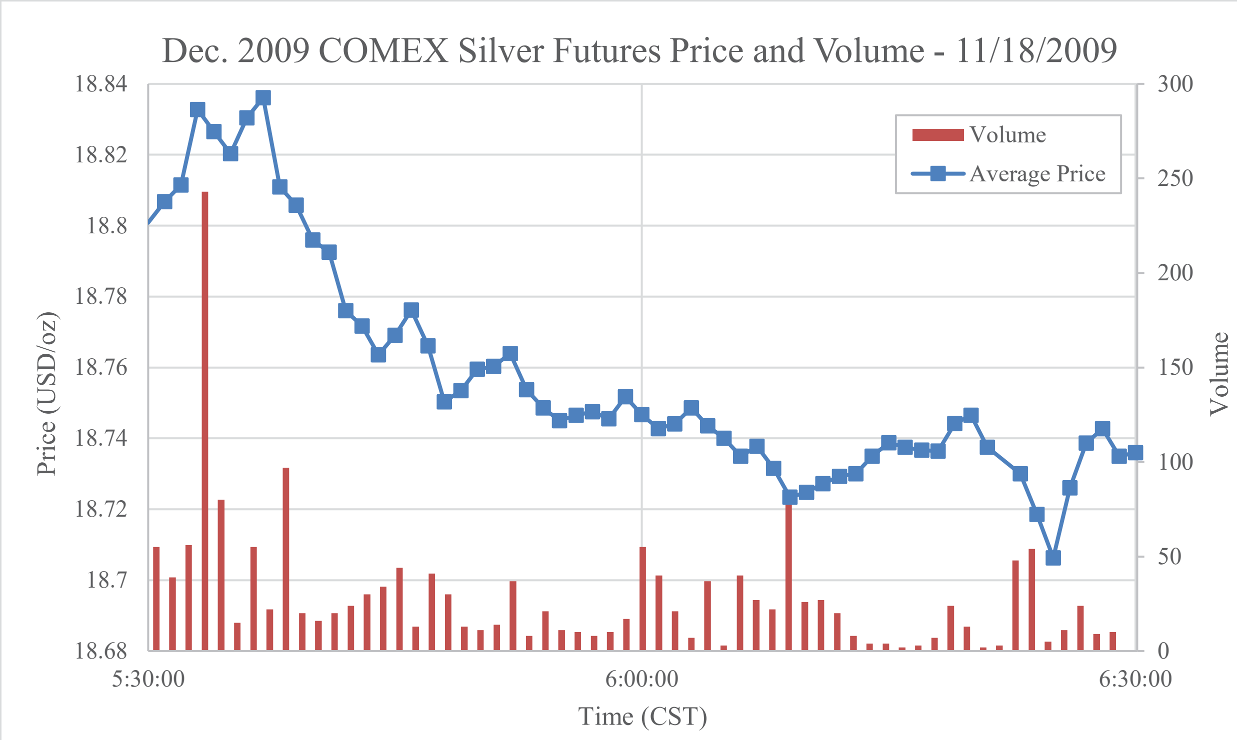


FIGURE 41

216. For example, Figure 41 shows the average price and trading volume of the December 2009 COMEX silver futures contracts during the 30 minutes before and after the Silver Fix on November 18, 2009. Around 5:34 A.M. Central Standard Time, almost 26 minutes before the start of the Silver Fix, there is a large spike in volume, roughly five times larger than the total volume traded during each of the previous 3 minutes. Prior to this volume spike, the price of the December 2009 COMEX silver futures contract is trending upward, moving from around \$18.80 per ounce of silver at 5:30 A.M. Central Standard Time to more than \$18.83 per ounce by 5:34 A.M. Central Standard Time.

217. Following the volume spike, the price of the December 2009 COMEX silver futures contract changes direction and begins trending downward. The downtrend displayed in Figure 41 correctly predicts the November 18, 2009 Silver Fixing of \$18.74 per ounce, about 10 cents per ounce lower than the price of silver when the volume spike occurs.

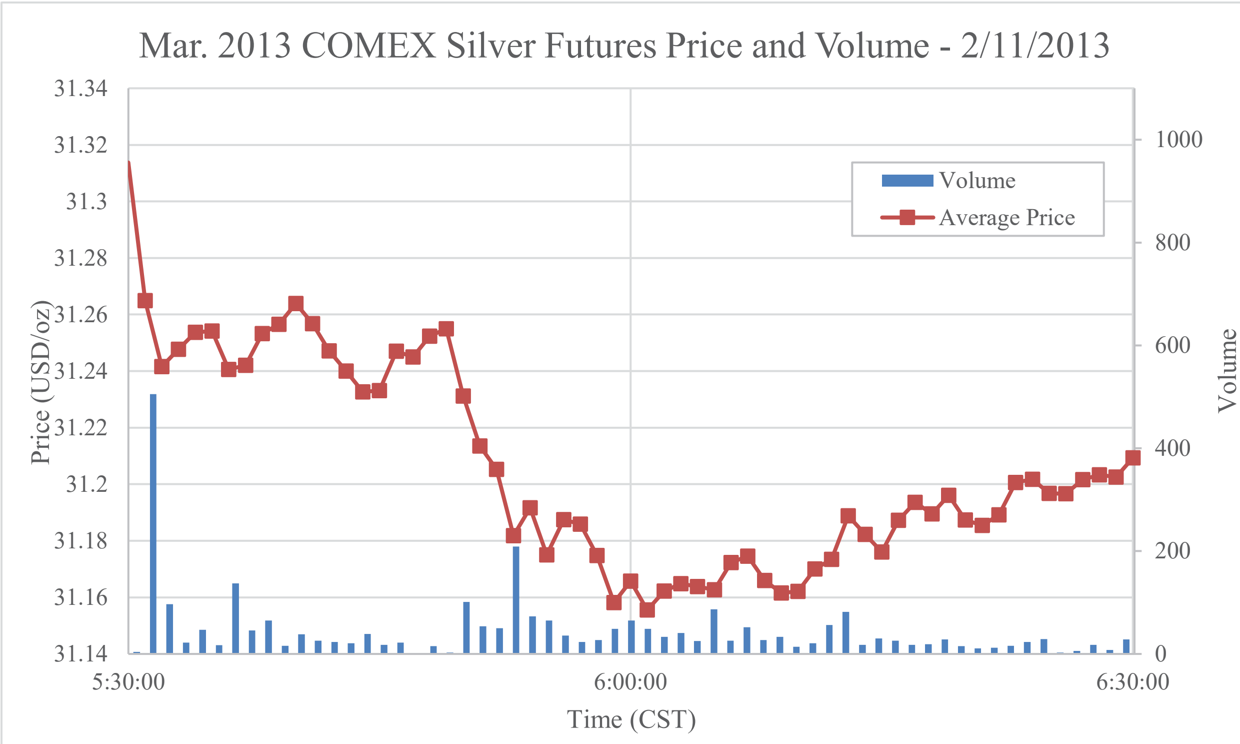
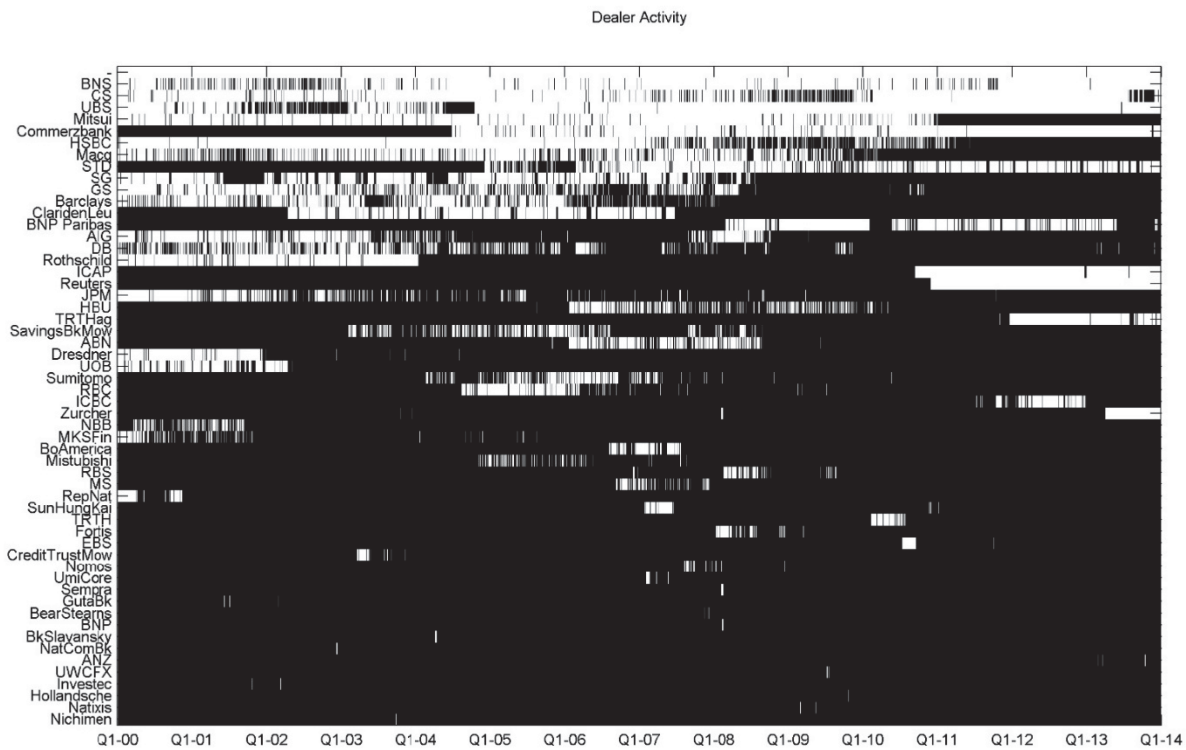


FIGURE 42

218. Figure 42 shows the price and volume of the March 2013 COMEX silver futures contract during the 30 minutes before and after the Silver Fixing on February 11, 2013. Just as displayed in Figure 41 on February 11, 2013, there is a large spike in volume, hundreds of times larger than the volume traded during the previous minute, almost 30 minutes before the start of the Silver Fix. This volume spike is followed by a change in the price trend of the March 2013 COMEX silver futures contract, which begins to decrease in price from more than $31.30 per ounce at around 5:30 A.M. Central Standard Time, towards the Fix price of $31.16 per ounce.

219. Figure 42 represents one of the days after May 2012 where the Silver Fix lasted just two minutes, consistent with the large spike in volume at 5:32 A.M. CST, indicating that Defendants coordinated their manipulative efforts well in advance of the start of the daily fixing call.

B. The Same Informational Advantage that Increased Trading Profits Allowed Defendants to Maintain Artificial, Fixed Bid-Ask Spread in the Spot Market



<u>FIGURE 43</u>

220. Defendants' manipulative conduct extended beyond generating increased trading profits to financially benefit their activity as "market makers," *i.e.*, dealers that both buy and sell silver, at a publicly quoted "bid" (buy) and "ask" (sell) price. Market makers generate revenue by buying silver at a lower price than they sell it. The difference between the price at which a market maker is willing buy and subsequently sell silver is known as the "bid-ask spread" and represents the profit to the market maker on each transaction.

221. Figure 43 displays the activity of the top 65 silver market makers based on public spot market bid ask quotes from January 1, 2000 through December 31, 2013. Figure 43 shows that Defendants Bank of Nova Scotia ("BNS"), UBS, HSBC, Standard Chartered ("STD"), Barclays, and Deutsche Bank ("DB"), are among the top 20 silver spot market participants,

ranking numbers 1, 3, 6, 8, 11, and 15 respectively.[61] As some of the most active silver market makers, Defendants stood to generate huge profits by increasing or maintaining a supracompetitive bid-ask spread, paying artificially less for silver and then reselling it at an artificially higher price.

222. The UBS FINMA Report is instructive on this point. FINMA found that UBS shared "flow information" about large current or incoming trades, and the contents of its order book, including the trigger prices of client stop-loss orders, with unidentified co-conspirators.[62] Combined with the Fixing Members advance knowledge of the Fix price, by understanding order flow, Defendants manipulated and fixed their bid-ask spreads in the silver market to generate increased profits.

223. This aspect of Defendants' manipulative scheme is evidenced by the non-responsive nature of the spread between their spot market silver quotes when compared to the rest of the silver market. As discussed earlier, information is an asset in financial markets and new information is generally associated with changes in volume, volatility, and the bid-ask spread as market prices naturally react to incorporate newly released data. Specifically, bid-ask spreads are typically wider when there is uncertainty about pricing and then narrow as new information provides clarity. In the silver market, where there is an established, globally relied upon pricing benchmark, *i.e.*, the Silver Fix, bid-ask spreads should be wider prior to the Silver Fix, as there is uncertainty regarding the future results of the Fix price, and then narrow once the Fix price is released to the public.

---

[61] As Deutsche and HSBC both stopped issuing public spot market quotes during the Class Period their actual rank is likely higher because Figure 43 does not include private quotes.

[62] *See* UBS FINMA Report, *supra* note 6 at 12.

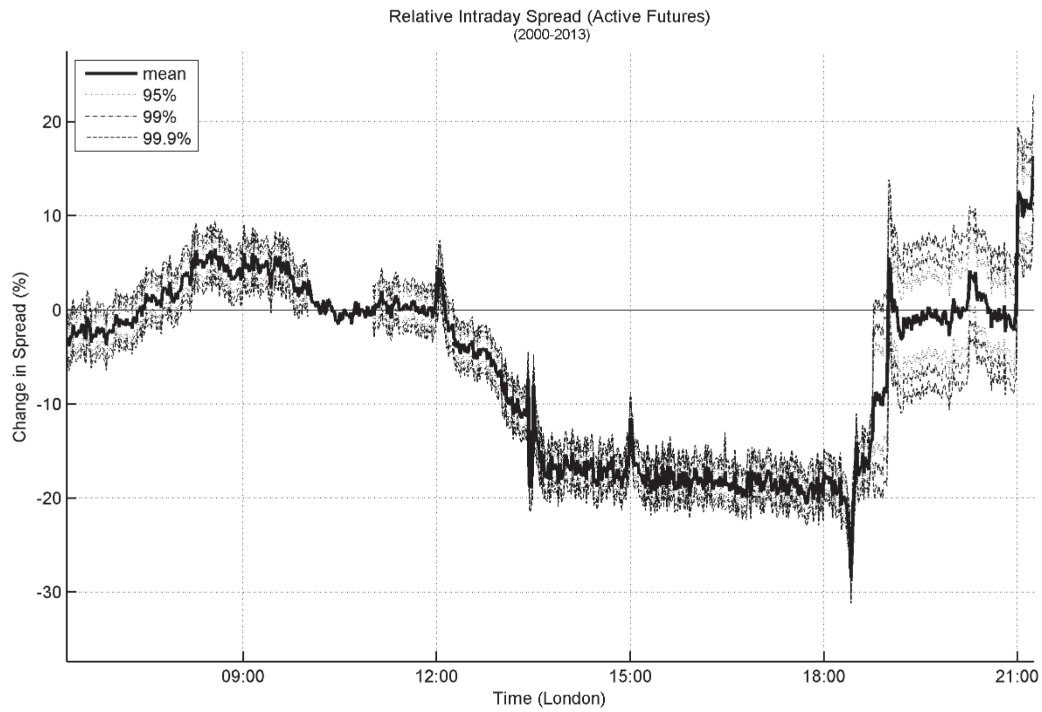


FIGURE 44

224. Figure 44, for example, shows the relative intraday spread in the COMEX silver futures market between January 1, 2000 and December 31, 2013. As expected, prior to the Silver Fix, spreads are wider, reflecting uncertainty about the price of silver. But once the Fix price is released, the spread begins to contract, narrowing more than 20% after the Fix price is released to the public.

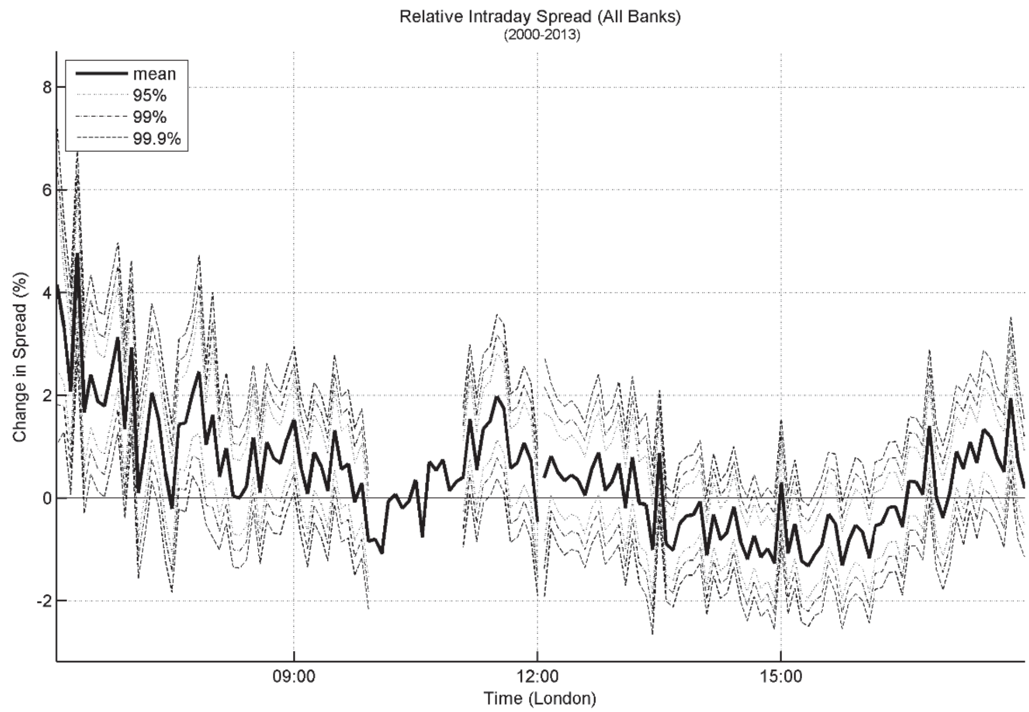


FIGURE 45

226. Similar variations are also seen in the spot silver market when the publicly available bid-ask quotes are viewed as a whole. Figure 45 displays the relative intraday bid-ask spread of all spot market silver quotes between January 1, 2000 and December 31, 2013. While the overall variation is smaller than seen in the COMEX silver futures market, the general pattern is still the same; the average spreads are wider prior to the Silver Fix as there is uncertainty about the price of silver and then narrow following the publication of the Fix price.

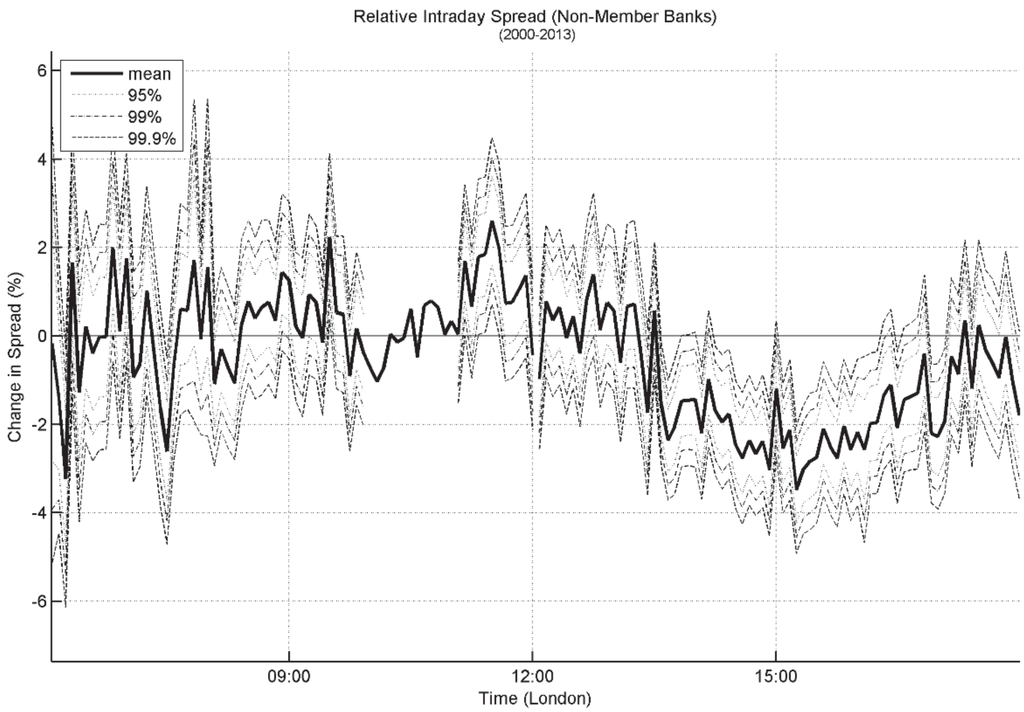


FIGURE 46

227. This narrowing of the bid-ask spread in the spot market is more pronounced when the spot market quotes of the Fixing Members and UBS are removed from the analysis. Figure 46 shows the bid-ask spread for spot market quotes of all market makers except the Fixing Members and UBS between January 1, 2000 and December 31, 2013. As with the general market, these bank's quotes react to new information provided by the Silver Fix, remaining wider prior to the start of the Silver Fix and then narrowing once the Fix price is released.

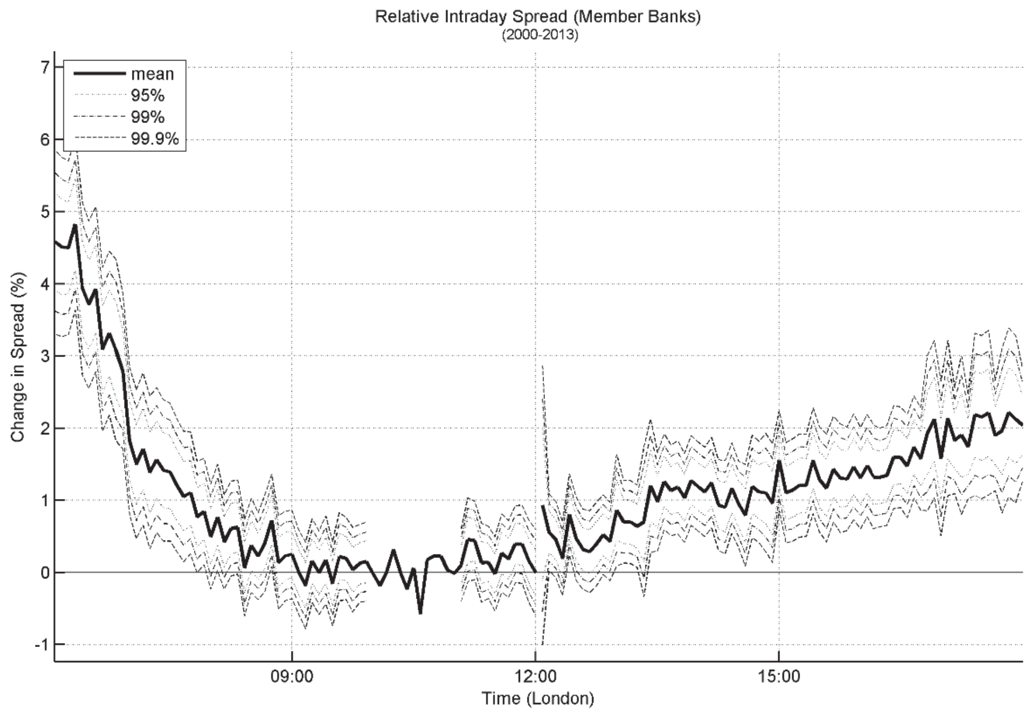


FIGURE 47

228. In stark contrast to the rest of the market, the Fixing Members and UBS *never* narrow their spread in response to the new information provided by the Silver Fix. Figure 47 shows the bid-ask spread in the spot market for all the Fixing Members and UBS between January 1, 2000 and December 31, 2013. Unlike the spreads seen in the COMEX silver futures market, or even the broader spot market, these Defendants' bid-ask spreads do not narrow once the Fix price is released. Instead, they get *wider*, increasing prior to the start of the Silver Fix and continuing to widen throughout the rest of the day.

229. This artificial bid-ask is indicative of information sharing and collusion among the Defendants. There is no legitimate reason why Defendants' bid-ask spread fails to react to new information *unless* that information is not "new" to the Defendants at the time it is released to the public. Through their advance knowledge of both order flow and pricing information, Defendants maintained an artificially wide bid-ask spread.

230. The DB Cooperation Materials confirm that Defendants, some of the world's largest silver market makers, conspired to fix the bid-ask spread at artificial, anticompetitive levels by sharing pricing information and agreeing on the prices at which they would offer to buy and sell silver. For example, the chat below depicts UBS Trader A, who was known as "the Hammer," and Deutsche Bank Trader B discussing and agreeing to quote an artificially wider spread for "5 lacs," *i.e.*, 500,000 ounces, of silver:

March 4, 2011

UBS [Trader A]: how wide would u quote 5 lacs silver?

Deutsche Bank [Trader B]: 10c?

Deutsche Bank [Trader B]: u>?

USB [Trader A]: depends who

USB [Trader A]: not dodgey i will make whatever cause i can hold risk

USB [Trader A]: but then 90% dodgey

Deutsche Bank [Trader B]: so 12-15c?

* * *

USB [Trader A]: 10 cents is ok i think

Deutsche Bank [Trader B]: haha

Deutsche Bank [Trader B]: 34/35

Deutsche Bank [Trader B]: 5 lacs

Deutsche Bank [Trader B]: lol

Deutsche Bank [Trader B]: 34.0/35.0

USB [Trader A]: yeah[63]

---

[63] DB_PM_SLVR_0194435-36.

231. This practice was common among Defendants as chats show that Deutsche Bank and UBS routinely discussed and agreed upon what spread they would quote in the silver market to fix prices at artificial, anticompetitive levels throughout the day, for example:

December 9, 2011

Deutsche Bank [Trader B]: I think 1 lac ought to be 5

Deutsche Bank [Trader B]: 2lacs 7 . . . .

Deutsche Bank [Trader B]: 3 lacs 10

Deutsche Bank [Trader B]:what do you think?[64]

August 5, 2011

Deutsche Bank [Trader B]: how wide u making 1 lac today

Deutsche Bank [Trader B]: 5 cents?

UBS [Trader A]: silver actually steadier than gold

UBS [Trader A]: i would make 5-6 cents wide in silver

Deutsche Bank [Trader B]: k[65]

232. Deutsche Bank also discussed and agreed to quote anticompetitive spreads in the silver market with Barclays Trader A. For example, in the chat below, Deutsche Bank Trader B agreed with Barclays Trader A to an artificially wider "5 cent" spread for 100,000 ounces of silver, or "1 lac":

August 24, 2011

Barclays [Trader A]: 12 17

[64] DB_PM_SLVR_0217140.

[65] DB_PM_SLVR_0199814-15.

Deutsche Bank [Trader B]: zz

Barclays [Trader A]: still pass

Deutsche Bank [Trader B]: clown lau 1 lac? . . .5cent ok i thougt

Barclays [Trader A]: its freakin 5 cents now leh

Deutsche Bank [Trader B]: too tight

Deutsche Bank [Trader B]: lol

Barclays [Trader A]: ya slightly less than a lac . . . i mean for them its like dude deal at this spread or fk off[66]

233. As with UBS, Barclays and Deutsche Bank often set an agreed-upon price they would quote for different quantities of silver throughout the day. In the chat below, for example, Barclays Trader A and Deutsche Bank Trader B agree to manipulate the spread wider by fixing a price of 7 cents for 50,000 ounces of silver and 10 cents for 100,000 ounces:

December 28, 2011

Deutsche Bank [Trader B]: bro i think we make 50k 7 cents

Deutsche Bank [Trader B]: 1 lac 10cents

Barclays [Trader A]: today?

Barclays [Trader A]: yeah

Deutsche Bank [Trader B]: cause i was 7 cents

Deutsche Bank [Trader B]: think is too tight

Barclays [Trader A]: bro yday i made 300oz $1

Deutsche Bank [Trader B]: nice[67]

---

[66] DB_PM_SLVR_0198693.

[67] DB_PM_SLVR_0195920.

234. Deutsche Bank Silver Fix Trader-Submitter A also shared pricing information and agreed on what spreads to quote with HSBC Trader A. For example, in the chat below, Deutsche Bank's Silver Fix Trader-Submitter A agrees that the bank will quote anticompetitive prices "inline" with HSBC to fix spreads at a mutually beneficial level:

October 7, 2011

Deutsche Bank [Trader-Submitter A]: i have no idea what id quote silver . . . they ask in 20k what do you make?? . . .

HSBC [Trader A]: id be 1.5 5k

HSBC [Trader A]: been 2 bux for anything over 10

Deutsche Bank [Trader-Submitter A]: makes sense

Deutsche Bank [Trader-Submitter A]: k thanks for info mate

Deutsche Bank [Trader-Submitter A]: ill be inline

Deutsche Bank [Trader-Submitter A]: with u

HSBC [Trader A]: no thank u[68]

235. Former Deutsche Bank Trader C also consulted Deutsche Bank Silver Fix Trader-Submitter A after leaving Deutsche Bank for Defendant Merrill Lynch (where he is referred to as Merrill Lynch "Trader A") to discuss where to fix spreads in the silver market. For example, in the chat below, the two traders discuss both silver and gold prices, eventually agreeing on an anticompetitive ten-cent-wide spread for silver trades:

August 22, 2011

Merrill Lynch [Trader A]: how wide are u making prices?

Deutsche Bank [Trader-Submitter A]: very

Merrill Lynch [Trader A]: like?

---

[68] DB_PM_SLVR_0279854.

Deutsche Bank [Trader-Submitter A]: gold is a joke

Deutsche Bank [Trader-Submitter A]: got given 30k 2 bucks below

Deutsche Bank [Trader-Submitter A]: mids

Deutsche Bank [Trader-Submitter A]: was there after id sold 60 lost

Merrill Lynch [Trader A]: yeah

Merrill Lynch [Trader A]: so u making 3 usd?

Merrill Lynch [Trader A]: or wider

Deutsche Bank [Trader-Submitter A]: 3 bucks is fair

Merrill Lynch [Trader A]: and silver?

Merrill Lynch [Trader A]: 10 cents?

Deutsche Bank [Trader-Submitter A]: yup[69]

236. Deutsche Bank Silver Fix Trader-Submitter A also has similar conversations with Fortis Bank Trader A, for example, agreeing on an artificially wider seven-cent spread for silver in the chat below:

August 13, 2008

MRNIN [FORTIS BANK TRADER A] . . .

DDUDDE HOW WIDE WLD U BE IN 800K SLV AT THE MOM?

ERM . . . I WOULD BE 7 CENTS FYI

OK THXS[70]

237. Defendants' traders also conferred with each other about where to price incoming orders to ensure they would not quote outside the range acceptable to the cartel. For example, in

[69] DB_PM_SLVR_0279918.

[70] DB_PM_SLVR_0273329.

the chat below, Deutsche Bank Trader B shares an incoming client order with Barclays Trader A and the two agree that Deutsche Bank should quote an artificially wider spread:

January 11, 2012

Deutsche Bank [Trader B]: 10 cent wide for 3 lac sil

Deutsche Bank [Trader B]: is that too wide? . . .

Barclays [Trader A]: its fair

Deutsche Bank [Trader B]: . . . i made 13/20 in the end

Barclays [Trader A]: wtf

Deutsche Bank [Trader B]: but they pass

* * *

Barclays [Trader A]: what does he want choice price?[71]

238. Defendants' agreement on spreads in the silver market increased their profits by removing competition. This allowed Defendants to quote artificially wider, often "ridiculouous" spreads, to their customers as Deutsche Bank Silver Fix Trader-Submitter A and UBS Trader B discuss in the chat below:

November 28, 2007

Deutsche Bank [Trader-Submitter A]: the price of liquidity is growing u have to pass it on to the custys

UBS [Trader B]: 10 cents is ridiculouous

Deutsche Bank [Trader-Submitter A]: u shudnt have told me hahahaahahahaha :D

UBS [Trader B]: what did u quote let me check

Deutsche Bank [Trader-Submitter A]: 44/49[72]

[71] DB_PM_SLVR_0218449.

[72] DB_PM_SLVR_0264656-57.

239. This is consistent with other chats, which indicate that Defendants consistently quoted artificially wide, anticompetitive spreads in the silver market. For example, the chat below involves Deutsche Bank Silver Fix Trader-Submitter A and Barclays Trader B:

July 4, 2008

Barclays [Trader B]: hope noone calls today im gonna have no idea

Deutsche Bank [Trader-Submitter A]: just be wide

Barclays [Trader B]: wider u mean

Deutsche Bank [Trader-Submitter A]: hehehehehe[73]

240. Clients who attempted to avoid paying the cartel price by shopping around at multiple dealers were quickly shut down as Defendants shared incoming order flow and client information to fix what customers would pay regardless of which Defendant they called. For example, in the chat below, UBS Trader A agreed to quote an even wider spread to a Deutsche Bank client who was looking for a better deal:

August 5, 2011

Deutsche Bank [Trader B]: so std

Deutsche Bank [Trader B]: called 5 cents higher to sell direct

* * *

UBS [Trader A]: just quote wider

UBS [Trader A]: if they call me in 1 lac i will quote 7-8 cents

Deutsche Bank [Trader B]: ok[74]

---

[73] DB_PM_SLVR_0264334.

[74] DB_PM_SLVR_0199828-29.

241. Defendants extracted additional illicit profits from Plaintiffs and the Class by using a manipulative trading technique called "shading" in which they shifted their artificially wider spread "to the left," by lowering the bid price at which they would buy silver or "to the right," by increasing the ask price at which they would sell silver, in subsequent transactions. Barclays Trader A explained the technique to Deutsche Bank Trader B the chat below:

October 26, 2011

Deutsche Bank [Trader B]: I show 5

Deutsche Bank [Trader B]: how

Deutsche Bank [Trader B]: do you shade

Deutsche Bank [Trader B]: like now, i make 93/98

Barclays [Trader A]: ya

Barclays [Trader A]: duh

Deutsche Bank [Trader B]: what would u make

Deutsche Bank [Trader B]: u show 93/97 la?

Barclays [Trader A]: wah

Barclays [Trader A]: i will show 95 99

Barclays [Trader A]: now 94 98

Deutsche Bank [Trader B]: so nice ah

Barclays [Trader A]: but i sell 30k first

Barclays [Trader A]: then show

Deutsche Bank [Trader B]: haha[75]

---

[75] DB_PM_SLVR_0218504.

242. Shading increased the amount of illegitimate profits generated on each transaction by artificially widening the spread even further than it was in an already anticompetitive market. In the chat below, for example, Deutsche Bank Trader B and UBS Trader A discuss how shading on a spread "10 cents" wide has the same effect as setting a "15cents" spread, creating an illegitimate 50% increase in profit:

August 22, 2011

Deutsche Bank [Trader B]: how wide u quote for 3 lacs?

UBS [Trader A]: 10cents

Deutsche Bank [Trader B]: 10 cents?

Deutsche Bank [Trader B]: u? i shaded

UBS [Trader A]: too good

Deutsche Bank [Trader B]: as well so basically 15cents

UBS [Trader A]: depends on who

Deutsche Bank [Trader B]: dirty[76]

243. These example chats demonstrate, consistent with the economic evidence presented above, that Defendants unlawfully shared proprietary pricing information and agreed to quote artificially wider spreads in the silver market. These wider spreads generated increased profits from Defendants' illegitimate market making activities at the expense of Plaintiffs and the Class by removing price competition and requiring that market participants pay an artificial price set by the cartel rather than one that reflected legitimate supply and demand fundamentals.

[76] DB_PM_SLVR_0198851.

C. Defendants' Large Unhedged Trading Positions Benefited from and Contributed to the Artificial Prices Caused By Their Manipulative Conduct

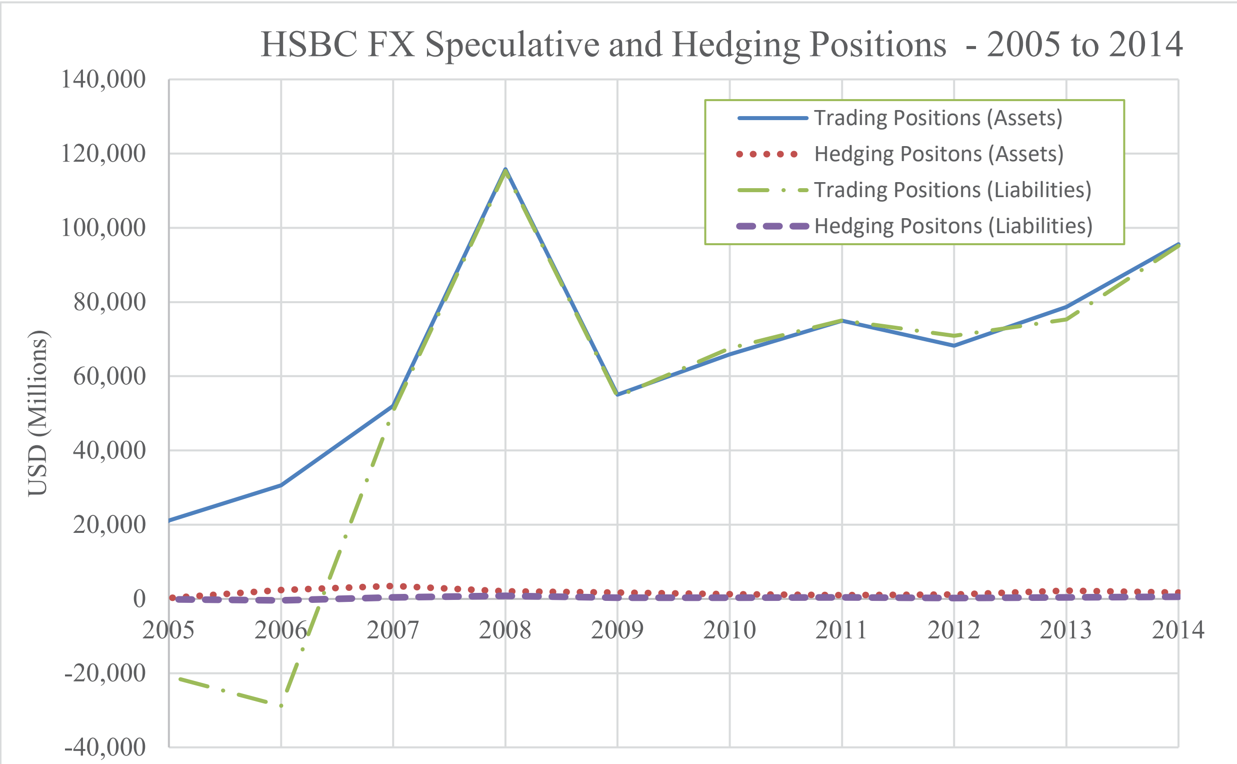


FIGURE 48

244. Defendants were each in a position to benefit from the manipulation described above because their trading positions used to generate profit for the bank (*i.e.*, speculative positions), were substantially larger than those used to offset any financial risk (*i.e.*, hedging positions). Plaintiffs compiled the following information from public annual reports filed by Defendants with the Securities Exchange Commission. For example, Figure 48 shows the size of Defendant HSBC's trading and hedging positions for their foreign exchange desk, which includes precious metals trading, between 2005 and 2014. Figure 48 shows that in all years the Defendant HSBC's trading positions were substantially larger than their hedging position.[77]

[77] Defendant HSBC distinguishes between trading assets and liabilities based on the fair value of the asset at that time. A trading position is considered an asset if it has a positive value

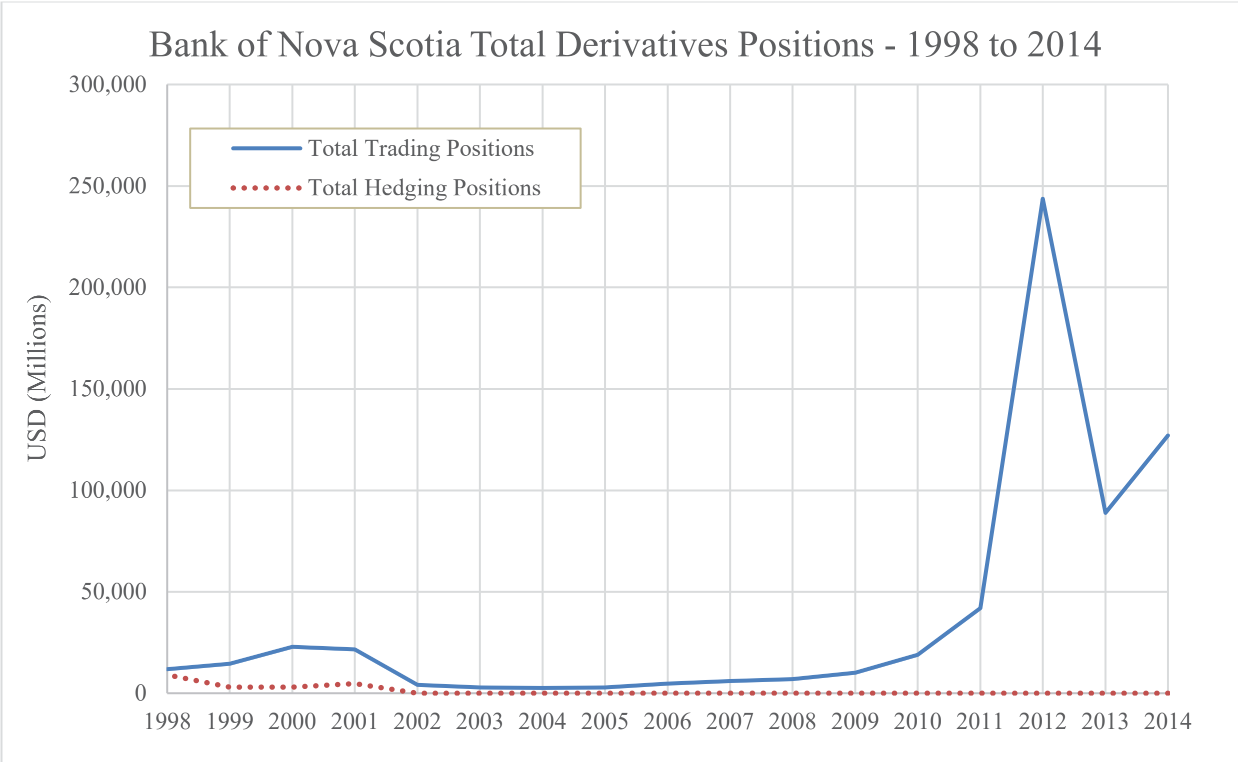


FIGURE 49

245. Defendant Bank of Nova Scotia showed a similar outsized trading position throughout the entire Class Period. Figure 49 shows the total trading and hedging positions for Bank of Nova Scotia's exchange traded and over-the-counter derivatives positions, including those for precious metals like silver. Signifincatly, as silver began its bull run in 2005, Bank of Nova Scotia's speculative trading position increased dramatically, financially benefitting from the manipulative conduct alleged in this Complaint.

and a liability if it has a negative value. *See, e.g.*, Annual Report and Accounts HSBC Holdings plc, at 128 (2006).

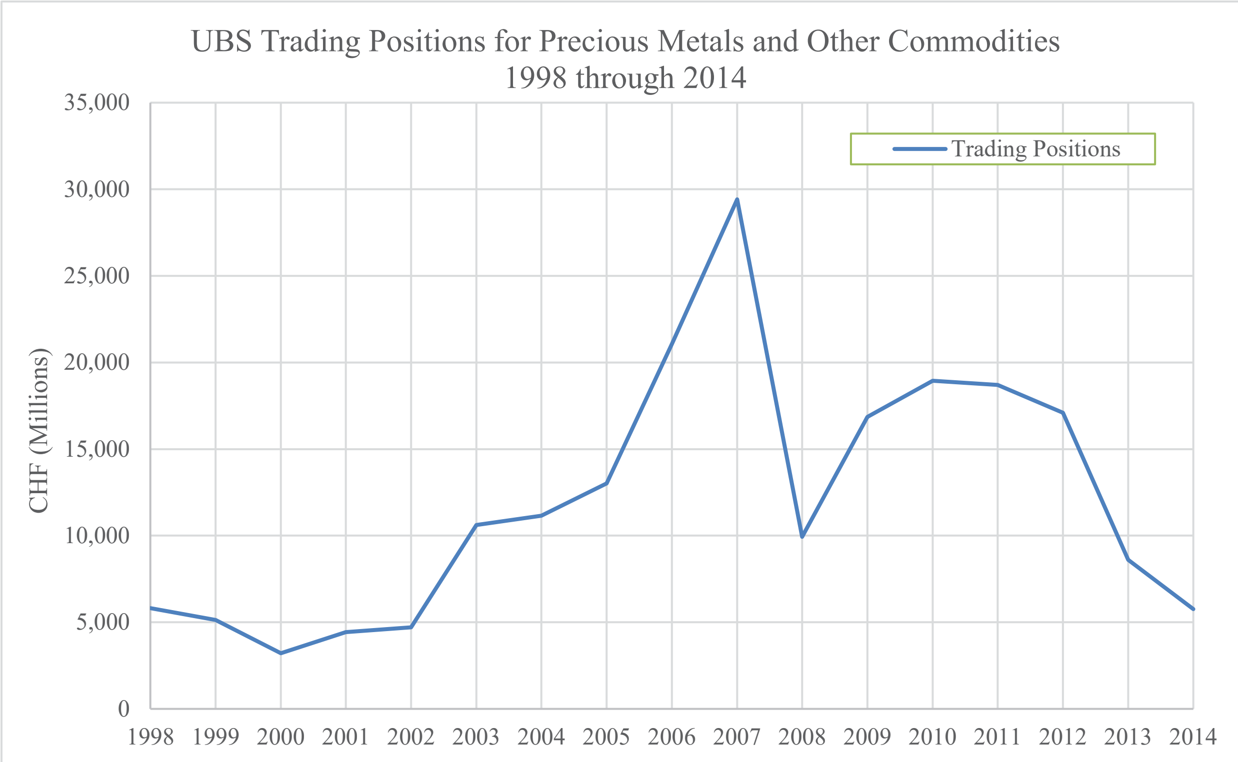


FIGURE 50

246. Other Defendants did not break out speculative trading positions from hedging positions, instead providing a total of their precious metals trading during the Class Period. For example, Figure 50 shows UBS's trading positions in precious metals and other commodities between 1999 and 2014. In every year, UBS had a very large trading position in the precious metals market, equal to billions of Swiss franc. Thus, UBS had a financial interest in the success of the Defendants' conspiracy and stood to profit from their manipulative scheme.

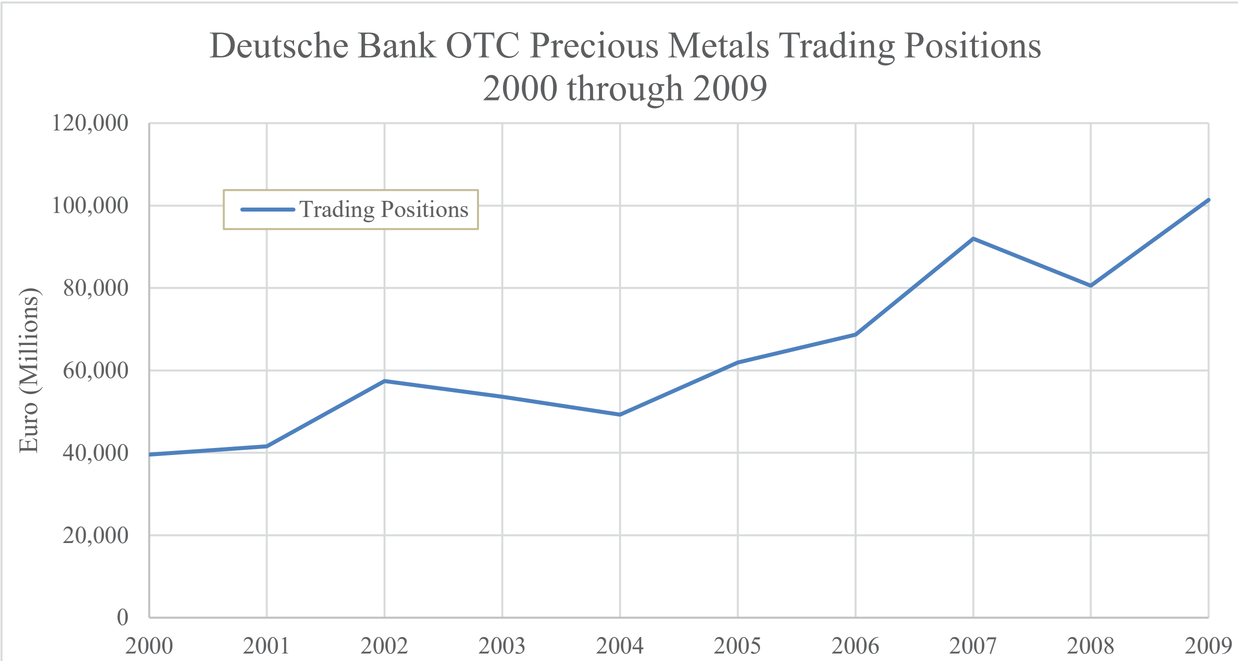


FIGURE 51

247. Defendant Deutsche reported similar financial results. Figure 51 displays the size of Defendant Deutsche's over the counter precious metals trading positions, including its positions in the silver market, between 2000 and 2009. As with Defendant UBS, Defendant Deutsche had a very large trading position in these markets, equal to billions of Euro, during every single year.

248. While each Defendant reported their trading and/or hedging positions differently throughout the Class Period, the one thing that each Defendant has in common is that they all had large, unhedged positions in the precious metals markets. These large positions, equal to billions of dollars in notional value, were financially benefited by Defendants' manipulative conduct alleged above.

249. The DB Cooperation Materials show that Defendants' silver trading positions directly contributed to the pricing dysfunction in the silver market as Defendants engaged in

collusive trades to create and profit from artificiality in the price of physical silver and silver financial instruments.

250. Communications demonstrate that Defendants organized and acted as a trading bloc to maximize the impact their manipulative transactions had on silver market prices. For example, Deutsche Bank Trader B and UBS Trader A recruited Barclays Trader A to join the trading "mafia":

June 8, 2011

UBS [Trader A]: im gonna sell a lil more we need to grow our mafia a lil get a third position involved

Deutsche Bank [Trader B]: ok calling barx

* * *

Deutsche Bank [Trader B]: he said he will wait for 35 he is disciplined good man[78]

251. Defendants would call on other traders for "reinforcement" if additional assistance was needed to manipulate silver prices:

December 23, 2010

UBS [Trader A]: i remember the best reinforcement . . .

Deutsche Bank [Trader B]: haha

Deutsche Bank [Trader B]: yeah

UBS [Trader A]: and i told you i got good selling at 65

Deutsche Bank [Trader B]: i remember that day lol

UBS [Trader A]: so we both wwent short

UBS [Trader A]: f*cking hell it just kept going higher

[78] DB_PM_SLVR_0201897.

UBS [Trader A]: 63, 65, then my guy falls asleep, it goes 69 paid!

UBS [Trader A]: then finally another reinforcement came in

UBS [Trader A]: that was so messy[79]

March 31, 2011

UBS [Trader A]: i got stop in silver now 39.50

Deutsche Bank [Trader B]: k

UBS [Trader A]: in one hour im gonna call reinforcement[80]

March 31, 2011

UBS [Trader A]: i got 3

Deutsche Bank [Trader B]: nice

UBS [Trader A]: but ill execute the ones at 35 too when we get to 28

UBS [Trader A]: we need all the reinforcement we can get lol[81]

252. The timing of these manipulative transactions was also important, and chats show that Defendants coordinated their trading to execute the same manipulative strategy at the same time, thereby maximizing the anticompetitive impact on silver prices:

August 11, 2011

UBS [Trader A]: if you want to accelerate it . . .

UBS [Trader A]: go short 20k silver

---

[79] DB_PM_SLVR_0205859.

[80] DB_PM_SLVR_0204393.

[81] DB_PM_SLVR_0211650.

UBS [Trader A]: stay on the offer in 1s

UBS [Trader A]: doesn't require much ammo

Deutsche Bank [Trader B]: ack

UBS [Trader A]: avalanche can be triggered by a pebble if u get the timing right[82]

April 1, 2011

UBS [Trader A]: trying to coordinate moves together here

UBS [Trader A]: ok we both bid at 60

* * *

UBS [Trader A]: we gotta do it the same time next time . . .

UBS [Trader A]: if we are correct and do it together, we screw other people harder[83]

253. Defendants ensured coordination among co-conspirators by agreeing to and following a set of trading rules to maintain consistent timing. For example, UBS Trader A and Deutsche Bank Trader B agreed upon an "11 oclock" rule where both banks would short silver at 11 A.M.:

August 5, 2011

UBS [Trader A]: bro lets make a slight adjustment to our plan today

Deutsche Bank [Trader B]: k

UBS [Trader A]: depending on where the mark is we go short around 11-11:30am i makesure to let u know if i do something

Deutsche Bank [Trader B]: ok im definitely going short lol

---

[82] DB_PM_SLVR_0199478.

[83] DB_PM_SLVR_0301637-38, 41.

UBS [Trader A]: lol revenge huh? That's whats driving u . . .

Deutsche Bank [Trader B]: it is but i dun care

UBS [Trader A]: u love the 11 oclock rule don't ya[84]

254. Similarly, multiple chats show Defendants discussing the need for "patience" or "discipline" when executing a manipulative trading strategy so that the timing of their trades aligned correctly to maximize the anticompetitive impact on the market. For example:

May 11, 2011

UBS [Trader A]: cooooooooooooome on !!!!!! i got faith i got two hours for this to push up faith bro this is like a trading church me and u have

Deutsche Bank [Trader B]: hahah dude

UBS [Trader A]: hallelujah

Deutsche Bank [Trader B]: i wanna ramp it up like really just buy at mmkt and fk everyone so bad

UBS [Trader A]: stick to game plan 2 lots @ 20/25 30 patience[85]

255. For even more precision, UBS Trader A and Deutsche Bank Trader B adopted an explicit countdown sequence, "3 2 1 boom," to time their manipulative trades:

February 8, 2011

Deutsche Bank [Trader B]: here we go here we go

UBS [Trader A]: gogogogogoggog

Deutsche Bank [Trader B]: dude

Deutsche Bank [Trader B]: near the high

Deutsche Bank [Trader B]: im gonna ramp it

[84] DB_PM_SLVR_0199832-33.

[85] DB_PM_SLVR_0209659-60.

Deutsche Bank [Trader B]: that my plan

Deutsche Bank [Trader B]: u?

UBS [Trader A]: if 53 breaks imam go guns blazing

Deutsche Bank [Trader B]: yeah

Deutsche Bank [Trader B]: exactly

Deutsche Bank [Trader B]: as in on the break of 53

Deutsche Bank [Trader B]: it's the 3 2 1 boom[86]

August 15, 2011

UBS [Trader A]: first time we pushed i thought u were crazy

Deutsche Bank [Trader B]: hahaha

Deutsche Bank [Trader B]: 3, 2, 1, boom?

UBS [Trader A]: im like we gotta trigger finger here

UBS [Trader A]: that cracked me up

* * *

UBS [Trader A]: there will be a voice in your head, patience patience

UBS [Trader A]: BOOOOOOOOOOOOOOM!!!

UBS [Trader A]: then okay stay flat, stay flat

UBS [Trader A]: BOOOOOOOOOOOOOOOOOOOOOOOOM!!!

Deutsche Bank [Trader B]: hahahahah

Deutsche Bank [Trader B]: ah buddy

Deutsche Bank [Trader B]: good times..

[86] DB_PM_SLVR_0205186-87.

> UBS [Trader A]: [Deutsche Bank Trader B] just wants to go boom . . . he doesnt want the pistol training, wana go straight for the bazooka[87]

256. Chats among Defendants' traders also describe at least six manipulative trading techniques used to create artificial prices in the silver market. Each technique was designed to have a certain effect on silver prices and given a separate code name. For example the "blade" technique, as described below by UBS Trader A, involved placing a series of small orders close to each other in price:

> **August 16, 2011**
>
> UBS [Trader A]: gona blade silver now
>
> Deutsche Bank [Trader B]: hmm
>
> UBS [Trader A]: im sitting on the bid in silver for smalls can u help me with 5 lots in silver? futures try 71/71.5./72[88]

257. Defendants used the "blade" technique to provide artificial support for silver prices at a certain level, for example, by uneconomically buying silver as prices increased through a series of closely placed orders:

> **August 12, 2011**
>
> UBS [Trader A]: use the blade on silver right now it'll hold it up
>
> Deutsche Bank [Trader B]: yeah[89]

258. In contrast, Defendants would "muscle" silver prices in a desired direction by placing large orders, typically at times when they knew the market was illiquid:

---

[87] DB_PM_SLVR_0199408-10; *see also* DB_PM_SLVR_0194454-55.

[88] DB_PM_SLVR_0199260.

[89] DB_PM_SLVR_0300874-75.

August 17, 2011

UBS [Trader A]: I think we should muscle silver

UBS [Trader A]: go for the illiquid currency[90]

259. As UBS Trader A explained in the chat below, whether Defendants used "muscle" or "blade" depended on which manipulative technique would have the greatest impact on the price of silver and silver financial instruments given the current market conditions:

August 11, 2011

UBS [Trader A]: learning?

Deutsche Bank [Trader B]: always

UBS [Trader A]: pls write me a check when u aer a billionaire

Deutsche Bank [Trader B]: always

* * *

UBS [Trader A]: dont do anything now its gonna go fast like rollercoaster going up

Deutsche Bank [Trader B]: dude the 1 lot offer is so powerful i love it

UBS [Trader A]: it depends what kinda mkt sometimes u use muscle sometimes u use blade this is blade but then two guys doing it like this together is small muscle and blade

Deutsche Bank [Trader B]: yeah dude i like it double dragon[91]

260. Defendants also used a manipulative trading technique called "jobbing" to extract additional illicit profits from low-volume, illiquid markets by capitalizing on small, artificial price moves. In the chat below, for example, UBS Trader A and Deutsche Bank Trader B discuss

---

[90] DB_PM_SLVR_0199139.

[91] DB_PM_SLVR_0211605-6.

the "jobbing" strategy and their knowledge that any profit from "jobbing" came from harm caused to other silver market participants:

July 26, 2011

UBS [Trader A]: short 50k silver thinking bring short 50k don't hurt

Deutsche Bank [Trader B]: ur level my average is 42 not the best

UBS [Trader A]: silver 40.10

Deutsche Bank [Trader B]: agreed on both silver like u said much easier to short

UBS [Trader A]: and intraday wise we killed a lot of people

Deutsche Bank [Trader B]: volume is very poor

UBS [Trader A]: just jobbing them between me and u theres 100k pnl taken out of the market[92]

261. Defendants engaged in "spoofing," which involved placing false bids and offers for silver and silver financial instruments at artificial prices either above or below where the market was trading, and then quickly canceling those orders before they could be filled.

262. Spoofing distorted the price of silver and silver financial instruments in the direction of the fake order by creating the false appearance of supply and demand at the "spoof" price level. This allowed Defendants to buy or sell silver at a more favorable price than they otherwise could have.

263. The following chats, involving Bank of Nova Scotia Trader A, Deutsche Bank Silver Fix Trader-Submitter A, UBS Trader B, and Barclays Trader B, are some examples of Defendants engaged in spoofing:

March 7, 2008:

Bank of Nova Scotia [Trader A]: lost to hsbc got it back fm ubs cheaper

[92] DB_PM_SLVR_0200251.

Deutsche Bank [Trader-Submitter A]: did ubs call out?

Bank of Nova Scotia [Trader A]: nah offereed 8.25 in ebs

Deutsche Bank [Trader-Submitter A]: hs called in silver before

Deutsche Bank [Trader-Submitter A]: i was high in both and they opassed both

Bank of Nova Scotia [Trader A]: yeah we were high in silver but cudnt work out what he was doin

Deutsche Bank [Trader-Submitter A]: me either

Deutsche Bank [Trader-Submitter A]: maybe spoofing silver lower . . . [93]

April 23, 2008

UBS [Trader B]: did u just quote that lac of silver?

Deutsche Bank [Trader-Submitter A]: yean

Deutsche Bank [Trader-Submitter A]: im ashamed

UBS [Trader B]: u should be!

UBS [Trader B]: its called the transmit button!

UBS [Trader B]: hehehe

Deutsche Bank [Trader-Submitter A]: hehehehe

Deutsche Bank [Trader-Submitter A]: i knew u were a seller buy u spoofed it u mother[94]

July 4, 2008

Deutsche Bank [Trader-Submitter A]: did u see the spoof

[93] DB_PM_SLVR_0264556.

[94] DB_PM_SLVR_0264504-05.

Barclays [Trader B]: no what was that?

Deutsche Bank [Trader-Submitter A]: when he called

Deutsche Bank [Trader-Submitter A]: the futures went a buck wide

* * *

Deutsche Bank [Trader-Submitter A]: shud make ubs 2 usd wide at leats today if hes spoofing ti[95]

264. A related manipulative trading technique, called "sniping," involved placing a high concentration of spoof bids at a certain price level to create false supply and demand fundamentals that facilitated executing a specific offer. The example chats below show traders from Barclays, Deutsche Bank, and UBS discussing this manipulative strategy:

March 29, 2011

Deutsche Bank [Trader B]: i just spam bids below to clear my offer there's like a 2-3 cent gap just crap basically

UBS [Trader A]: u know i heard in barclays fx side, back then come guys spoof on their algo and snipe[96]

August 24, 2011

Deutsche Bank [Trader B]: i saw a good offer leh then i snipe

Barclays [Trader A]: haha HAHAHA[97]

265. While spoofing and sniping manipulated silver prices by disseminating false supply and demand information to the market, Defendants also maintained silver prices at artificial levels by engaging in collusive "unreported" or "quiet" trades to withhold pricing

[95] DB_PM_SLVR_0264331-32.

[96] DB_PM_SLVR_0211814.

[97] DB_PM_SLVR_0198693.

information from the market. For example, in the chat below, Deutsche Bank Trader D plans an unreported trade with a broker at ICAP, whose identity was redacted:

February 16, 2011

Deutsche Bank [Trader D]: hey mate

Deutsche Bank [Trader D]: how much you have on the offer

ICAP [Redacted]: 1 mill

Deutsche Bank [Trader D]: i would lend 5 in case, but do it on the quiet, dont report a thing ok?

ICAP [Redacted]: ok 1 mill with scotia ldn

ICAP [Redacted]: not reported, will try and find more

Deutsche Bank [Trader D]: dont push it pls[98]

266. These "quiet" trades allowed Defendants to secretly amass large positions in physical silver and silver financial instruments that could be utilized in their manipulative trading activity. For example, in the chat below, Deutsche Bank Trader D discusses acquiring a large silver position through "quiet" trades with a trader or broker identified only as "jono_tfs":

April 5, 2011

Unknown [jono_tfs]: u guys got 500k 2y sil at -.02 late last night u lent mocatta

Unknown [jono_tfs]: nice one

Unknown [jono_tfs]: not reported

Deutsche Bank [Trader D]: yeah heard that

Deutsche Bank [Trader D]: pretty cool

Deutsche Bank [Trader D]: especially since you had my bid at flat

Unknown [jono_tfs]: yeah made gd level i reckon, if u can keep 500k here

[98] DB_PM_SLVR_0042743.

and there not reported will slowly mount up to a decent amount

Deutsche Bank [Trader D]: i d like to do 5 mill

Deutsche Bank [Trader D]: actually

Unknown [jono_tfs]: understood

Unknown [jono_tfs]: will work our offer to day on the quiet

Deutsche Bank [Trader D]: cool[99]

267. The foregoing chats demonstrate that Defendants created the dysfunction in silver prices not only by manipulating the results of the Silver Fix but also through their collusive trading in the silver market, which was designed to create and profit from the same price artificiality.

V. DEFENDANTS IMPROPERLY SHARED PRIVATE INFORMATION TO COORDINATE THEIR TRADING IN ADVANCE OF THE SILVER FIX

268. To further capitalize on their manufactured pricing dysfunction, Defendants exchanged private information about incoming order flow to coordinate their trading activity in advance of the Silver Fix. What is currently publicly known about how Defendants' scheme operated comes largely from the UBS FINMA Report[100] and Defendants HSBC's[101] and UBS's[102] settlements with the CFTC and U.K. Financial Conduct Authority ("FCA") for their

[99] DB_PM_SLVR_0042743.

[100] *See supra* note 15.

[101] *See Commodity Futures Trading Commission Order Instituting Proceedings Pursuant to Sections 6(c)(4)(A) and 6(d) of the Commodity Exchange Act, Making Findings, and Imposing Remedial Sanctions Against HSBC Bank plc*, CFTC Docket No. 15-07 (Nov. 11, 2014) at 5 (hereinafter "HSBC FX CFTC Order").

[102] *See Commodity Futures Trading Commission Order Instituting Proceedings Pursuant to Sections 6(c)(4)(A) and 6(d) of the Commodity Exchange Act, Making Findings, and Imposing Remedial Sanctions Against UBS AG*, CFTC Docket No. 16-06 (Nov. 11, 2014) at 6 (hereinafter "UBS FX CFTC Order").

involvement in the manipulation of FX markets. New evidence uncovered in the DB Cooperation Materials confirms these regulators' findings.

269. The link between the silver and FX market in this case is embedded in how Defendants structure their trading desks, and warrants using Defendants' FX settlements to provide further examples of their manipulative conduct. For example, UBS has traded precious metals from its foreign exchange desk, which is located in Stamford, Connecticut, since at least 2008;[103] HSBC even goes so far as to report precious metals trading revenue as FX trading in its annual financial reports.[104] Thus, it is not surprising that FINMA found that the same "conduct and techniques" used to manipulate the FX markets were applied to manipulate precious metal prices, including the prices of silver and silver financial instruments.

270. Government regulators found that Defendants' scheme in both the precious metals and FX markets focused on creating an informational advantage for cartel members by sharing private information about Defendants' trading books, including both client orders and their own proprietary trading positions.

271. This information gave Defendants advance notice of incoming orders to buy or sell silver, allowing them to coordinate their trading to take advantage of pending orders *before* they were executed in the public market. It also allowed Defendants to manipulate the Fix price in the specific direction that benefitted their silver market positions, and to extract additional illicit profits from the trades placed by their own clients and their co-conspirators' clients.

---

[103] *See* UBS FINMA Report at 12 ("precious metals trading has been an organizational unit of the bank's Foreign Exchange Spot Desk since the end of 2008").

[104] *See, e.g.*, HSBC Holdings plc Annual Report and Accounts 2011, at 52 (explaining that the company's precious metals business is "reported within Foreign Exchange.").

272. All of this information was improperly acquired and should never have been shared among the Defendants. There is no legitimate reason for Defendants, who are supposedly competitors in the silver market, to share their proprietary trading positions and those of their clients with other market participants.

273. During the Class Period, Defendants stopped competing and conspired to fix the prices of silver and silver financial instruments to artificial levels so as to generate illicit, risk-free profits in the silver market. Defendants further created and maintained supracompetitive bid-ask spreads between the prices that silver was purchased and sold for during the Class Period.

A. Defendants Used Electronic Chat Rooms to Share Private Information Regarding Their Proprietary Trading Positions and Those of Their Clients

274. To efficiently share information and coordinate their trading activity, Defendants including participants from UBS, HSBC, and other co-conspirator banks, used electronic chatrooms. Based on the DB Cooperation Materials, these other co-conspirators included at least Barclays, Standard Chartered, Fortis and Merrill Lynch. Given the highly sensitive nature of the information being exchanged, membership in these group chatrooms was exclusive and often by invite only.[105] For example, in the conversation below, Deutsche Bank Trader B invites UBS Trader A, "the Hammer," into a private chat with HSBC Trader B and Barclays Trader A (abbreviated as "barx"), in addition to several others:

February 9, 2011:

Deutsche Bank [Trader B]: dude

Deutsche Bank [Trader B]: do you know hsbc and barx

Deutsche Bank [Trader B]: i might as well add u into this chat

Deutsche Bank [Trader B]: if u keen

[105] UBS FX CFTC Order at 5.

UBS [Trader A]: who from hsbc and barx?

Deutsche Bank [Trader B]: [HSBC Trader B] and [Barclays Trader A]

* * *

Deutsche Bank [Trader B]: i added u . . .

UBS [Trader A]: wow this is going to be the mother of all chats[106]

275. Once inside, a trader had access to a wealth of non-public information that otherwise would not be available outside the cartel. For example, FINMA uncovered evidence that Defendant UBS's precious metals traders, who transacted in both physical silver and silver financial instruments, shared information with third-parties including (a) the trigger prices of client stop-loss orders; (b) "flow information" about incoming and pending client orders; and (c) other positional information from Defendant UBS's order book.[107] The CFTC found that Defendant HSBC engaged in the same conduct, exchanging the "size and direction of the Bank's net orders" with traders in group chatrooms during their manipulation of the FX market.[108] The DB Cooperation Materials confirm FINMA's and the CFTC's findings, demonstrating that Defendants' silver traders routinely shared proprietary information.

1. UBS

276. At UBS, senior trader Trader A frequently shared proprietary information about UBS's silver trading positions and customer order flow with Deutsche Bank Trader B. In fact, the two traders shared information so frequently that UBS Trader A suggested that the two

---

[106] DB_PM_SLVR_0215096.

[107] UBS FINMA Report at 12.

[108] *See* HSBC FX CFTC Order at 5.

"should just work on the same desk haha."[109] For example, UBS Trader A regularly informed Deutsche Bank Trader B when UBS customers were buying or selling silver so that the two could coordinate trades to take advantage of anticipated price moves:

May 6, 2011

UBS [Trader A]: i giot good names selling small silver im getting out more

Deutsche Bank [Trader B]: k

UBS [Trader A]: buy it back later[110]

277. This information exchange was reciprocal as UBS and Deutsche Bank kept each other informed of incoming client orders throughout the trading day. For example, in the chat below UBS Trader A inquired about the order flow that Deutsche Bank was seeing in the silver market:

August 5, 2011

UBS [Trader A]: u see anything sh out

Deutsche Bank [Trader B]: still seeing chinese buying

UBS [Trader A]: gold?

Deutsche Bank [Trader B]: silver[111]

278. UBS Trader A also informed Deutsche Bank of UBS's client order flow so that Deutsche Bank Trader B could trade based on that proprietary information:

August 5, 2011

UBS [Trader A]: chinese buying silver 50k so far

[109] DB_PM_SLVR_0199819.

[110] DB_PM_SLVR_0211358.

[111] DB_PM_SLVR_0199814.

> Deutsche Bank [Trader B]: tks and stay short my xag[112] i see big resistance from 39.40/50 from my momentum chart
>
> UBS [Trader A]: give me a call when u get a sec
>
> Deutsche Bank [Trader B]: k calling[113]

279. In addition to sharing the general direction of their client's orders, *i.e.*, buy or sell, UBS Trader A and Deutsche Bank Trader B also discussed pricing and disclosed to each other the exact level at which UBS and Deutsche Bank were offering to buy and sell silver in the market so that each could generate increased profits by maintaining an artificially higher price:

> **August 5, 2011**
>
> UBS [Trader A]: stay short its gonna be one of those days I bought another 100k xag for chinese
>
> Deutsche Bank [Trader B]: k i offer out again 20
>
> * * *
>
> UBS [Trader A]: what was taeh last price chinese bought silver from u? they bought total 3 lacs from me avg. 36.06
>
> Deutsche Bank [Trader B]: 39.10
>
> UBS [Trader A]: last price they paid was 39.14[114]

280. UBS Trader A also relayed order flow information learned from other UBS co-conspirators, including Defendant Bank of Nova Scotia, to Deutsche Bank Trader B so that Deutsche Bank could align its prices with them as well. For example, in the chat below, UBS Trader A shares with Deutsche Bank Trader B information that "standard mitsui," another bank, had just purchased silver from Defendant Bank of Nova Scotia. This information, which UBS

---

[112] "XAG" is the ticker symbol associated with the price of physical silver.

[113] DB_PM_SLVR_0199819.

[114] DB_PM_SLVR_0199820-21, 0199842.

Trader A only could have learned by speaking with a Bank of Nova Scotia trader, indicates that UBS directly shared information with more than just Deutsche Bank traders so that it could align its trading interests with those co-conspirators:

October 15, 2010

UBS [Trader A]: bough small silver from scotia i mean standard mitsui buying some

Deutsche Bank [Trader B]: ok tks[115]

2. HSBC

281. Several Deutsche Bank traders were also in regular communications with traders at HSBC and routinely shared proprietary information about their respective bank's silver order flow and positions to coordinate manipulative trading activity. For example, in the chat below Deutsche Bank Trader E, a silver derivatives trader in Deutsche Bank's New York office, and HSBC Trader A discussed how they were both trying to short silver prior to the start of the Silver Fix to align trading positions:

April 4, 2011

HSBC [Trader A]: feel like shorting this

Deutsche Bank [Trader E]: mate been trying to short this in the 30's 5 timesd

HSBC [Trader A]: yeah guess so . . . just soo offered at 40[116]

282. Later in the same chat, HSBC Trader A and Deutsche Bank Trader E agreed that they expected silver prices to decrease and the traders intended to remain short:

April 4, 2011

HSBC [Trader A]: im goin home flat . .

[115] DB_PM_SLVR_0206497.

[116] DB_PM_SLVR_0181699.

HSBC [Trader A]: gun to ur head – u think lowa from here?

HSBC [Trader A]: if you had to have a possy

Deutsche Bank [Trader E]: mate been thinkmin that for days

Deutsche Bank [Trader E]: if i had to have a possie defo lower[117]

283. HSBC Trader A also communicated and shared proprietary information with Deutsche Bank Silver Fix Trader-Submitter A. For example, in the chat below, the two traders disclose how they were both long silver over the weekend and discuss the trades, including the price and quantity of silver, their respective banks had placed over the previous few days:

May 31, 2011

Deutsche Bank [Trader-Submitter A]: silver perkey

Deutsche Bank [Trader-Submitter A]: but again quiet

Deutsche Bank [Trader-Submitter A]: long over the weekend

HSBC [Trader A]: same . . .

HSBC [Trader A]: I bot it 29friday

HSBC [Trader A]: i think im just gonna sell it . . .

Deutsche Bank [Trader-Submitter A]: i bot 10k there too late

Deutsche Bank [Trader-Submitter A]: sold 5k at 39.5 tdy[118]

284. Deutsche Bank Silver Fix Trader-Submitter A and HSBC Trader A also exchanged real-time information regarding their silver market activity, including the price levels where they placed stop-loss orders and how may "lacs," *i.e.*, 100,000 ounce lots of silver, they

[117] DB_PM_SLVR_0181702-3.

[118] DB_PM_SLVR_0277689.

had just bought or sold to ensure that both HSBC and Deutsche Bank were quoting prices at mutually beneficial levels:

December 1, 2011

HSBC [Trader A]: gonna try buy this if we dip

Deutsche Bank [Trader-Submitter A]: is this a dip

HSBC [Trader A]: oh dont do this to me

Deutsche Bank [Trader-Submitter A]: hahahaha

HSBC [Trader A]: im buying it ard 40 cant be bothered here[119]

June 7, 2011

Deutsche Bank [Trader-Submitter A]: silver

Deutsche Bank [Trader-Submitter A]: i wanna be srt

HSBC [Trader A]: stpped at ur level

HSBC [Trader A]: i just got given 5lacs

HSBC [Trader A]: wasnt easy to sell

Deutsche Bank [Trader-Submitter A]: i was shrt 300k at my lvl[120]

285. These conversations extended to the Silver Fix as Deutsche Bank Silver Fix Trader-Submitter A and HSBC Trader A shared information regarding Deutsche Bank's and HSBC's net silver trading positions during and after the Fix. For example, in the chat below, Deutsche Bank Silver Fix Trader-Submitter A and HSBC Trader A indicate that both Deutsche Bank and HSBC were short silver after the October 6, 2011 Silver Fix:

[119] DB_PM_SLVR_0280019-20.

[120] DB_PM_SLVR_0277714.

October 6, 2011

HSBC [Trader A]: made smalls but annoyed about the sil

HSBC [Trader A]: should be better

HSBC [Trader A]: got the afternoon

HSBC [Trader A]: need to catch a groove

Deutsche Bank [Trader-Submitter A]: silver fix

Deutsche Bank [Trader-Submitter A]: it's a gag aint it

HSBC [Trader A]: yep

HSBC [Trader A]: gotta try capture it tho

Deutsche Bank [Trader-Submitter A]: came out short

Deutsche Bank [Trader-Submitter A]: got given double what i was shrt

Deutsche Bank [Trader-Submitter A]: sweet

* * *

HSBC [Trader A]: not long

HSBC [Trader A]: came out fix shart[121]

3. Standard Chartered

286. HSBC Trader A moved from Fixing Member Defendant HSBC to Defendant Standard Chartered at some point during the Class Period (where he is referred to as Standard Chartered "Trader A"). While at Standard Chartered, Trader A and Deutsche Silver Fix Trader-Submitter A continued to share proprietary silver trading information including, for example, when they had bought or sold silver and their view on prices:

[121] DB_PM_SLVR_0278949-53.

April 24, 2013

Deutsche Bank [Trader-Submitter A]: ive bot some plat . . . . thinking abt some silver too

Standard Chartered [Trader A]: shuydda sold small tho shudnt we

Standard Chartered [Trader A]: was our view

Deutsche Bank [Trader-Submitter A]: yes[122]

287. The exact price level of their respective bank's silver market transactions:

April 24, 2013

Deutsche Bank [Trader-Submitter A]: i made a bit of a mess

Deutsche Bank [Trader-Submitter A]: bot silver ard 23[123]

288. And, as indicated by the chats below, Defendants discussed the price level of stop-loss orders and their net positions at the end of the Silver Fix:

April 24, 2013

Deutsche Bank [Trader-Submitter A]: stop lvl 22.65

Standard Chartered [Trader A]: yeh

Standard Chartered [Trader A]: small long out the fix . . .

Standard Chartered [Trader A]: ok so where to sell sivler then?

Deutsche Bank [Trader-Submitter A]: 23.40 thru that use it as a stop profit and let it runnnnnnnnnnnnnnnnn

Standard Chartered [Trader A]: were on the same wavelength

Standard Chartered [Trader A]: just put 39s in[124]

[122] DB_PM_SLVR_0268650.

[123] DB_PM_SLVR_0268651.

[124] DB_PM_SLVR_0268652.

289. Deutsche Bank Silver Fix Trader-Submitter A also disclosed to Standard Chartered Trader A Deutsche Bank's net silver position leading into the Silver Fix and whether the bank was long or short afterwards:

April 26, 2013

Standard Chartered [Trader A]: what was that all aboyt?

Deutsche Bank [Trader-Submitter A]: silver fix?

Standard Chartered [Trader A]: yeah

Deutsche Bank [Trader-Submitter A]: i had 2 m to sell

Deutsche Bank [Trader-Submitter A]: no one wanted it

Deutsche Bank [Trader-Submitter A]: came out smalls long that i don't want

Deutsche Bank [Trader-Submitter A]: and its just dumped[125]

290. Deutsche Bank Silver Fix Trader-Submitter A and Standard Chartered Trader A used this proprietary information to coordinate trading strategies between Deutsche Bank and Standard Chartered, including when to go long or short silver and the size of those trading positions:

May 29, 2013

Deutsche Bank [Trader-Submitter A]: im long silver

Deutsche Bank [Trader-Submitter A]: and small gold

Deutsche Bank [Trader-Submitter A]: i will add to the gold

Deutsche Bank [Trader-Submitter A]: depending

Standard Chartered [Trader A]: noted

Deutsche Bank [Trader-Submitter A]: i like both

[125] DB_PM_SLVR_0268552-53.

Deutsche Bank [Trader-Submitter A]: to get the absolute sht squeezed out of them

Deutsche Bank [Trader-Submitter A]: im longer silver than i am gold

Standard Chartered [Trader A]: think u only need toris 22.10 on the sil

Deutsche Bank [Trader-Submitter A]: indeed[126]

4. Barclays

291. Barclays Trader A, a member of the "mother of all chats" described in ¶ 274 above, also shared proprietary information with at least Deutsche Bank. Barclays Trader A spoke frequently with Deutsche Bank Trader B, for example, discussing Barclays' and Deutsche Bank's silver trading positions and agreeing on manipulative trading strategies:

September 26, 2011

Deutsche Bank [Trader B]: i dunno how to play today

Deutsche Bank [Trader B]: keep 2k short

Deutsche Bank [Trader B]: and juggle the rest

Barclays [Trader A]: ya

Barclays [Trader A]: i am short 4k lor

Deutsche Bank [Trader B]: bro same[127]

292. Deutsche Bank Trader B and Barclays Trader A also aligned on when to stay out of the silver market, for example, sharing market views and agreeing not to trade silver on October 4, 2011:

October 4, 2011

Deutsche Bank [Trader B]: silver any read?

[126] DB_PM_SLVR_0269063-64.

[127] DB_PM_SLVR_0197839.

Deutsche Bank [Trader B]: stay away?

Barclays [Trader A]: ya

Barclays [Trader A]: stay away

Barclays [Trader A]: bro

Barclays [Trader A]: this week[128]

293. The two traders regularly informed each other when they intended to buy or sell silver, for example, as Deutsche Bank Trader B did in the September 29, 2011 chat below:

September 29, 2011

Deutsche Bank [Trader B]: i think silver

Deutsche Bank [Trader B]: underpriced

Deutsche Bank [Trader B]: gold silver down 2%

Deutsche Bank [Trader B]: will buy some xag[129]

294. Other chats indicate that Barclays Trader A and Deutsche Bank Trader B followed a series of agreed-upon rules when trading silver:

October 25, 2011

Barclays [Trader A]: what is the rule

Barclays [Trader A]: for silver

Barclays [Trader A]: i violated it yday

Barclays [Trader A]: i hope u don't do it today

Deutsche Bank [Trader B]: oh

Deutsche Bank [Trader B]: don't touch it?

---

[128] DB_PM_SLVR_0197503.

[129] DB_PM_SLVR_0197726.

Barclays [Trader A]: long or flat bro

Deutsche Bank [Trader B]: bro[130]

295. Barclays and Deutsche Bank shared information and coordinated trading so frequently that Barclays Trader A remarked "we are one team one dream." Consistent with this philosophy, the chat below shows Barclays Trader A and Deutsche Bank Trader B not only sharing information regarding their Barclays' and Deutsche Bank's net short positions but agreeing to "smash" prices lower for their collective financial benefit:

April 6, 2011

Deutsche Bank [Trader B]: how mujch silver u selling

Deutsche Bank [Trader B]: yest buy so much

Deutsche Bank [Trader B]: today u smash

Barclays [Trader A]: yeah

Barclays [Trader A]: 500 oz gold

Barclays [Trader A]: 10k silver

Barclays [Trader A]: im short

* * *

Barclays [Trader A]:dude

Barclays [Trader A]: you are short right

Barclays [Trader A]: haha

Barclays [Trader A]: we are one team one dream

Deutsche Bank [Trader B]: haha

Deutsche Bank [Trader B]: of course short

[130] DB_PM_SLVR_0229209.

Deutsche Bank [Trader B]: short 1 lac

Barclays [Trader A]: nice[131]

296. Barclays also received proprietary information from Deutsche Bank about its net silver positions heading into the start of the Silver Fix. For example, in the two chats below, Deutsche Bank Silver Fix Trader-Submitter A informs Barclays Trader B of Deutsche Bank's net silver orders and whether it will be a buyer or seller during the Silver Fix:

May 16, 2011

Deutsche Bank [Trader-Submitter A]: FIX AK . . . IM A SMALL SELLER AT THE MOM WONT DENT ANYTHING U HAVE THO

Barclays [Trader B]: NOT WHAT SCOTIA IS OFFERING I AM SURE[132]

August 31, 2012

Deutsche Bank [Trader-Submitter A]: im a buyer on sil fix fwiw[133]

Barclays [Trader B]: ok[134]

5. Fortis Bank

297. Deutsche Bank Silver Fix Trader-Submitter A also shared proprietary information regarding Deutsche Bank's intention to buy or sell silver during the Silver Fix and coordinated trading with several traders at Fortis Bank. For example, in the chat below, Deutsche Bank Silver Fix Trader-Submitter A informs an unidentified Fortis trader that Deutsche Bank will be a seller at the Silver Fix and conspires to sell more silver with that trader into an illiquid market:

---

[131] DB_PM_SLVR_0204208-9.

[132] DB_PM_SLVR_0267024.

[133] "fwiw" stands for "for what it's worth."

[134] DB_PM_SLVR_0289636.

August 22, 2007

Deutsche Bank [Trader-Submitter A]: SEEMS SOME BUYING PRE SIL FIX IN THE SYSTEMS

Fortis [Unknown]: WE'LL SELL 70'S TOGETHER

Deutsche Bank [Trader-Submitter A]: AT THIS RATE MATE WE CAN SELL 11.80'S

Deutsche Bank [Trader-Submitter A]: BOTH MKTS ARE AS THIN AS IVE EVER SEEN THEM IN MY 5 YEARS OF TRADING THESE

Deutsche Bank [Trader-Submitter A]: ILL BE A LIGHT SELLER ON THE FIX SO WATCH YOUR SCREEN[135]

298. As another example, in the chat below, Deutsche Bank Silver Fix Trader-Submitter A discloses Deutsche Bank's orders heading into the Silver Fix to an unidentified Fortis trader, and states his intention to share that information with other market participants and manipulate prices artificially lower:

March 3, 2008

Deutsche Bank [Trader-Submitter A]: I HAVE SMALL SELLING ON TODAYS FIX FYI IM ONLY TELLING U AS ITS SUCH A RARE EVENT HAHHAAH LETS BLOW IT ALL OUT POF PROPORTION AND TELL EVERYONE

Fortis [Unknown]: HEHEHEHE

Deutsche Bank [Trader-Submitter A]: OK I WENTRRAOUND AND TOLD EVERYON I WAS A SELLER EVEN THOUGH I HAVE NEX HEH[136]

299. In addition to Silver Fixing orders, traders at Deutsche Bank and Fortis also shared their net silver trading positions and incoming silver order flow throughout the day to align interests and coordinate trades. For example:

---

[135] DB_PM_SLVR_0272908.

[136] DB_PM_SLVR_0272830.

February 21, 2008

Deutsche Bank [Trader-Submitter A]: IM FLAT OR LONG AT THE MOM, GOT PAID IN SILVER AND DIDN'T ARGUE JUST COVERED

Fortis [Unknown]: US AGAIN

Fortis [Unknown]: BUYER THXS

Deutsche Bank [Trader-Submitter A]: I WAS JUST AEKD IN 15K TO A GUY I THINK UBS TRADE WITH I THINK THAT LAS ROUND UP WAS TO COVER THAT AS HE PASS ME HIGH[137]

300. Other chats indicate that Deutsche Bank and Fortis had also previously conspired to manipulate silver prices and planned to do so again in the future. For example:

February 25, 2008

Fortis [Trader B]: CANT WAIT FOR ANOTHER DAY WHEN WE GET THE BULLDOZER OUT THE GARAGE ON GOLD OR SIL, THEY ARE MY FIRST PORT OF CALL HAHAHAHAHAH LET ME KNOW WHEN THEY START QUOPTING 10K'S THO

Deutsche Bank [Trader-Submitter A]: HAHA YEAH[138]

6. Merrill Lynch

301. Deutsche Bank Silver Fix Trader-Submitter A also shared proprietary information and conspired with Merrill Lynch Trader A to manipulate silver prices. For example, in the chat below, the two traders discuss (a) what spreads they are quoting in the silver spot market; and (b) "sweeping" silver stop-loss orders at the current level:

May 12, 2011

Deutsche Bank [Trader-Submitter A]: silver is broken

Merrill Lynch [Trader A]: yes

---

[137] DB_PM_SLVR_0272842.

[138] DB_PM_SLVR_0272836.

Merrill Lynch [Trader A]: We are making supser wide vols. . . don't care

Merrill Lynch [Trader A]: How wide r u on spot? Id assume 10 cents for a few lacs?

Deutsche Bank [Trader-Submitter A]: yes

Deutsche Bank [Trader-Submitter A]: im getting ntg but stops

Deutsche Bank [Trader-Submitter A]: no remorse

Merrill Lynch [Trader A]: Not surprised

Merrill Lynch [Trader A]: We had similar

Merrill Lynch [Trader A]: I sweep them . . Fuk these guys

Deutsche Bank [Trader-Submitter A]: yup

Merrill Lynch [Trader A]: Someon complained on the wide prices. . . I said. . tough

Merrill Lynch [Trader A]: literally[139]

302. Subsequent chats indicate that Merrill Lynch Trader A used the term "sweeping" to refer to triggering stop-loss orders, as in the conversation with Deutsche Bank Silver Fix Trader-Submitter A below:

June 14, 2013

Merrill Lynch [Trader A s]: FX Rates Said to Face Global Regulation After Libor Review

Deutsche Bank [Trader-Submitter A]: yea

Merrill Lynch [Trader A]: silver

Merrill Lynch [Trader A]: Nice sweeep

Merrill Lynch [Trader A]: Someone got stopped messily

Deutsche Bank [Trader-Submitter A]: it was big

[139] DB_PM_SLVR_0285307.

Merrill Lynch [Trader A]: 50 cents[140]

303. Merrill Lynch Trader A and Deutsche Bank Trader-Submitter A also shared information about their contemporaneous trading in silver and silver financial instruments, including the exact price and quantity of silver they were buying or selling and the timing of their trades:

July 6, 2011

Merrill Lynch [Trader A]: Somejackass, . . . sold me 1mm ozs of 1 week 35 silver call at 29 vol yesterday

Merrill Lynch [Trader A]: Fuking idiots

Merrill Lynch [Trader A]: I went back asked him where h was

Merrill Lynch [Trader A]: fool

Merrill Lynch [Trader A]: okjhhh

Merrill Lynch [Trader A]: I sold the high in silver and pd

Merrill Lynch [Trader A]: New highs coming

Deutsche Bank [Trader-Submitter A]: wow

Deutsche Bank [Trader-Submitter A]: silver

Deutsche Bank [Trader-Submitter A]: thats good to know

* * *

Merrill Lynch [Trader A]: I bot 100k there

* * *

Merrill Lynch [Trader A]: I bot it aroudn 28

Merrill Lynch [Trader A]: I was the buyer down there

Merrill Lynch [Trader A]: Someone offering here

---

[140] DB_PM_SLVR_0268709.

Merrill Lynch [Trader A]: alot

Deutsche Bank [Trader-Submitter A]: yea

Deutsche Bank [Trader-Submitter A]: 0.50

Deutsche Bank [Trader-Submitter A]: big ice

Merrill Lynch [Trader A]: yup

Merrill Lynch [Trader A]: yes

Merrill Lynch [Trader A]: The high is in on silver

Merrill Lynch [Trader A]: I was offering at 36.10

Deutsche Bank [Trader-Submitter A]: cay mate[141]

304. There is also evidence that Merrill Lynch Trader A and Deutsche Bank Silver Fix Trader-Submitter A communicated outside of work chats and emails on their cell phones, concealing their manipulative conduct from detection:

July 6, 2011

Merrill Lynch [Trader A]: Check ur inbox

Deutsche Bank [Trader-Submitter A]: KK

Deutsche Bank [Trader-Submitter A]: THAT'S EXACTLY IT

Merrill Lynch [Trader A]: Ur number?

Deutsche Bank [Trader-Submitter A]: here

Deutsche Bank [Trader-Submitter A]: 442075476435[142]

305. In addition to using private chatrooms, traders at several Defendants also shared proprietary information through daily email blasts sent to members of their group. For example,

[141] DB_PM_SLVR_0277468.

[142] DB_PM_SLVR_0277468.

Deutsche Bank Silver Fix Trader-Submitter A sent a daily email to precious metals traders at HSBC, Bank of Nova Scotia, and Barclays. The October 9, 2007 email disclosed, among other things, how triggering sales stops resulted in customers who had sold silver earlier that day buying it back later at a higher price:

> We pushed through yesterdays low triggering sale stops . . .Into the NYK open we saw a rebound in eurusd and Ldn shorts began to feel the squeeze. . . short covering followed . . . Customers who had sold silver in the morning at 13.20 and gold at 729.00 were back paying 13.54 and 738.00 to get out . . . We held up here for a while before quenching the thirst of the shorts and drifting off.[143]

306. Sharing information about incoming order flow allowed Defendants to coordinate their trading in advance of the Silver Fix, maximizing the impact of trades placed while the Silver Fix was in progress. For example, in the chat below, Deutsche Bank Silver Fix Trader-Submitter A discusses the Silver Fix and trading strategy in real-time with Fortis Bank Trader A:

> **<u>October 2, 2007</u>**
>
> <u>Deutsche Bank [Trader-Submitter A]</u>: I HOPE U STAYED SHRT???, I KEPT MY SILVER BUT FOR THE FIRST TIME EVER I LEFT A TAKE PROFIT IN TEH LO 60'S…I FEEL SICK
>
> * * *
>
> <u>Deutsche Bank [Trader-Submitter A]</u>: UBS AROUND AS A BUYER
>
> <u>Fortis [Trader A]</u>: THSX MATE
>
> <u>Deutsche Bank [Trader-Submitter A]</u>: BBPM SOPLD SILVER …MITSUI CALLED OUT AS A BUYER … IM JUST QUPOTING UBS AT THE MOM … AND IM WIDE AS WIDE CAN BE …HSBC THE BUYER UP TO 37.50 THERE…WE SELLER UP HERE …
>
> * * *
>
> <u>Deutsche Bank [Trader-Submitter A]</u>: WHAT HAPPENED IN SILVER?

[143] DB_PM_SLVR_0289845.

Fortis [Trader A]: YOUR SUPPOSED TO TELL US

Deutsche Bank [Trader-Submitter A]: I KNOW…I WISH I KNEW…SCOPTIA CALLED OUT IN SILVER ARD 30 AS A BUYER

Fortis [Trader A]: THXS MATE … AROPN STILL SELLING HERE

Deutsche Bank [Trader-Submitter A]: THANKS AMTE…KEEP A SMAL SHRT…ADD IF WE START BREAKING DOWN I RECKON[144]

307. To capitalize on their advance knowledge of incoming order flow, Defendants manipulated the results of the Silver Fix by entering large orders to artificially increase supply or demand in the desired direction. This manipulative trading technique, known as "pushing," is identical to the "overbuying" and "overselling" strategies used by the same Defendants to manipulate fixes in the FX market.[145] For example, in the following chat, Deutsche Bank Silver Fix Trader-Submitter A indicates to Fortis Bank Trader A that UBS had sold silver to "push" the Silver Fix lower that day:

January 29, 2008

Deutsche Bank [Trader-Submitter A]: UBS BORING THE MKT AGAIN

Fortis [Trader A]: THSX MATE DID HE OFFER IT DOWN?

Deutsche Bank [Trader-Submitter A]: HE SPOOFED IT TO BUY IT AND I THINK HE JUST SOLD IT TO BUY IT . . . JUST LIKE THEM TO BID IT UP BEFORE THE FIX THEN GO IN AS A SELLER . . . THEY SELL TO TRY AND PUSH IT BACK[146]

308. UBS Trader A, describes the same manipulative trading technique to Deutsche Bank Trader B in a separate chat:

---

[144] DB_PM_SLVR_0272923.

[145] *See, e.g.*, *Financial Conduct Authority Final Notice Against UBS AG*, FSA Ref. No. 186958 (Nov. 11. 2014) at 18 (hereinafter "UBS FX Final Notice").

[146] DB_PM_SLVR_0272728.

April 1, 2011

UBS [Trader A]: oh ok did i tell u i saw a 300k loss on the fixing before too

Deutsche Bank [Trader B]: wtf miscomm?

UBS [Trader A]: started pushing too early lol[147]

309. Deutsche Bank Trader B also discussed "pushing" silver prior to the start of the Silver Fix with Barclays Trader A, who recognized that this misconduct was illegal and that it should not be discussed in writing "on chat":

April 20, 2011

Deutsche Bank [Trader B]: wanna push silver with me?

Barclays [Trader A]: HAHAHA

Deutsche Bank [Trader B]: lol

Barclays [Trader A]: don't think this is politically correct leh

Barclays [Trader A]: on chat

Deutsche Bank [Trader B]: anyway i gonna push into 40[148]

310. Some Defendants used the term "smash" to refer to similar misconduct. For example, in the chat below Fortis Trader B, who also engaged in manipulative conduct while employed by HSBC (¶¶ 234, 281-6, 322) and Standard Chartered (¶¶ 286, 288-90) during the Class Period, approached Deutsche Bank Silver Fix Trader-Submitter A about "smashing" the Fix:

Deutsche Bank [Trader-Submitter A]: I got the fix in 3 minutes

---

[147] DB_PM_SLVR_0301665.

[148] DB_PM_SLVR_0213783; *see also* DB_PM_SLVR_0199096-97 (August 18, 2011 chat between UBS Trader A and Deutsche Bank Trader B where UBS Trader A says "we couldnt even push if we had the chance yest. but last week we had some fun. learning how to blade it and stuff. I think we caught 2 moves on 10 bucks.").

Fortis [Trader B]: I'm bearish

Deutsche Bank [Trader-Submitter A]: Hahahaha

Fortis [Trader B]: Massively … Really wanna sell sil

* * *

Fortis [Trader B]: Let's go and smash it together[149]

311. UBS Trader A used the same terminology in discussing with Deutsche Bank Trader B an incident where UBS "smashed" the Silver Fix lower to financially benefit a short silver options position:

May 11, 2011

UBS [Trader A]: lai always says "[UBS Trader A] u aaaaaaaaaaalways complain complain but u still up money"

* * *

Deutsche Bank [Trader B]: and the fix dude u guys WERE THE SILVER MARKET

UBS [Trader A]: why u say that?

Deutsche Bank [Trader B]: haha on the fixes

UBS [Trader A]: someone told u?

Deutsche Bank [Trader B]: my ldn

UBS [Trader A]: ah ok

Deutsche Bank [Trader B]: u guys short some funky options

Deutsche Bank [Trader B]: well you told me too but i told no one u just said you sold on fix

UBS [Trader A]: we smashed it good

Deutsche Bank [Trader B]: fking hell UBS now u make me regret not joining

[149] DB_PM_SLVR_0051082.

UBS [Trader A]: btw keep it to yourself[150]

312. As demonstrated above, this process of managing order flow in advance of the Silver Fix, and overbuying or overselling to "push" or "smash" the price of silver in a specific direction, manifests itself as an anomalous spike in both trading volume and price volatility that peaks in the minutes immediately after the start of the Fixing Members' conference call.[151] This spike in volume and price volatility occurs coincident with a large drop in silver prices, indicative of overselling, that begins before the Silver Fix starts and can be traced back to the Defendants' activity in the silver spot market.[152] This manipulative trading strategy that Defendants executed during the Silver Fixing injected illegitimate supply and demand into the market, rendering the prices of silver and of financial instruments priced, benchmarked, and/or settled to the Fix price artificial during the Class Period.

B. Defendants Intentionally Triggered Client Stop-Loss Orders, Allowing Defendants To Buy Silver at Artificially Lower Prices

313. One of the main reasons Defendants coordinated their trading activity in advance of the Silver Fix was to profit from triggering client "stop-loss orders," pending orders to buy or sell silver that are executed only when the price of silver increases or decreases past a certain level. FINMA found direct evidence that UBS both shared the trigger prices for its precious metals clients' stop-loss orders with third parties and engaged in trading designed to trigger those orders, another tactic carried over from its manipulation of the FX market.[153]

---

[150] DB_PM_SLVR_0209648-50.

[151] *See* Part III(D) *supra*.

[152] *See* Part III(E) *supra*.

[153] *See* UBS FINMA Report at 12.

314. Intentionally triggering a stop-loss order benefits a Defendant because it allows that Defendant to buy silver from its client at an artificially lower price or sell silver at an artificially higher price. As silver prices consistently increased during the Class Period, purchasing silver at below-market value would financially benefit the Defendants, generating a return whether they held the metal or sold it for a profit. Again, this manipulative trading strategy created artificial supply and demand, rendering the prices of silver and of financial instruments priced, benchmarked, and/or settled to the Fix price artificial during the Class Period.

315. The DB Cooperation Materials not only confirm FINMA's findings but demonstrate that it was Defendants' regular practice to manipulate silver prices to target pending stop-loss orders. The chats below, for example, depict UBS senior Trader A discussing the price levels for pending silver stop-loss orders with Deutsche Bank Trader B:

April 1, 2011

UBS [Trader A]: silver u got anything top?

Deutsche Bank [Trader B]: 38.10/20 total of 4 lacs

UBS [Trader A]: pls tell me stops lol

Deutsche Bank [Trader B]: HASHA stops at 33 5 lacs offers at 50 5 lacs mess

UBS [Trader A]: stops 3 lacs at 30, offers 2 lacs at 38.10

Deutsche Bank [Trader B]: fireworks[154]

May 11, 2011

UBS [Trader A]: i got stop in silver now 39.50

Deutsche Bank [Trader B]: k[155]

[154] DB_PM_SLVR_0301634.

July 7, 2011

UBS [Trader A]: where are your stops in silver?

Deutsche Bank [Trader B]: 40, 70, 30 is the key level[156]

July 19, 2011

UBS [Trader A]: fyi i got a sell stop 20k xag @ 40.25 40.35 is where the market fixed yest. Good buying at this level yest

Deutsche Bank [Trader B]: tks[157]

July 21, 2011

Deutsche Bank [Trader B]: i guess 41 ur big silver level again right

UBS [Trader A]: yeah lah[158]

August 5, 2011

UBS [Trader A]: fyi BOC just put in a buy stop 50k sil at 39.47

Deutsche Bank [Trader B]: fk ok[159]

---

[155] DB_PM_SLVR_0209648.

[156] DB_PM_SLVR_0200606.

[157] DB_PM_SLVR_0200496.

[158] DB_PM_SLVR_0200436.

[159] DB_PM_SLVR_0199832.

316. After sharing where there stops were located, UBS and other Defendants, including Deutsche Bank, conspired to manipulate silver prices so they would "bust" through these levels. For example:

January 12, 2011

Deutsche Bank [Trader B]: we still good with the silver stop?

UBS [Trader A]: yup

Deutsche Bank [Trader B]: cool

UBS [Trader A]: just make sure to bust through it for a print

Deutsche Bank [Trader B]: haha yes we need to bust it

UBS [Trader A]: i clear the launch pad for u

Deutsche Bank [Trader B]: haha cheers[160]

317. UBS and Deutsche Bank engaged in this conduct so frequently that traders UBS Trader A and Deutsche Bank Trader B referred to themselves as the "STOP BUSTERS":

June 8, 2011

UBS [Trader A]: and if u have stops….

UBS [Trader A]: oh boy

Deutsche Bank [Trader B]: HAHA

Deutsche Bank [Trader B]: who ya gonna call!

Deutsche Bank [Trader B]: STOP BUSTERS

Deutsche Bank [Trader B]: deh deh deh deh dehdehdeh deh deh deh deh dehdehdeh

Deutsche Bank [Trader B]: haha[161]

---

[160] DB_PM_SLVR_0205564-65.

[161] DB_PM_SLVR_0201923.

318. By manipulating silver prices to trigger stop-loss orders, Defendants caused the price of silver and silver financial instruments to be artificial, allowing them to generate illicit profits by either buying silver at an artificially low price or selling silver at an artificially high price. For example, in the chat below, UBS Trader A recounts to Deutsche Bank Trader B an instance where UBS was able to sell silver for 17 cents per ounce higher than it had offered by triggering stop-loss orders:

August 17, 2011

UBS [Trader A]: i teach u fun trick with silver

Deutsche Bank [Trader B]: show me the money

UBS [Trader A]: one time mkt was like 39.50 lets say

UBS [Trader A]: i saw big offers at 39.50

UBS [Trader A]: i knew there were stops

UBS [Trader A]: so u know what i did

UBS [Trader A]: i offered at 39.53 in ones, paid 39.50's

UBS [Trader A]: BOOOOOOM!!!!!!

UBS [Trader A]: stops go thru

Deutsche Bank [Trader B]: ah ok

UBS [Trader A]: guess where my 1's got filled

Deutsche Bank [Trader B]: gotcha

UBS [Trader A]: 39.70

Deutsche Bank [Trader B]: wtf

Deutsche Bank [Trader B]: really . . .

UBS [Trader A]: go make your millions now jedi master[162]

319. Later in the same chat, UBS Trader A elaborated on why this strategy worked, explaining that by triggering multiple stop-loss orders at the same time he was able to have an even greater effect on silver prices, causing them to "gap" or jump higher:

August 17, 2011

UBS [Trader A]: i knew there were idiots hiding behind the 50's

UBS [Trader A]: and when i trigger its gonna send it sky mother f*ckin hi

UBS [Trader A]: but i want higher fills

UBS [Trader A]: so i offer in 1's

UBS [Trader A]: u can only do that in silver though

UBS [Trader A]: cause it gaps

UBS [Trader A]: pls keep all these tricks to yourself[163]

320. The chat below is another example of Deutsche Bank and UBS conspiring to push silver prices down through stop-loss orders to generate illegitimate profits by trading in advance of the "wave" created when prices shot back up:

October 15, 2010

UBS [Trader A]: yup puuuuuuush

UBS [Trader A]: 25

Deutsche Bank [Trader B]: dude

Deutsche Bank [Trader B]: i think many stops there

Deutsche Bank [Trader B]: if we take out 25

---

[162] DB_PM_SLVR_0208322-23.

[163] DB_PM_SLVR_0208323.

UBS [Trader A]: u got some?

Deutsche Bank [Trader B]: yeah

Deutsche Bank [Trader B]: 3lacs

UBS [Trader A]: gotcha

UBS [Trader A]: push that sucka thru

Deutsche Bank [Trader B]: yeah soon

Deutsche Bank [Trader B]: gonna ride this wave[164]

321. Defendants referred to this strategy of selling large quantities of silver to trigger stop-loss orders as the "hammer," a technique UBS Trader A acknowledged was "good for stops."[165] UBS and Deutsche Bank, for example, discuss using the "hammer" to push silver prices lower in the chat below:

April 13, 2011

UBS [Trader A]: shall we trade 1mio ounces of sivler together again?

Deutsche Bank [Trader B]: HAHA if it gets to 38.80/90 I don't mind

UBS [Trader A]: sell the dips?

Deutsche Bank [Trader B]: LOL

UBS [Trader A]: we're selling buddies hah

Deutsche Bank [Trader B]: that's true can't be long tog gotta hammer lol[166]

322. Other chats indicate that Defendants used the same stop triggering technique to manipulate the results of the Silver Fix. For example, in the chat below, Deutsche Bank Silver

[164] DB_PM_SLVR_0217276.

[165] DB_PM_SLVR_0217416-17.

[166] DB_PM_SLVR_0209513-14.

Fix Trader-Submitter A discusses with HSBC Trader A how triggering stops pushed the Fix Price higher:

June 7, 2011

HSBC [Trader A]: what is silver doing up here

Deutsche Bank [Trader-Submitter A]: shoot me

Deutsche Bank [Trader-Submitter A]: fix mate

HSBC [Trader A]: jesus

Deutsche Bank [Trader-Submitter A]: everyone trades the fix

* * *

Deutsche Bank [Trader-Submitter A]: cud be stops

Deutsche Bank [Trader-Submitter A]: i though

Deutsche Bank [Trader-Submitter A]: soon see I guess

HSBC [Trader A]: ridiculous

Deutsche Bank [Trader-Submitter A]: was trading at 11.45

HSBC [Trader A]: annoyed about it

Deutsche Bank [Trader-Submitter A]: then pop 50 doin

Deutsche Bank [Trader-Submitter A]: it's a gag[167]

January 19, 2012

HSBC [Trader A]: bot a good amt of sil…didn't u say u had stops up here? … someone missed a trigger earler.. went 65 to 77 and there was a 150 lot bid showing at 71.50 after

Deutsche Bank [Trader-Submitter A]: i did but no longer … ive got selling for me and squeege just above

[167] DB_PM_SLVR_0277706-09.

HSBC [Trader A]: u dabblling?

Deutsche Bank [Trader-Submitter A]: thats abt it really

HSBC [Trader A]: shorting or getin out?

Deutsche Bank [Trader-Submitter A]: both

* * *

HSBC [Trader A]: i bot some sil

Deutsche Bank [Trader-Submitter A]: stop ouut and suck ppl back in[168]

C. Defendants Engaged in Front Running of Incoming Silver Orders

323. Defendants also used their advance information of both order flow and the Fix price to "front run," *i.e.*, place trades that would financially benefit from incoming orders. FINMA found that UBS engaged in the "repeated front running . . . of silver fix orders" for its "back book," *i.e.* proprietary trading positions used to generate profit for the bank.[169] Front running fix orders allowed Defendants to both reduce their risk and guarantee a profit on what otherwise could be an unsuccessful trade.

324. A "fix order" is a request to buy or sell a specific amount of silver at the Fix price.[170] These orders are placed before the Silver Fix starts when the Fix price has yet to be determined. By agreeing in advance to transact with clients at the Fix price, the bank is exposed to risk that the price of silver will increase or decrease against its interest; *e.g.*, causing it to buy silver from a client at a higher price if the Fix price goes up or sell to a client at a lower price if the Fix price goes down.

---

[168] DB_PM_SLVR_0279127-28; DB_PM_SLVR_0279134.

[169] UBS FINMA Report at 12.

[170] *See, e.g.*, UBS FX Final Notice at 7 (describing a fix order in the FX markets).

325. To manage this risk, a bank will typically buy or sell silver in advance of the Silver Fix to balance its exposure to the Fix price. Rather than legitimately managing their risk, UBS and its co-conspirators manipulated the Silver Fix to their advantage, by placing trades in advance of these client fix orders that were guaranteed to increase in value. These transactions, which were placed with advance knowledge of incoming orders, were illegitimate and created artificial silver prices by sending false supply and demand signals into the market.

326. The DB Cooperation Materials confirm that Defendants engaged in front running client orders during the Class Period. For example, in the chats below Deutsche Bank Silver Fix Trader-Submitter A and Deutsche Bank Trader C, both while he was at Deutsche Bank and after leaving for Defendant Merrill Lynch (where is referred to as Merrill Lynch Trader A), discuss front running silver orders:

> **February 3, 2009**
>
> Millennium Partners [Trader A]: honest opinion – is hsbc brutal in metals? . . .
>
> Deutsche Bank [Trader C]: they front run whatever they can in spot and take no prisoners . . .[171]
>
> **December 2, 2009**
>
> Deutsche Bank [Trader C]: we gonna do this?
>
> Deutsche Bank [Trader C]: guess we are gonna do uzi
>
> Deutsche Bank [Trader-Submitter A]: tom mrning at the earliest
>
> Deutsche Bank [Trader C]: i would really prefer if u waited until i could front run it[172]

[171] DB_PM_SLVR_0299347.

[172] DB_PM_SLVR_0290139.

March 4, 2010

Deutsche Bank [Trader C]: ahahah

Deutsche Bank [Trader C]: i just don't buy it again .. until i can frontrun something ahhahahah what a leech[173]

December 8, 2010

Merrill Lynch [Trader A]: algo's jumping in front everytime

Deutsche Bank [Trader-Submitter A]: yes, mega, there all over the place, its insider trading

Merrill Lynch [Trader A]: agreed, this game is done

Deutsche Bank [Trader-Submitter A]: they know where the odrs are and frnt em, its illegal[174]

327. FINMA also uncovered evidence that UBS engaged in front running of other silver trades in addition to its clients' Silver Fix orders.[175] This pattern of front running was an illegitimate trading activity and rendered the prices of silver and silver and financial instruments priced, benchmarked, and/or settled to the Fix price artificial during the Class Period. This manipulative trading was also part of the same comprehensive strategy to manipulate and fix the prices of silver and silver financial instruments for Defendants' financial benefit.

VI. PLAINTIFFS WERE INJURED BY TRANSACTING AT ARTIFICIAL PRICES CAUSED BY DEFENDANTS' MANIPULATIVE CONDUCT

328. Throughout the Class Period, Plaintiffs sold both physical silver and silver financial instruments, including COMEX silver futures and option contracts, the prices of which were directly and artificially impacted by the Silver Fix.

[173] DB_PM_SLVR_0356152.

[174] DB_PM_SLVR_286546.

[175] UBS FINMA Report at 12.

329. As described above, Defendants and their co-conspirators artificially suppressed the price of silver throughout the Class Period by using the Silver Fix and conducting manipulative trading. As a result, Plaintiffs transacted at artificially lower prices each time they sold physical silver or silver financial instruments, and received less than they otherwise would have in a competitive, un-manipulated market.

330. As a direct result of Defendants' and their co-conspirators' conduct, Plaintiffs were injured and suffered harm in the sales they conducted on days where the price of silver was artificially lower because of Defendants' manipulative conduct, including but not limited to, the days and transactions set out in Appendix D.

331. For the reasons described above, the impact of Defendants' and their co-conspirators' manipulative conduct persisted well beyond the end of the Silver Fixing, causing harm to Plaintiffs beyond the days set out in Appendix D.

332. Defendants' persistent suppression of silver prices also directly and proximately caused injury to Class Members who initiated long positions in silver and silver financial instruments at artificial prices, and held those positions throughout the Class Period. For example, Plaintiff Ceru purchased physical silver at artificial prices during the Class Period and held that physical silver through Defendants' persistent suppression of silver prices. As a result, Ceru suffered legal injury as a direct and proximate result of Defendants' manipulative conduct which artificially reduced the value of the silver he purchased during the Class Period.

VII. GOVERNMENT ENFORCERS ARE INVESTIGATING THE SILVER FIX

A. Government Enforcers Are Aware that the Silver Market Is Open to Manipulation

333. In February 2015, both the U.S. Department of Justice and CFTC announced that they began investigating at least 10 banks, including all of the Defendants, for rigging the

precious-metals markets by manipulating, among others, the Silver Fix.[176] The fraud division of the DOJ and CFTC are both still investigating manipulation in the silver market.

334. Prior to this announcement, both U.S. and European regulators began discussing problems with the Silver Fix in 2014. In particular, the CFTC said that it had "started internal discussions on whether the daily setting of gold and silver benchmarks is open to manipulation."[177] In February 2013, CFTC Commissioner Bart Chilton issued a statement to the International Roundtable on Financial Benchmarks, providing in part:

> I'm pleased we are discussing the critically important topic of benchmarks. We've witnessed blatant and brazen monkeying with the marks. . . . . the idea that pervasive manipulation, or attempted manipulation, is so widespread should make us all query the veracity of the other key marks. What about energy, swaps, the gold and **silver fixes in London** and the whole litany of "bors?" Why would they be any different in the minds of those that may have sought to push or pull rates? For me, this means every single mark needs to be reviewed, and potentially investigated.[178]

335. Commissioner Chilton followed up on these remarks: "Given what we have seen in LIBOR, we'd be foolish to assume that other benchmarks aren't venues that deserve

[176] *See* Jean Eaglesham and Christopher M. Matthews, *Big Banks Face Scrutiny Over Pricing of Metals*, THE WALL STREET JOURNAL (Feb. 23, 2015), http://www.wsj.com/articles/big-banks-face-scrutiny-over-pricing-of-metals-1424744801.

[177] *How London's gold and silver price benchmarks are 'fixed,'* REUTERS (Jan 17, 2014), http://uk.reuters.com/assets/print?aid=UKBREA0G19J20140117.

[178] *Statement of Commissioner Bart Chilton before the International Roundtable on Financial Benchmarks*, Washington, D.C. (February 26, 2013), http://www.cftc.gov/PressRoom/SpeechesTestimony/chiltonstatement022613 (emphasis added).

review."[179] The UK's FCA has also been looking at precious metals as part of a broader review of financial benchmarks.[180]

336. Dr. Elke König, the President of BaFin, the German Federal Financial Supervisory Authority, which is one European agency investigating, gave a speech on January 16, 2014, in which she remarked: "Markets depend on the trust of the wider public that they are performing and that they work honestly."[181] The head of BaFin warned that "manipulation of the metals as well as the foreign exchange market was 'particularly serious.'"[182]

337. The benchmark setting process remains under scrutiny by regulators including London's Financial Conduct Authority.[183] In particular, BaFin is reported to have raided and demanded documents from Deutsche Bank, "signal[ing] that BaFin now has greater concerns over the precious metals markets."[184] The investigations led Deutsche Bank, which had been on

---

[179] *CFTC's Chilton Says 'Foolish' Not to Review Benchmark Pricing*, BLOOMBERG (Mar. 14, 2013), http://www.bloomberg.com/news/2013-03-14/cftc-s-chilton-says-foolish-not-to-review-benchmark-pricing.html.

[180] *Gold price probe extended to Deutsche Bank*, THE FINANCIAL TIMES (Dec. 12, 2013), http://www.ft.com/intl/cms/s/0/b386aa16-6358-11e3-886f-00144feabdc0.html?siteedition=uk#axzz3I2RldBIl.

[181] *How London's gold and silver price benchmarks are 'fixed,'* REUTERS (Jan 17, 2014), http://uk.reuters.com/assets/print?aid=UKBREA0G19J20140117.

[182] *Deutsche puts gold price fix role on sale*, THE FINANCIAL TIMES (Jan. 17, 2014), http://www.ft.com/intl/cms/s/0/02f5a19c-7f97-11e3-b6a7-00144feabdc0.html?siteedition=uk#axzz3I2RldBIl.

[183] *Deutsche puts gold price fix role on sale*, THE FINANCIAL TIMES (Jan. 17, 2014), http://www.ft.com/intl/cms/s/0/02f5a19c-7f97-11e3-b6a7-00144feabdc0.html?siteedition=uk#axzz3I2RldBIl.

[184] *Gold price probe extended to Deutsche Bank*, THE FINANCIAL TIMES (Dec. 12, 2013), http://www.ft.com/intl/cms/s/0/b386aa16-6358-11e3-886f-00144feabdc0.html?siteedition=uk#axzz3I2RldBIl.

the panel for twenty years, to withdraw from the Fix in January 2014,[185] for having "faced scrutiny from the German regulator, BaFin, over its participation in the London gold and silver benchmark setting process over suspicions that the process may have been subject to manipulation by the key players." [186]

338. On November 9, 2014, THE FINANCIAL TIMES reported that UBS would settle allegations of misconduct in its gold and silver trading business, including the manipulation of silver prices, as part of a settlement with multiple financial regulatory agencies related to manipulative conduct in the FX market. While the two markets may seem unrelated, UBS's precious metals and FX businesses are tightly integrated, using joint management and staff who work together and sit on the same floor with forex traders.

339. Prior to the news of these settlements, UBS disclosed that it launched an internal probe of its precious metals business and pushed hard to speed up its internal precious metals probes to get ahead of rivals in securing immunity agreements.[187]

340. On November 12, 2014, FINMA ordered UBS to pay 134 million Swiss francs (approximately $139 million) to settle allegations of misconduct arising from its FX and precious metals investigation. Following the settlement, FINMA reported, "[t]his conduct was partly coordinated with other banks" and "electronic communications platforms played a key role." As

---

[185] *Deutsche resigns gold and silver price-fix seats*, FINANCIAL TIMES (April 29, 2014), http://www.ft.com/intl/cms/s/0/f00383f2-cfb3-11e3-a2b7-00144feabdc0.html?siteedition=uk#axzz38yxp1nAQ.

[186] *Deutsche puts gold price fix role on sale*, THE FINANCIAL TIMES (Jan. 17, 2014), http://www.ft.com/intl/cms/s/0/02f5a19c-7f97-11e3-b6a7-00144feabdc0.html?siteedition=uk#axzz3I2RldBIl.

[187] *See UBS Probes Precious Metals as Hong Kong Reprimands Rate Trading*, BLOOMBERG (Mar. 14, 2014), available at http://www.bloomberg.com/news/2014-03-14/ubs-probes-precious-metals-as-hong-kong-reprimands-rate-trading.html.

a result of their findings, FINMA also ordered UBS to cap the variable compensation of UBS's precious-metals staff to 200% of base salary for two years. According to BLOOMBERG NEWS, FINMA said it found "serious misconduct" by UBS and a "clear attempt to manipulate fixes in the precious metal market," including Silver Fixing, during its investigation into precious metals and FX trading at UBS. FINMA reported that UBS was front running precious metals trades, *i.e.*, generating a profit by trading with advance knowledge about a transaction expected to influence prices. FINMA Director Mark Branson said in a conference call, "[t]he behavior patterns in precious metals were somewhat similar to the behavior patterns in foreign exchange."

341. On May 31, 2017, Deutsche Bank Trader B pled guilty to conspiracy to commit wire fraud and spoofing ("Trader B Plea Agreement") in the Northern District of Illinois after an investigation by the DOJ. In the Trader B Plea Agreement, Deutsche Bank Trader B admitted that he and a trader at another bank used the Globex electronic trading platform to manipulate the price of silver future contracts traded on the CME and trigger customers' stop loss orders:

> During the Relevant Period,[188] [Deutsche Bank Trader B] and a trader at Bank B, another major global bank, engaged in, and profited from, deceptive and manipulative trading that was intended to artificially move the price of a precious metals futures contract in order to trigger customers' stop loss orders (which were standing orders to buy or sell).

Trader B Plea Agreement, at 9.

342. Two days later, On June 2, 2017, the CFTC issued an Order Instituting Proceedings Pursuant to Sections 6(C) and 6(D) of the Commodity Exchange Act, Making Findings and Imposing Remedial Sanctions ("Trader B CFTC Order") on Deutsche Bank Trader B. The Trader B CFTC Order reveals that Deutsche Bank Trader B "attempted to manipulate,

---

[188] The "Relevant Period" in the Trader B Plea Agreement is "[b]etween in or around December 2009 and in or around February 2012." Trader B Plea Agreement, at 2.

and at times, succeeded in manipulating the gold and silver futures market prices to trigger customer stop-loss orders in order to obtain a profit. [Deutsche Bank Trader B] coordinated this trading with [UBS Trader A]."[189]

343. The Trader B CFTC Order further reveals that, on multiple occasions during the Class Period, Deutsche Bank Trader B and UBS Trader A did in fact cause artificial prices in the COMEX silver futures market, which is based in New York:

> [Deutsche Bank Trader B] would communicate with [UBS Trader A] to determine the level in the market that stop-loss orders were resting, and would coordinate trading for the purpose of triggering stop-loss orders. [Deutsche Bank Trader B] engaged in this conduct intending to manipulate the prices of the gold and silver futures contracts. [Deutsche Bank Trader B] executed trades with the understanding that he, together with [UBS Trader A], had the ability to affect or influence prices. In certain instances, [Deutsche Bank Trader B] and [UBS Trader A] succeeded in manipulating the prices of the gold and silver futures contracts.

Trader B CFTC Order, at 3.

344. The Trader B CFTC Order cited the following example of an occasion during the Class Period where Deutsche Bank Trader B and UBS Trader A "hunted" for customer stop loss orders in a successful effort to distort the prices of COMEX silver futures contracts:

> **January 7, 2011**
>
> [Deutsche Bank Trader B] asked [UBS Trader A], via a chat, about the level in the market at which customer stop loss orders were resting. [Deutsche Bank Trader B] told the other trader, "i can hunt with u." A few minutes later, [UBS Trader A] asked [Deutsche Bank Trader B] "yo can u help me push silver down?" [Deutsche Bank Trader B] agreed to execute trades to push the price of COMEX silver futures market down to trigger the resting stop loss orders, and did so by entering orders to sell with the intent to manipulate prices. When the market reached the stop level that they were seeking, [Deutsche Bank Trader B] told [UBS Trader A] "there u go." [Deutsche Bank Trader B] then bought back the silver contracts, eliminating his exposure to risk from further price movements in the silver futures market and generating a profit.

---

[189] Trader B CFTC Order, at 3.

345. These investigations are unrelated to earlier probes into the silver market. In September 2008, the CFTC announced that it was investigating complaints of misconduct in the silver market.[190] However, these complaints were not related to the Silver Fix, and instead focused on whether COMEX silver futures prices were being manipulated artificially lower, relative to the prices of "retail" silver products like silver coins, by banks that held a large open short position in COMEX futures contracts.[191] As a result, the earlier investigations were unrelated to, and had nothing to do with, Defendants' manipulation of the Silver Fix.

VIII. THE DEMISE OF THE SILVER FIX

346. After 117 years, the Silver Fix officially ended on August 14, 2014. A series of steps stemming largely from global regulatory investigations led to its demise.

A. Under Government Investigation, Deutsche Bank Put Its Seat on the Silver Fixing Panel Up for Sale

347. In January 2014, Deutsche Bank abruptly announced that it was putting its seat on the panel up for sale, having "faced scrutiny from the German regulator, BaFin, over its participation in the London gold and silver benchmark setting process over suspicions that the process may have been subject to manipulation by the key players." [192]

348. Deutsche "said it would continue to participate in price setting until it finds a

[190] *CFTC's 2008 Fiscal Year Enforcement Roundup*, U.S. COMMODITY FUTURES TRADING COMMISSION (Oct. 2, 2008), http://www.cftc.gov/PressRoom/PressReleases/pr5562-08.

[191] *CFTC Closes Investigation Concerning the Silver Market*, U.S. COMMODITY FUTURES TRADING COMMISSION (Sept. 25, 2013), http://www.cftc.gov/PressRoom/PressReleases/pr6709-13.

[192] *Deutsche puts gold price fix role on sale*, THE FINANCIAL TIMES (Jan. 17, 2014), http://www.ft.com/intl/cms/s/0/02f5a19c-7f97-11e3-b6a7-00144feabdc0.html?siteedition=uk#axzz3I2RldBIl.

buyer, but would resign its seat if it fails to do so."[193] At the time, however, it seemed resignation would be unlikely as the sale was said to present "an opportunity for a new bank to join the elite club of price setters in one of the world's largest precious metals trading hubs."[194] And "Deutsche said it had already begun talks with other banks to sell its role."[195]

B. Deutsche Was Unable to Sell What Should Have Been a Valuable Seat

349. Deutsche Bank tried to sell its seat on the panel, but, tellingly, there were no takers.[196] "A source close to the German bank said it had tried to sell its positions but had been 'unable to agree on terms with any prospective buyers.'"[197]

C. Deutsche Resigned Unable to Sell Its Seat

350. Having found no buyer, Deutsche announced its resignation.[198] The Silver Fix thus "was put on the fast track to extinction . . . leaving just two banks still taking part—Bank of Nova Scotia and HSBC Holdings PLC."[199] THE FINANCIAL TIMES reported, "Deutsche's

---

[193] *Id.*

[194] *Id.*

[195] *Id.*

[196] *CME and Thomson Reuters to set silver Benchmark*, FINANCIAL TIMES (July 11, 2014), http://www.ft.com/intl/cms/s/0/7f838fc4-08d8-11e4-8d27-00144feab7de.html?siteedition=uk#axzz38yxp1nAQ.

[197] *Deutsche resigns gold and silver price-fix seats*, THE FINANCIAL TIMES (April 29, 2014), http://www.ft.com/intl/cms/s/0/f00383f2-cfb3-11e3-a2b7-00144feabdc0.html#axzz3I2RldBIl.

[198] *Id.*

[199] *Concerns Remain Ahead of New Silver Benchmark Debut*, THE WALL STREET JOURNAL (Aug. 14, 2014), http://online.wsj.com/articles/concerns-remain-ahead-of-new-silver-benchmark-debut-1408043599#printMode.

withdrawal from the three-seat silver fixing . . . will probably present a problem,"[200] quoting a precious metals banker as stating, "I don't see how it can function with only two members so they are going to have to work something out." [201]

D. The Full Panel Announced It Would Be Disbanding

351. In the wake of this and "on the heels of increased scrutiny by European and US regulators into precious metals price-setting following the LIBOR scandal and probe into possible forex market abuse,"[202] Defendants announced that they would disband their combination as of August 14, 2014.[203] "The century-old method of setting silver prices—daily chats among a small coterie of banks—[wa]s being scrapped for something more modern." [204]

352. As reported by THE FINANCIAL TIMES:

> The current daily fix, which has been an integral part of London's $1.6tn-a-year silver market for decades, and controlled by a handful of banks, has lost its luster in recent years due to concerns about transparency and vulnerability to manipulation. It is shutting down because Deutsche Bank failed to find a buyer for its seat, leaving only two other members.[205]

---

[200] *Deutsche resigns gold and silver price-fix seats*, THE FINANCIAL TIMES (April 29, 2014), http://www.ft.com/intl/cms/s/0/f00383f2-cfb3-11e3-a2b7-00144feabdc0.html#axzz3I2RldBIl.

[201] *Id.*

[202] *London's silver price fix dies after nearly 120 years*, THE FINANCIAL TIMES (May 14, 2014), http://www.ft.com/intl/cms/s/0/db3188b8-db46-11e3-94ad-00144feabdc0.html?siteedition=intl#axzz38yxp1nAQ.

[203] Press Release, *The London Silver Market Fixing Limited*, REUTERS (May 14, 2014), http://www.reuters.com/article/2014/05/14/idUSnMKWWsY3ca+1e8+MKW20140514.

[204] *Bullion Fixes in Flux*, THE WALL STREET JOURNAL (June 18, 2014), http://online.wsj.com/articles/bullion-industry-to-meet-in-july-to-discuss-london-gold-fix-overhaul-1403082075.

[205] *CME and Thomson Reuters to set silver Benchmark*, THE FINANCIAL TIMES (July 11, 2014), http://www.ft.com/intl/cms/s/0/7f838fc4-08d8-11e4-8d27-00144feab7de.html?siteedition=uk#axzz38yxp1nAQ.

353. In May 2014, three months prior to actually closing operations, the Silver Fixing panel members issued the following press release:

> The London Silver Market Fixing Limited
>
> Incorporated in England and Wales With Registered Number 3685039; Registered Office: One Silk Street, London EC2Y 8HQ
>
> LONDON, UNITED KINGDOM--(Marketwired - May 14, 2014) - The London Silver Market Fixing Limited (the 'Company') announces that it will cease to administer the London Silver Fixing with effect from close of business on 14 August 2014. Until then, Deutsche Bank AG, HSBC Bank USA N.A. and The Bank of Nova Scotia will remain members of the Company and the Company will administer the London Silver Fixing and continue to liaise with the FCA and other stakeholders.
>
> The period to 14 August 2014 will provide an opportunity for market-led adjustment with consultation between clients and market participants.
>
> The London Bullion Market Association has expressed its willingness to assist with discussions among market participants with a view to exploring whether the market wishes to develop an alternative to the London Silver Fixing.
>
> Q&A
>
> 1. What will happen after 14 August 2014? Will the Silver Fixing cease to exist?
>
> With effect from the close of business on 14 August 2014, the Company will cease to administer a Silver Fixing, and a daily Silver Fixing Price will no longer be published by the Company.
>
> 2. What will happen in the period up to that date?
>
> The Company intends to continue to administer the daily Silver Fixing and publish Silver Fixing Prices throughout that period.
>
> 3. Why a three month notice period?
>
> Although members of the Company may resign on seven clear days' notice, the members have confirmed that they stand ready to continue the Company's operations until (and including) 14 August 2014.
>
> 4. What happens after 14 August 2014 for market participants with contracts referencing the Silver Fix?
>
> The Company is not in a position to comment on such matters, but market participants can speak to their contractual counterparties.

> 5. What does this mean for the gold, and platinum and palladium fixing companies?
>
> This decision relates only to the London Silver Fixing administered by the Company. The Company is not in a position to comment on other fixings.[206]

354. Once Defendants "decided to pull the plug on the benchmark, they and the London Bullion Market Association "set about finding a replacement."[207] According to reports, the London Silver Fix was in for a "historic makeover."[208]

355. The Silver Fix has since been replaced by the "London Silver Price," which despite losing the "unfortunate name," in favor of a bland one, and the "private teleconference," in favor of electronic trading, may not prove to be any better.[209] THE FINANCIAL TIMES reports that "anyone thinking there has been a complete change in the way the daily snapshot of the silver market is conducted would be mistaken. The new benchmark . . . keeps some of the main features of the silver fixing, in particular the auction-style process used to calculate the reference price."[210] Two of the other main features that continue are Defendants HSBC's and Bank of Nova Scotia's participation on the London Silver Price panel. Whether the new Silver Price is any better than the old Silver Fix remains to be seen.

---

[206] *See supra* note 201.

[207] *A Glimpse of the Future as Silver Breaks 117-Year Tradition*, THE WALL STREET JOURNAL (Aug. 15, 2014), http://blogs.wsj.com/moneybeat/2014/08/15/a-glimpse-of-the-future-as-silver-breaks-117-year-tradition/.

[208] Press Release, *The new LBMA Silver Price heralds a new era in precious metals benchmarks*, THOMPSON REUTERS (Aug. 5, 2014), http://blog.financial.thomsonreuters.com/new-silver-fix-heralds-new-era-precious-metals-benchmarks/.

[209] *New silver price is 'improvement' on fix*, THE FINANCIAL TIMES (July 16, 2014), http://www.ft.com/intl/cms/s/0/4053ff04-0ccb-11e4-90fa-00144feabdc0.html#axzz38yxp1nAQ.

[210] *Id.*

EQUITABLE TOLLING AND FRADULENT CONCEALMENT

356. Plaintiffs disclaim any burden to plead facts regarding the statute of limitations.

357. The statute of limitations relating to the claims for relief alleged herein have been tolled because of fraudulent concealment by reason of Defendants' active and inherently self-concealing conduct. Plaintiffs and members of the Class had no knowledge of Defendants' unlawful and self-concealing collusive, manipulative, and inequitable acts and could not have discovered them by the exercise of due diligence prior to the time Deutsche Bank announced its withdrawal from Silver Fixing in January 2014. Plaintiffs thus assert the tolling of the applicable statute of limitations affecting the rights of the claims of relief asserted by Plaintiffs. Defendants are also equitably estopped from asserting that any otherwise applicable limitations period has run.

358. Active acts of concealment by Defendants to conceal their violations of law from Plaintiffs and the Class include, *inter alia*, avoiding discussing the manipulation of the Silver Fixing in public forums and, when doing so, providing the public false and misleading information about the Silver Fixing.

359. By its very nature, as alleged herein, the unlawful activity that Defendants engaged in was self-concealing. By Defendants' affirmative acts, misrepresentations, and nondisclosures, any applicable statute of limitations on claims asserted by Plaintiffs and members of the Class has been and are tolled.

360. Moreover, Defendants actively concealed their conspiracy by placing a barrier for the public to access much of the information on the Silver Fixing website, www.silverfixing.com. Upon visiting the website, the public was greeted ominously. Visitors were allowed to see nothing without entering into "Terms and Conditions," which required visitors to enter into an ostensibly onerous "contract" with London Market Silver Fixing, Ltd.

Any person or entity wishing to learn about the Silver Fix directly from Silver Price Fixing Limited itself was thus faced with a substantial deterrent to investigation.

361. In their private chat rooms, which served as a forum for Defendants to discuss their conspiracy, Defendants repeatedly stressed the importance of keeping their manipulation a secret. The public and silver market participants could not access these chat rooms, so Defendants' manipulation was effectively hidden from Plaintiffs and the Class. In the following chat, after Deutsche Bank Trader B asks Barclays Trader A "push silver," Barclays Trader A responds that the proposition should not be discussed over chat:

April 20, 2011

Deutsche Bank [Trader B]: wanna push silver with me?

Barclays [Trader A]: HAHAHA lol dont think this is politically correct leh

Barclays [Trader A]: on chat[211]

362. Likewise, UBS Trader A constantly stressed the importance of keeping manipulative techniques a secret from the public and even his boss, telling Deutsche Bank Trader B that they have to be "sneaky" and that "EVERYTHING here stays here":

October 15, 2010

UBS [Trader A]: gonna bend this silver lower

Deutsche Bank [Trader B]: oh dear [.] my boss sjust said he bought some

* * *

UBS [Trader A]: *i have to be sneaky* then

* * *

UBS [Trader A]: had to really work for that one[.] told u i'd bend it lower for u[212]

---

[211] DB_PM_SLVR_0213783.

[212] DB_PM_SLVR_0206501-03.

<u>August 17, 2011</u>

<u>UBS [Trader A]</u>: go make your millions now jedi master i knew there were idiots hiding behind the 50's and when i trigger its gonna send it sky mother f*ckin hi but i want higher fills so offer in 1's u can only do that in silver though cause it gaps *pls keep all these tricks to yourself*[213]

<u>June 8, 2011</u>

<u>UBS [Trader A]</u>: okay rule of thumb, *EVERYTHING here stays here*

<u>Deutsche Bank [Trader B]</u>: yeah

<u>UBS [Trader A]</u>: so no need to repeat in the future

<u>Deutsche Bank [Trader B]</u>: saves us typing lol

<u>UBS [Trader A]</u>: cause we just so paranoid[214]

<u>May 11, 2011</u>

<u>UBS [Trader A]</u>: we smashed it good

<u>Deutsche Bank [Trader B]</u>: fking hell UBS now u make me regret not joining the elephants

<u>UBS [Trader A]</u>: *btw keep it to yourself…*[215]

<u>November 25, 2011</u>:[216]

<u>Deutsche Bank [Trader-Submitter A]</u>: Strange silver fix

<u>HSBC [Trader A]</u>: yeh[.] wirerd[.] someone took something in

---

[213] DB_PM_SLVR_0208323.

[214] DB_PM_SLVR_0201903-04.

[215] DB_PM_SLVR_0209650.

[216] DB_PM_SLVR_0288410.

> Deutsche Bank [Trader-Submitter A]: i booked out[.] nvr thought it was going to fix[.] hahaha
>
> HSBC [Trader A]: i heard a funny story about the fix the other day[,] *but its def a beer chat!"!*

363. Defendants were aware of the need to keep their silver manipulation hidden from regulators, noting on one occasion that global regulators were looking into FX rates after they had conducted their review of the London Interbank Offered Rate. *See supra*, ¶¶ 333-41. Defendants also intentionally took their manipulative communications "offline," meaning they would communicate via personal cell phones, through text messaging, or email to avoid detection. For example, on June 6, 2011, when Merrill Lynch Trader A and Deutsche Bank Silver Fix Trader-Submitter A were discussing information about their contemporaneous trading in silver and silver financial instruments, they switched from communicating via electronic chat to using both person email and cell phone, as well as meeting in person. *See supra*, ¶ 304.

CLASS ACTION ALLEGATIONS

364. Plaintiffs bring this action on behalf of themselves and, under Rules 23(a) and (b) of the Federal Rules of Civil Procedure, on behalf of a Class defined as follows:

> All persons or entities that transacted in U.S.-Related Transactions in or on any over-the-counter ("OTC") market or exchange in physical silver or in a derivative instrument in which silver is the underlying reference asset (collectively, "Silver Instruments"), at any time from January 1, 2007 through December 31, 2013.
>
> "U.S.-Related Transaction" means any transaction in a Silver Instrument (a) by any person or entity domiciled in the U.S. or its territories, or (b) by any person or entity domiciled outside the U.S. or its territories but conducted, in whole or in part, in the U.S. or its territories.

365. Excluded from the Class are Defendants, and their officers, directors, management, employees, subsidiaries, or affiliates. Also excluded is the Judge presiding over

this action, his or her law clerks, spouse, and any person within the third degree of relationship living in the Judge's household and the spouse of such a person.[217]

366. Members of the Class are so numerous and geographically dispersed that joinder is impracticable. Further, the Class is readily identifiable from information and records in the possession of Defendants.

367. Plaintiffs' claims are typical of the claims of the members of the Class. Plaintiffs and members of the Class were damaged by the same wrongful conduct of Defendants.

368. Plaintiffs will fairly and adequately protect and represent the interests of the Class. The interests of the Plaintiffs are coincident with, and not antagonistic to, those of the Class.

369. Plaintiffs are represented by counsel with experience in the prosecution of class action antitrust, commodity manipulation, and other complex litigation, including involving precious and non-ferrous metals and financial benchmark rate collusion and manipulation.

370. Questions of law and fact common to the members of the Class predominate over questions that may affect only individual Class members, thereby making damages with respect to the Class as a whole appropriate. Questions of law and fact common to the Class include, but are not limited to:

a. Whether Defendants unreasonably restrained trade in violation of federal antitrust law;

[217] Plaintiffs have defined the Class based on currently available information and hereby reserve the right to amend the definition of the Class, including, without limitation, the Class Period.

b. Whether Defendants manipulated the price of silver and financial instruments tied to the price of physical silver, such as silver futures, options and other silver financial instruments;

c. Whether Defendants were unjustly enriched;

d. The length of the alleged conspiracy;

e. Damages suffered by Plaintiffs and members of the Class; and

f. Whether Defendants have acted or refused to act on grounds generally applicable to the Class, thereby making appropriate final injunctive relief or corresponding declaratory relief with respect to the Class as a whole.

371. Class action treatment is a superior method for the fair and efficient adjudication of the controversy. Such treatment will permit a large number of similarly situated persons to prosecute their common claims in a single forum simultaneously, efficiently and without the unnecessary duplication of evidence, effort or expense that numerous individual actions would require. The benefits of proceeding through the class mechanism, including providing injured persons or entities a method for obtaining redress on claims that could not practicably be pursued individually, substantially outweighs potential difficulties in management of this class action.

372. Plaintiffs know of no special difficulty to be encountered in the maintenance of this action that would preclude its maintenance as a class action.

373. Under *Shady Grove Orthopedic Assocs., P.A. v. Allstate Ins. Co*., 559 U.S. 393 (2010), a federal class action may prosecuted as to the state law claims under Rule 23 of the Federal Rules of Civil Procedure.

CLAIMS FOR RELIEF

FIRST CLAIM FOR RELIEF

For Price Fixing In Violation of Section 1 of the Sherman Act

(15 U.S.C. §1, *et seq.*)

Against All Defendants

374. Plaintiffs incorporate by reference and re-allege the preceding allegations as though fully set forth herein.

375. The combination and conspiracy alleged herein is a *per se* violation of Section 1 of the Sherman Antitrust Act of 1890, 15 U.S.C. § 1 (as amended).

376. Until August 14, 2014, the price of silver was fixed by Defendants Deutsche Bank, HSBC, Bank of Nova Scotia, and their co-conspirators, including Defendant UBS, Barclays, Fortis, Standard Chartered, and Merrill Lynch. This combination of eight of the world's largest multinational banks, operated, at least in part, through The London Silver Market Fixing Ltd. The name of their process was the "Silver Fix." The name of their benchmark price was called the "Silver Fixing."

377. Rather than reflect the market price of silver, the Silver Fix determined the price of silver—worldwide. Defendants literally fixed the price of silver once per day, every business day. By their concerted action, Defendants dictated the price of physical silver and thereby financial instruments tied to the price of physical silver, such as COMEX silver futures. This is because the prices of financial instruments like COMEX silver futures are directly and proximately caused by, and directly linked to, the price of physical silver that Defendants set.

378. Each or nearly each business day during the Class Period, the three Fixing Defendants —Deutsche Bank, HSBC, and Bank of Nova Scotia—met on a secure conference call at 12:00 P.M. London time to fix the price of physical silver. The Silver Fix, which typically

took less than 10 minutes, was ostensibly conducted as a "Walrasian" or simultaneous auction led by one of the three Fixing Members designated as the "Chairman." The Chairman position rotated among the Fixing Members each year.

379. To begin each daily fixing session, Defendants agreed that the Silver Fix would begin with the Chairman pegging the opening price for the auction. After the opening price was fixed at a level that the Chairman declared, with the agreement of the Fixing Members, the bidding would begin trading at the initially fixed price. Each of the Fixing Members then would share with each other whether and how much silver they and their clients would be willing to buy or sell at the fixed price.

380. After placing orders armed with this insider knowledge, the transactions were netted against each other. If the Fixing Members agreed that the amount of buying interest was equal to the amount of selling interest the Silver Fixing was complete. Otherwise, the Chairman would adjust the price and peg it once again, repeating the process until the Fixing Members agreed upon the fixed price to benchmark transactions in physical silver and financial instruments tied to the price of physical silver. The Fixing Members then caused the Fix to be published to the market, including via interstate wires.

381. The Fixing Members and their co-conspirators shared a conscious commitment to a common scheme designed to achieve the unlawful objective of artificially fixing, depressing, pegging, maintaining, stabilizing, and otherwise manipulating the price of physical silver and financial instruments tied to the price of physical silver, including COMEX silver futures.

382. Plaintiffs and members of the Class have been injured in their business and property by reason of Defendants' violation of Section 1 of the Sherman Antitrust Act, 15 U.S.C. § 1, within the meaning of Section 4 of the Clayton Antitrust Act, 15 U.S.C. § 15.

383. Plaintiffs and members of the Class are threatened with impending future injury to their business and property by reason of Defendants' continuing violation of Section 1 of the Sherman Antitrust Act, 15 U.S.C. § 1, within the meaning of Section 16 of the Clayton Antitrust Act, 15 U.S.C. § 26.

SECOND CLAIM FOR RELIEF

For Bid Rigging In Violation of Section 1 of the Sherman Act

(15 U.S.C. §1, *et seq.*)

Against Barclays, Fortis, Standard Chartered and Merrill Lynch

384. Plaintiffs incorporate by reference and re-allege the preceding allegations as though fully set forth herein.

385. Defendants and co-conspirators known and unknown engaged in hundreds of episodes of illegal episodes of bid rigging, which are *per se* violations of Section 1 of the Sherman Antitrust Act of 1890, 15 U.S.C. § 1. By their concerted action, Defendants rigged the supposedly "Walrasian" auction of the Silver Fix with the purpose and effect of suppressing the price of silver and financial instruments tied to the price of physical silver, such as those traded on COMEX.

386. Defendants intended to and actually did restrain trade. They shared a conscious commitment to a common scheme designed to achieve the unlawful objective of artificially fixing, depressing, pegging, maintaining, stabilizing, and otherwise manipulating the price of physical silver and financial instruments tied to the price of physical silver, including COMEX silver futures.

387. The conspiracy unreasonably restrained trade. There is no legitimate business justification for, or procompetitive benefits caused by, Defendants' unreasonable restraint of

trade. Any ostensible procompetitive benefit was pretextual or could have been achieved by less restrictive means.

388. Plaintiffs and members of the Class have been injured in their business and property by reason of Defendants' violation of Section 1 of the Sherman Antitrust Act, 15 U.S.C. § 1, within the meaning of Section 4 of the Clayton Antitrust Act, 15 U.S.C. § 15.

389. Plaintiffs and members of the Class are threatened with impending future injury to their business and property by reason of Defendants' continuing violation of Section 1 of the Sherman Antitrust Act, 15 U.S.C. § 1, within the meaning of Section 16 of the Clayton Antitrust Act, 15 U.S.C. § 26.

THIRD CLAIM FOR RELIEF

For Conspiracy in Restraint of Trade in Violation of Section 1 of the Sherman Act

(15 U.S.C. § 1, *et seq.*)

Against All Defendants

390. Plaintiffs incorporate by reference and re-allege the preceding allegations as though fully set forth herein.

391. The overarching price fixing, bid rigging, and otherwise anticompetitive combination and conspiracy alleged herein is a *per se* violation of Section 1 of the Sherman Antitrust Act of 1890, 15 U.S.C. § 1 (as amended). Alternatively, the combination and conspiracy alleged herein is a quick look or rule of reason violation of Section 1.

392. Defendants intended to and actually did restrain trade. They shared a conscious commitment to a common scheme designed to achieve the unlawful objective of artificially fixing, depressing, pegging, maintaining, stabilizing, and otherwise manipulating the price of physical silver and financial instruments tied to the price of physical silver, including COMEX silver futures.

393. The combination and conspiracy unreasonably restrained trade. There is no legitimate business justification for, or procompetitive benefits caused by, Defendants' unreasonable restraint of trade. Any ostensible procompetitive benefit was pretextual or could have been achieved by less restrictive means.

394. Plaintiffs and members of the Class have been injured in their business and property by reason of Defendants' violation of Section 1 of the Sherman Antitrust Act, 15 U.S.C. § 1, within the meaning of Section 4 of the Clayton Antitrust Act, 15 U.S.C. § 15.

395. Plaintiffs and members of the Class are threatened with impending future injury to their business and property by reason of Defendants' continuing violation of Section 1 of the Sherman Antitrust Act, 15 U.S.C. § 1, within the meaning of Section 16 of the Clayton Antitrust Act, 15 U.S.C. § 26.

FOURTH CLAIM FOR RELIEF

For Manipulation In Violation of the Commodity Exchange Act

(7 U.S.C. § 1, *et seq.*)

Against All Defendants

396. Plaintiffs incorporate by reference and re-allege the preceding allegations as though fully set forth herein.

397. Defendants, through their manipulative acts alleged herein, specifically intended to and did cause unlawful and artificial prices in silver and silver financial instruments, including COMEX silver futures contracts in violation of the CEA, 7 U.S.C. § 1, *et seq.*

398. **Ability to Influence Prices**: Each Defendant individually had and all Defendants collectively had the ability to cause and did cause artificial prices. Throughout the Class Period, Defendants were both market makers and Silver Fixing Members. Defendants controlled the Silver Fix, which determined the global benchmark price of silver, used to price, benchmark,

and/or settle billions of dollars in silver and silver financial instruments, including silver futures and options. This dominant position of control, unrivaled by any other market participant, gave the Fixing Members and their co-conspirators the ability to influence the prices of silver financial instruments by setting the Fix price at artificial levels during the Class Period.

399. Defendants also had the ability to influence the prices of silver financial instruments through their spot market activity. As some of the largest market makers in the silver market, Defendants had the ability to (and did) influence the prices of silver and silver financial instruments by, *inter alia*, quoting systematically lower silver prices around the start of and throughout the Silver Fix and by maintaining an artificial bid-ask spread.

400. Additionally, Defendants had the ability to influence the prices of silver and silver financial instruments by controlling the silver order flow, as evidenced in the UBS FINMA Report and DB Cooperation Material, which demonstrated that Defendants shared private client information and information regarding their proprietary trading positions to coordinate trading activity for the purpose of manipulating the prices of silver and silver financial instruments.

401. **Causation and Artificial Price**: Throughout the Class Period, the Fix price was used to price, benchmark and/or settle silver financial instruments, including silver futures and options contracts, traded in the United States. By manipulating the Silver Fix and the Fix price, Defendants caused the prices of silver financial instruments to be artificial. Defendants also caused artificial prices by injecting artificial supply and demand fundamentals into the market through their illegitimate coordinated trading activity including (a) maintain and artificial bid-ask spread; (b) quoting systematically lower silver prices in advance of the Silver Fix; and (c) coordinating trading activity, *e.g.*, to intentionally trigger client stop-loss orders.

402. **Intent**: As evidenced by their coordinated market activity, including the systematic lowering of spot market quotes in advance of the Silver Fix and the maintenance of an artificial bid-ask spread, the overwhelming econometric evidence of manipulation during the Silver Fix, communications revealed by the DB Cooperation Materials, and information in the UBS FINMA Report, Defendants intended to manipulate the prices of silver financial instruments to generate increased profits by *inter alia* (a) placing trades in advance of the public release of the Fix price; (b) triggering client stop-loss orders, forcing clients to sell silver to the Defendants at artificially lower prices; and (c) maintaining an artificial bid-ask spread to reap illicit profits on every silver spot market transaction. Defendants' manipulation allowed them to reap illicit profits from their own proprietary silver positions in the silver spot, over-the-counter, and futures market, including the COMEX silver futures market.

403. As a direct result of Defendants' unlawful conduct, Plaintiffs and members of the Class have suffered actual damages and injury in fact due to artificial prices of silver financial instruments which they would not have been subject to but for the unlawful conduct of the Defendants. Plaintiffs and Class members were further legally injured and suffered injury in fact by transacting in silver financial instruments in an artificial and manipulated market operating under the artificial prices caused by the Defendants. Plaintiff and Class members who purchased or sold silver financial instruments, including silver futures and options contracts, during the Class Period were injured and are each entitled to their actual damages for the violations of the CEA alleged herein.

FIFTH CLAIM FOR RELIEF

For Principal-Agent Liability In Violation of The Commodity Exchange Act

(7 U.S.C. § 1, *et seq.*)

Against All Defendants

404. Plaintiffs incorporate by reference and re-allege the preceding allegations as though fully set forth herein.

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

406. Plaintiffs and members of the Class are each entitled to actual damages sustained in silver financial instruments, including silver futures and options contracts, for the violations of the CEA alleged herein.

SIXTH CLAIM FOR RELIEF

For Aiding and Abetting Manipulation In Violation of The Commodity Exchange Act

(7 U.S.C. § 1, *et seq.*)

Against All Defendants

407. Plaintiffs incorporate by reference and re-allege the preceding allegations, as though fully set forth herein.

408. The Defendants each knowingly aided, abetted, counseled, induced and/or procured the violations of the CEA by other Defendants as alleged herein. Each Defendant did so knowing of other Defendants' manipulation of the Silver Fix, and silver futures, options and other silver financial instruments, and substantially and willfully intended to assist these manipulations to cause the prices of COMEX silver futures contract prices to be artificial during the Class Period, in violation of §22(a)(1) of the CEA, 7 U.S.C. §25(a)(1).

409. Under §13(c)(a) of the CEA, 7 U.S.C. §13, Defendants are liable for willfully intending to assist the manipulation.

410. Other persons willfully intended to assist these manipulations to cause the price of silver financial instruments to reach artificial levels during the Class Period, in violation of Section 22(a)(1) of the CEA, 7 U.S.C. § 25(a)(1). They are the agents and unnamed co-conspirators as alleged herein.

411. Plaintiffs and members of the Class are each entitled to actual damages sustained in silver futures, options, and other silver financial instruments for the violations of the CEA alleged herein.

SEVENTH CLAIM FOR RELIEF

Manipulation by False Reporting and Fraud and Deceit in Violation of the Commodity Exchange Act, as Amended

(7 U.S.C. § 1, *et seq*. and CFTC Rule 180.1(a))

Against All Defendants

412. Plaintiffs incorporate the allegations in this Complaint by reference and re-allege them as though fully set forth herein.

413. By their intentional or reckless misconduct, Defendants each violated Section 6(c)(1) of the CEA, as amended, 7 U.S.C. § 9, and caused, or attempted to cause, the prices of silver futures and other derivatives contracts and derivatives to be artificial during the Class Period. Defendants delivered and caused to be delivered for transmission through the mails and interstate commerce, by multiple means of communication, including communications to electronic trading platforms, false or misleading or inaccurate reports concerning order and trade information that affected or tended to affect the price of silver and silver futures, which are

commodities in interstate commerce, knowing, or acting in reckless disregard of the fact that such report was false, misleading or inaccurate.

414. Under Section 6(c)(1) of the CEA, as amended, codified at 7 U.S.C. § 9, and Section 22 of the CEA, as amended, 7 U.S.C. § 25, it is unlawful for any person, directly or indirectly, to use or employ, or attempt to use or employ, in connection with any swap, or a contract of sale of any commodity in interstate commerce, or for future delivery on or subject to the rules of any registered entity, any manipulative or deceptive device or contrivance, in contravention of such rules and regulations as the CFTC shall promulgate.

415. In July 2011, the CFTC promulgated Rule 180.1(a), 17 C.F.R. § 180.1(a) (2011), pursuant to Section (6)(c)(1), which provides, in relevant part:

> It shall be unlawful for any person, directly or indirectly, in connection with any swap, or contract of sale of any commodity in interstate commerce, or contract for future delivery on or subject to the rules of any registered entity, to intentionally or recklessly:
>
> (1) Use or employ, or attempt to use or employ, any manipulative device, scheme, or artifice to defraud;
>
> (2) Make, or attempt to make, any untrue or misleading statement of a material fact or to omit to state a material fact necessary in order to make the statements made not untrue or misleading;
>
> (3) Engage, or attempt to engage, in any act, practice, or course of business which operates or would operate as a fraud or deceit upon any person; or
>
> (4) Deliver or cause to be delivered, or attempt to deliver or cause to be delivered for transmission through mails or interstate commerce, by any means of communication whatsoever, a false or misleading or inaccurate report concerning crop or market information or conditions that affect or tend to affect the price of any commodity in interstate commerce, knowing or acting in reckless disregard of the fact that such report is false, misleading or inaccurate.

416. Unlawful manipulation under the CEA, as amended, and Rule 180.1 includes delivering, or causing to be delivered for transmission through the mails or interstate commerce, by any means of communication whatsoever, a false or misleading or inaccurate report concerning market information or conditions that affect or tend to affect the price of any commodity in interstate commerce, knowing, or acting in reckless disregard of the fact that such report is false, misleading or inaccurate.

417. From August 15, 2011 through the end of the Class Period, Defendants used or attempted to use or employed manipulative or deceptive devices or contrivances, in connection with a contract of sale or purchase of silver in interstate commerce. This conduct included the making of untrue, inaccurate or misleading statements of material facts, or omitting material facts necessary to make the statements made not misleading such as:

a. Making untrue, inaccurate or misleading statements to influence silver prices, including the London Silver Fix;

b. Failing to disclose that Defendants entered pre-arranged transactions to move silver prices in a direction to benefit their own trading books;

c. Failing to disclose that Defendants were unlawfully conspiring between and among themselves to manipulate, *inter alia*, silver spot and benchmark prices, as well as silver derivatives prices; and

d. Failing to disclose that Defendants were reporting silver bids, offers and transactions during the London Silver Fix to move silver spot and benchmark prices uneconomically to benefit their silver trading positions.

418. Defendants' conduct caused injury to Plaintiffs and other members of the Class who transacted in an artificial and manipulated market, at manipulated prices, and with artificial price trends, during the Class Period.

419. Plaintiffs and other members of the Class are each entitled to damages for the violations of the CEA alleged herein.

EIGHTH CLAIM FOR RELIEF

Unjust Enrichment

(New York Common Law)

Against Barclays, Fortis, Standard Chartered, and Merrill Lynch

420. Plaintiffs incorporate by reference and re-allege the preceding allegations as though fully set forth herein.

421. Plaintiffs are entitled to recovery for unjust enrichment and disgorgement of profits and restitution under common law principles of unjust enrichment of the State of New York.

422. Each Defendant unjustly enriched itself by its intentional manipulation of silver prices through its conduct and omissions alleged herein, while knowing that Defendants had the ability to cause, and that they were causing, prices to be set at artificial levels.

423. Plaintiffs' and members of the Class' detriment and Defendants' unjust enrichment were related to and flowed from the wrongful conduct alleged herein, including, without limitation, Defendants' unlawful, manipulative, conspiratorial, and anti-competitive acts described above.

424. Defendants should not be permitted to retain the benefits conferred by Plaintiffs and members of the Class. Plaintiffs and the Class accordingly are entitled to disgorgement of all profits resulting from such manipulation and establishment of a constructive trust from which Plaintiffs and members of the Class may seek restitution.

425. Plaintiffs and the Class have no adequate remedy at law to seek such disgorgement and restitution under common law principles of unjust enrichment.

426. It is appropriate to apply New York common law to purchases of physical silver and financial instruments tied to the price of physical silver, including COMEX silver futures, in

all fifty states because Defendants' inequitable conduct and enrichment occurred in New York. Defendants reside, are registered, conduct significant business, own property in New York, including vast caches of silver bullion. The COMEX is located in New York. Members of the Class traded silver futures on the COMEX, which were fixed and manipulated by the unlawful actions of Defendants.

427. It is appropriate to prosecute this New York common law claim on a nationwide class basis under *Phillips Petroleum Co. v. Shutts*, 472 U.S. 797, 822 (1985), and *Shady Grove Orthopedic Assocs., P.A. v. Allstate Ins. Co.*, 559 U.S. 393 (2010).

PRAYER FOR RELIEF

Plaintiffs demand relief as follows:

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

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

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

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

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

F. That the Court award monetary losses suffered by Class members that were in contractual or quasi-contractual relationships with a Defendant or an affiliate thereof, due to that Defendants' unjust enrichment at the Class Members' expense;

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

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

DEMAND FOR JURY TRIAL

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, Plaintiffs, on behalf of themselves and members of the proposed Class, respectfully demand a trial by jury on all issues so triable.

Dated: June 16, 2017

Respectfully submitted,

/s/ Vincent Briganti

Vincent Briganti
Barbara Hart
Thomas Skelton
Raymond Girnys
Christian P. Levis
LOWEY DANNENBERG P.C.
44 South Broadway, Suite 1100
White Plains, NY 10601
Tel.: (914) 997-0500
Fax: (914) 997-0035
Email: vbriganti@lowey.com
bhart@lowey.com
tskelton@lowey.com
rgirnys@lowey.com
clevis@lowey.com

Robert Eisler
James Sabella
Deborah Elman
GRANT & EISENHOFER P.A.
485 Lexington Avenue
New York, NY 10017
Tel.: (646) 722-8500
Fax: (646) 722-8501
Email: reisler@gelaw.com
jsabella@gelaw.com
delman@gelaw.com

Co-Lead Counsel for Plaintiffs and the Proposed Plaintiff Class