15 CV 1036

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

LARRY HOLLIN, on Behalf of Himself and all Others Similarly Situated, Plaintiffs, v. BASF METALS LIMITED, GOLDMAN SACHS INTERNATIONAL, HSBC BANK USA, N.A., and STANDARD BANK PLC, Defendants.	No. CLASS ACTION COMPLAINT JURY TRIAL DEMANDED

FEB 13 2015 U.S.D.C. S.D. N.Y.

NATURE OF THE ACTION

1. Plaintiff Larry Hollin, on behalf of himself and all others similarly situated, brings this class action against Defendants for claims arising under the Sherman Act, Clayton Act, and Commodity Exchange Act to recover damages, injunctive relief, and other relief for the substantial injuries he and others similarly situated have sustained as a result of Defendants' nearly eight-year unlawful conspiracy to manipulate and rig the global benchmarks for physical platinum and palladium prices, known as the "Platinum and Palladium Fixings," as well as the prices of platinum- and palladium-based financial derivative products. Plaintiff, on personal knowledge as to himself and his own acts, and upon information and belief as to all other matters, alleges as follows:

2. The Platinum and Palladium Fixings are set via teleconference twice a day, and the only participants during these teleconferences are Defendants BASF, Goldman Sachs, HSBC, and Standard Bank. Through this process, the prices for the global physical platinum and palladium markets are set or "fixed," which in turn, directly impacts the prices of platinum- and

palladium-based financial products, like platinum and palladium futures and options, because these instruments are inextricably linked to the prices of the physical platinum and palladium underlying these derivatives contracts.

3. Defendants and their co-conspirators were privy to and shared confidential, nonpublic information about client purchase and sale orders that allowed them to glean information about the direction of platinum and palladium prices, and consequently, gave them the ability to execute trades in physical platinum and palladium and platinum- and palladium-based financial products in advance of those movements. Defendants were able to use the information asymmetry to manipulate and make artificial the prices of physical platinum and palladium and platinum- and palladium-based financial products. This unlawful behavior allowed Defendants to reap substantial profits, while non-insiders, which include Plaintiff and members of the Class, were injured.

4. Plaintiff and members of the Class transacted in physical platinum and palladium and/or platinum- and palladium-based financial products, including platinum and palladium futures and options traded on the New York Mercantile Exchange ("NYMEX"). Plaintiff and members of the Class lost value on tens of thousands of transactions involving physical platinum and palladium and platinum- and palladium- based financial products because of Defendants' unlawful conduct.

5. Platinum and palladium prices frequently returned to their pre-fixing levels shortly after the Platinum and Palladium Fixings. These price moves are highly anomalous and suggestive of price artificiality. Significantly, with respect to platinum, the price moves around and during the Platinum and Palladium Fixings are not matched in other markets suggesting that broader macroeconomic factors are not at play in driving price moves in the platinum market.

6. The U.S. Commodity Futures Trading Commission ("CFTC") and the U.K. Financial Conduct Authority ("FCA") are currently investigating manipulation of gold prices, which, like platinum and palladium, are set daily in a similar process involving teleconferences between an exclusive group of dealers. The FCA has already identified one instance of gold manipulation by a trader at Barclays, which is one of the participants on the gold fixing calls.

7. In light of increased regulatory scrutiny of precious metals markets and commodity-related benchmarks generally, the Platinum and Palladium Fixings have recently undergone a significant overhaul. The price-setting process for platinum and palladium supposedly has been revamped, including replacing the London Platinum and Palladium Fixing Company Ltd. with the London Metal Exchange ("LME") to run the new pricing system for physical platinum and palladium.[1] The LME has promised to establish an updated pricing system that will be compliant with all regulatory and administrative protocols, including those established by IOSCO, an independent financial industry watchdog.

8. However, these changes have come too late for Plaintiff and members of the Class, all of whom were harmed by Defendants' conduct in manipulating the Platinum and Palladium Fixings since at least 2007. Plaintiff seeks to represent a class consisting of all persons or entities who traded or held in the United States physical platinum and palladium, platinum and palladium derivative products that settled or were marked-to-market at the Platinum and Palladium Fixings, or NYMEX platinum and palladium futures and options contracts, beginning at least as early as January 1, 2007 and continuing to the present.

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[1] Nicholas Larkin, *LME to Run Replacement for Platinum to Palladium Fixings*, Bloomberg, Oct. 16, 2014, http://www.bloomberg.com/news/2014-10-16/lme-to-run-replacement-for-platinum-to-palladium-fixings.html.

JURISDICTION AND VENUE

9. Platinum and palladium are "commodit[ies]" and are the "commodit[ies] underlying" platinum and palladium futures and options contracts traded on NYMEX, as those terms are defined and used in the Commodity Exchange Act, 7 U.S.C. §§ 1a(9) and 25(a), respectively.

10. This Court has subject matter jurisdiction over this action pursuant Sections 4 and 16 of the Clayton Act (15 U.S.C. §§ 15(a) and (26)), Section 22 of the Commodity Exchange Act (7 U.S.C. § 25), and pursuant to 28 U.S.C. §§ 1331 and 1337(a).

11. 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, all Defendants transacted business or had agents in this District; a substantial part of the events or omissions giving rise to these claims occurred in this District; and a substantial portion of the affected interstate trade and commerce discussed herein has been carried out in this District.

12. Venue is also proper in this District pursuant to Section 22 of the Commodity Exchange Act, 7 U.S.C. § 25, because Defendants' unlawful acts manipulated the prices of platinum and palladium futures and options contracts traded on NYMEX, a designated contract market located in New York, New York.

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

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

THE PARTIES

15. Plaintiff Larry Hollin is an individual residing at 1211 Gainsboro Road, Bala Cynwyd, Pennsylvania. During the Class Period, Plaintiff purchased platinum and palladium financial derivative products. As a result of Defendants' manipulative and collusive conduct, Plaintiff was injured in his business or property.

16. Defendant BASF Metals Limited ("BASF"), a subsidiary of BASF SE, has its principal place of business in London, England. BASF was formerly known as Engelhard Metals Limited, when the latter was acquired by BASF SE in May 2006. After the acquisition, BASF assumed Engelhard Metals Limited's role as a participating member in the Platinum and Palladium Fixings. BASF is also a market-making member of The London Platinum and Palladium Market ("LPPM").

17. Defendant Goldman Sachs International ("Goldman Sachs") is a financial services company and a subsidiary of The Goldman Sachs Group, Inc., with its principal place of business in London, England. Goldman Sachs is a participating member in the Platinum and Palladium Fixings and a full member of LPPM.

18. Defendant HSBC Bank USA, N.A. ("HSBC"), a subsidiary of HSBC Holdings Plc, is a banking and financial services company. HSBC maintains its principal place of business in Mclean, Virginia. HSBC also maintains a branch in London, England. HSBC is a participating member in the Platinum and Palladium Fixings and a full member of LPPM.

19. Defendant Standard Bank Plc ("Standard Bank"), a subsidiary of Standard Bank Group Limited, is a South African banking and financial services company. It maintains its principal place of business in London, England. Standard Bank is a participating member in the Platinum and Palladium Fixings and a full member of LPPM. Standard Bank is also the current Chair of the Platinum and Palladium Fixings.[2]

AGENTS AND UNNAMED CO-CONSPIRATORS

20. The London Platinum and Palladium Fixing Company Ltd. ("LPPFC") is a U.K. company headquartered in London, England. During the Class Period, LPPFC administered and published the Platinum and Palladium Fixings. On October 16, 2014, the LPPFC removed itself from its responsibilities of administering the Platinum and Palladium Fixings and appointed the LME as the new administrator of the supposedly revamped global price-setting process for platinum and palladium.

21. Various other entities and individuals participated as co-conspirators and manipulators in the acts complained of and performed acts and made statements that aided and abetted the unlawful conduct as alleged herein. The unnamed co-conspirators, together with the above-named Defendants, performed, participated in, furthered, and/or combined, conspired, or agreed with others to perform the unlawful acts alleged herein.

BACKGROUND ON THE PLATINUM AND PALLADIUM MARKETS

A. Physical Platinum and Palladium Markets

22. The global physical platinum and palladium markets are large, opaque, and complex over-the-counter ("OTC") markets, which operate alongside active and transparent exchange-based platinum and palladium derivatives markets.

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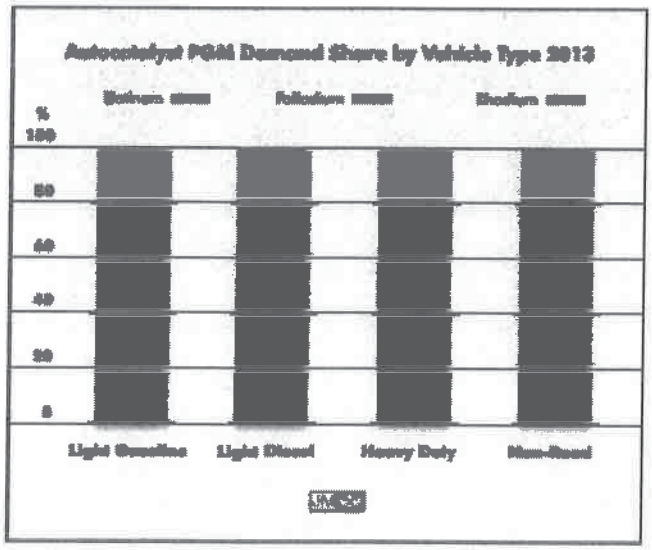
[2] Charlotte Mathews, *Gold fix seat mystery sale*, Financial Mail, Mar. 6, 2014, http://www.financialmail.co.za/moneyinvesting/2014/03/06/gold-fix-seat-mystery-sale.

23. The spot platinum and palladium markets are OTC markets with no central exchange, operating 24-hours a day. Major players in the platinum and palladium spot markets include members and affiliates of the LPPM, including the four participants in the Platinum and Palladium Fixings—Defendants Standard Bank, BASF, HSBC, and Goldman Sachs. These entities and others compete for customers in the platinum and palladium markets.

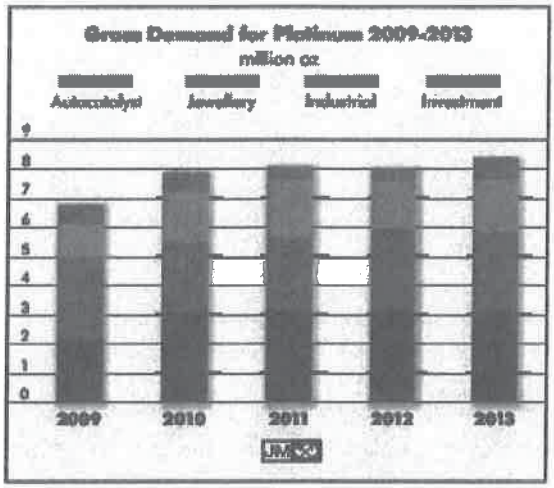
24. There are numerous other participants that enter the platinum and palladium markets from time to time, including platinum and palladium producers (*e.g.*, miners and refiners), consumers (*e.g.*, jewelers and industrials), and investors (*e.g.*, pension funds, hedge funds, and individuals).

25. By far, the largest uses for platinum and palladium are in the production of catalytic converters, which curb harmful emissions from automobiles. The chart below, which is reprinted from Johnson Matthey's *Platinum 2013 Interim Review*, shows that both platinum and palladium are used heavily in catalytic equipment for automobiles.



26. As of 2013, gross demand for platinum is over 8 million ounces. Tbe chart below, which is also reprinted from the *Platinum 2013 Interim Review*, shows gross demand for

platinum from these various sources between 2009 and 2013, with the autocatalyst and jewelry segments comprising the two largest sources of demand.



27. According to the *Platinum 2013 Interim Review,* gross demand for palladium is similarly large at over 9.6 million ounces. The largest drivers of demand for palladium come from the autocatalyst and industrial segments.

B. Platinum- and Palladium-Based Financial Products

28. Apart from physical platinum and palladium OTC transactions, some of the most heavily traded platinum- and palladium-hased financial products are platinum and palladium futures and options. The aggregate annual value of platinum futures has surpassed $100 billion each year since 2011. The aggregate annual value of palladium futures has surpassed $40 billion since 2011.

29. These products trade on U.S. and global commodity excbanges. NYMEX, which is owned by the Chicago Mercantile Exchange ("CME"), has been designated by the CFTC as a contract market pursuant to Section 5 of the Commodity Exchange Act, 7 U.S.C. § 7. NYMEX submits to tbe CFTC various rules and regulations for approval through which NYMEX designs, creates the terms of, and conducts trading in various futures and options contracts, including

platinum and palladium futures and options contracts. NYMEX is an organized centralized market that provides a forum for trading NYMEX platinum and palladium futures and options contracts.

1. *Overview of Platinum and Palladium Futures Contracts*

30. Platinum and palladium futures contracts are agreements to buy or sell a fixed amount of platinum (in the case of platinum futures) or palladium (in the case of palladium futures) at a date in the future. NYMEX specifies the terms of trading, including the trading units, price quotation, trading hours, trading months, minimum and maximum price fluctuations, and margin requirements.

31. Platinum and palladium futures contracts are standardized contracts that can be bought and sold transparently on NYMEX. Platinum futures contracts are for 50 troy ounces of good delivery platinum (*i.e.*, platinum with a minimum of 99.95% purity), physically settled at a NYMEX-approved warehouse. Trading is conducted for delivery during (1) the current calendar month; (2) the next two calendar months; and (3) each January, April, July, and October falling within a 15-month period beginning with the current calendar month. The "nearest" two expirations are referred to as the "front" months and are the most actively traded months.

32. Palladium futures contracts are for 100 troy ounces of good delivery palladium (*i.e.*, palladium with a minimum of 99.95% purity), physically settled at a NYMEX-approved warehouse. Trading is conducted for delivery during (1) the current calendar month; (2) the next two calendar months; and (3) each March, June, September and December falling within a 15-month period beginning with the current calendar month.

33. Trades of platinum and palladium futures contracts have two sides. The "long" side represents the buyer of the contract who is obligated to pay for platinum or palladium and

take delivery. The "short" side represents the seller of the contract who is obligated to receive payment for the platinum or palladium and make delivery. If a market participant holds its position to the end of the settlement period for a platinum or palladium futures contract, the market participant is obligated to "go to delivery"—*i.e.*, upon settlement date, the futures contract for a particular month becomes a present contractual obligation for the purchase or sale of the platinum or palladium. Longs in platinum contracts must take delivery and shorts must make delivery of 50 troy ounces per contract over the course of the contract month, and longs in palladium contracts must take delivery and shorts must make delivery of 100 troy ounces per contract over the course of the contract month. The prices for the platinum or palladium that go to delivery are the "settlement prices" of the platinum and palladium futures contracts.

34. Final and daily settlement calculations for platinum futures contracts follow the same general procedure. Platinum futures contracts active months are settled based on the CME Globex (an electronic trading platform) activity between 13:03:00 and 13:05:00 Eastern Time. The active trading month is the nearest base contract month that is not the current delivery month. Pursuant to NYMEX rules, settlement proceeds according to the following schedule:

a. **Tier 1:** The active contract month settles to the volume-weighted average price of the trades executed on Globex between 13:03:00 and 13:05:00 EST, rounded to the nearest tradable tick.

b. **Tier 2:** In the absence of outright trades during the settlement window, the active month settles to the best bid or ask in the expiring contract at market close that is nearest to the last traded price.

35. Pursuant to NYMEX Rulebook, Chapter 105, trading of platinum futures contracts deliverable in the current month ceases on the third to last business day of the delivery

month. After that date, all open platinum futures contracts are either settled via physical delivery or liquidated hy means of a bona fide Exchange for Related Position pursuant to Rule 538.

36. Final and daily settlement calculations for palladium futures contracts also follow similar procedures. Palladium futures contracts active months are settled based on the CME Globex activity between 12:58:00 and 13:00:00 Eastern Time. The active trading month is the nearest hase contract month that is not the current delivery month. Pursuant to NYMEX rules, settlement proceeds according to the following schedule:

a. **Tier 1:** The active contract month settles to the volume-weighted average price of the trades executed on Globex between 12:58:00 and 13:00:00 EST, rounded to the nearest tradahle tick.

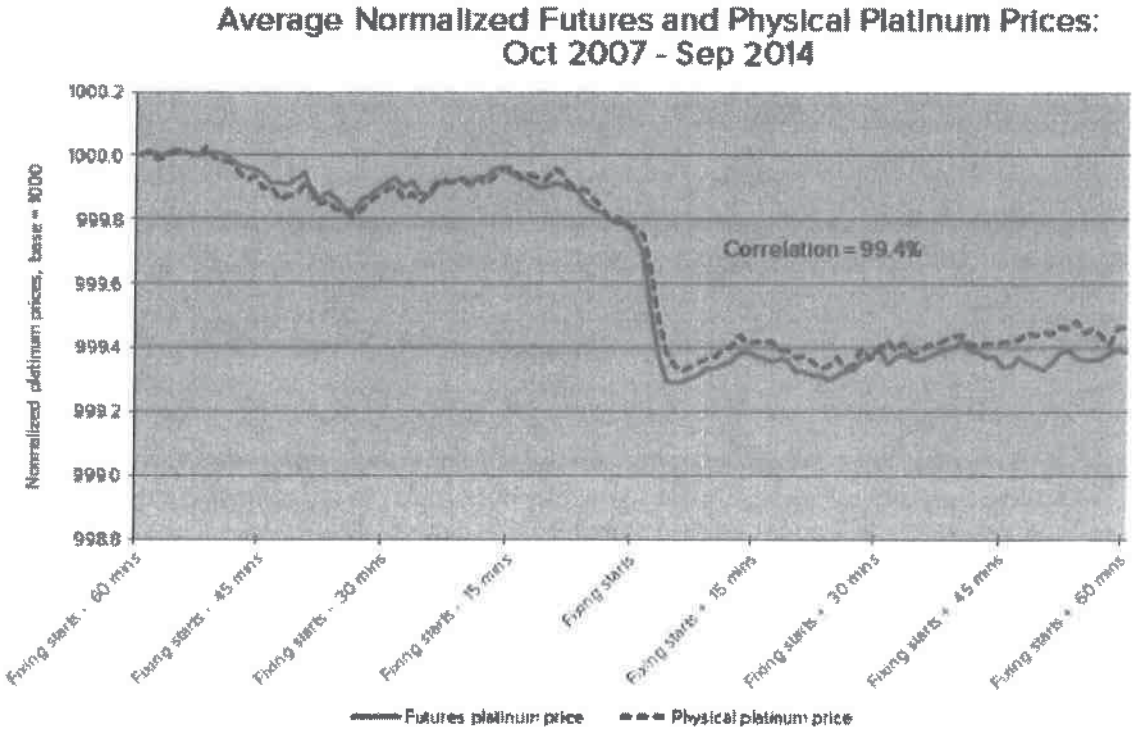
b. **Tier 2:** In the ahsence of outright trades during the settlement window, the active month settles to the best bid or ask in the expiring contract at market close that is nearest to the last traded price.

37. Pursuant to NYMEX Rulehook, Chapter 106, trading of palladium futures contracts deliverahle in the current month ceases on the third to last business day of the delivery month. After that date, all open palladium futures contracts are either settled via physical delivery or liquidated by means of a bona fide Exchange for Related Position pursuant to Rule 538.

38. Notwithstanding the ability to physically settle platinum and palladium futures contracts, only a small percentage of all futures contracts traded each year on NYMEX and other exchanges result in actual delivery of the underlying commodities. Instead, traders generally offset their futures positions before their contracts mature. For example, a purchaser of platinum futures contracts can cancel or offset his future ohligation to the contract market/exchange

clearing house to take delivery of platinum by selling an offsetting platinum futures contracts. The difference between the initial purchase or sale price and the price of the offsetting transaction represents the realized profit or loss. Similar offsets can be made with palladium futures contracts.

39. The prices for platinum futures contracts and physical platinum are inextricably linked to each other because the prices for both tend to converge on the date of delivery specified in the platinum futures contracts. Indeed, platinum futures contracts prices represent what the market believes will be the spot prices of physical platinum on the delivery dates specified in the platinum futures contracts. The following chart shows the strong correlation between the prices of platinum futures contracts and physical (spot) platinum between October 2007 and September 2014 around afternoon London-time Platinum and Palladium Fixing call.



40. As the above chart demonstrates, the relative differences in prices between physical platinum and platinum futures contracts are extremely small—there is ***99.4%***

correlation between the prices of NYMEX platinum futures contracts and the prices of physical platinum. Thus, any movement in price of tbe physical platinum should be tracked in the prices of NYMEX platinum futures contracts, and vice versa.

41. There is a similar correlation that can be observed with respect to the prices of physical palladium and palladium futures contracts. Thus, any movement in the price of pbysical palladium is generally tracked in prices of palladium futures.

2. *Overview of Platinum and Palladium Options Contracts*

42. Like platinum and palladium futures, platinum and palladium options are standardized options contracts, with the standard unit being one platinum futures contract (in the case of platinum options) or one palladium futures contract (in the case of palladium options). Both platinum and palladium options expire at the close of trading on the third Wednesday of the month preceding the option contract month.

43. As with other option contracts, platinum and palladium options come in two varieties: calls and puts. Call options give a holder of the option the right, but not the obligation, to purchase a certain quantity of the underlying asset at a certain price (*i.e.*, the "strike price"). Call option holders are betting on the price of the underlying asset to increase during the term of the option contract. If the price of the underlying asset exceeds the strike price, the option contract is considered "in the money" because exercising the right to buy the underlying asset will yield a profit to the holder of the option, measured as the difference between the strike price and the market price. For example, in the case of platinum or palladium call options, if the strike prices for each are set at $100, and tbe market prices for platinum or palladium futures contracts rise during the term of the call options to $110, a rational trader would exercise the call options,

purchasing the platinum or palladium futures contracts for $100 each and then selling them on the open market for $110, netting $10 in profit on each.

44. Put options, on the other hand, give the holder of option the right, but not the obligation, to sell the underlying asset at the strike price. Unlike call option holders, put option holders are betting that the price of the underlying asset will fall during the term of the put option. Thus, a put option is in the money when the price of the underlying asset falls below the strike price. For example, in the case of a platinum or palladium put options, if the strike prices for each are set at $100 and the market prices for platinum or palladium futures contracts fall during the term of the put options to $90, a rational trader would exercise the put options netting $10 in profit on each.

THE PLATINUM FIXING PROCESS

45. The Platinum and Palladium Fixings are a relatively recent creation. The London Platinum Quotation, the predecessor to the Platinum and Palladium Fixings, was established in 1973, and was a twice-daily indication of the market price for spot platinum, reported by some of the principal companies dealing in this precious metal. However, this was an informal trading system, and in 1987 it was formalized via the establishment of the LPPM. Two years later, the Platinum and Palladium Fixings were formally established for platinum and palladium.

46. The Platinum and Palladium Fixings occur twice daily by teleconference: 9:45 a.m. GMT/4:45 a.m. EST (the "morning Platinum and Palladium Fixing") and 2:00 p.m. GMT/9:00 a.m. EST (the "afternoon Platinum and Palladium Fixing"), the latter to accommodate the U.S. trading day. During each fixing call, the fixing members first set the price of platinum and then set the price of palladium. During the Class Period, the four participating members in the Platinum and Palladium Fixings were Defendants Standard Bank, BASF (obtaining its seat

after its acquisition of Engelhard Metals Limited in May 2006), Goldman Sachs, and HSBC. Standard Bank is the current Chair of the Platinum and Palladium Fixings.

47. Presently, the Platinum and Palladium Fixings are administered by LPPM. Defendants are full members, along with Barclays Bank PLC, Credit Suisse, Deutsche Bank AG, Johnson Matthey PLC, JPMorgan Chase Bank, Mitsui & Co. Precious Metals Inc. (London Branch), Standard Chartered Bank, The Bank of Nova Scotia, ScotiaMocatta, and UBS AG. "Full membership," according to the LPPM, is "open to those companies in the UK currently engaged in trading and dealing in platinum and palladium and are recognised hy the [LPPM] Management Committee as offering additional services in the UK to the market, including market-making, clearing services, refining or manufacturing."[3]

48. In addition to full membership, there is "associate membership," which is open to companies in the UK currently engaged in trading and dealing in platinum and have an appropriate level of net assets and experience. Lastly, LPPM permits certain companies to act as "affiliates," which are defined as companies that failed to meet the normal requirements of full or associate membership, but "are recognised by the LPPM as being involved with or offering support to the global platinum and palladium markets."[4]

49. The Platinum and Palladium Fixings are an organized "Walrasian" auction among Defendants for the wholesale price of physical platinum and palladium. Market participants send their orders to Defendants. In a competitive market not subject to Defendants' manipulative conduct, Defendants would consolidate their respective customer orders, as well as any proprietary orders from their own trading desks. The fixing process would then begin with the

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[3] LPPM, A Brief History, http://www.lppm.com/contentitem.aspx?cid=18.

[4] *Id.*

Chair announcing a starting price (also known as the "Opening Price") for loco (short for location) London or Zurich platinum or palladium, stated in U.S. dollars, which is usually at or near the current spot price. Each of the remaining three participating fixing members then would declare themselves as either a net buyer or a net seller, or as having no interest at the starting price.

50. If there is no buying and no selling interest at the starting price from any participating member, the Chair may announce the Opening Price as the "fixed" price.

51. If at the staring price there is only a selling or a buying interest, the Chair will ask for figures and then may either:

a. Declare the price as "Fixed" if the quantity offered or sought is matched exactly or is within 4,000 troy ounces; or

b. Move the Opening Price lower or higher until there is two-way interest—*i.e.*, a matcb between a net buyer and a net seller.

52. If the Chair must move the price to obtain two-way interest, the increments in which Chair moves the price is determined by:

a. The prevailing bid/offer price in the platinum or palladium futures market as quoted on the CME adjusted to the physical London spot market using a prevailing Exchange for Physical (*i.e.*, an exchange of a position in the underlying physical instrument for a corresponding futures position);

b. The prevailing bid/offer price on electronic trading platforms representing tbe spot market price; and

c. The level of buying and selling interests declared in the Fixing Call.

53. The Chair will choose the level of price increments as he/she considers necessary in order to match supply with demand.

54. At any time during the twice-daily Platinum and Palladium Fixing calls, a participating member or its customers may increase or decrease an order, withdraw a previously declared buying or selling order, or place a new order. In the event of such an occurrence, a participating member may call a "flag" to suspend the fixing call so that it may recalculate its overall interest. When the flag is called, the Chair is not permitted to call the platinum or palladium prices "Fixed."

55. When buy and sell orders are matched, the Chair will declare that the prices for platinum and palladium are fixed and state the time at which they have been fixed and the final price in U.S. dollars. Once the Fixing Prices for platinum and palladium have been declared by the Chair, buy and sell orders declared in relation to those Fixing Prices may not be altered or withdrawn by the firms participating in the Platinum and Palladium Fixings. The Chair will also provide the equivalent trading prices in pounds sterling and euros using the then-prevailing exchange rates published on Bloomberg or Reuters and read out these rates at the end of the call.

56. The Chair will then match up the participating firms' orders and will specify the trades that must then be executed between the participating firms. The Chair will fill the largest seller's order first by matching that order with the largest buyer's order, with the participating firms' orders then being matched in descending order size.

57. Where the Chair has been unable exactly to match supply and demand and has instead declared the price as fixed when the difference between quantities of platinum and palladium bid and offered was 4,000 troy ounces or less, the Chair will pro rate the difference between supply and demand between the participating firms.

58. Cash-settled, platinum- and palladium-hased financial products, such as futures and options, are directly impacted by the physical prices assessed through the Platinum and Palladium Fixings.

59. In an open and transparent system of price discovery for platinum and palladium, all market participants should have the opportunity to see in real-time bids and offers for platinum and palladium to gauge their prices. However, the Platinum and Palladium Fixings were designed in such a manner that held them hostage to the dealings of four large and heavily self-interested participants in the platinum and palladium markets. This gave Defendants the opportunity and motive to manipulate the Platinum and Palladium Fixings to their advantage, particularly with respective to their own holdings in both platinum and palladium and platinum- and palladium-based financial products, like futures and options. Defendants took full advantage of this opportunity to the detriment of a truly competitive market.

DEFENDANTS' WRONGDOING

60. At base, the Platinum and Palladium Fixings are price-setting mechanisms among horizontal competitors in the platinum and palladium markets. Indeed, HSBC, Goldman Sachs, and Standard Bank have large commodities desks in which they supposedly compete for customers in connection with their commodities trading services, including those for precious metals like platinum and palladium.

61. In addition, each Defendant has its own proprietary trading interests in platinum, palladium, and platinum and palladium futures and options both for hedging and speculative purposes. For example, BASF on its website states that it is "one of the world's largest users of platinum group metals, and, as a result, there are times when it holds large industrial commodity

positions that are subject to market price fluctuations."[5] As a result, it mitigates risk associated with these boldings by "using various cash and derivative commodity trading instruments."[6] Because the futures market is a zero-sum game in which a gain by one party means a loss to another, Defendants also directly compete with each other in the platinum and palladium futures markets.

62. Despite the fact that they are competitors, Defendants communicate with each other directly to establish "fixed" prices for platinum and palladium that are then used by all market participants in valuing their positions in both the platinum and palladium physical and derivatives markets. By their very design, the Platinum and Palladium Fixings give Defendants the opportunity to collusively discuss and/or signal desired, non-competitive price moves while the rest of the market is left in the dark.

63. While one of the benefits of the Platinum and Palladium Fixings was to add a level of visibility and transparency with respect to prices in the OTC platinum and palladium physical markets, modern technology has made the teleconference-based Platinum and Palladium Fixings a relic, unneeded in a modern era of instantaneous price discovery for platinum and palladium via electronic trading platforms like those provided for platinum and palladium futures and options. Defendants, bowever, were able to abuse this archaic system to their advantage at the expense of a competitive market.

64. Defendants' exclusive control of the Platinum and Palladium Fixings gives them unparalleled power to manipulate the ultimate price of platinum, palladium, and platinum- and palladium-based financial products in the global platinum and palladium markets. Price

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[5] BASF, BASF Metals Limited and BASF Metal Forwards Limited, http://www.basf.co.uk/ecp1/Group_companies_UK_Ireland/Engelhard_Metals_Ltd.

[6] *Id.*

manipulation was accomplished through their exceptional access to confidential information from other participants in the platinum and palladium markets, which allowed them the ability to use that information to manipulate platinum and palladium prices to their benefit and to the detriment of Plaintiff and the Class.

65. Defendants discussed their trading strategies and customer orders prior to the Fixing call in order to coordinate their strategies during the Platinum and Palladium Fixings. This ensured that they collectively manipulated prices to the desired levels to maximize the profitability of their transactions around and during these critical pricing windows. Defendants' representatives on the Fixing calls were in constant communication with their physical and derivatives trading desks, as well as with the other Defendants' respective trading desks, to ensure that platinum and palladium prices moved in a certain direction to pre-determined, non-competitive levels.

66. In addition, Defendants shared their customer order flows for purposes of front-running expected price moves based on execution of those customer orders.

67. Defendants also made large orders around the Platinum and Palladium Fixings that they had no intention of executing, also known as "spoof" orders, in order to bait the market to react to what other market participants believed were genuine increases or decreases in supply or demand. For example, a large "spoof" sell order would benefit an individual with a large short position in the futures market because short positions benefit from decreases in prevailing market prices. Defendants manufactured spoof orders and took advantage of them as part of their effort to manipulate platinum and palladium prices.

68. A close examination of the market reveals Defendants' manipulation of platinum and palladium prices.

69. With respect to the platinum market, expert analysis was conducted that examined: (1) anomalous price moves over a seven year period (October 2007 – September 2014) both before and during the afternoon Platinum and Palladium Fixing; (2) intraday price moves on specific days across this period that not only included platinum prices before, during, and after the afternoon fixing window, but also compared these price movements to movements in other markets; (3) intraday price and return moves over a seven-year period, with analyses for each year within this period; and (4) potential evidence of "information leaking" that suggests that Defendants were moving platinum prices around the Platinum and Palladium Fixings in favor of themselves and their preferred clients and to the detriment of other market participants who believed they were trading in a competitive market.

70. These analyses point to unusual price moves in the markets for platinum and platinum futures. As described in further detail below, these price movements can only be explained by Defendants' unlawful manipulation.

71. Experts also conducted preliminary analyses of palladium prices around the afternoon Platinum and Palladium Fixing. These analyses similarly reveal anomalous movements in the prices of palladium that can only be explained by Defendants' unlawful manipulation.

A. Analysis of Platinum Prices Between 2007-2014 Demonstrate Anomalous Price Moves and General Suppression of Platinum Prices

72. Experts developed a model that was designed to capture the dynamic features of the platinum market's volatility in order to determine whether or not price moves around the daily Platinum and Palladium Fixings are anomalous and statistically significant. Price movcs after the Platinum and Palladium Fixings were also observed in order to analyze the extent to

which pre-fix moves reverse after the Platinum and Palladium Fixing because such a phenomenon is suggestive of price artificiality.

73. When assessing the degree to which price fluctuations around the daily afternoon Platinum and Palladium Fixing are anomalous, the experts considered price movements across two distinct windows: (1) price moves occurring in the 30-minute window before the start of the afternoon Platinum and Palladium Fixing call; and (2) price moves during the afternoon Platinum and Palladium Fixing call itself.

74. In examining these windows, the experts found that there was a relatively high frequency of anomalous price moves both before and during the calls between at least 2007 and 2014. The following tables summarize both the frequency of these anomalous price moves as well as their quantum over this period.

FREQUENCY OF ANOMALOUS OBSERVATIONS

	Before Call	During Call	Combined
2007	7% - 23%	5% - 18%	12% - 36%
2008	6% - 18%	8% - 17%	13% - 33%
2009	8% - 25%	8% - 28%	16% - 45%
2010	10% - 22%	10% - 20%	18% - 36%
2011	9% - 22%	7% - 21%	13% - 37%
2012	12% - 25%	6% - 20%	17% - 40%
2013	12% - 24%	9% - 20%	20% - 41%
2014	13% - 28%	10% - 22%	22% - 40%
2007 - 2014	10% - 25%	10% - 20%	20% - 40%

QUANTUM OF ANOMALOUS OBSERVATIONS

	Before Call	During Call
2007	0.35% - 0.45%	0.30% - 0.50%
2008	0.95% - 1.20%	0.85% - 1.00%
2009	0.60% - 0.85%	0.55% - 0.65%
2010	0.45% - 0.65%	0.45% - 0.55%
2011	0.45% - 0.60%	0.40% - 0.60%
2012	0.45% - 0.60%	0.35% - 0.45%
2013	0.50% - 0.65%	0.40% - 0.50%
2014	0.30% - 0.35%	0.25% - 0.35%
2007 - 2014	0.50% - 0.65%	0.45% - 0.60%

75. As the above charts demonstrate, the frequency of anomalous observations was substantial, ranging from 10% - 25% before the afternoon Platinum and Palladium Fixing call to 10% - 20% during the call from at least 2007-2014. In addition, the quantum of anomalous observations was also substantial, ranging from 0.50% - 0.65% before the afternoon Platinum and Palladium Fixing call to 0.45% - 0.60% during the call during the same period.

76. Experts also tested the direction of the anomalous moves to determine whether they were largely negative (in the case of price suppression) or positive (in the case of price inflation). To assess whether price moves were negative or positive, experts independently determined the percentage of anomalous price fluctuations that were negative or positive around the daily afternoon Platinum and Palladium Fixing.

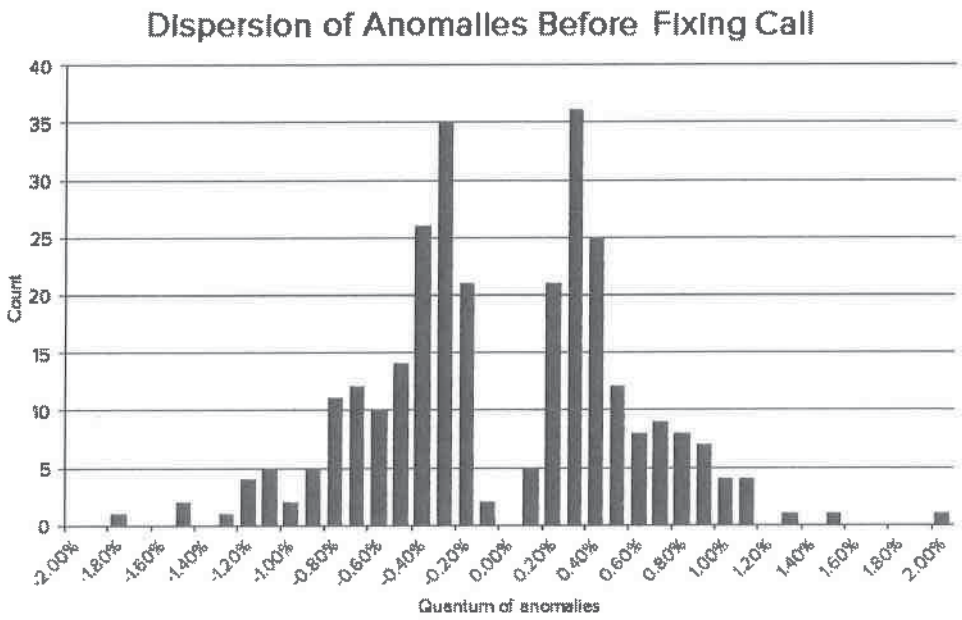
77. The experts found that for the period 2007 through 2014, between 50% and 65% of all anomalous moves were negative. By contrast, only 35% - 50% of anomalous price moves were positive, as shown in the graphic below.

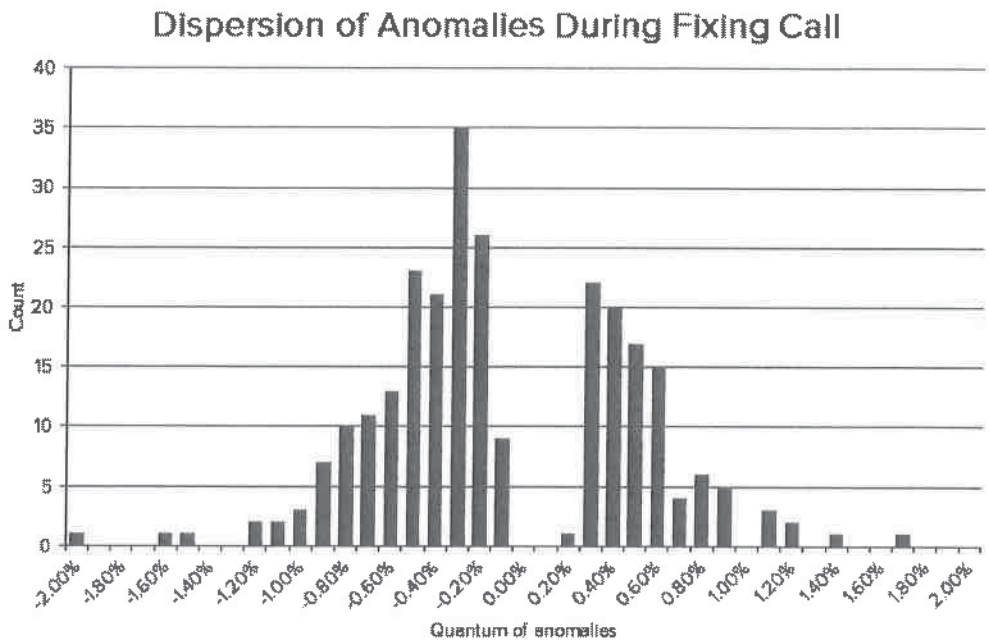
AVERAGE SIGN OF ANOMALOUS OBSERVATIONS

	% Positive	% Negative
2007 - 2014	35% - 50%	50% - 65%

78. The above chart demonstrates that from at least 2007-2014, Defendants' manipulation resulted in a general suppression of platinum prices.

79. The experts also graphically demonstrated the dispersion of anomalous prices moves before and during the Platinum and Palladium Fixings.





80. The above graphical analyses demonstrates a noticeable increase in the percentage of anomalous negative price moves during the afternoon Platinum and Palladium Fixing window when compared to price moves during the pre-Fixing window.

81. Price suppression would help platinum futures traders with particularly large short positions in the futures markets because they become more valuable as prices, or future expectations of prices, drop—provided that they close out their positions before any reversal of prices. According the CFTC's *This Month in the Platinum Futures Market*, commercial traders of platinum futures—*i.e.*, traders, like Defendants, who transact in the futures market for hedging purposes—have held outsized short positions at points during the Class Period when compared to their long positions.[7]

82. For example, in November 2012, the number of "commercial" short positions was ***over five times larger*** than the number of "commercial" long positions (9,100 long vs. 51,400 short). A similarly large disparity was observed a year earlier, in November 2011 (5,700 long vs.

[7] *See* http://www.cftc.gov/oce/web/platinum.htm. These reports were discontinued after January 2013.

29,100 short). Thus, Defendants had ample motive to actively participate in suppressing prices when it favored their short positions. To the extent that they held long positions at different points during the Class Period, Defendants would move the platinum prices during the Platinum and Palladium Fixings to artificial levels in order to benefit those positions.

B. Sample Price Charts From Specific Days Demonstrate Anomalous Activity Around And During the Platinum and Palladium Fixings

83. Experts also analyzed platinum futures price behavior around and during the daily aftemoon Platinum and Palladium Fixing on certain days where tbe experts' statistical model identified anomalous price moves. As explained above, platinum physical and futures prices tend to be highly correlated, so anomalous prices moves in the physical market will be tracked in the futures market and vice versa. For each of these days, the experts produced a chart demonstrating the price moves around the fixing window.

84. In addition, for eacb of the specific dates the experts also analyzed price activity occurring simultaneously in other markets to ensure that the anomalous prices moves in platinum were not matched in otber markets, and thus, not likely to have been driven by broader macroeconomic forces. The other markets that are used as a benchmark for purposes of comparison are physical gold, U.S. dollar index, and MSCl emerging markets index.

85. Gold is often used as a bedge against inflation, deflation, and other indicators of macroeconomic turmoil. Generally, when these factors arc present there is a flight to gold as an investment, which in turn, results in increased prices for gold. As a result, the pricc of gold should reflect the presence or absence of these factors around the time of the Platinum and Palladium Fixings.

86. The U.S. dollar index is a measure of the value of the U.S. dollar relative to six other major currencies. This index has a significant influence on the U.S. futures and options

markets, including platinum futures and options. By showing the movement of this index around the Platinum and Palladium Fixing, one can rule out anomalous observations that are caused by the change in the value of the U.S. dollar relative to other currencies.

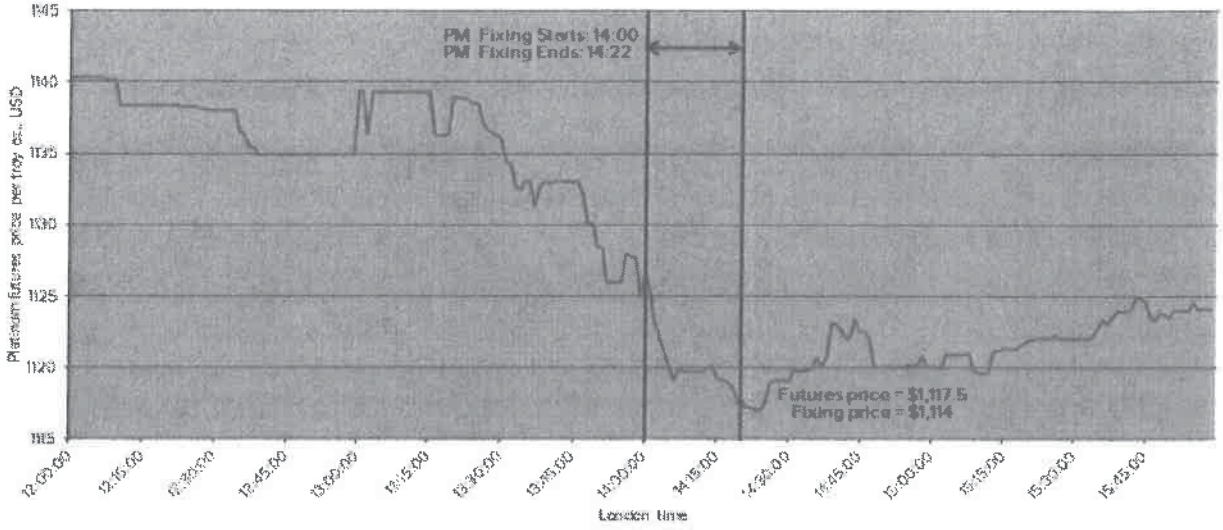
87. Similarly, the MSCl emerging markets index can be used to rule out anomalous observations in the platinum market that are caused by the change in the performance of investments tied to economic conditions in emerging markets.

88. The experts created charts that demonstrate the relative movements in these markets around the afternoon Platinum and Palladium Fixings and juxtaposed them to movements in platinum prices on anomalous dates identified by their statistical model.

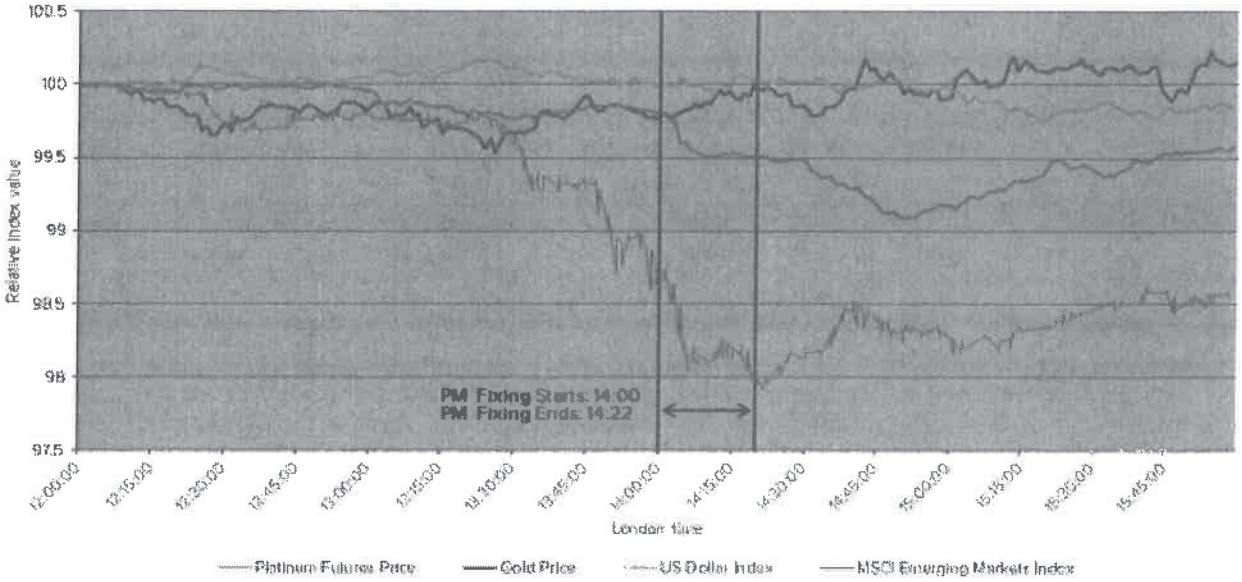
89. Specifically, the experts found several days where activity around the afternoon Platinum and Palladium Fixing may be the result of front running behavior on the part of Defendants. In the charts that follow, they found that there was distinct price decrease shortly before the afternoon Platinum and Palladium Fixing, which continues during the Fixing, only to bounce back after the Fixing. Defendants take advantage of the information asymmetry created by the fact tbat, by exchanging information with other Platinum and Palladium Fixing members prior to the fixing call, they have prior knowledge of the composition of the buy and sell order books ahead of tbe Fixing.

90. For example, May 11, 2009, one can see a sharp dip starting at about 1:35 p.m. GMT/8:35 a.m. EST that lasts through the entire afternoon Fixing window. It is only after the Fixing ends and the price is "fixed" at $1,114 per troy ounce that prices begin their slow creep back to the pre-Fixing levels. Moreover, as seen in the second chart for May 11, 2009, these price moves are not observed in any other market.

Platinum Futures Prices - 11 May 2009



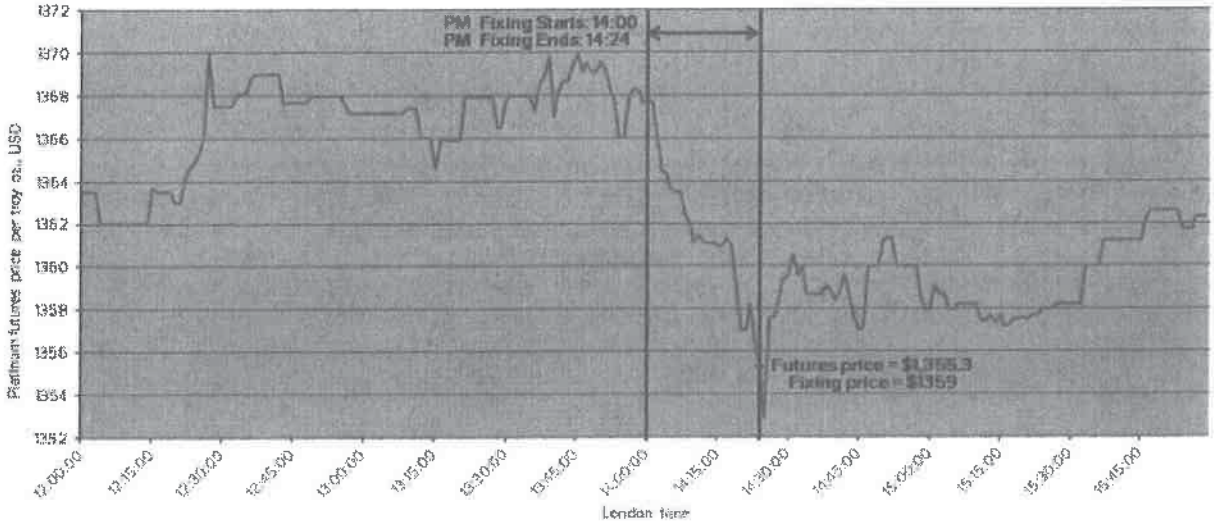
Relative Fluctuations of Platinum Futures Prices and Indices - 11 May 2009



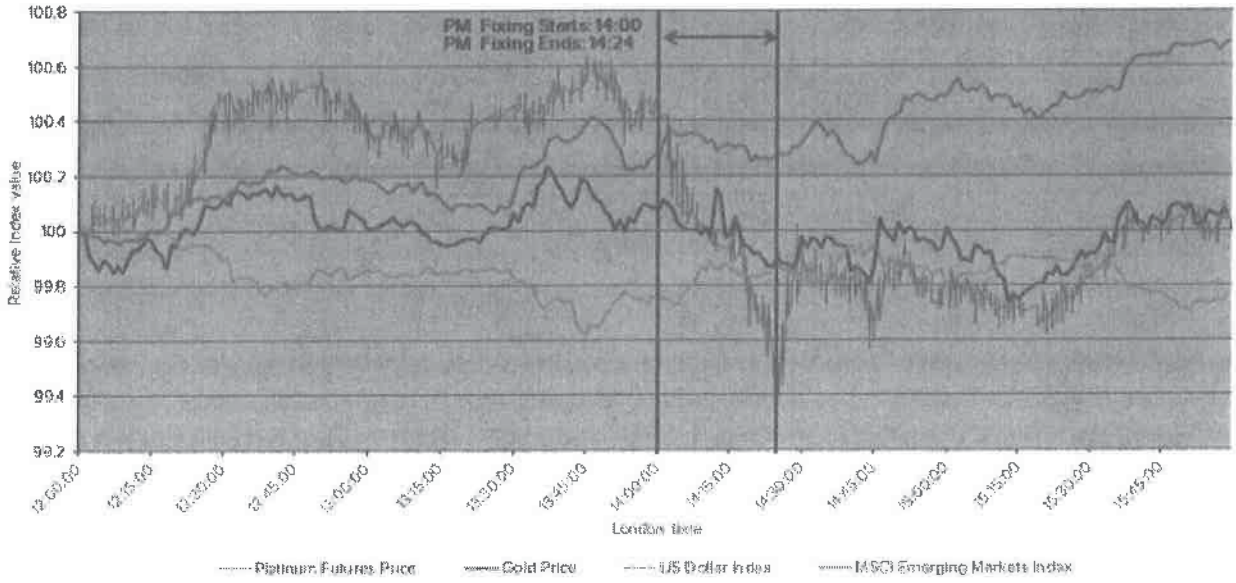
91. The price moves within the afternoon Platinum and Palladium Fixing window are even more dramatic on November 5, 2009. On this date, platinum prices begin to fall before the start of the Fixing window, and then accelerate their fall during the Fixing, moving from around $1,368 per troy ounce to $1,359 per troy ounce, in a span of 24 minutes. Only after the price of platinum is "fixed" does one see prices reversing course and ascend back up to pre-Fixing levels.

Further, like the second chart for May 11, 2009, above, the second chart for this date also shows no similar price moves in the henchmark markets. This is highly anomalous and suggestive of manipulation during the Fixing window by Defendants.

Platinum Futures Prices - 5 Nov 2009



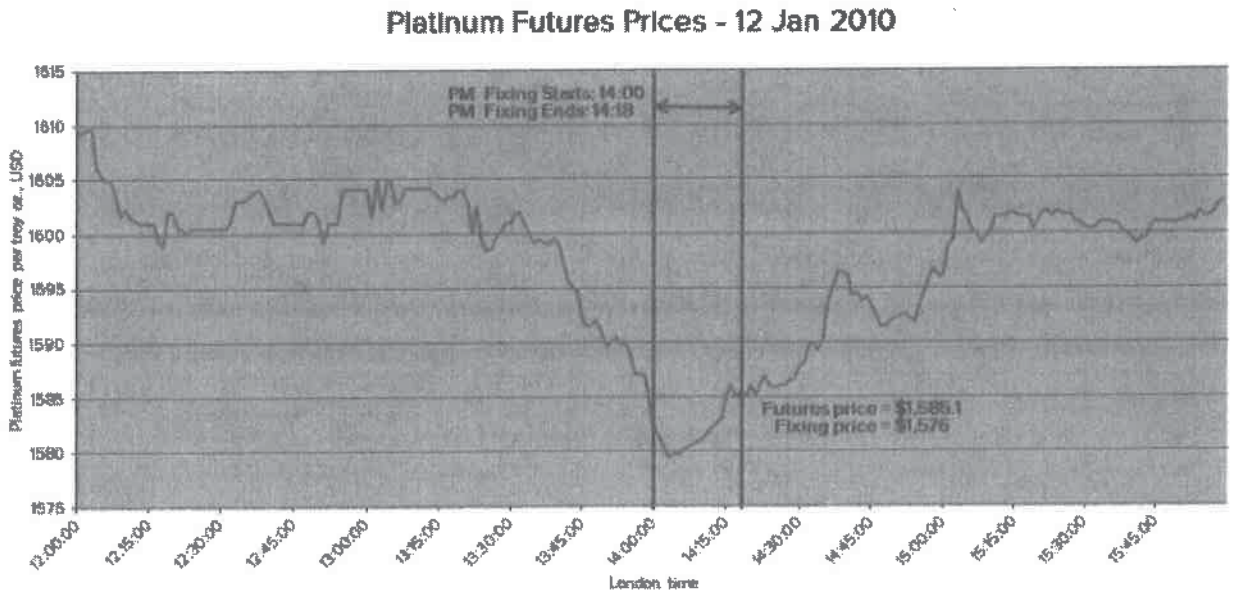
Relative Fluctuations of Platinum Futures Prices and Indices - 5 Nov 2009



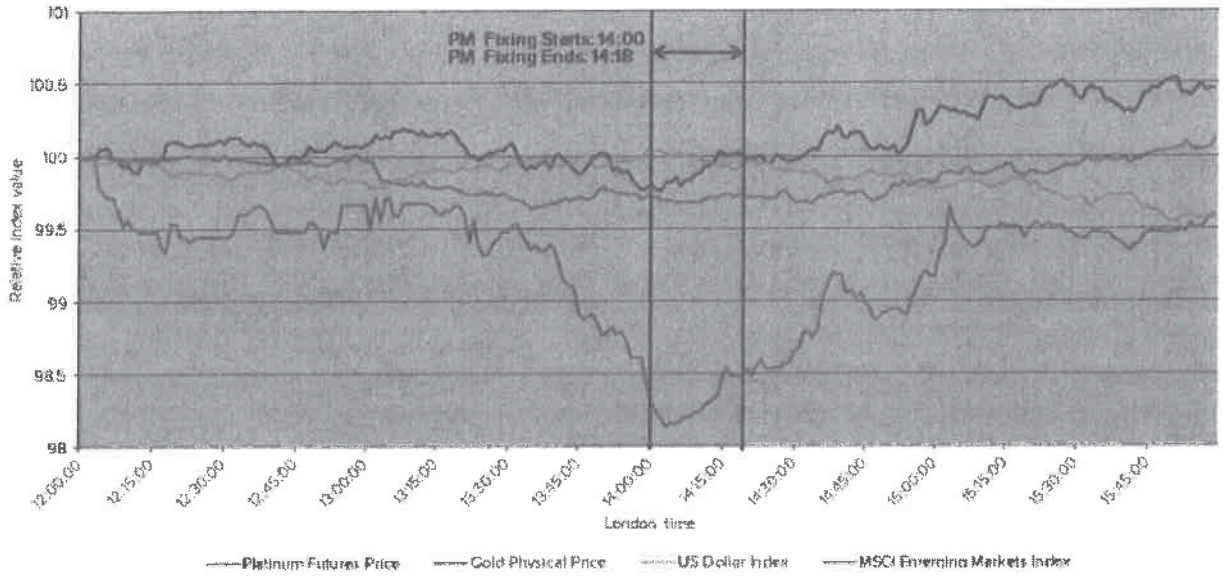
92. In addition, experts also found certain days where the intraday price movements in the platinum futures market before and after the afternoon Platinum and Palladium Fixing suggest price manipulation during the afternoon Fixing window. Price movements typical of this

kind of anomalous behavior are sharp price changes in the afternoon Platinum and Palladium Fixing window that are not consistent with market behavior prior to and after the fixing window.

93. Anomalous price moves before and during the afternoon Platinum and Palladium Fixing are observed on January 12, 2010. On this date, prices before the afternoon Platinum and Palladium Fixing fell from slightly over $1,600 per troy ounce to around $1,585 per troy ounce. The suppression continues shortly into the Fixing window, only to abruptly reverse course through the fixing call. Such a reverse can occur if a participant enters large buy orders or when "spoofed" sell orders have been withdrawn. Again, the pre-fix suppression and subsequent reversal of relative platinum futures prices are not matched by relative moves in any of the other indices.

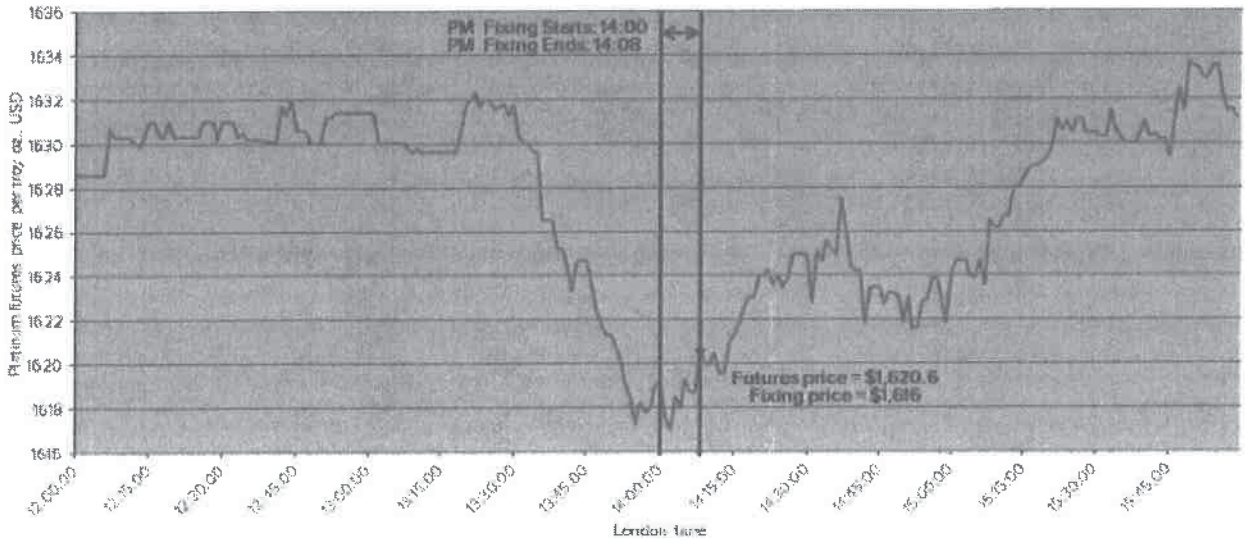


Relative Fluctuations of Platinum Futures Prices and Indices - 12 Jan 2010

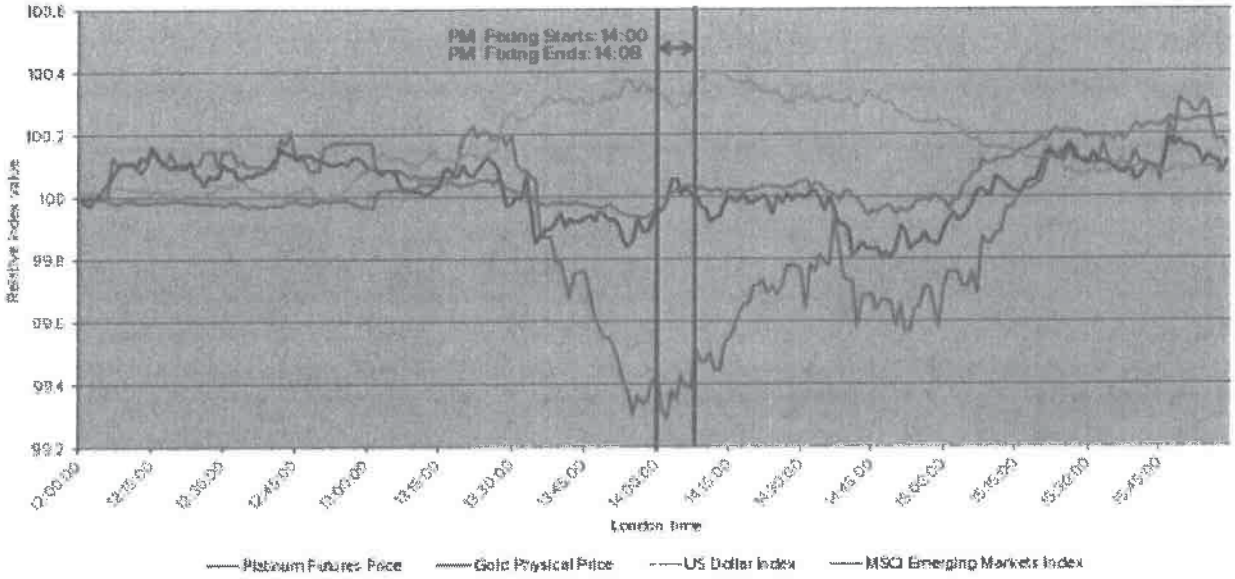


94. Similarly, reversals of prices within the afternoon Platinum and Palladium Fixing window are also observed on September 20, 2010. Again, the price moves in the platinum futures market on this day were not matched by similar price moves in the other markets analyzed by the experts.

Platinum Futures Prices - 20 Sep 2010

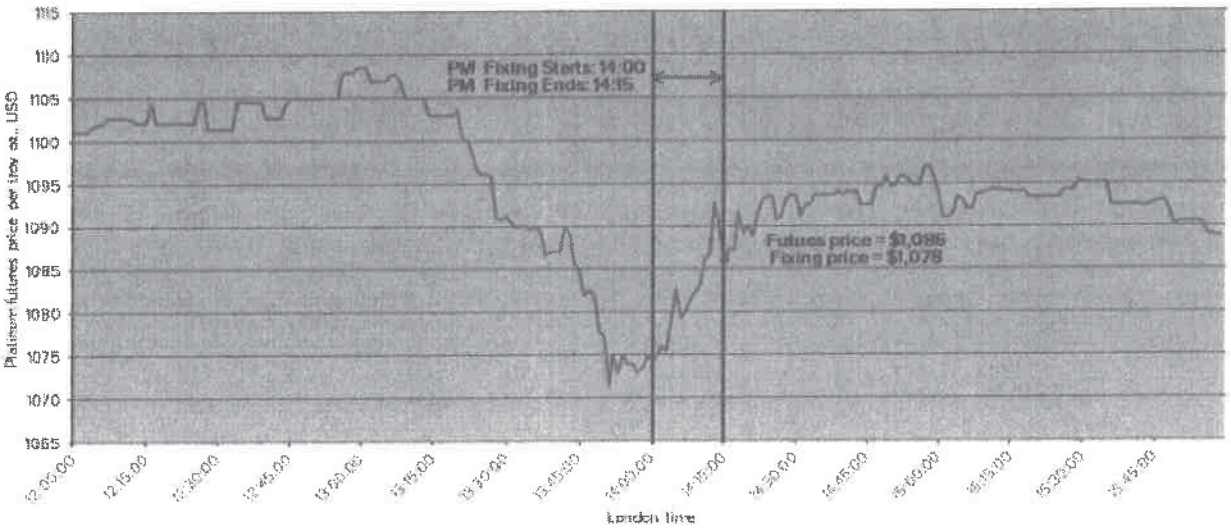


Relative Fluctuations of Platinum Futures Prices and Indices - 20 Sep 2010



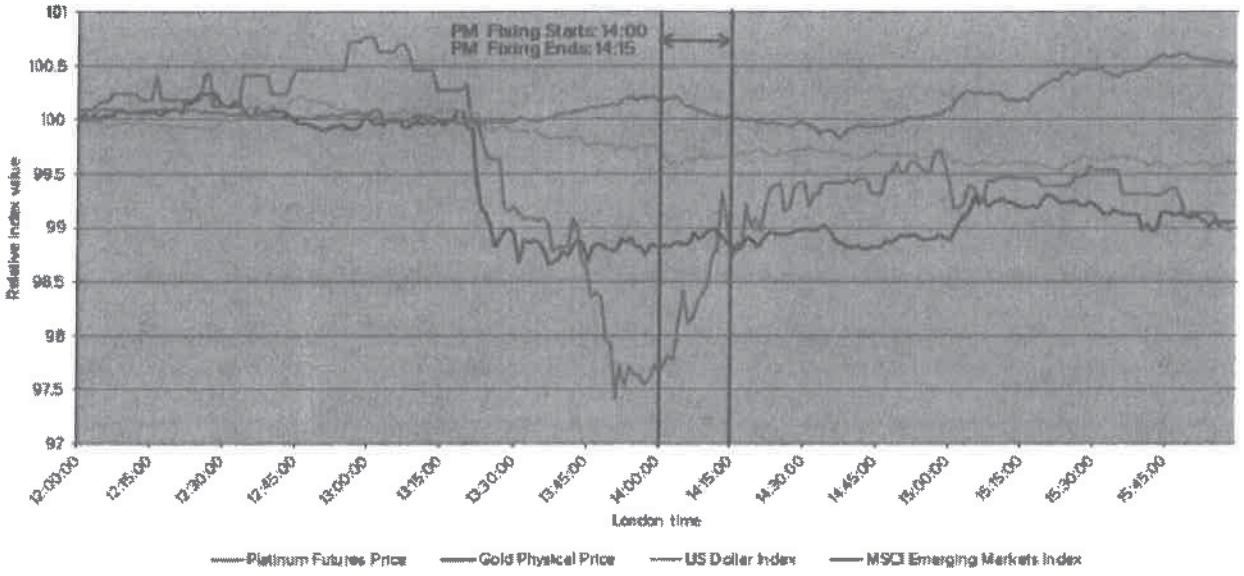
95. On April 28, 2009, one can see a sharp dip in futures prices in the half hour leading up to the afternoon Platinum and Palladium Fixing, from approximately $1,090 per troy ounce to just under $1,075 per troy ounce just before the afternoon Platinum and Palladium Fixing starts. Once the afternoon Platinum and Palladium Fixing starts, the price of platinum soars dramatically, hut in the last seconds drop about $7.00 before the Fixing window closes.

Platinum Futures Prices - 28 Apr 2009



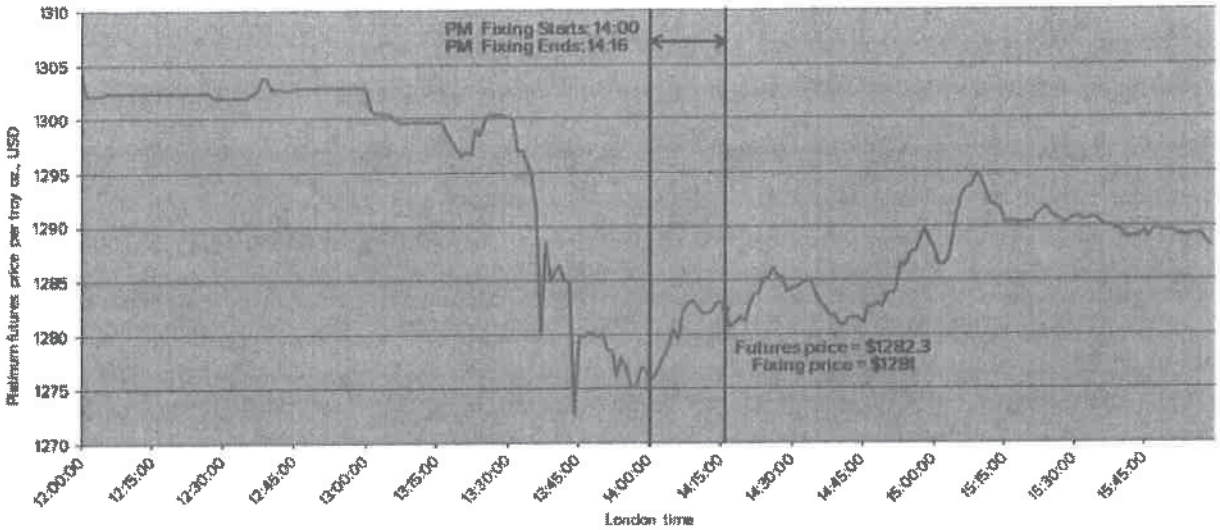
96. This movement is highly anomalous because as seen in the following cbart, activity in other markets is relatively stable around Platinum and Palladium Fixing window. As explained above, the lack of price movement in these other markets allows one to discount the possibility of macroeconomic factors playing a role in the observed price moves during the afternoon Platinum and Palladium Fixing. Thus, the price moves observed in the chart above are consistent with manipulation.

Relative Fluctuations of Platinum Futures Prices and Indices - 28 Apr 2009



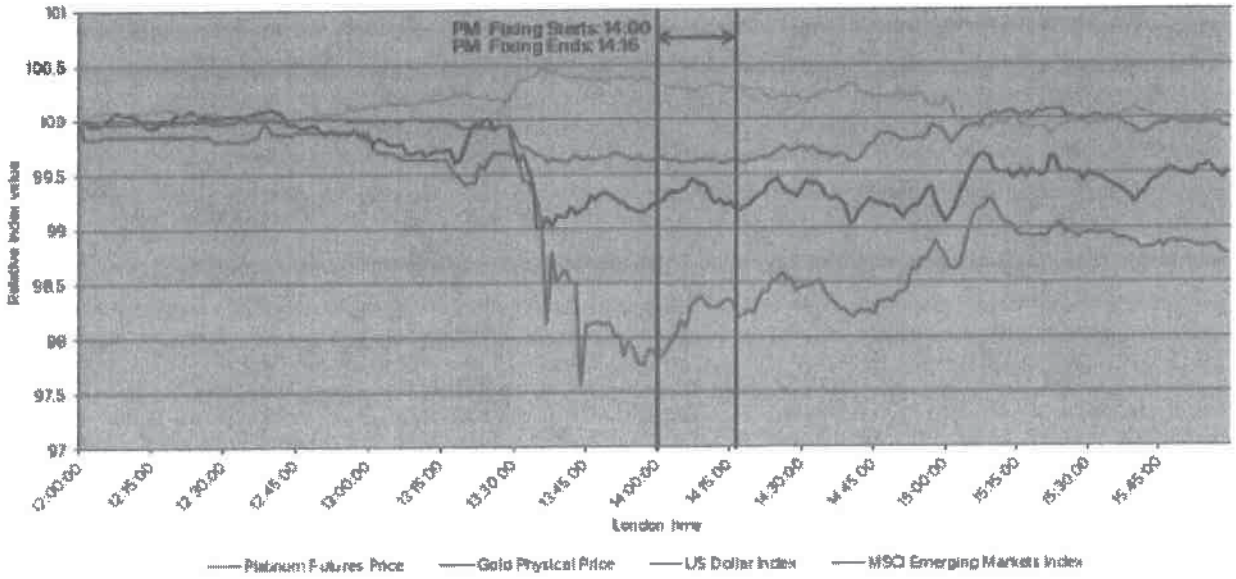
97. A sharp dip and post-Platinum and Palladium Fixing reversal in platinum futures prices is also observed on September 25, 2009. On this date, platinum prices fell from nearly $1,300 per troy ounce to $1,275 per troy ounce in the minutes leading up to the afternoon Platinum and Palladium Fixing. Soon after, these prices rebounded close to the levels prior to the afternoon Platinum and Palladium Fixing.

Platinum Futures Prices - 25 Sep 2009



98. Moreover, like the April 28, 2009 chart above, the following chart for September 25, 2009 shows that the activity observed in around the afternoon Platinum and Palladium Fixing window is not observed in the other markets either. Again, this is suggestive of price artificiality and manipulation.

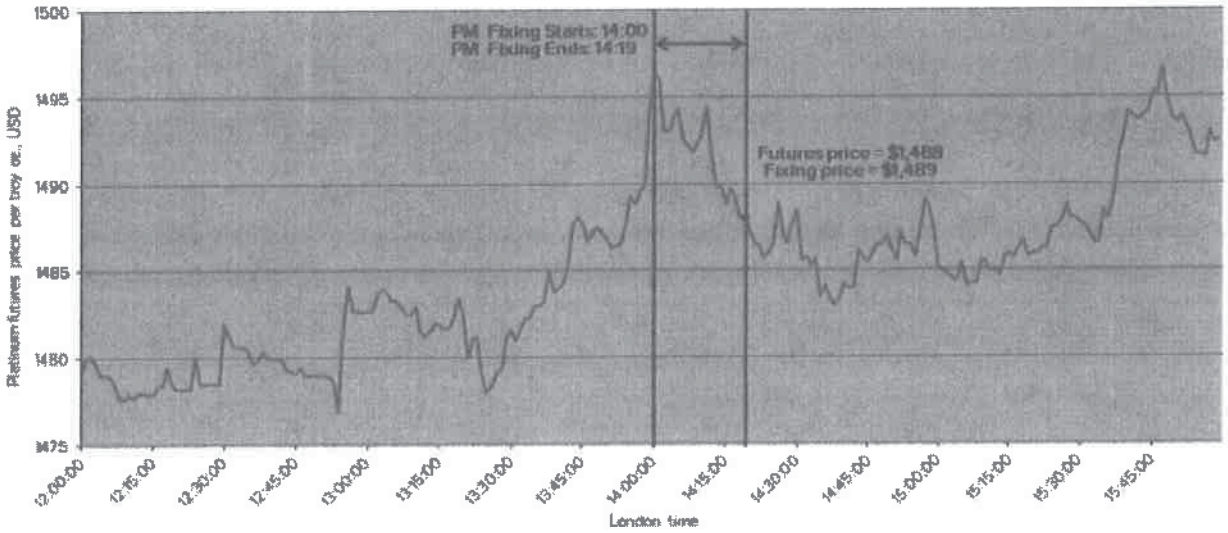
Relative Fluctuations of Platinum Futures Prices and Indices - 25 Sep 2009



99. As shown by the above charts, the price of platinum futures around the afternoon Platinum and Palladium Fixing window observed the same distinct pattern of price suppression that was then followed by a reversal, either during the Fixing or post-Fixing. These price moves are highly anomalous and indicative of price artificiality.

100. However, anomalous moves were not always characterized by pre-fix price suppression. In some instances, Defendants sought to dramatically raise the price of platinum around the afternoon Platinum and Palladium Fixing. To illustrate this, on January 11, 2012, there was a sharp spike in platinum prices in the 30 minutes leading up to the beginning of the afternoon Platinum and Palladium Fixing from around $1,478 per troy ounce to over $1,495 per troy ounce. Shortly after the Platinum and Palladium Fixing began, prices fell sharply.

Platinum Futures Prices - 11 Jan 2012

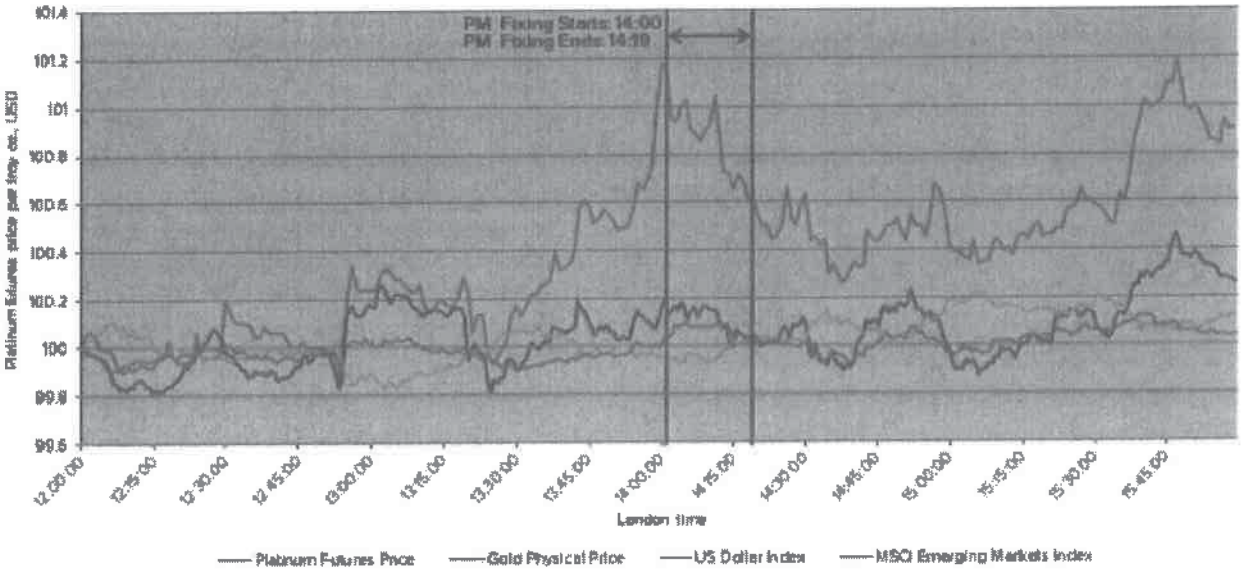


101. As they amassed their customer orders ahead of the afternoon Platinum and Palladium Fixing, Defendants shared this information with each other and took positions in the physical and derivatives market to ensure that they would ride ahead of order flows to take advantage of rising prices. Indeed, knowing their respective customer order flows, Defendants engaged in front running of customer orders between 13:30:00 GMT and 13:45:00 GMT (when

prices were $1,480 and $1,485 per troy ounce), and then "spoofed" large buy orders to continue pumping up platinum prices in the market just ahead of the afternoon Platinum and Palladium Fixing. This had the effect of ensuring that even if platinum prices dropped during the Fixing window (which they did), Defendants still were able to sell platinum obtained during the front running period at the artificially high "fixing" price of $1,489 per troy ounce that was set at the end of the afternoon Platinum and Palladium Fixing window. By doing this, Defendants were able to capture a spread of between $4 per troy ounce and $9 per troy ounce, *i.e.*, the difference between the price of acquisition by front running and the "fixing price."

102. Moreover, like the price suppression charts shown above, the price spike on January 11, 2012 was not matched in any of the other markets analyzed by the experts, and thus, discounts the possibility that macroeconomic forces were at play.

Relative Fluctuations of Platinum Futures Prices and Indices - 11 Jan 2012

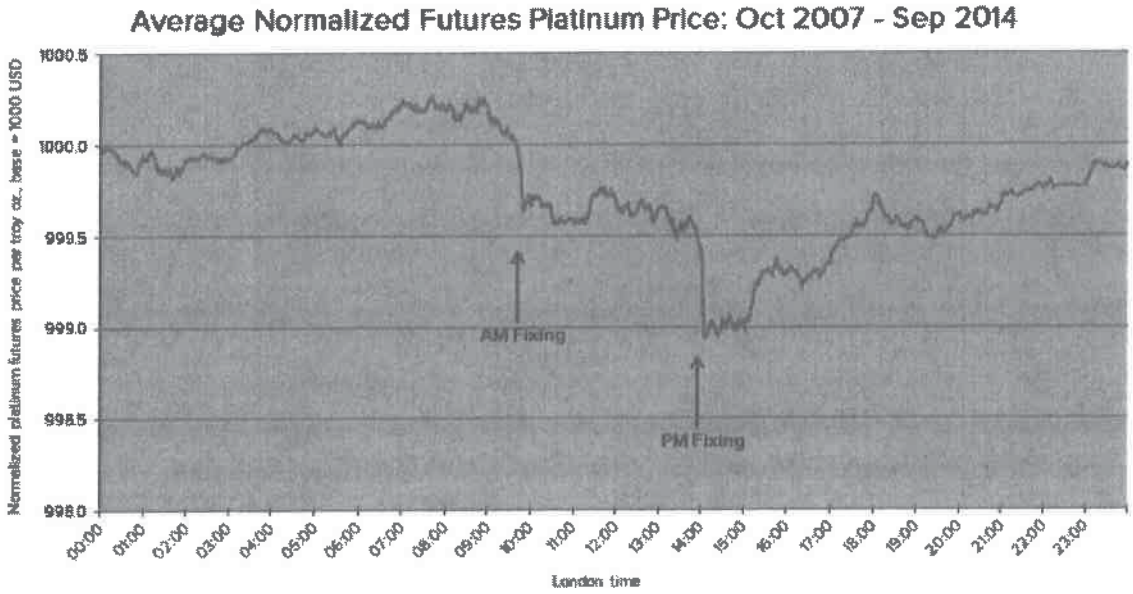


103. Rather, this anomalous price move, like the others observed above, is suggestive of price artificiality and manipulative practices.

C. Analyses of Intraday Average Price Movements and Returns in the Platinum Market Show Anomalous Price Moves

104. Experts also analyzed intraday platinum futures prices over the period October 2007 through September 2014, as well as each year within that period. To perform this analysis, the experts normalized platinum prices across these years for purposes of identifying particular times of the day demonstrating there were, on average, sharp price movements.

105. The experts found that there was a sharp dip in the average normalized prices in the minutes leading up to and during both the morning and afternoon Platinum and Palladium Fixings, as shown in the chart below.

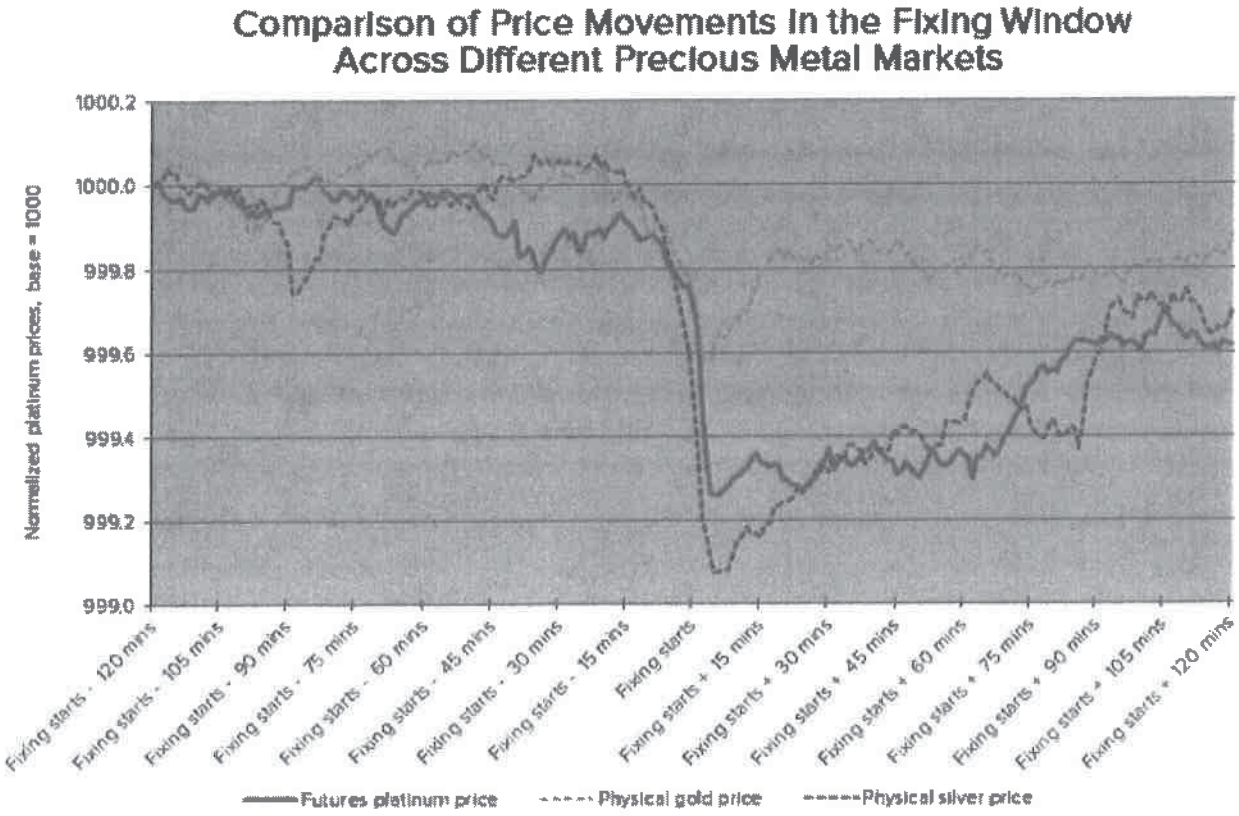


106. These results suggest some anomalous market behavior taking place throughout this period. Moreover, because this behavior has been observed before the release of the fixing price, these price moves are suggestive of front-running and information leakage occurring during the Platinum and Palladium Fixing calls.

107. Further, these anomalous price moves around the Platinum and Palladium Fixings were also observed in corresponding fixings for gold and silver. Indeed, when one compares the relative movements of prices around the respective fixings for gold, silver, and platinum, one can

see that each experiences the similar price drops in the time period leading up to the fixings, followed by a reversal. This is not surprising given that gold and silver have come under recent regulatory scrutiny with respect to their fixing processes and the behavior of prices around and during those fixings, as explained in further detail below.

108. To illustrate the similarities in the way that physical prices in the gold, silver, and platinum fixings exhibit similarly anomalous price drops and recoveries around their respective fixings, experts analyzed the average normalized intraday prices in the gold, silver, and platinum markets around their corresponding fixing times, using a time period of one hour before and after the fixing times of each precious metals market (the afternoon gold fixing is at 3:00 p.m. GMT/10:00 a.m. EST, and the silver fixing is at 12:00 p.m. GMT/7:00 a.m. EST). The chart below demonstrates that prices of gold, silver, and platinum all experience sharp drops around their respective fixings with subsequent recoveries post-ftxing.

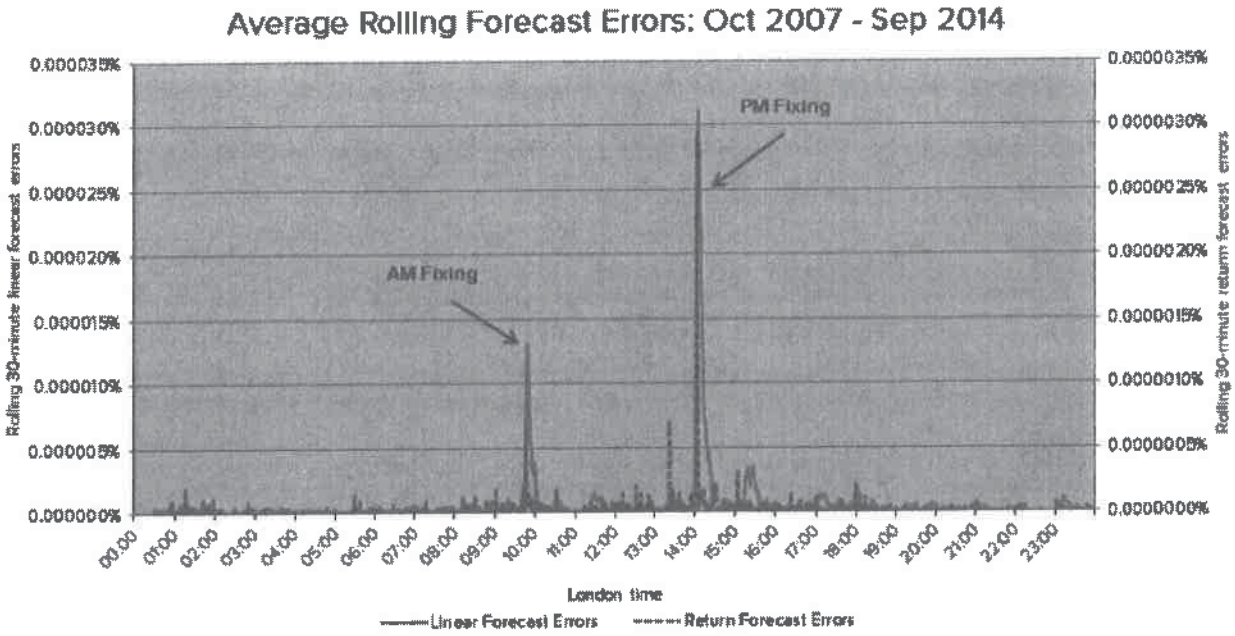


109. To bolster their observations with respect to price moves around the Platinum and Palladium Fixings, the experts conducted further analyses to illustrate the degree to which the prices and returns of platinum futures around the daily Platinum and Palladium Fixings are anomalous.

110. In the following chart, the experts measured the extent to which platinum prices are different from the immediately preceding prices (the "Linear Forecast Errors") and the extent to which platinum returns are different from immediately preceding returns (the "Return Forecast Errors").

111. Specifically, for each value of the Linear Forecast Errors series, the experts plotted the squared difference between the current price and the average price in the previous 30 minutes. This process was repeated for the Return Forecast Error series, using returns instead of prices.

112. These Forecast Errors are a measure of outlier prices. Therefore, large increases in the size of these forecast errors correspond to large fluctuations in average normalized platinum prices. Normally, large price fluctuations would not occur in properly functioning markets, absent some market-shaking event.

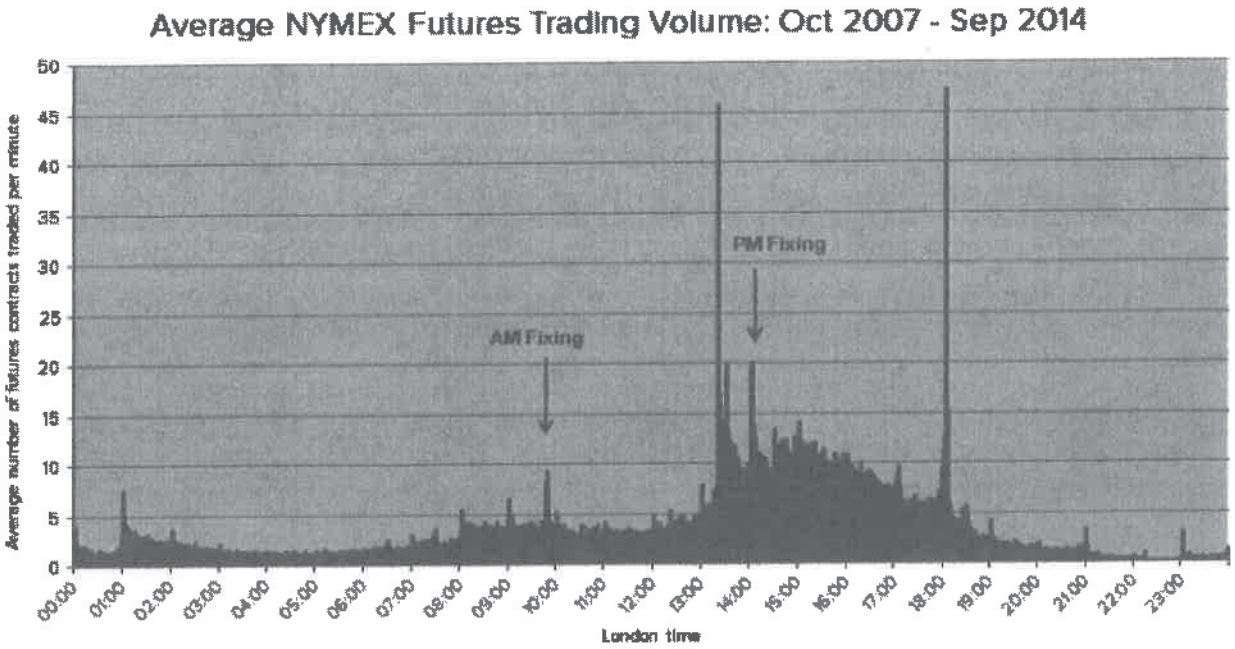


113. What the experts observed, and what can be seen in the chart above, are large spikes in both the Linear and Return Forecast Errors at both the morning and afternoon Platinum and Palladium Fixings over the seven-year period they analyzed. These results highlight the fact that the price moves around the Platinum and Palladium Fixings are highly anomalous.

114. The experts also conducted similar analyses for each year during the seven-year period analyzed. These year-by-year analyses showed that in each year within the 2007-2014 period exhibits similar spikes in these Forecast Errors around the Platinum and Palladium Fixings.

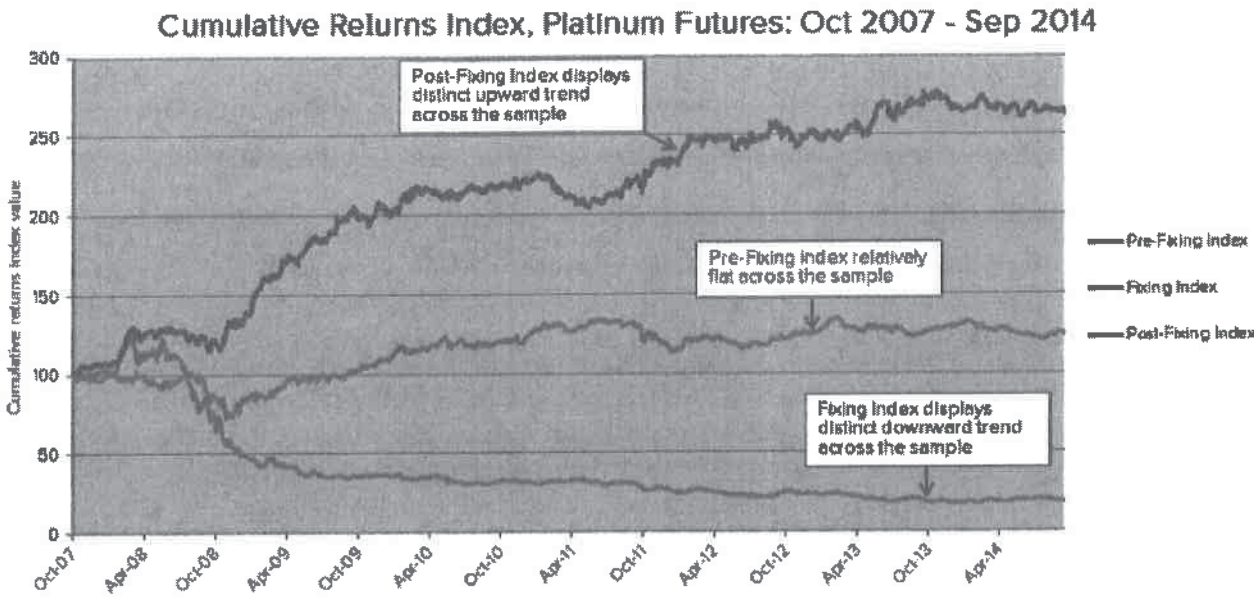
115. This is contrary to what should occur in a market free of manipulation. The period around the afternoon Platinum and Palladium Fixing is a time in which a very large volume of platinum futures are traded, as seen in the following chart. As a result, this should be a period where the futures market is at optimal efficiency with price fluctuations being relatively

small. Instead, as seen in the chart above displaying the Average Rolling Forecast Errors, the exact opposite was occurring. Again, this too is suggestive of manipulation.



116. In addition, the experts generated a "Cumulative Platinum Return Index" to demonstrate the long-term relative differences in average fluctuations of the price of platinum during the different periods of the trading day. To do this, the experts examined the same eight-hour interval each day containing both the morning and afternoon Platinum and Palladium Fixings (the "Fixing period") and compared relative differences in average platinum price fluctuations in the Fixing period to the remaining eight-hour intervals of each day—*i.e.*, the pre-Platinum and Palladium Fixings period, from 12:00 a.m. GMT to 7:59 a.m. GMT, and post-Platinum and Palladium Fixing period, from 4:00 p.m. GMT to 11:59 p.m. GMT.

117. The following chart demonstrates the relative differences in returns during these three, eight-hour intervals over the period October 2007 through September 2014.



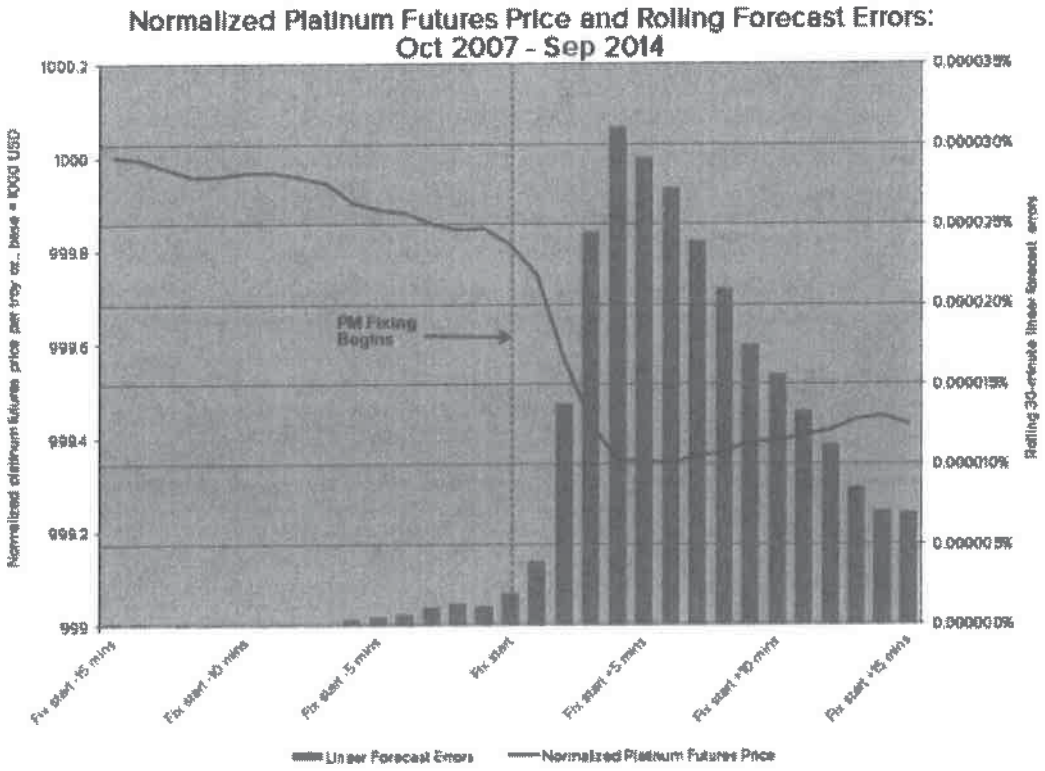
118. As can be seen in the chart above, the returns in the Fixing period significantly underperformed during the post-Fixing period. Further, the Platinum and Palladium Fixing period's strong negative trend confirms that there is conscious effort to suppress platinum prices during the Platinum and Palladium Fixings.

D. Expert Analysis Suggests Information Leakage Around the Platinum and Palladium Fixings

119. Experts also found evidence that suggests that the Platinum and Palladium Fixing members were leaking information obtained from the call to traders on their derivatives desks and potentially some favored clients while the call was ongoing. Traders with information about the nature of the fixing calls are able to trade ahead of the release of the published "fixing" and profit from the impending market movements.

120. To demonstrate this information leakage, the experts used linear forecast errors (described above), and normalized platinum futures prices from October 2007 to September 2014. The experts plotted the data series 15 minutes before and 15 minutes after the afternoon Platinum and Palladium Fixing.

121. As the chart below demonstrates, on average, the platinum futures prices move before the Platinum and Palladium Fixing and in the same direction of the fixing price change.

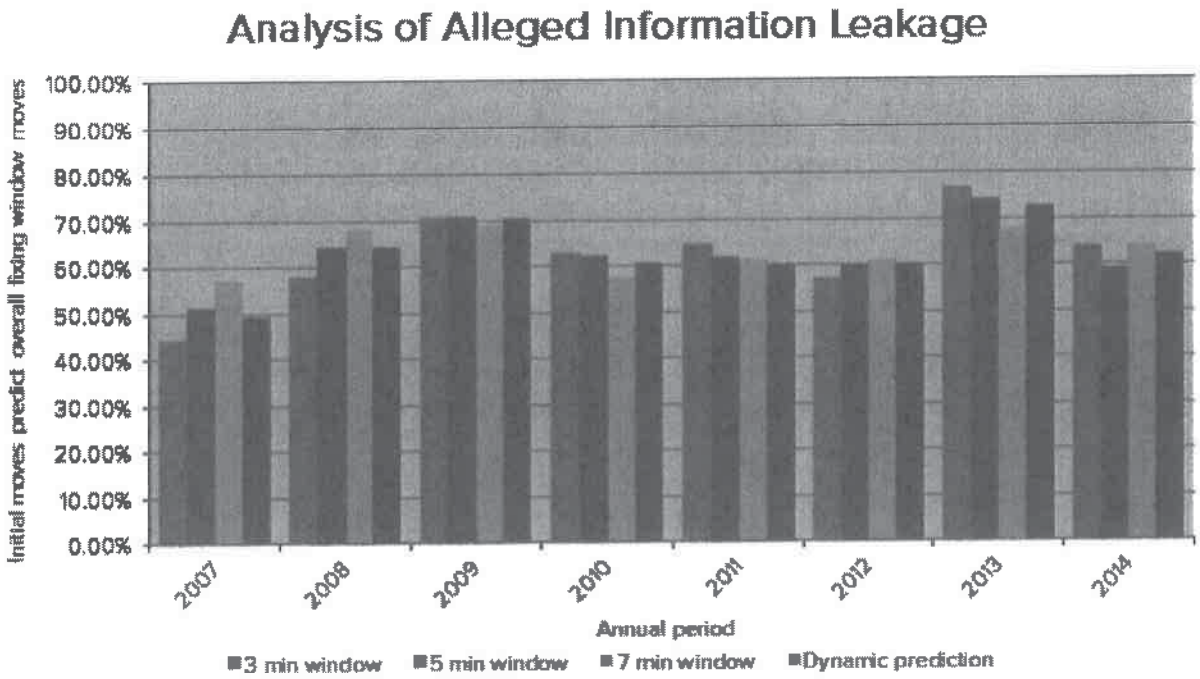


122. To further analyze the degree to which this phenomenon is taking place, the experts calculated how accurate a predictor price moves in the first few minutes of the afternoon Platinum and Palladium Fixing call are of the price moves across the entire length of the afternoon Fixing call.

123. To the extent to which the sign of price moves in the first few minutes of the fixing window are the same as those across the entire fixing window, one could argue that this is suggestive of information leakage and insider trading with respect to the information obtained by those partaking in the call.

124. The following chart demonstrates the percentage of days on which this is the case for each year between 2007 and 2014. It demonstrates the predictive power of three time windows: the first 3, 5, and 7 minutes of the afternoon Platinum and Palladium Fixing. It shows

also shows the predictive power of a dynamic window that changes window size according to the actual length of the individual afternoon Platinum and Palladium Fixing, *i.e.*, when the fixing window is longer, the experts used a longer predicting window.



125. As can be seen from the chart above, the direction of the price moves in the first few minutes of the Platinum and Palladium Fixing call is typically a good predictor of the price moves across the entire length of the call, with the odds that prices in these intervals will match price moves over the entire length of the call usually being greater than 50% during the Class Period, with some years seeing the odds jump to over 70%. These results are suggestive of information leaking from the fixing members to their proprietary trading desks and their preferred clients.

126. Indeed, a similar analysis was undertaken by Andrew Caminschi and Richard Heaney of the University of Western Australia in their study of the London gold fixings.[8] In their study, they observed that gold futures price moves in the first few minutes of the gold fixing calls accurately predicted the movement of the fixing prices direction over 80% of the time. To Messrs. Caminschi and Heaney, these results, along with the relative increase in the volume of trading in gold futures around and during the gold fixings, was indicative of information leaking to the fixing members' trading desks and their preferred clients. Indeed, as shown above, trading in NYMEX platinum futures also spikes around the afternoon Platinum and Palladium Fixing. The fact that both the gold fixings and Platinum and Palladium Fixings demonstrate the same anomalous tendencies is likely not a coincidence because both are similarly subject to the manipulative temptations of their respective fixing members.

E. Expert Analyses of Palladium Prices around the Platinum and Palladium Fixings Also Reveal Similar Anomalous Movements

127. Experts also conducted preliminary analyses of palladium prices around the Platinum and Palladium Fixings. Similar to their analyses of platinum prices, the experts analyzed intraday average prices between 2007 and 2014 to determine when there were, on average, sharp price movements in palladium prices. As can be seen in the chart below, experts found that there were sharp drops in the prices of palladium around both the morning and afternoon Platinum and Palladium Fixings.

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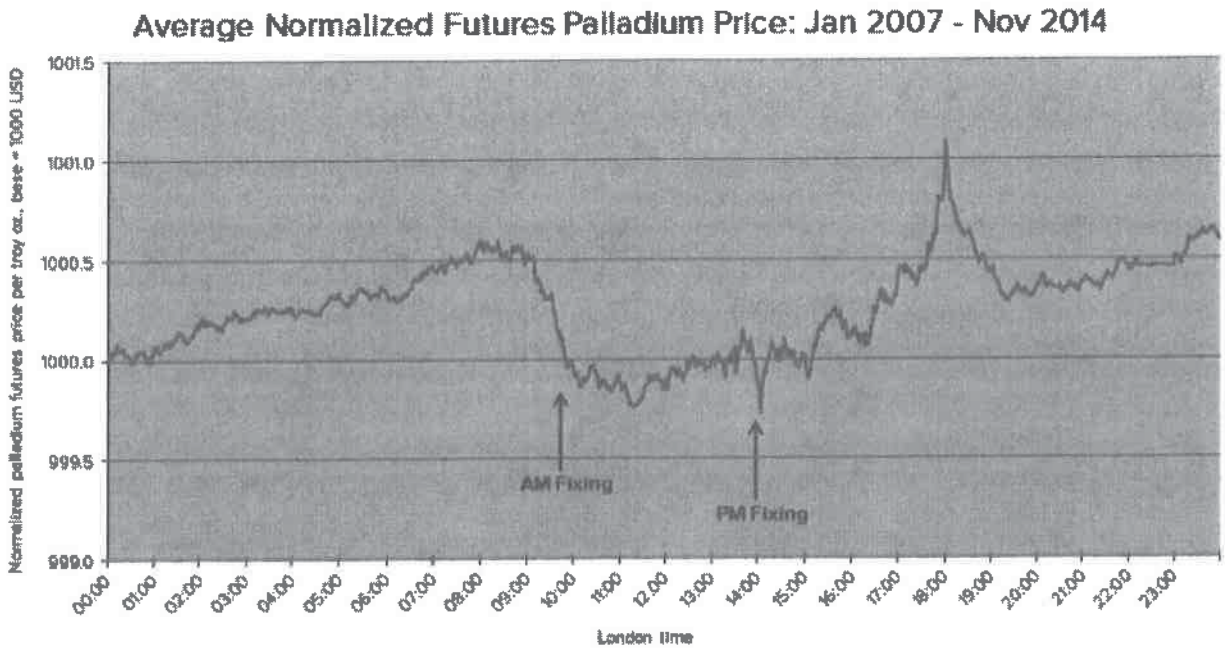
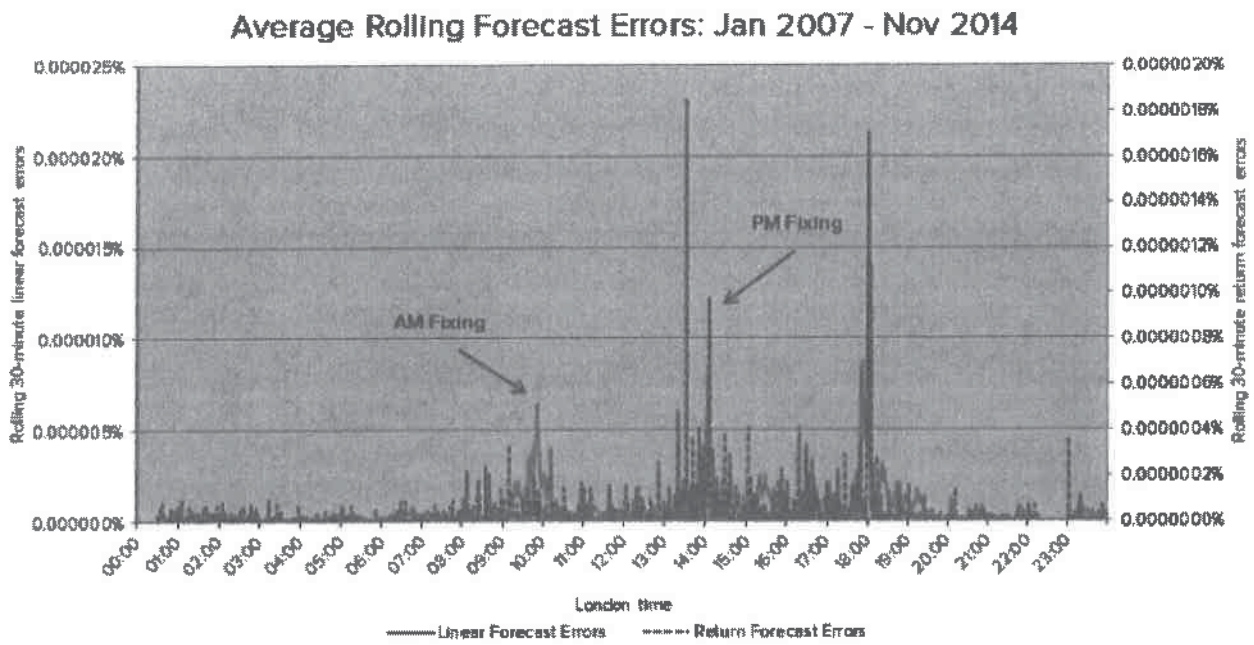
[8] Andrew Caminschi & Richard Heaney, *Fixing a Leaky Fixing: Short-Term Market Reactions to the London PM Gold Price Fixing*, J. of Futures Markets (2013).



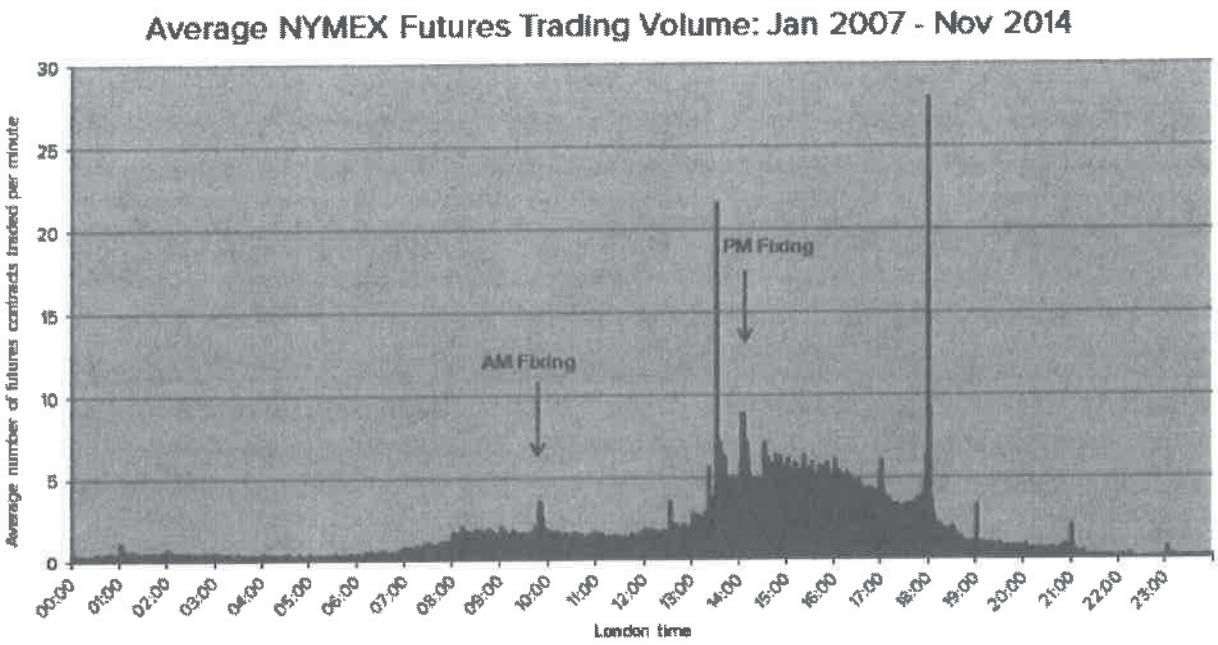
128. Indeed, during the afternoon Platinum and Palladium Fixings, one can see a noticeable dip in palladium prices near tbe beginning of the Fixing call, followed by a quick recovery. Such a sharp movement over a short period of timc is bighly unusual and tbus, is suggestive of manipulation.

129. To show that the palladium price moves around the afternoon Platinum and Palladium Fixings are anomalous, experts examined the Linear and Return Forecast Errors for palladium prices around the Platinum and Palladium Fixings. The experts' Forecast Errors analysis was conducted in a manner similar to the Forecast Errors analysis they performed for platinum, using palladium price readings instead of platinum price readings. The chart below graphically demonstrates these Forecast Errors for palladium around the Platinum and Palladium Fixings.



130. As was observed in the Linear and Return Forecast Errors for platinum, large spikes in both the Linear and Return Forecast Errors for palladium appear at both the morning and afternoon Platinum and Palladium Fixings over the seven-year period the experts analyzed. These results highlight the fact that the palladium price moves around the Platinum and Palladium Fixings are highly anomalous.

131. As with the experts' observations with respect to platinum prices, the presence of large spikes in the Forecast Errors for palladium is contrary to what should occur in a market free of manipulation. The period around the afternoon Platinum and Palladium Fixing is a time in which a very large volume of palladium futures are traded, as seen in the following chart. As a result, this should be a period where the futures market is at optimal efficiency with price fluctuations being relatively small. Instead, as seen in the chart above displaying the Average Rolling Forecast Errors, the exact opposite was occurring—just as it was with platinum. These anomalous readings are suggestive of manipulation.



132. Taken together, these analyses suggest that palladium prices were likewise being manipulated by Defendants to their collective benefit and to the detriment of Plaintiff and the Class.

133. Further, the fact that similarly anomalous readings have occurred in both platinum and palladium markets around the Platinum and Palladium Fixings is not a coincidence: as described above, the same Defendants that are "fixing" the prices for platinum are also "fixing" the prices of palladium, and are doing so on the same teleconference call using the same procedures, one right after the other.

REGULATORY INVESTIGATIONS INTO MANIPULATION OF OTHER PRECIOUS METALS MARKETS

A. Gold and the Gold Fixings

134. Several regulatory enforcers around the world have begun inquiries into the setting of gold prices, another precious metal whose price-setting process is nearly identical to that of platinum and palladium.

135. In the United States, the CFTC is reviewing how gold prices are set. According to a report by *The Wall Street Journal*, the CFTC raised the matter with the FCA in 2013, stating that the gold fixings should be scrutinized because the process appeared to lend itself to abuse.[9]

136. Underscoring its interest in potential manipulation of the gold fixings, the FCA noted in a February 2014 report titled *Commodity Markets Update* that "[a]busive behaviour can occur in the physical commodity markets which in turn can have an impact on, or be directly linked with, financial market activity and prices."[10]

137. In May 2014, a few months after issuing that report, the FCA announced that it was fining gold-fixing member Barclays $44 million for failing to: "(1) create or implement adequate policies or procedures to properly manage the way in which Barclays' traders participated in the gold fixing; (2) provide adequate specific training to precious metals desk staff in relation to their participation in the gold fixing; and (3) create systems and reports that allowed for adequate monitoring of traders' activity in connection with the gold fixing."[11] According to the FCA, Barclays' failures occurred between June 2004 and March 2013.

138. The FCA also fined Daniel James Plunkett, a director on the Precious Metals Desk at Barclays, over $100,000 and banned him from all trading activities for his role in influencing the June 28, 2012, afternoon gold fixing in order to avoid paying a Barclays' customer $3.9 million on a digital option (also known as a "barrier" or "all-or-nothing" option) expiring that same day. Mr. Plunkett placed certain orders with the intent of increasing the

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[9] Francesca Freeman & Madeline Nissen, *U.K., German Regulators Scrutinize Gold, Silver Pricing*, Nov. 26, 2013, http://online.wsj.com/articles/SB10001424052702304465604579222244076293108.

[10] Fin. Conduct Auth., *Commodity Markets Update* at 3 (Feb. 2014), *available at* http://www.fca.org.uk/static/documents/commodity-market-update-1402.pdf.

[11] Press Release, Barclays fined £26m for failings surrounding the London Gold Fixing and former Barclays trader banned and fined for inappropriate conduct, May 23, 2014, https://fca.org.uk/news/barclays-fined-26m-for-failings-surrounding-the-london-gold-fixing.

likelihood that the price of gold during the gold fixing that day would drop, which it ultimately did. As a result of his activities, the afternoon gold fixing price fell a mere $0.46 below the digital option's strike price, ensuring that the option could not be exercised and that Barclays would not have pay out on the option.

139. German regulator BaFin is also investigating gold- and silver-fixing member Deutsche Bank. BaFin has reportedly conducted on-site interviews of Deutsche Bank staff in connection with its probe into the precious metals markets.[12] Illustrating the severity of the alleged misconduct, Elke Koenig, president of BaFin, stated that manipulation of prices in the precious metals markets are "particularly serious because such reference values are based—unlike Libor and Euribor—typically on transactions in liquid markets and not on estimates of the banks."[13]

140. On January 17, 2014, shortly after BaFin began its investigation and on-site interviews of Deutsche Bank staff, Deutsche Bank announced that it was withdrawing from the gold fixings and was seeking to sell its membership to another entity.

141. Increased regulatory scrutiny has also caused gold fixing members to conduct their own internal inquiries as to how prices in the gold market are set. They reportedly met on January 25, 2014 to review whether the gold fixings were susceptible to price manipulation. They are also reportedly seeking an external audit of the processes they use to determine the gold fixings.[14]

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[12] Alice Ross, *Gold price probe extended to Deutsche Bank*, Fin. Times, Dec. 12, 2013, http://www.ft.com/intl/cms/s/0/b386aa16-6358-11e3-886f-00144feabdc0.html.

[13] Karin Matussek & Oliver Suess, *Metal, Currency Rigging is Worse Than Libor, Bafin Says*, Bloomberg, Jan. 17, 2014, http://www.bloomberg.com/news/2014-01-16/metals-currency-rigging-worse-than-libor-bafin-s-koenig-says.html.

[14] Francesca Freeman, *Gold-Price Banks Meet Amid Regulatory Pressure*, Wall St. J., Jan. 21, 2014, http://online.wsj.com/news/articles/SB10001424052702304757004579334610861787486.

142. Further, in November 2013, the London Bullion Market Association ("LBMA") stated that it was reviewing its benchmarks—namely, its gold forward contract rates—to see whether they conform to the guidelines published by the International Organization of Securities Commissions ("IOSCO"). One of these guidelines calls for setting prices based on "observable" deals wherever possible. Although the LBMA does not publish or set the gold fixings, all of the participating members in the gold fixings are market-making members of LBMA.

143. Increased scrutiny of benchmarks has led to legislative action in the European Parliament concerning the integrity of widely used benchmarks like the fixings for gold, silver, platinum, and palladium. The proposed legislation before the European Parliament has four main objectives:

- Improve the governance and controls over the benchmark process and in particular ensure that administrators avoid conflicts of interest, or at least manage them adequately;
- Improve the quality of the input data and methodologies used by benchmark administrators and in particular ensure that sufficient and accurate data is used in the determination of benchmarks;
- Ensure that contributors to benchmarks are subject to adequate controls, in particular to avoid conflicts of interest and that their contributions to benchmarks are subject to adequate controls. Where necessary the relevant competent authority should have the power to mandate contributors to continue to contribute to benchmarks; and
- Ensure adequate protection for consumers and investors using benchmarks by enhancing transparency, ensuring adequate rights of redress and ensuring suitability is assessed where necessary.[15]

[15] Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on indices used as benchmarks in financial instruments and financial contracts, http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52013PC0641:EN:NOT.

144. Proponents of the proposed legislation believe it will help protect consumers and investors by ensuring that financial benchmarks are "robust, reliable and fit for purpose."[16]

B. Silver and the Silver Fixings

145. As with gold, platinum, and palladium, physical silver prices are also set by a small cadre of London-based dealers during daily teleconferences. As part of their general inquiry into price-setting processes in the precious metals markets, the FCA and BaFin have also expressed interest in the silver fixings. As regulatory pressure on the gold fixings increased and ultimately resulted in Deutsche Bank's withdrawal from the gold and silver fixings, the silver fixing panel was left with only two remaining members: HSBC and The Bank of Nova Scotia.

146. Like the gold fixings, the LMBA sought to revamp the process for the silver fixings. On July 11, 2014, the CME and Thomson Reuters were appointed to administer the silver fixings. According to the CME, in the new silver fixing process, "participants will enter orders electronically to trade at a proposed starting price . . . . If there's no match between buy and sell orders, an algorithm picks a new price for a second round of bidding. Each round should last no more than 30 seconds, and those taking part will be able to see volumes of bids and offers."[17] Participants also will be able to see total volumes traded at the set price.

147. Indeed, it appears that silver market participants approve of the LMBA's new measures. For example, Coeur Mining, the largest U.S. silver producer, both criticized the old system as outdated and promoted the new system of price discovery, stating that it "will enhance confidence in a benchmark used as a reference for trading and valuing holdings."[18]

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[16] *Id.*

[17] Nicholas Larkin, *Silver 'fix' ends after 117 years today as price goes electronic*, Chicago Tribune, Aug. 15, 2014, http://www.chicagotribune.com/business/breaking/sns-wp-blm-news-bc-silver14-20140814-story.html#page=1.

[18] *Id.*

INTERNAL CHANGES TO THE PLATINUM AND PALLADIUM FIXINGS

148. As benchmarks for other precious metals (including gold and silver) have come under increasing scrutiny, on July 31, 2014, the LPPFC announced that, following a review of its platinum and palladium fixing process, "it will . . . commence an RFP process with a view to appointing a third party to assume responsibility for the administration of the Platinum and Palladium Fixing" in place of the LPPFC.[19]

149. Around August 2014, the LPPFC appointed Jonatban Spall, a metals trader who has held roles at Barclays, Credit Suisse, Deutsche Bank, and Chase Manhattan Corp., to chair the Platinum and Palladium Fixings.[20]

150. On October 16, 2014, the LPPFC withdrew from its responsibilities as the administrator of the Platinum and Palladium Fixings and appointed the LME to take over the role "to set the twice-daily price 'fixes' that are used world-wide by metal producers and consumer and in financial instruments such as exchange-traded funds."[21]

151. The LME stated its new "custom-built electronic solution, LMEbullion, will provide a pricing methodology that fully meets the administrative and regulatory needs of market participants including the IOSCO Principles for Financial Benchmarks. LMEbullion is already

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[19] Press Release, LPPFC seeks independent third party to assume responsibility for the administration of the platinum and palladium fixing process, July 31, 2014, http://www.sharpspixley.com/uploads/PtPdStatement522495264_12.pdf. *See also* Press Release, LME wins bid for provision of London Platinum and Palladium Prices, Oct. 16, 2014, https://www.lme.com/en-gb/news-and-events/press-releases/press-releases/2014/10/lme-wins-bid-for-provision-of-london-platinum-and-palladium-prices/.

[20] Nicholas Larkin, *Jonathan Spall to Chair Platinum to Palladium Fixings*, Bloomberg Businessweek, Aug. 4, 2014.

[21] Ese Erheriene & Matthew Cowley, *LME Wins Tender to Manage Platinum and Palladium Price Fixing*, Wall St. J., Oct. 19, 2014, http://online.wsj.com/articles/lme-wins-tender-to-manage-platinum-and-palladium-price-fixing-1413451379#printMode.

at an advanced stage of development and will be ready in advance of the anticipated go-live of 1 December 2014."[22]

CLASS ACTION ALLEGATIONS

152. Plaintiff brings this action on behalf of himself and as a class action under Rule 23(a), (b)(2), and (b)(3) of the Federal Rules of Civil Procedure, seeking equitable and injunctive relief on behalf of the following class (the "Class"):

> All persons or entities who traded or held in the United States physical platinum or palladium; platinum or palladium derivative products that settled or were marked-to-market at the Platinum and Palladium Fixings; or NYMEX platinum or palladium futures and options contracts, beginning at least as early as January 1, 2007 and continuing to the present (the "Class Period"). Excluded from the Class are Defendants and their employees, affiliates, parents, subsidiaries, and co-conspirators, whether or not named in this Complaint, and the United States government.

153. Plaintiff believes that there are at least hundreds, if not thousands, of members of the Class as described above, the exact number being unknown to Plaintiff at the present time, making the Class so numerous and geographically dispersed that joinder of all members is impracticable.

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

a. Whether Defendants and their co-conspirators engaged in a combination or conspiracy to fix, raise, maintain, stabilize, and/or otherwise manipulate the Platinum and Palladium Fixings and the prices of platinum and

[22] Press Release, LME wins bid for provision of London Platinum and Palladium Prices, Oct. 16, 2014, https://www.lme.com/en-gb/news-and-events/press-releases/press-releases/2014/10/lme-wins-bid-for-provision-of-london-platinum-and-palladium-prices/.

palladium and platinum- and palladium-based financial products in violation of the Sherman Act;

b. Whether Defendants and their co-conspirators engaged in manipulative acts in violation of the Commodity Exchange Act, and did so with the intent of manipulating the Platinum and Palladium Fixings and the prices of platinum and palladium and NYMEX platinum and palladium futures and options contracts;

c. The identity of the participants in the conspiracy;

d. The duration of the conspiracy;

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

f. Whether the conduct of Defendants and their co-conspirators caused injury to the business and property of Plaintiff and members of the Class;

g. Whether Defendants and their co-conspirators fraudulently concealed the conspiracy's existence from Plaintiff and members of the Class;

h. The appropriate injunctive and equitable relief for Plaintiff and members of the Class; and

i. The appropriate measure of damages sustained by Plaintiff and members of the Class.

155. During the Class Period, Plaintiff bought platinum, palladium, and related financial derivative products, the prices of which were fixed, raised, maintained, stabilized, and/or otherwise manipulated by Defendants. Accordingly, Plaintiffs' interests are coincident with and not antagonistic to those of the other members of the Class. Plaintiff is a member of the

Class; has claims that are typical of the claims of the Class members; and will fairly and adequately protect the interests of the members of the Class. In addition, Plaintiff is represented by counsel who are competent and experienced in the prosecution of antitrust, commodities, and class action litigation.

156. The prosecution of separate actions by individual members of the Class would create a risk of inconsistent or varying adjudications.

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

158. A class action is superior to other available methods for the fair and efficient adjudication of this controversy. Treatment as a class action will permit a large number of similarly situated persons to adjudicate their common claims in a single forum simultaneously, efficiently and without duplication of effort and expense that individual actions would engender. The Class is readily definable, and prosecution as a class action will eliminate the possibility of repetitious litigation. Class treatment will also permit the adjudication of relatively small claims by many members of the Class who otherwise could not afford to litigate an antitrust and commodity claims such as the ones asserted in this Complaint. This class action presents no difficulties of management that would preclude its maintenance as a class action.

FRAUDULENT CONCEALMENT

159. Throughout the Class Period, Defendants and their co-conspirators affirmatively and fraudulently concealed their unlawful conduct.

160. Neither Defendants nor their co-conspirators told Plaintiff or other members of the Class that they were conspiring to fix, stabilize, maintain, and/or otherwise manipulate the

Platinum and Palladium Fixings underpinning numerous platinum- and palladium-based transactions. Furthermore, price-fixing conspiracies are inherently self-concealing.

161. Defendants and their co-conspirators conducted their conspiracy secretly, concealed the nature of their unlawful conduct and acts in furtherance thereof, and fraudulently concealed their activities through various other means and methods designed to avoid detection.

162. Defendants and their co-conspirators were able to affirmatively conceal their conspiracy by, among other things, engaging in secret communications to discuss customer orders and to coordinate trading strategies.

163. As a result of Defendants' fraudulent concealment, all applicable statutes of limitations affecting Plaintiff and the Class's claims have been tolled.

164. Plaintiff and members of the Class did not discover, nor could have discovered through reasonable diligence, that Defendants and their co-conspirators were violating the antitrust and commodity laws until shortly before this action was commenced. Plaintiff could not have discovered the existence of the combination and conspiracy alleged herein at an earlier date by the exercise of reasonable due diligence because of the deceptive practices and techniques of secrecy employed by Defendants and their co-conspirators to avoid detection and affirmatively conceal such violations.

165. Further, reasonable due diligence could not have uncovered Defendants' conspiracy because Defendants' discussions and activities during the Platinum and Palladium Fixing calls were not public information. Information about Defendants' trading positions and holdings in the platinum and palladium physical and derivatives markets are also non-public information.

166. As a result of the self-concealing nature of the conspiracy, the active steps taken by Defendants to fraudulently conceal their conspiracy, and the lack of public information concerning material aspects of the conspiracy, the statute of limitations was tolled for Plaintiff's claims.

CLAIMS FOR RELIEF

FIRST CLAIM FOR RELIEF
[Manipulation in Violation of the Commodity Exchange Act, 7 U.S.C. § 1, *et seq.*]

167. Plaintiff re-alleges each allegation in the preceding paragraphs of this Complaint.

168. Defendants, through their acts alleged herein, specifically intended to and did cause unlawful and artificial prices or artificial price trends in the market for platinum and palladium and NYMEX platinum and palladium futures and options contracts in violation of the Commodity Exchange Act, 7 U.S.C. § 1, *et seq.*

169. Each Defendant individually had and all Defendants collectively had the ability to cause and did cause artificial prices.

170. The Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank") amended Section 6(c)(1) of the Commodity Exchange Act. Under Section 6(c)(1), codified as 7 U.S.C. §§ 9 and 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 not later than one year after July 21, 2010, the date of enactment of Dodd-Frank.

171. The CFTC promulgated Rules 180.1 and 180.2, 17 C.F.R. §§ 180.1 and 180.2, in July 2011.

172. Defendants violated CFTC Rules 180.1 and 180.2 by employing manipulative schemes and devices, as alleged above, which had the effect of manipulating the prices of platinum, palladium, and platinum- and palladium-based financial products traded on U.S. exchanges (including NYMEX platinum and palladium futures and options).

173. Defendants are liable to Plaintiff and members of the Class for the damages they sustained as a result of the Commodity Exchange Act violations alleged herein.

SECOND CLAIM FOR RELIEF
[Principal-Agent Liability, 7 U.S.C. § 2(a)(1)(B)]

174. Plaintiff re-alleges each allegation in the preceding paragraphs of this Complaint.

175. Each of the Defendants individually was an agent on behalf of the other Defendants. Because they acted pursuant to and were members of a conspiracy and unlawful agreement, Defendants acted as one another's agents during the Class Period.

176. This included when Defendants, through their employees, agents, and/or others directed, developed, executed, and otherwise acted with respect to the scheme alleged herein. Each Defendant is liable under Section 2(a)(1) of the Commodity Exchange Act, 7 U.S.C. § 2(a)(1)(B), for the manipulative acts or omissions of its agents, employees, or other persons acting on their behalf.

177. Defendants are liable to Plaintiff and members of the Class for the damages they sustained as a result of the Commodity Exchange Act violations alleged herein.

THIRD CLAIM FOR RELIEF
[Aiding and Abetting Violations of the Commodity Exchange Act, 7 U.S.C. § 25]

178. Plaintiff re-alleges each allegation in the preceding paragraphs of this Complaint.

179. Defendants knowingly aided, abetted, counseled, induced, and/or procured the violations of the Commodity Exchange Act alleged herein. Defendants did so knowing of each other's manipulation of platinum, palladium, and NYMEX platinum and palladium futures and

options contracts, and willfully intended to assist these manipulations to unlawfully cause the prices of platinum, palladium, and NYMEX platinum and palladium futures and options contracts to be artificial during the Class Period, in violation of the Commodity Exchange Act, 7 U.S.C. § 25(a)(1).

180. Defendants are liable to Plaintiff and members of the Class for the damages they sustained as a result of the Commodity Exchange Act violations alleged herein.

FOURTH CLAIM FOR RELIEF
[Conspiracy in Violation of Section 1 of the Sherman Act, 15 U.S.C. § 1]

181. Plaintiff re-alleges each allegation in the preceding paragraphs of this Complaint.

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

183. During the Class Period, Defendants entered into an agreement to reduce competition amongst themselves for the purpose of manipulating the Platinum and Palladium Fixings and the prices of platinum, palladium, and platinum- and palladium-based financial products.

184. This conspiracy caused injury to both Plaintiff and the Class because they were deprived of the benefit of accurate Platinum and Palladium Fixings and prices of platinum, palladium, and platinum- and palladium-based financial products that reflected actual market conditions. The conspiracy reduced the value of Plaintiff's and Class members' holdings and transactions in platinum, palladium and platinum- and palladium-based financial products.

185. The conspiracy is a *per se* violation of Section 1 of the Sherman Act. Alternatively, the conspiracy resulted in substantial anticompetitive effects in the platinum, palladium, and platinum- and palladium-based financial derivatives products markets. There is

no legitimate business justification for, or pro-competitive benefits caused by, Defendants' conduct.

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

187. Plaintiff and members of the Class are entitled to treble damages for the violations of tbe Sherman Act alleged herein. Plaintiff and members of the Class are also entitled to an injunction against Defendants, preventing and restraining the violations alleged above.

FIFTH CLAIM FOR RELIEF
[Unjust Enrichment]

188. Plaintiff re-alleges each allegation in the preceding paragraphs of this Complaint.

189. As a result of their unlawful conduct described above, Defendants have and will continue to be unjustly enriched. Defendants have been unjustly enriched by the receipt of, at a minimum, unlawfully gained profits on their platinum, palladium, and platinum- and palladium-based financial products transactions.

190. Defendants havc benefited from their unlawful acts and it would be inequitable for Defendants to be permitted to retain any of the ill-gotten gains resulting from their conspiracy to fix, stabilize, maintain, and manipulate the Platinum and Palladium Fixings and the prices of platinum, palladium, and platinum- and palladium-based financial products, which caused Plaintiff and the Class to lose substantial money on their platinum and palladium holdings and transactions.

191. Plaintiff and the Class are entitled to the amount of Defendants' ill-gotten gains resulting from tbeir unlawful, unjust, and inequitable conduct. Plaintiff and the members of the

Class are entitled to the establishment of a constructive trust consisting of all ill-gotten gains from which Plaintiff and the members of the Class may make claims on a pro rata basis.

RELIEF SOUGHT

Accordingly, Plaintiff 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 Plaintiff be designated as a class representative, and that Plaintiff's counsel be appointed as Class counsel;

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 and other conduct alleged in the Complaint;

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

E. That the unlawful conduct alleged herein be adjudged and decreed to violate the Commodity Exchange Act;

F. That the Court award Plaintiff and the Class damages against Defendants for their violations of the Commodity Exchange Act, together with prejudgment interest at the maximum rate allowable by law;

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

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

DEMAND FOR JURY TRIAL

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

DATED: February 11, 2015

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