

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

ALASKA ELECTRICAL PENSION FUND;
COUNTY OF BEAVER, PENNSYLVANIA;
GENESEE COUNTY EMPLOYEES'
RETIREMENT SYSTEM; MAGNOLIA
REGIONAL HEALTH CENTER; COUNTY
OF MONTGOMERY, PENNSYLVANIA;
COUNTY OF WASHINGTON,
PENNSYLVANIA; COUNTY OF
WESTMORELAND, PENNSYLVANIA; and
CITY OF NEW BRITAIN, CONNECTICUT,
on behalf of themselves and all others
similarly situated,

Plaintiffs,

vs.

BANK OF AMERICA CORPORATION;
BARCLAYS BANK PLC; BNP PARIBAS
SA; CITIGROUP INC.; CREDIT SUISSE
AG, NEW YORK BRANCH; DEUTSCHE
BANK AG; THE GOLDMAN SACHS
GROUP, INC.; HSBC BANK PLC; ICAP
CAPITAL MARKETS LLC; JPMORGAN
CHASE & CO.; MORGAN STANLEY & CO.
LLC; NOMURA SECURITIES
INTERNATIONAL, INC.; ROYAL BANK
OF SCOTLAND PLC; UBS AG; and WELLS
FARGO BANK, N.A.,

Defendants.

Case Nos.: 14-cv-7126 (JMF)
14-cv-7907 (JMF)
14-cv-8342 (JMF)
14-cv-8365 (JMF)
14-cv-8576 (UA)

**CONSOLIDATED CLASS ACTION
COMPLAINT**

JURY TRIAL DEMANDED

TABLE OF CONTENTS

| | <u>Page</u> |
|---|--------------------|
| NATURE OF THE ACTION | 1 |
| JURISDICTION, VENUE, AND COMMERCE | 9 |
| THE PARTIES..... | 10 |
| FACTUAL ALLEGATIONS | 16 |
| A. Interest Rate Derivatives..... | 16 |
| B. ISDAfix..... | 23 |
| C. Government Investigations into the LIBOR Scandal Reveal the Extent of Collusion Between Defendants in Manipulating Financial Benchmarks | 26 |
| D. Defendants Conspired to Manipulate ISDAfix..... | 32 |
| 1. Defendants Conspired to Submit Identical Off-Market Rate Quotes to ICAP | 32 |
| 2. Manipulation of ISDAfix Through Trading Activities..... | 47 |
| 3. Defendants Conspired with ICAP to Delay Publication of Trades..... | 55 |
| 4. Defendants Agreed to Submit ISDAfix Quotes Based on Manipulated Reference Rates | 62 |
| 5. Defendants Manipulated ISDAfix to Profit on Swaptions and Other Interest Rate Derivatives..... | 65 |
| E. Defendants' Misconduct Breached the Terms of their Swap Contracts | 66 |
| EQUITABLE TOLLING OF THE STATUTE OF LIMITATIONS DUE TO DEFENDANTS' CONCEALMENT OF THE CONSPIRACY | 67 |
| CLASS ACTION ALLEGATIONS | 69 |
| CLAIMS FOR RELIEF | 72 |
| FIRST CLAIM FOR RELIEF | 72 |
| SECOND CLAIM FOR RELIEF | 74 |
| THIRD CLAIM FOR RELIEF | 76 |

FOURTH CLAIM FOR RELIEF76

FIFTH CLAIM FOR RELIEF77

SIXTH CLAIM FOR RELIEF79

SEVENTH CLAIM FOR RELIEF80

PRAYER FOR RELIEF81

DEMAND FOR JURY TRIAL82

Plaintiffs Alaska Electrical Pension Fund; the County of Beaver, Pennsylvania; Genesee County Employees' Retirement System; Magnolia Regional Health Center; the County of Montgomery, Pennsylvania; the County of Washington, Pennsylvania; the County of Westmoreland, Pennsylvania; and the City of New Britain, Connecticut (collectively, "Plaintiffs"), individually, collectively, and on behalf of all persons and entities similarly situated, bring this class action under Section 1 of the Sherman Antitrust Act, Sections 4 and 16 of the Clayton Antitrust Act, Sections 1 & 22 of the Commodity Exchange Act, and certain state laws, for actual damages, treble damages, punitive damages, declaratory and injunctive relief, costs of suit, pre- and post-judgment interest, and other relief, and, upon personal knowledge, information, belief, and investigation of counsel, allege as follows:

NATURE OF THE ACTION

1. While perhaps unfamiliar to the average investor, "ISDAfix" is one of the most important benchmark interest rates in the U.S. financial system. It is a key benchmark for a broad range of widely held interest rate derivatives and other financial instruments. ISDAfix is so integrated "into the world financial infrastructure that any manipulation of the rate would be catastrophic – and a huge class of victims that could include everyone from state pensioners to big cities to wealthy investors in structured notes would have no idea they were being robbed."¹

2. Plaintiffs allege that Defendants conspired to and did, in fact, manipulate the ISDAfix rate, that Defendants did, in fact, create a huge class of victims, like Plaintiffs, which had no idea they were, in fact, being "robbed" by Defendants. Plaintiffs bring this action to seek

¹ Matt Taibbi, *Everything Is Rigged: The Biggest Price-Fixing Scandal Ever*, ROLLING STONE (Apr. 25, 2013), <http://www.rollingstone.com/politics/news/everything-is-rigged-the-biggest-financial-scandal-yet-20130425#ixzz3H0mCp2so>.

redress for the “catastrophic” harm inflicted by Defendants, the amount of which likely is in the billions of dollars class-wide.

3. ISDAfix has a significant impact on everything from plain vanilla interest rate swaps (an exchange of a floating interest rate for a fixed one) and swaptions (options on interest rate swaps) to more esoteric financial instruments such as swapnote futures, cash-settled swap futures, constant maturity swaps, “steepeners,” “inverse floaters,” and “snowballs,” among others. ISDAfix rates are also used to price commercial real estate mortgages and various types of structured notes and bonds.

4. ISDAfix was designed to represent current fixed rates for interest rate swaps of various terms. Specifically, it is supposed to be an average mid-market swap rate for six major currencies at selected maturities. Throughout the Class Period (defined below), ISDAfix for swap rates priced in U.S. dollars (“USD”) were set every day between 11:00 and 11:15 a.m. Eastern Time. For USD swap rates, ISDAfix was administered by Defendant ICAP Capital Markets LLC (“ICAP”) and was based on the submissions of the Defendant Banks (defined below).

5. Each day throughout the Class Period, ICAP was supposed to collect and publish USD ISDAfix rates. Pursuant to a protocol established by the International Swaps and Derivatives Association (“ISDA”) – the creator of ISDAfix – ISDAfix was supposed to be set by taking a “reference rate,” which was the average trading rate of interest rate swaps at 11:00 a.m., and then have each Defendant Bank either validate the reference rate or else submit its own rate. The reference rate would then be adjusted based on the Defendant Banks’ submissions, with the result published for USD interest rate swaps of various terms.

6. The USD ISDAfix rates were supposed to reflect competitive forces, supply and demand in the interest rate derivatives market. The Defendant Banks are competitors in the interest rate derivatives market and were supposed to compete with each other for the best possible terms in transactions *and* for the business of their customers – investors like Plaintiffs and the Class (defined below). ISDAfix, which both began with a reference rate calculated based in part on the averaging of real transactions, and ended with the averaging of the Defendant Banks’ responses, was clearly intended to reflect competitive prices.

7. Throughout the Class Period, however, the Defendant Banks and ICAP entered into a secret conspiracy to fix ISDAfix rates at artificial levels. Instead of competing honestly and aggressively, the Defendant Banks colluded to avoid paying investors what they owed on interest rate derivatives. The Defendant Banks secretly conspired to avoid paying the true amounts owed when investors’ ISDAfix-linked investments were in-the-money by jointly manipulating the ISDAfix rates used to determine the amounts due to investors. They enlisted Defendant ICAP in their scheme to ensure its success.

8. In particular, the Defendant Banks entered into an overarching agreement to manipulate USD ISDAfix rates whenever any subset of banks faced particular exposure to the settlement of an ISDAfix-linked transaction. On such days, the other conspiring banks and ICAP would help manipulate the targeted USD ISDAfix rate to a level that would help that subset of banks (while hurting their customers). The Defendant Banks communicated with each other through electronic chat rooms and other forms of private communication to determine when it was time to manipulate ISDAfix and how it should be manipulated to serve these ends.

9. Defendants conspired to manipulate ISDAfix in at least three ways. *First*, the Defendant Banks conspired to manipulate fixed swap rates just before the period during which

ISDAfix was set. They did this by executing a series of rapid-fire transactions through ICAP and submitting executable bids and offers to ICAP – so-called “banging the close” – to push the relevant rate to a particular level. By executing a large volume of transactions and submitting executable bids and offers in a short period just before ICAP released its reference rate, Defendants manipulated the starting rate on which ISDAfix was based.

10. For its part, ICAP, which not only set the USD ISDAfix rates, but is the largest interest rate derivatives broker in the business, agreed to publish prices for as many transactions as possible just before the benchmark-setting process begins. ICAP’s brokers made millions of dollars in commissions from the Defendant Banks’ business – so much that ICAP’s New Jersey office earned the name “Treasure Island” – and ICAP maintained its good relationship with the Defendant Banks by facilitating “banging the close.”

11. Economic analyses commissioned by Plaintiffs confirm this manipulative strategy. Numerous days throughout the Class Period show highly anomalous, statistically significant spikes just before the benchmark setting that, within minutes after the conclusion of the process, recover to pre-benchmark fixed rates. These price movements can only be explained as the result of collusion among Defendants and ICAP.

12. ***Second***, on numerous occasions throughout the Class Period, ICAP agreed with the Defendant Banks to delay reporting actual swap rates until ***after*** the conclusion of the ISDAfix setting process. By instructing ICAP to hold off on the processing of transactions until after the completion of the benchmark setting process, the Defendant Banks manipulated the reference rate that ICAP would post at the beginning of the polling period. And if the manipulation on that day involved only a handful of banks interested in moving an ISDAfix rate to a particular level, they could do so secure in the knowledge that all other banks would match

the reference rate established by ICAP and would not do anything that might hamper their manipulation. Again, the economic analysis commissioned by Plaintiffs and detailed herein confirms these collusive tactics.

13. **Third**, there were occasions when certain of the banks simply secured ICAP's agreement in advance to post a reference rate to other ISDAfix contributors that was not truly reflective of actual trades in the marketplace. Such an off-market reference rate would allow a group of banks to benefit by manipulating USD ISDAfix rates to a desired level, while not harming other members of the conspiracy.

14. The telltale evidence of Defendants' conspiracy is the Defendant Banks' own submissions. Specifically, in order to make their conspiracy succeed, the Defendant Banks agreed with each other that they would not disturb the so-called "reference rate" posted by ICAP. As part of the ISDAfix process, ICAP would submit the reference rates to the Defendant Banks for them to affirm or submit another quote. Despite the fact that ISDA provided that these quotes should be a "function of [the bank's] own bid/offer spread," the Defendant Banks consistently submitted quotes that did not reflect their own bid/offer spreads or the transactions they were then executing. Instead, the Defendant Banks submitted **identical** quotes to ICAP, matching the reference rate posted by ICAP, even though they knew these rates were often off-market and they were manipulating ISDAfix to artificial levels.

15. As a consequence of this agreement, since at least 2009 (and likely before), the Defendant Banks regularly submitted the same or virtually the same USD ISDAfix rate quotes **on almost every single day**. ISDAfix rate quote submissions go to five decimal points – one one-thousandth of a basis point (e.g. 3.20219%). Remarkably, the official ISDAfix rate and the individual banks' contributions were identical to the ICAP reference rate **95% of the time for at**

least four years. The odds against contributors unilaterally submitting over an extended period the exact same quotes down to the thousandth of a basis point, without colluding, are astronomical. Yet, this happened *almost every single day* from (at least) 2009 until December 2012. Just as conspicuously, this obvious coordination only began to end when the Defendant Banks learned that their benchmark-setting conspiracy was under investigation.

16. Defendants' manipulation of ISDAfix – even if sometimes only by a few basis points – impacted trillions of dollars of financial instruments. This effect can perhaps be best seen in instruments known as swaptions. In a swaption, instead of swapping interest rates on the date of the transaction, the parties negotiate an option to enter into an interest rate swap in the future. The size of the market for swaptions is staggering. The derivatives underlying swaptions contracts outstanding as of July 26, 2013 totaled a notional amount of \$29.5 trillion, according to the Depository Trust & Clearing Corp.

17. Many swaptions are cash-settled, which means that the two parties to the swaption agree that instead of entering into the underlying swap, the seller of the swaption (the party selling the option to swap a floating rate for a fixed rate) merely pays the buyer the market value of the option of entering into the swap on its exercise date. This is known as the “expiry value,” which is determined based on the difference between the pre-determined fixed rate provided for in the swaption contract and the fixed rate available on the open market on the exercise date of the swaption. In order to determine what the market rate is at exercise, the parties to the swaption use the ISDAfix benchmark rate.

18. The Defendant Banks are dealers that bought and sold cash-settled swaptions and other derivatives tied to ISDAfix to Plaintiffs and the Class. By conspiring to manipulate ISDAfix, the Defendant Banks ensured that, when they were the purchasers of cash-settled

swaptions that were “in-the-money,” they maximized their profits. Likewise, when the Defendants were the sellers of swaptions, they manipulated ISDAfix to minimize or completely avoid losses. While the swaption market alone was sufficient motivation for this unlawful scheme, the Defendant Banks also reaped supracompetitive profits (and minimized their losses) on other interest rate derivatives.

19. While this unlawful conspiracy was carried out for years in secret, without detection, it was ultimately uncovered in 2013, when it was announced that government regulators were investigating this very conduct by the Defendants. In April 2013, the Commodity Futures Trading Commission (“CFTC”) began probing price manipulation by ICAP and interviewing ICAP brokers and employees of the Defendant Banks. In August 2013, based on recorded telephone calls and emails that had been reviewed, the CFTC reportedly concluded that the Defendant Banks had instructed ICAP brokers to facilitate as many interest rate swaps as possible to push ISDAfix to a predetermined level. On September 9, 2014, Bloomberg reported that the CFTC had “told the U.S. Justice Department they’ve found evidence of criminal behavior following an investigation into banks’ alleged manipulation of ISDAfix[.]”²

20. Other regulators, such as the U.K. Financial Conduct Authority and Germany’s financial regulator, BaFin, have launched parallel probes, and recent news reports indicate that criminal investigations are ongoing in the United States.³

² Matthew Leising and Tom Schoenberg, *CFTC Said to Alert Justice Department of Criminal Rate Rigging*, BLOOMBERG (Sept. 9, 2014), <http://www.bloomberg.com/news/2014-09-08/cftc-said-to-alert-justice-department-of-criminal-rate-rigging.html>.

³ Ben Protess and Jessica Silver-Greenberg, *Big Banks Face Another Round of U.S. Charges*, N.Y. TIMES DEALBOOK (Oct. 6, 2014), <http://dealbook.nytimes.com/2014/10/06/big-banks-face-another-round-of-u-s-charges> (“The Justice Department . . . has widened its focus to include a criminal investigation into banks that set an important benchmark for interest rate derivatives, a previously unreported development that coincides with international regulators’ [sic] proposing overhauls to the rate-setting process.”).

21. These probes have not only turned up evidence of Defendants' wrongdoing, but they have also prompted Defendants to take further actions evidencing their consciousness of guilt. Specifically, as government regulators have uncovered Defendants' conspiracy, numerous banks have ceased their involvement in setting ISDAfix. As of September 2013, Defendants The Goldman Sachs Group, Inc., HSBC Bank plc, Nomura Securities International, Inc., Royal Bank of Scotland plc, and Wells Fargo Bank, N.A. had all abandoned the process. In January 2014, in fact, because of ICAP's involvement in this conspiracy, ISDA removed ICAP from its role as the administrator of the USD ISDAfix rates.

22. In reaction to the rate-fixing scandals, the United Kingdom is moving to criminalize any manipulation of benchmark rates, including ISDAfix.⁴

23. As evidence of Defendants' wrongdoing has emerged, the trends in their submission activity have also, not surprisingly, changed. While, from at least 2009 to late 2012, the overwhelming majority of ISDAfix quote submissions were identical, once news of potential investigations became known to Defendants, the submissions began to disperse, most notably when the December 2012 UBS settlement on LIBOR revealed brokers' involvement in the LIBOR conspiracy for the first time. When the CFTC's ISDAfix investigation became public in early 2013, the submissions further dispersed. Just as there was no legitimate economic explanation for the uniformity of these submissions prior to the discovery of Defendants' conspiracy, there is no explanation for their steady dispersion after early 2013 other than abandonment of the prior conspiracy in reaction to government scrutiny and a shared realization

⁴ Julia Sun, *UK to Criminalize Manipulation of Seven Benchmark Rates Before Election*, THE STREET (Sept. 25, 2014), <http://www.thestreet.com/video/12892447/uk-to-criminalize-manipulation-of-seven-benchmark-rates-before-election.html>.

that identical submissions across all contributing banks was not what should have happened for so many years.

24. While Defendants are under investigation by government regulators across the globe and ICAP has been removed from its post, Plaintiffs and the Class have not had their injuries redressed. Those injuries, which were suffered on almost all interest rate derivatives transactions that referenced ISDAfix, are likely in the billions of dollars class-wide.

JURISDICTION, VENUE, AND COMMERCE

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

26. Venue is proper in this District pursuant to §§4, 12 and 16 of the Clayton Act, 15 U.S.C. §§15(a), 22 and 26, and 28 U.S.C. §1391(b), (c) and (d). One or more of the Defendants resided, transacted business, were found, or had agents in this District, a substantial part of the events giving rise to Plaintiffs' claims arose in the District, and a substantial portion of the affected interstate trade and commerce described herein has been carried out in this District.

27. Each Defendant is subject to personal jurisdiction because each transacted business throughout the United States, including in this District, including by transacting in interest rate swaps and other derivatives settled on the basis of ISDAfix with Class members throughout the United States and in this District.

28. Defendants' activities, and those of their co-conspirators, were within the flow of, were intended to, and did, in fact, have a substantial effect on foreign and interstate commerce. During the Class Period, Defendants used the instrumentalities of interstate commerce, including interstate wires, in furtherance of their illegal conspiracy.

29. Defendants' manipulation, conspiracy, and conduct alleged herein had direct, substantial and reasonably foreseeable effects on U.S. domestic commerce, and such effects give rise to Plaintiffs' claims, within the meaning of the Foreign Trade Antitrust Improvements Act.

THE PARTIES

Plaintiffs

30. Plaintiff Alaska Electrical Pension Fund ("Alaska Fund") is a pension fund with its headquarters in Anchorage, Alaska. During the Class Period, the Alaska Fund transacted with one or more Defendant Banks in interest rate derivatives that were tied to or directly affected by ISDAfix. As a result, the Alaska Fund was injured by Defendants' unlawful and anticompetitive conduct.

31. Plaintiff County of Beaver ("Beaver County") is a political subdivision organized and existing under the laws of the Commonwealth of Pennsylvania. During the Class Period, Beaver County transacted in interest rate derivatives that were tied to or directly affected by ISDAfix. As a result, Beaver County was injured by Defendants' unlawful and anticompetitive conduct.

32. Plaintiff Genesee County Employees' Retirement System ("Genesee County") is a multiple-employer defined benefit pension plan with its principal place of business in Flint, Michigan. Participating employer units include Genesee County, Genesee County Road Commission, Genesee County Community Mental Health, Genesee County Division of Water and Waste Services, Genesee District Library, and the City of Mt. Morris. During the Class Period, Genesee County transacted with one or more Defendant Banks in interest rate derivatives that were tied to or directly affected by ISDAfix. As a result, Genesee County was injured by Defendants' unlawful and anticompetitive conduct.

33. Plaintiff Magnolia Regional Health Center (“Magnolia Hospital”) is a hospital organized under the laws of Mississippi with its principal place of business in Corinth, Mississippi. During the Class Period, Magnolia Hospital transacted with one or more Defendant Banks in interest rate derivatives that were tied to or directly affected by ISDAfix. As a result, Magnolia Bank was injured by Defendants’ unlawful and anticompetitive conduct.

34. Plaintiff the County of Montgomery (“Montgomery County”) is a political subdivision organized and existing under the laws of the Commonwealth of Pennsylvania. During the Class Period, Montgomery County, transacted with one or more of the Defendant Banks in interest rate derivatives that were tied to or directly affected by ISDAfix. As a result, Montgomery County was injured by Defendants’ anticompetitive conduct.

35. Plaintiff the County of Washington (“Washington County”) is a political subdivision organized and existing under the laws of the Commonwealth of Pennsylvania. During the Class Period, Washington County transacted with one or more of the Defendant Banks in interest rate derivatives that were tied to or directly affected by ISDAfix. As a result, Washington County was injured by Defendants’ anticompetitive conduct.

36. Plaintiff the County of Westmoreland (“Westmoreland County”) is a political subdivision organized and existing under the laws of the Commonwealth of Pennsylvania. During the Class Period, Westmoreland County transacted in interest rate derivatives that were tied to or directly affected by ISDAfix. As a result, Westmoreland County was injured by Defendants’ anticompetitive conduct.

37. Plaintiff the City of New Britain (“New Britain”) is a political subdivision organized and existing under the laws of Connecticut. During the Class Period, New Britain transacted with one or more of the Defendant Banks in interest rate derivatives that were tied to

or directly affected by ISDAfix. As a result, New Britain was injured by Defendants' anticompetitive conduct.

Defendants

38. Defendant Bank of America Corporation is a Delaware corporation, with its principal place of business in Charlotte, North Carolina, and with branch locations in New York, New York. As used herein, "Bank of America" includes Defendant Bank of America Corporation and its subsidiaries and affiliates, including Bank of America N.A. During the Class Period, Bank of America both participated in setting the ISDAfix rate and transacted in interest rate derivatives with members of the Class.

39. Defendant Barclays Bank PLC is a British public limited company, with its principal place of business in London, England, and with branch locations in New York, New York. As used herein, "Barclays" includes Defendant Barclays Bank PLC and its subsidiaries and affiliates. During the Class Period, Barclays both participated in setting the ISDAfix rate and transacted in interest rate derivatives with members of the Class.

40. Defendant BNP Paribas SA is a company organized and existing under the laws of France, with its principal place of business in Paris, France, and with branch locations in New York, New York. As used herein, "BNP" includes Defendant BNP Paribas SA and its subsidiaries and affiliates. During the Class Period, BNP both participated in setting the ISDAfix rate and transacted in interest rate derivatives with members of the Class.

41. Defendant Citigroup, Inc. is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business in New York, New York. As used herein, "Citigroup" includes Defendant Citigroup, Inc. and its subsidiaries and affiliates,

including Citibank N.A. During the Class Period, Citigroup both participated in setting the ISDAfix rate and transacted in interest rate derivatives with members of the Class.

42. Defendant Credit Suisse AG, New York Branch is a branch based in New York, New York that operates as a part of Credit Suisse AG. As used herein, “Credit Suisse” includes Defendant Credit Suisse AG, New York Branch and its subsidiaries and affiliates. During the Class Period, Credit Suisse both participated in setting the ISDAfix rate and transacted in interest rate derivatives with members of the Class.

43. Defendant Deutsche Bank AG is a corporation organized and existing under the laws of Germany, with its principal place of business in Frankfurt, Germany, and branch locations in New York, New York. As used herein, “Deutsche Bank” includes Defendant Deutsche Bank AG and its subsidiaries and affiliates. During the Class Period, Deutsche Bank both participated in setting the ISDAfix rate and transacted in interest rate derivatives with members of the Class.

44. Defendant The Goldman Sachs Group, Inc. is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business in New York, New York. As used herein, “Goldman Sachs” includes Defendant The Goldman Sachs Group, Inc. and its subsidiaries and affiliates, including Goldman Sachs & Co. Throughout the majority of the Class Period and until approximately June 2012, Goldman Sachs both participated in setting the ISDAfix rate and transacted in interest rate derivatives with members of the Class.

45. Defendant HSBC Bank plc is a company organized and existing under the laws of the United Kingdom, with its principal place of business in London, England, and branch locations in New York, New York. As used herein, “HSBC” includes Defendant HSBC Bank

plc and its subsidiaries and affiliates, including HSBC Bank USA, N.A. Throughout the majority of the Class Period and until approximately January 2013, HSBC both participated in setting the ISDAfix rate and transacted in interest rate derivatives with members of the Class.

46. Defendant JPMorgan Chase & Co. is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business in New York, New York. As used herein, “JPMorgan” includes Defendant JPMorgan Chase & Co. and its subsidiaries and affiliates, including JPMorgan Chase Bank N.A. During the Class Period, JPMorgan both participated in setting the ISDAfix rate and transacted in interest rate derivatives with members of the Class.

47. Defendant Morgan Stanley & Co., LLC is a United States investment banking firm headquartered in New York, New York. As used herein, “Morgan Stanley” includes Defendant Morgan Stanley & Co., LLC and its subsidiaries and affiliates. During the Class Period, Morgan Stanley both participated in setting the ISDAfix rate and transacted in interest rate derivatives with members of the Class.

48. Defendant Nomura Securities International, Inc. is a corporation organized and existing under the laws of New York, with its principal place of business in New York, New York, and a wholly owned subsidiary of Nomura Holdings America, Inc., which is a wholly owned subsidiary of Nomura Holdings, Inc. As used herein, “Nomura” includes Defendant Nomura Securities International, Inc. and its subsidiaries and affiliates. Throughout the majority of the Class Period and until approximately October 2013, Nomura both participated in setting the ISDAfix rate and transacted in interest rate derivatives with members of the Class.

49. Defendant Royal Bank of Scotland plc is a corporation organized and existing under the laws of the United Kingdom, with its principal place of business in Edinburgh,

Scotland, and branch locations in New York, New York. As used herein, “RBS” includes Defendant Royal Bank of Scotland plc and its subsidiaries and affiliates. Throughout the majority of the Class Period and until approximately September 2013, RBS both participated in setting the ISDAfix rate and transacted in interest rate derivatives with members of the Class.

50. Defendant UBS AG is a corporation organized and existing under the laws of Switzerland, with its principal places of business in Basel and Zurich, Switzerland, and regional offices in New York, New York, and Stamford, Connecticut. As used herein, “UBS” includes Defendant UBS AG and its subsidiaries and affiliates. During the Class Period, UBS both participated in setting the ISDAfix rate and transacted in interest rate derivatives with members of the Class.

51. Defendant Wells Fargo Bank, N.A., is a corporation organized and existing under the laws of the State of Delaware, and operates as a subsidiary of Wells Fargo & Co. As used herein, “Wells Fargo” or “Wachovia” includes Wells Fargo & Co. and its subsidiaries and affiliates, including Wachovia Bank, N.A. and its successor by merger Wells Fargo Bank N.A. Throughout the majority of the Class Period and until approximately September 2013, Wells Fargo both participated in setting the ISDAfix rate and transacted in interest rate derivatives with members of the Class.

52. Bank of America, Barclays, BNP, Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, HSBC, JPMorgan, Morgan Stanley, Nomura, RBS, UBS and Wells Fargo are referred to collectively herein as the “Defendant Banks.”

53. Defendant ICAP Capital Markets LLC (“ICAP”), a subsidiary of ICAP plc, is a Delaware limited liability company with its headquarters in Jersey City, New Jersey. As used herein, “ICAP” includes Defendant ICAP plc and its subsidiaries and affiliates. During the Class

Period and until January 26, 2014, ICAP served as the administrator for the setting of the USD ISDAfix rate and as a broker for billions, if not trillions, of dollars of interest rate derivative transactions.

54. Whenever reference is made in this Complaint to any act, deed, or transaction of any entity, the allegation means that the corporation engaged in the act, deed, or transaction by or through its officers, directors, agents, employees, or representatives while they were actively engaged in the management, direction, control, or transaction of the entity's business or affairs.

55. Various other non-parties also participated as co-conspirators, performed acts, and made statements in furtherance of the conspiracy. Plaintiffs reserve the right to identify other co-conspirators and to name subsequently some or all co-conspirators, whether identified here or not, as defendants.

56. Defendants are jointly and severally liable for the acts of their co-conspirators whether named or not named as Defendants in this complaint. Each Defendant acted as the agent or co-conspirator of or for the other Defendants with respect to the acts, violations, and common course of conduct alleged herein.

FACTUAL ALLEGATIONS

A. Interest Rate Derivatives

57. A derivative is a financial instrument, the value of which depends on the value of another underlying asset, such as a stock, bond, or commodity. Derivatives permit market participants to manage and transfer risk by allowing parties to separate out and trade individual risk components, such as interest rate risk.

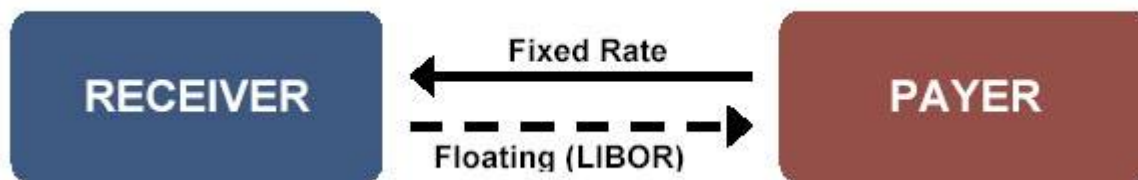
58. The largest derivatives market in the world is the interest rate derivatives market. The simplest and most common, *i.e.* "plain vanilla," type of interest rate derivative is the interest rate swap, which is a transaction in which two parties – commonly referred to as "counterparties"

– exchange interest rate payments on an agreed notional amount for a fixed period of time.

Typically, one party will pay based on a “fixed” interest rate on the notional amount that does not vary from one payment to the next, while the other party will pay based on a variable “floating” interest rate on the same notional amount that is tied to an independent benchmark such as the London Interbank Offered Rate (“LIBOR”).⁵ The fixed rate payer can also be called the floating rate receiver and is often referred to as having bought the swap or having a “long” position. Conversely, the floating rate payer can also be called the fixed rate receiver and is referred to as having sold the swap and having a “short” position.

59. The following diagram illustrates a typical interest rate swap transaction. Here, the receiver pays the floating LIBOR rate to the payer, and the payer pays a fixed rate to the receiver:

⁵ LIBOR is a benchmark interest rate. It is supposed to represent the average interest rate, estimated by leading banks, that one bank would be charged when borrowing from another bank. Much like ISDAfix, LIBOR is important for determining the value of a wide variety of derivatives. Several Defendants – most notably Barclays, RBS, UBS and ICAP – were found by American and British regulatory agencies to have engaged in manipulation of LIBOR. *See, e.g.*, CFTC Press Release, *CFTC Orders Barclays to pay \$200 Million Penalty for Attempted Manipulation of and False Reporting concerning LIBOR and Euribor Benchmark Interest Rates*, CFTC.gov (June. 27, 2012), <http://www.cftc.gov/PressRoom/PressReleases/pr6289-12>; UBS Press Release, *UBS Board of Directors authorizes settlements of LIBOR-related claims with US and UK authorities; Swiss regulator to issue order*, UBS.com (Dec. 19, 2012) http://www.ubs.com/kr/en/about-us/korea_newsdisplay.html/en/2012/12/19/20121219a.html; CFTC Press Release, *CFTC Orders The Royal Bank of Scotland plc and RBS Securities Japan Limited to Pay \$325 Million Penalty to Settle Charges of Manipulation, Attempted Manipulation, and False Reporting of Yen and Swiss Franc LIBOR*, CFTC.gov (Feb. 6, 2013), <http://www.cftc.gov/PressRoom/PressReleases/pr6510-13>; Department of Justice Press Release, *ICAP Brokers Face Felony Charges for Alleged Long-Running Manipulation of LIBOR Interest Rates*, Justice.gov (Sept. 23, 2013), <http://www.justice.gov/opa/pr/icap-brokers-face-felony-charges-alleged-long-running-manipulation-libor-interest-rates>. The investigation into other participants in the LIBOR scandal, including other Defendant Banks, is ongoing.

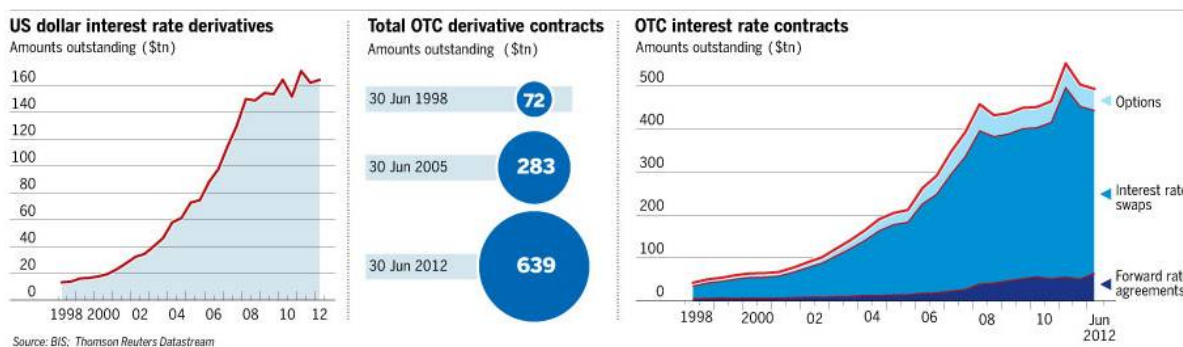


A fixed-for-floating rate swap allows parties with floating rate debt to hedge their interest rate exposure on their that debt by receiving a variable rate in exchange for paying a fixed rate.

60. For example, when an entity (*e.g.*, a company, fund, sovereign, or sub-sovereign) issues floating rate debt, it may seek to avoid interest rate risk by hedging the floating rate obligation. The debt issuer can enter into interest rate swaps with one or more banks. Under the swap, the bank assumes an obligation to pay the issuer a floating rate (which changes over time) in exchange for the issuer assuming an obligation to pay a pre-determined fixed rate to the bank. If the floating rate exceeds the fixed rate, the bank, as floating rate payer, pays the issuer. On the other hand, if the floating rate index is less than the fixed rate, the issuer, as the fixed rate payer, pays the bank. Fixed rate and floating rate payments are netted against each other with a payment made by the party owing the larger amount on the specified scheduled payment dates.

61. Over the past three decades, interest rate derivatives and, specifically, interest rate swaps have proliferated. ISDA, a trade association for over-the-counter derivatives markets, estimates that the collective notional amounts on interest rate swaps was approximately \$2.3 trillion in 1990. By 2009, that figure had grown to over \$450 trillion. As of June 2012, according to the Bank of International Settlements, the notional amounts outstanding were \$494 trillion for over-the-counter interest rate transactions and \$342 trillion for over-the-counter

interest rate swaps, including \$164 trillion of U.S. dollar swaps.⁶ The following charts published by the *Financial Times* in April 2013, when news of the ISDAfix conspiracy first broke, demonstrate the magnitude of the market and its rapid growth since 1998:



62. The growth of this market has been concentrated in many of Defendant Banks, which individually and collectively have huge portfolios of such derivatives. According to the Office of the Comptroller of the Currency's *Quarterly Report on Bank Trading and Derivatives Activities – Fourth Quarter 2013*, a substantial portion of the Defendant Banks' derivatives contracts related to interest rates. For example, with respect to JPMorgan, 77.6% of its derivatives contracts concerned interest rates; for Citigroup, the total was 83.7%; for Goldman Sachs, the total was 95%; for Bank of America, the total was 79.8%; for HSBC, the total was 73.9%; and for Wells Fargo, the total was 90.7%.⁷

63. As the market for interest rate derivatives has grown, so too has the variety of interest rate derivatives. Another common interest rate derivative is the swaption. A swaption is a contract wherein the buyer of the swaption pays the seller a premium for the option, but not the obligation, to enter an interest rate swap contract with the seller on a specified date. The

⁶ Michael Mackenzie, Tom Braithwaite & Kara Scannell, *Swap traders' morning fix under scrutiny*, FIN. TIMES (Apr. 9, 2013), <http://www.ft.com/intl/cms/s/0/ddbebb32-a11d-11e2-bae1-00144feabdc0.html#axzz2x74uiRT6>.

⁷ Office of Comptroller of the Currency, *OCC's Quarterly Report on Bank Trading & Derivatives Activities Fourth Quarter 2013*, Table 3.

swaption spells out all of the terms of the underlying potential swap, including the length of the swap, the notional amount, the rates for each party, the dates on which payments are due (the “settlement dates”), and how often such payments are due (the “settlement periods”), as well as the premium the buyer of the swaption must pay and when the option may be exercised.⁸

64. When entering a swaption, the parties may choose whether the swaption is to be *physically settled* or *cash settled*. A physically settled swaption, if exercised, results in the parties entering into the underlying swap. If the parties decide that the swaption is to be cash-settled instead, on the exercise date, if the buyer is “in-the-money,” the seller simply pays the buyer the difference in value between the underlying swap transaction and an equivalent swap transaction available on the open market on the exercise date.

65. At exercise, a cash-settled swaption is either “in-the-money” or “out-of-the-money.” A cash-settled swaption is most commonly valued by comparing the fixed rate in the swaption’s underlying swap transaction to the fixed rate available on the market for an equivalent swap.

66. ISDAfix is the most common benchmark rate that the financial community, including Defendant Banks, use to perform this calculation. Indeed, ISDAfix is the benchmark nominated to be the default rate by ISDA in the 2006 ISDA Definitions, which, as discussed in further detail below, provide standardized definitions setting the terms for interest rate and currency derivatives transactions. Thus, on the exercise date, the parties to a swaption compare the swaption’s fixed rate to the comparable ISDAfix rate on that date to determine whether the swaption is in-the-money, and, if it is, how much it is worth.

⁸ If the buyer of the swaption is the party expected to pay the fixed interest rate, it is known as a payer swaption. If, however, the buyer of the swaption is the party expected to receive the fixed interest rate, it is known as a receiver swaption.

67. Cash-settled swaptions are typically valued by calculating the present value of future cash flows on the exercise date. The fixed rate specified by the swaption contract is compared to the current ISDAfix rate on the exercise date to determine the value of the net future payments under the two swaps. The net future payments are then discounted to present value, again using the then current ISDAfix rates.

68. A payer swaption is in-the-money if the fixed rate available in the market is higher than the swaption's fixed rate, because the buyer of that swaption would be paying less than the market rate. A receiver swaption is in-the-money if the fixed rate available in the market is lower than the swaption's fixed rate, because the buyer of that swaption would be receiving more than the market rate.

69. If the swaption is in-the-money, then the swaption's value will increase the further the swaption's fixed rate is from the ISDAfix rate. Therefore, accurate calculation and reporting of the ISDAfix rate is critical to the fair settlement of swaptions, and even the smallest move of ISDAfix can drastically affect the value of a cash-settled swaption.

70. While a manipulation of ISDAfix rates would directly impact cash-settled swaptions, such manipulation also affects physically settled swaptions. Because ISDAfix rates are supposed to represent the swap rates available on the market, they can affect a swaption holder's decision to exercise the swaption. A physically settled swaption holder will choose to exercise the swaption if the fixed interest rate specified in the transaction underlying the swaption is more favorable than fixed rates available in the market on the exercise date. But if ISDAfix rates have been manipulated, swaption holders do not have an accurate assessment of the market. They may unwittingly decide incorrectly to either exercise or not exercise the swaption, causing substantial financial harm.

71. In addition to interest rate swaps and swaptions, there are many other financial instruments that use or make reference to the ISDAfix benchmark rate, including swapnote futures, cash-settled swap futures, constant maturity swaps, “steepeners,” “inverse floaters,” and “snowballs,” among others. The U.S. Federal Reserve uses ISDAfix as the source for USD swap rates in its Statistical Release H.15, and banks use ISDAfix rates to value their own portfolios, which are then incorporated into the banks’ reported financial results. ISDAfix rates may also be used to price commercial real estate mortgages and various types of structured bonds and notes. Finally, both the Chicago Mercantile Exchange and the Chicago Board of Trade use ISDAfix as the settlement price in their swap futures contracts. Due to the false signals created by Defendants’ efforts to manipulate ISDAfix, their acts impacted the pricing of an even wider swath of interest-rate derivatives, even vanilla “swaps,” entered into around the time ISDAfix was being manipulated and reported.

72. With the exception of swap futures, all of these interest rate derivatives and other financial instruments were transacted in the over-the-counter market during the Class Period, meaning that there was no centralized and regulated exchange. In the over-the-counter market, inter-dealer brokers – such as Defendant ICAP – exist to provide liquidity to the market, facilitate information flow by providing a centralized hub for bids and offers, and to improve market efficiency by rapid matching of buyers and sellers. Inter-dealer brokers are well compensated by receiving a commission on the deals they create through matching a buyer and a seller.

73. In selecting an inter-dealer broker to facilitate interest rate derivative transactions, market participants have few options. In the over-the-counter interest rate derivatives market,

five inter-dealer brokers “dominate the landscape.”⁹ The interest rate derivatives market is highly active and profitable for inter-dealer brokers like ICAP. ICAP brokered \$1.4 *trillion* rate swaps *every day*.

74. During the Class Period, ICAP also controlled an electronic screen service known as 19901. Screen 19901 publicized the bid/offer rates of all swap transactions of the specified terms executed through ICAP, and was updated periodically throughout the day by ICAP as trades were executed. Screen 19901 was subscribed to by around 6,000 companies, financial firms, and other market participants who relied upon its data to value interest rate swaps, swaptions, and other financial products. David Kelly, who helped design the underlying analytics of the 19901 Screen in the early 2000s, stated “[t]hat screen is critical. That screen makes or breaks a lot of profit and loss, so clearly there’s a lot of opportunity for influence.”¹⁰ Thus, ICAP’s control of the 19901 Screen and exclusive role as the collector of USD ISDAfix rates submissions combined with Defendant Banks’ substantial portfolios of interest rate derivatives created the perfect storm to enable and motivate Defendants to manipulate ISDAfix.

B. ISDAfix

75. As described above, ISDAfix is a key benchmark rate for a broad range of interest rate derivatives and other financial instruments. The ISDAfix rate is supposed to represent the average fixed interest rate that an over-the-counter derivatives market dealer would quote for a swap of a certain duration and currency in exchange for a specified floating LIBOR rate (*e.g.*, 3-month LIBOR).

⁹ *At the Sharp End*, THE ECONOMIST (Nov. 17, 2012), <http://www.economist.com/news/finance-and-economics/21566651-firms-connect-buyers-and-sellers-wholesale-markets-are-under>.

¹⁰ Matthew Leising, *CFTC Said Probing ICAP on Swap Price Allegations: Credit Markets*, Bloomberg, Apr. 9, 2013, <http://www.bloomberg.com/news/2013-04-09/cftc-said-probing-icap-on-swap-price-allegations-credit-markets.html>.

76. ISDA established ISDAfix in 1998 to serve as a benchmark of fixed swap rates. ISDAfix was intended to be a benchmark for average swap rates on a daily basis, and was developed “to facilitate the determination of exercise values for cash-settled swap options.”¹¹ ISDAfix “provides a transparent, readily available value and settlement rate.”¹² Without ISDAfix, an over-the-counter derivatives market participant would have to call multiple other market participants to value a swaption. This is because the over-the-counter derivatives market did not have a centralized exchange where market prices were readily available during the conspiracy. Thus, ISDAfix was often the only available reference for parties looking to settle interest rate options, cancel swaps contracts, and value other financial instruments. Indeed, the 2006 ISDA Definitions establish ISDAfix as a default benchmark for calculating the value of a cash-settled swaption.

77. During the Class Period, there were two parties responsible for administration of the ISDAfix benchmark fixing process: Defendant ICAP, which calculated all USD rates, and Thomson Reuters, which was responsible for all other rates.¹³

78. A November 29, 2012 ISDA response letter to the European Commission’s Public Consultation on the Regulation of Indices (the “ISDA/European Commission Letter”), described the ISDAfix rate setting process as follows. A contributor to the ISDAfix rate “is asked to provide a rate which is the mean of where that dealer would itself offer and bid a swap in the relevant maturity for a notional equivalent amount of \$50 million or whatever amount is deemed market size in that currency for that tenor to an acknowledged dealer of good credit in the swap

¹¹ Intercontinental Exchange, *ISDAFIX*, <https://www.theice.com/iba/isdafix#contributors-users> (last visited Sept. 29, 2014).

¹² *Id.*

¹³ Earlier this year, ISDA stripped ICAP of its ISDAfix duties, most likely in reaction to the investigation and allegations regarding ICAP and Defendant Banks’ rigging of the ISDAfix rate.

market. The rate should not be where the dealer sees mid-market away from itself, but should be a function of its own bid/offer spread.”¹⁴

79. According to the same ISDA/European Commission Letter:

ICAP collects spread information from contributors via a secure website that contributors log into every morning. Contributors are asked to indicate the USD swap spread as of 11:00 am, in accordance with the criteria set by ISDA At 10:58 am, ICAP will send an email reminder to each contributor reminding them to contribute. At 11:02 am, ICAP will indicate on the secure website a USD swap spread and USD swap rate to serve as a reference point for contributors. This reference point is generated from two sources of information:

(1) Information contained on Reuters page 19901 at 11:00 am, which reflects the most recent swap spreads from completed trades and executable bids and offers in market size done/posted at ICAP.

(2) Information reflecting executed trades and executable bids and offers at 11 a.m. for US Treasury securities from ICAP’s BrokerTec US Treasury electronic trading platform.

By their nature, because both sources of information reflect completed transactions and/or at-risk trading interest, ICAP considers them to be a useful and meaningful reference point for where the market may be at that point in time.

From 11:00 am to 11:15 am, contributors are able to submit their swap spread information and rate to the secure website. In terms of process, contributors may accept the reference swap spread and/or rate indicated on the website, or submit different values. During this time the ICAP swaps desk monitors dealer participation to ensure that the 10-bank minimum is met. As contributors submit spread and rate information, the values are sent to Thomson Reuters on a streaming basis.

At 11:26 am, Thomson Reuters will calculate the USD ISDA FIX rate by eliminating a given number of the highest and lowest rates submitted, and then by calculating a simple average of the remaining rates. A rate will be posted as long as the Minimum Number of Contributions is received.

80. There are multiple varieties of ISDAfix rates for transactions of varying length in different currencies. While some ISDAfix rates are no longer currently reported, there have been

¹⁴ ISDA, *ISDA Response to the European Commission’s Public Consultation on the Regulation of Indices*, at 7 (Nov. 29, 2012), <http://www2.isda.org/news/isda-response-to-the-european-commissions-public-consultation-on-the-regulation-of-indices>.

rates published for the Euro, the British Pound Sterling, the Hong Kong Dollar, the Japanese Yen, the Swiss Franc, and the U.S. Dollar. The length or terms of swaps with an ISDAfix rate range from one-year swaps to 30-year swaps. All ISDAfix rates are expressed as a percentage to three decimal places, such as 3.202%. These rates are then distributed to market participants who subscribe to five electronic screen services operated by Reuters, called ISDAFIX 1 – ISDAFIX 5. These screens are subscribed to by thousands of market participants and display that day's ISDAfix rates; for example, ISDAFIX 3 displays the USD swap rates as well as USD swap spreads while ISDAFIX 4 displays the rates for swaps in British Pounds Sterling and Swiss Francs. An ISDAfix rate is calculated either once or twice a day, depending on the currency.

C. Government Investigations into the LIBOR Scandal Reveal the Extent of Collusion Between Defendants in Manipulating Financial Benchmarks

81. The government investigations into the manipulation of ISDAfix are an outgrowth, in part, from cooperation agreements reached in the earlier government investigations of and prosecutions in the LIBOR scandal. Following articles exposing the LIBOR scandal, regulatory agencies began to investigate whether the banks responsible for the LIBOR benchmark had colluded to illicitly profit. The government investigations resulted in both criminal and regulatory charges, and were coordinated between agencies from the United States, the United Kingdom, Canada, Japan, and Europe.

82. While they are still ongoing, the LIBOR investigations have already turned up emails and other evidence proving that certain Defendants and others colluded to provide false rate quotes to drive the LIBOR benchmark in whichever direction would benefit them the most. This evidence showed that swap traders at a Defendant Bank would tell their colleagues in charge of sending the rate quote which quote would make the Defendant Bank the most money

that day. This paper trail, along with other evidence, eventually led to enormous fines and settlements for Defendants Barclays, UBS, and others.

83. On December 19, 2012, the scandal widened when, for the first time, it was revealed that LIBOR manipulation was not restricted to co-workers at Defendant Banks, but involved third-party dealers and brokers. This revelation occurred in connection with UBS's settlement agreement, wherein UBS agreed to pay fines three times that of Barclays for its role in fixing the LIBOR rate.

84. UBS's settlement "exposed the systemic problems with the rate-setting process."¹⁵ According to Tracey McDermott, the enforcement director for the U.K. Financial Services Authority ("FSA"), UBS ignored "[t]he integrity of benchmarks [which] are of fundamental importance to . . . international financial markets."¹⁶ The UBS settlement exposed the illicit profit certain Defendants had gained, and prompted criminal investigations and arrests. Banks had previously expected to face fines, almost as a cost of doing business, but now the U.S. Department of Justice had extracted a guilty plea by UBS's Japanese subsidiary to wire fraud, and indicted some of the bank's senior traders.

85. Defendant ICAP was at the center of the LIBOR scandal, and was forced to settle the investigations for \$87 million. The investigations found that ICAP "knowingly disseminated false and misleading information concerning Yen borrowing rates to market participants in

¹⁵ Mark Scott and Ben Protess, *As Unit Pleads Guilty, UBS Pays \$1.5 Billion Over Rate Rigging*, N.Y. TIMES DEALBOOK (Dec. 19, 2012), http://dealbook.nytimes.com/2012/12/19/as-unit-pleads-guilty-ubs-pays-1-5-billion-in-fines-over-rate-rigging/?_php=true&_type=blogs&_r=0.

¹⁶ *Id.*

attempts to manipulate, at times successfully, the official fixing of the daily Yen LIBOR.”¹⁷ ICAP and its clients, most noticeably UBS, worked together to hide their collusion from the rest of the market.

86. Following UBS’s settlement agreement, updates about the breadth of ongoing investigations continued throughout 2013. With each report, the scope of the benchmark-setting corruption investigations became broader. Having seen the banks’ corruption with one key financial measurement, regulators were not content to presume they were trustworthy with respect to others. For instance, regulatory agencies have explicitly stated that their investigation into ICAP’s wrongdoing is not limited to its manipulation of Yen LIBOR, with Mythili Raman, head of the Justice Department’s criminal division, stating “We’re not done.”¹⁸

87. Indeed, by the time ICAP settled the investigation into its role in manipulating Yen LIBOR, the CFTC had already turned its attention to ISDAfix. The U.K. Financial Conduct Authority has given its ISDAfix investigation “formal status,” signifying that it is conducting its own full investigation rather than merely assisting the CFTC. The investigation into ISDAfix is turning up the same sort of incriminating evidence as LIBOR: emails, telephone records, and other evidence showing bank traders and brokers working together with the express goal of moving the ISDAfix rate in order to profit from their derivatives positions. In fact, many of the Defendants who signed settlement agreements over their role in LIBOR are required to cooperate with the investigations into ISDAfix as part of that settlement, and face criminal prosecution should they withhold any evidence.

¹⁷ CFTC, *CFTC Charges ICAP Europe Limited, a Subsidiary of ICAP plc, with Manipulation and Attempted Manipulation of Yen Libor* (Sept. 25, 2013), <http://www.cftc.gov/PressRoom/PressReleases/pr6708-13>.

¹⁸ David Enrich, Jean Eaglesham, and Devlin Barrett, *ICAP Is Fined \$87 Million in Libor Scandal*, WALL STREET JOURNAL (Sept. 25, 2013), <http://online.wsj.com/news/articles/SB10001424052702303342104579096942161083458>.

88. In April 2013, it came to light for the first time that the CFTC had issued its first round of ISDAfix-related subpoenas. The CFTC is said to be sifting through over one million emails and instant messages, as it simultaneously interviews current and former employees of banks, dealers, and ICAP as part of its ISDAfix investigation. In recent regulatory reports, ICAP confirmed that “the US CFTC has requested information in relation to [ICAP’s] role in the setting of the US dollar segment of a benchmark known as ISDAFIX which could also result in a formal investigation, claims or penalties as well as incurring further legal costs.”¹⁹ UBS, RBS, Barclays, and Citibank have all similarly admitted in their recent regulatory filings to being subject to ISDAfix investigations, including having “ongoing obligations” to cooperate with such investigations. Indeed, it is now standard for instruments that use ISDAfix as a benchmark to include a warning notifying investors of the investigation into the ISDAfix manipulation.²⁰

89. On September 9, 2014, Bloomberg reported that the CFTC had “told the U.S. Justice Department they’ve found evidence of criminal behavior following an investigation into banks’ alleged manipulation of ISDAfix[.]”²¹ The article stated that the CFTC “which first sent

¹⁹ ICAP Group Holdings plc, *Issue of EUR 350,000,000 3.125 per cent. Notes due March 2019 under the £1,000,000,000 Global Medium Term Note Programme* (Mar. 4, 2014), available at <http://www.icap.com/~media/Files/I/Icap-Corp/pdfs/002%20Final%20Terms.pdf>.

²⁰ For instance, one offering document discloses: “It has been reported that the U.K. Financial Conduct Authority and the U.S. Commodity Futures Trading Commission are working together to investigate potential manipulation of ISDAfix. If such manipulation occurred, it may have resulted in this rate or the quarterly difference in such rate being artificially lower (or higher) than it would otherwise have been. Any changes or reforms affecting the determination or supervision of ISDAfix in light of these investigations, may result in a sudden or prolonged increase or decrease in reported ISDAfix or the quarterly difference in ISDAfix, which could have an adverse impact on the trading market for ISDAfix-benchmarked securities such as your notes, the value of your notes and any payments on your notes.”

²¹ Matthew Leising and Tom Schoenberg, *CFTC Said to Alert Justice Department of Criminal Rate Rigging*, BLOOMBERG (Sept. 9, 2014), <http://www.bloomberg.com/news/2014-09-08/cftc-said-to-alert-justice-department-of-criminal-rate-rigging.html>.

subpoenas to the world's largest banks in November 2012 to determine whether ISDAfix was rigged, has flagged its findings to prosecutors, according to a person familiar with the matter.”

90. All of this regulatory scrutiny over the ISDAfix rates caused ISDA to hire the consulting firm Oliver Wyman – the same firm retained by the British Bankers Association in LIBOR – to make recommendations on how to modify the interest rate swap pricing process.

91. It was not until regulatory scrutiny increased in 2013 and 2014 that ISDA began the process of replacing ICAP in the setting of USD ISDAfix rates. ISDA spokesperson Steven Kennedy stated in January 2014 that ISDA removed ICAP from its role as collector of the USD ISDAfix rates and turned over the collection and calculation of those rates to Thomson Reuters.

92. In a press release, ISDA announced the implementation date for the “first stage in its two-phased process for moving to an automated, market-based ISDAFIX rate setting.”²² The first phase includes a number of initiatives “to enhance the ISDAFIX polling process in response to the International Organization of Securities Commissions (IOSCO) Principles for Financial Benchmarks.”²³ In addition to replacing ICAP with Thomson Reuters, ISDA announced the following initiatives in connection with its first phase:²⁴

- a) Clarifying the definition of ISDAfix to emphasize that contributing banks should use executable bid/offer rates. The definition includes a table referencing typical contract sizes for each market in order to provide a reference point for all banks and ensure consistency.

²² ISDA, Press Release, ISDA Announces Key Steps in ISDAFIX Transition, Jan. 27, 2014, <http://www2.isda.org/news/isda-announces-key-steps-in-isdafix-transition>.

²³ *Id.*

²⁴ *Id.*

- b) Establishing an ISDAfix Code of Conduct and an ISDA Oversight Committee to address internal governance, systems, and controls in order to maintain the highest standards for ISDAfix and the contributing banks, as well as ensuring compliance with the IOSCO Principles for Financial Benchmarks.
- c) Identifying, suspending, and/or discontinuing currencies and tenors of ISDAfix with insufficient liquidity in the underlying swap market. For example, ISDA suspended EUR LIBOR and JPY ISDAfix in January 2014.
- d) Implementing stronger ex-ante and ex-post checks and analysis of bank submissions by the calculation agent and by the contributing banks in order to validate individual submissions.

93. The second stage of ISDA's reforms "includes moving from the current bank submission-based method to an automated model that utilizes live prices from multilateral trading facilities (MTFs)."²⁵ ISDA stated its intention to transition to an "MTF submission-based approach i[n] the second quarter of this year [2014] for euro swaps, with the US dollar and sterling swaps following later in 2014 or early 2015."²⁶

94. In late February 2014, ISDA stated that it was soliciting offers from companies seeking to become the new benchmark administrator for ISDAfix. The winning bidder would be responsible for collecting the data, checking its integrity, and calculating the ISDAfix Rates.²⁷

95. In August 2014, ISDA officially announced ICE Benchmark Administration ("IBA") as the new ISDAfix administrator. In a press release, ISDA stated that the IBA formally

²⁵ *Id.*

²⁶ *Id.*

²⁷ Gavin Finch, *ISDA Puts Out to Tender Role of ISDAFIX Benchmark Administrator*, Bloomberg (Feb. 24, 2014), <http://www.bloomberg.com/news/2014-02-24/isda-puts-out-to-tender-role-of-ISDAFIX-benchmark-administrator.html>.

“took on its responsibilities as benchmark administrator and calculation agent for ISDAFIX in US dollar, euro, British pound and Swiss franc from August 1, 2014.”²⁸ Implicitly acknowledging the flaws in the former ISDAfix setting process, ISDA stated that “[a]s administrator, IBA will oversee a move from polled submissions model, where contributing banks submit price estimates, to a methodology based on actual transactions and/or executable quotes posted on regulated trading venues.”²⁹

D. Defendants Conspired to Manipulate ISDAfix

96. Throughout the Class Period, the Defendant Banks conspired to manipulate the ISDAfix benchmark rate to extract supracompetitive profits on interest rate derivative transactions, all at their customers’ expense. This conspiracy to manipulate the ISDAfix rate was effectuated through collusion among the Defendant Banks and Defendant ICAP. As a result of these agreements, Defendants carried out their manipulation of the ISDAfix rate in numerous ways, as summarized in the introduction above and expanded upon below.

97. The facts of this collusion have been confirmed by government regulators such as the CFTC, the press, economic analyses and other investigations Plaintiffs commissioned after the CFTC’s investigation came to light, and even the conduct of Defendants themselves after their conspiracy was uncovered. But while Defendants’ conspiracy is now evident, the Class’ injuries – a direct result of Defendants’ conspiracy to manipulate ISDAfix – remain unremedied.

1. Defendants Conspired to Submit Identical Off-Market Rate Quotes to ICAP

98. Defendants agreed in advance to submit identical rate quotes to ICAP. After the ISDAfix “reference point” was set by ICAP, ISDAfix contributors submitted rate quotes to

²⁸ ISDA, Press Release, IBA Assumes ISDAFIX Administrator Role (Aug. 4, 2014).

²⁹ *Id.*

ICAP. A quote was supposed to be the rate which is a mean of where a dealer would itself offer and bid a swap in the relevant currency and of the relevant maturity. In reality, however, the Defendant Banks rigged this process by agreeing to submit not their real rate quotes, but the same reference rate reported by ICAP – thus fixing prices. From at least 2009 to December 2012 (the period focused on in this portion of the study commissioned by Plaintiffs), the ISDAfix reporting banks regularly submitted the same or virtually the same USD ISDAfix rate quotes, all of which matched the initial reference rate posted by ICAP.

99. This could not have happened without some form of advanced coordination. ISDAfix rate quote submissions go to five decimal points – to a thousandth of a basis point (e.g. 3.20219%). Even if reporting banks always responded similarly to market conditions, the odds against contributors unilaterally submitting the exact same quotes down to the thousandth of a basis point are astronomical. Yet, this happened *almost every single day* between at least 2009 and December 2012.

100. When one or more of the Defendant Banks needed an ISDAfix rate to be set at a certain level to benefit their derivatives portfolios, they would communicate with other Defendant Banks via phone, email, and online chat rooms. Based on these communications, Defendant Banks agreed to submit identical swap rate quotes to ICAP. Currently, the CFTC is reviewing phone recordings and over one million emails and instant messages linked to this conspiracy.

101. Dispersion refers to the extent to which each ISDAfix quote submission varies from every other ISDAfix quote submission. Plaintiffs' experts compared the level of dispersion in ISDAfix quote submissions to the level of dispersion found in financial benchmarks that use

similar quote systems. They computed the average difference between the highest and lowest rate submissions for a variety of such benchmarks.

102. Quote submissions for analogous benchmarks did not come close to showing ISDAfix's level of uniformity. The only exception was a period of approximately one year from August 2006 through August 2007 in which USD LIBOR quotes were completely equal to each other day in and day out for almost virtually all of the contributing banks. Such a pattern is extremely unlikely to occur without some level of explicit coordination. Indeed, it is known that LIBOR was manipulated, and the pattern there in 2006-2007 is consistent with similar behavior in ISDAfix.

103. Aside from LIBOR, the comparable benchmark with the least dispersion among its submissions – the ISDAfix rate in British pounds – showed six times more dispersion than the USD ISDAfix submissions. Benchmarks for government bonds showed between 23 and 37 times more dispersion than USD ISDAfix. These findings point powerfully to the conclusion that the USD ISDAfix panel banks were coordinating their ISDAfix submissions. The uniformity seen in ISDAfix could not have been achieved absent collusion.

104. The charts below demonstrate this stark contrast. First, comparing USD ISDAfix submissions to ISDAfix submissions in other currencies yields startling results. Note that while, for the entirety of the Class Period, ICAP administered the USD ISDAfix rates, Reuters administered the ISDAfix rates for other currencies.

| Instrument | Dispersion (basis points) | Ratio to USD ISDAfix |
|---------------------------------|----------------------------------|-----------------------------|
| 30-year USD ISDAfix submissions | 0.12 | N/A |
| 30-year GBP ISDAfix submissions | 0.7 | 6x |
| 30-year EUR ISDAfix submissions | 1.0 | 8x |

105. The above chart demonstrates that the level of dispersion seen in GBP (British Pound) and EUR (Euro) ISDAfix submissions is respectively six and eight times higher than USD ISDAfix submissions of the same duration.³⁰ A key difference is that ICAP, unlike Reuters, functions as both the ISDAfix administrator and as an inter-dealer broker. Because of ICAP's commission structure, its brokers have a strong incentive to assist in manipulating ISDAfix rates. Where that incentive does not exist, substantially greater levels of dispersion are observed.

106. There are even more dramatic results when comparing USD ISDAfix to other, similar non-ISDAfix benchmarks.

³⁰ The data within this table is based on ISDAfix submissions by dealer banks across a selected sample of days through mid-2013. In the case of USD submissions, the average result across the sample also corresponds to the average dispersion taken across all submissions from 2009 through mid-2013.

| Instrument | Dispersion (basis points) | Ratio to USD ISDAfix |
|---------------------------------|----------------------------------|-----------------------------|
| 30-year USD ISDAfix submissions | 0.12 | N/A |
| USD interest rate swaps | 0.7 | 6x |
| 10-year German Bunds | 1.4 | 12x |
| 10-year US Treasury Bonds | 2.7 | 23x |
| 10-year Italian BTPs | 4.4 | 37x |

107. The above chart demonstrates that other benchmarks feature levels of dispersion³¹ far higher than USD ISDAfix, with two such benchmarks showing dispersion levels 23 and 37 times higher. The comparable benchmark with the next lowest level of dispersion still shows dispersion levels six times higher than USD ISDAfix.

108. But all this changed starting in late 2012, with subpoenas being served on ISDAfix contributors and the announcement of the UBS settlement and the subsequent announcements throughout 2013 of investigations into other benchmarks, such as the WM/Reuters foreign exchange fix, London gold fix, and even ISDAfix itself. As these disclosures became public, Defendants' ISDAfix conspiracy began to unravel.

109. Indeed, throughout 2013, Defendant Banks' USD ISDAfix quote submissions became increasingly dispersed. For at least three years prior to December 2012, the Defendant Banks had submitted identical ISDAfix quotes virtually every day. By the end of 2013, however, less than half of the quotes submitted to ICAP were identical to the ISDAfix reference

³¹ The data within this table is based on end of day quotes from dealer banks from the end of 2010 until mid-2014 for USD interest rate swap quotes; from the beginning of 2014 until mid-2014 for US Treasury Bonds and German Bunds; and from mid-2013 until mid-2014 for Italian BTPs. All data is from Bloomberg sources.

rate for a given day. These changes in behavior of the ISDAfix panel banks are not explainable by any market events or market forces. They were purely efforts by the Defendants to stop submitting identical quotes in the hope of heading off further regulatory scrutiny of their conspiracy.

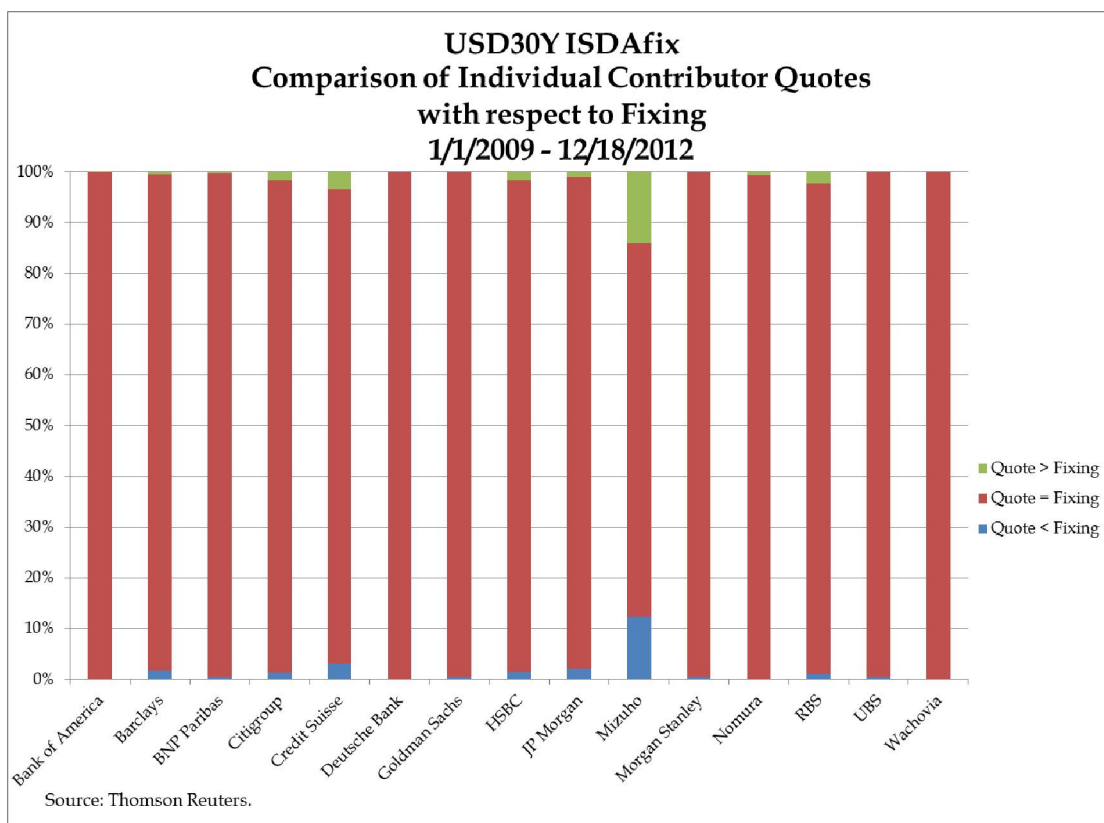
| Average Percentage of Daily Contributor Quotes That Are Identical to ISDAfix | | | | |
|--|-------------------------------------|-------------------------------------|-----------------------------------|-------------------------------------|
| Tenor | Period 1 (1/2/2009 - 12/18/2012) | Period 2 (12/19/2012 - 4/7/2013) | Period 3 (4/8/2013 - 8/1/2013) | Period 4 (8/2/2013 - 12/31/2013) |
| USD1Y | 94.23% | 67.72% | 55.65% | 43.00% |
| USD2Y | 94.88% | 61.99% | 48.97% | 38.68% |
| USD3Y | 94.71% | 58.41% | 50.01% | 39.06% |
| USD4Y | 93.72% | 58.14% | 45.69% | 34.77% |
| USD5Y | 95.27% | 81.88% | 76.31% | 56.76% |
| USD6Y | 95.73% | 54.80% | 36.44% | 29.02% |
| USD7Y | 94.74% | 56.55% | 45.41% | 32.87% |
| USD8Y | 95.43% | 43.75% | 39.15% | 31.23% |
| USD9Y | 94.95% | 48.13% | 37.39% | 32.22% |
| USD10Y | 93.57% | 78.66% | 72.93% | 50.01% |
| USD15Y | 95.29% | 50.22% | 40.83% | 32.03% |
| USD20Y | 95.75% | 50.41% | 42.93% | 26.91% |
| USD30Y | 95.95% | 85.04% | 72.72% | 59.46% |
| Source: Thomson Reuters, Bloomberg. | | | | |

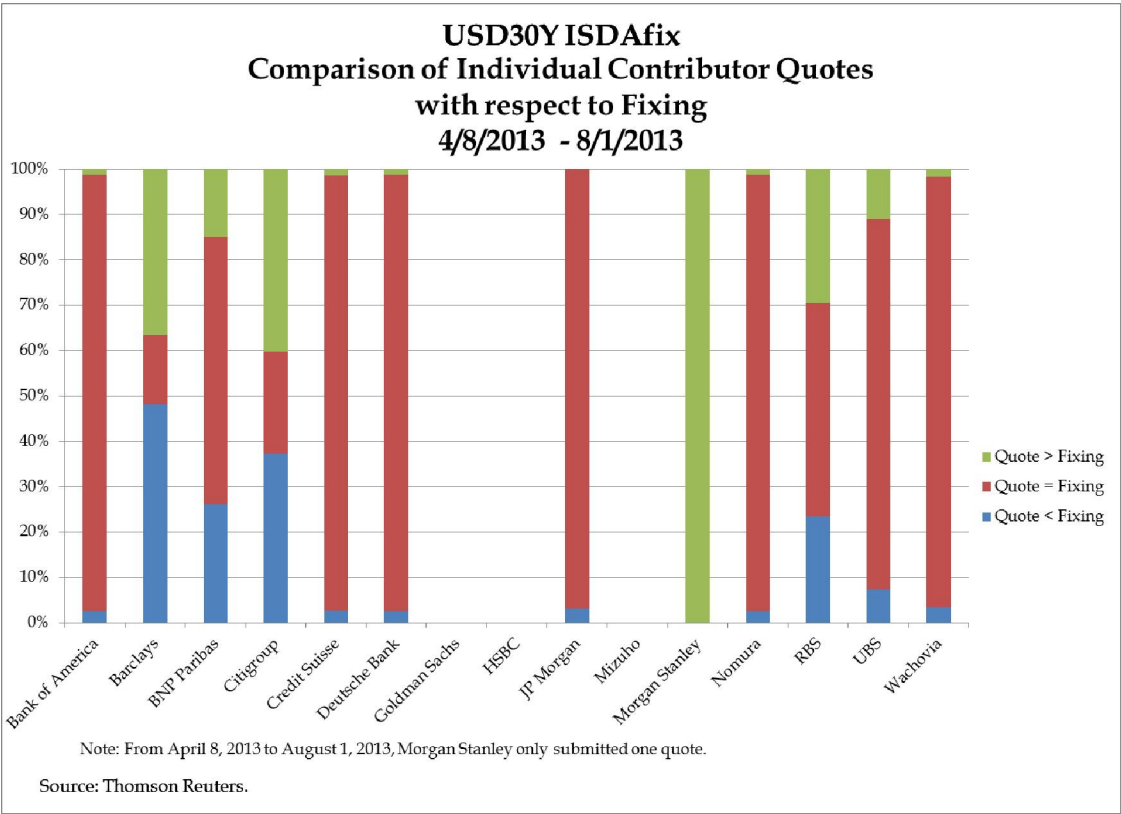
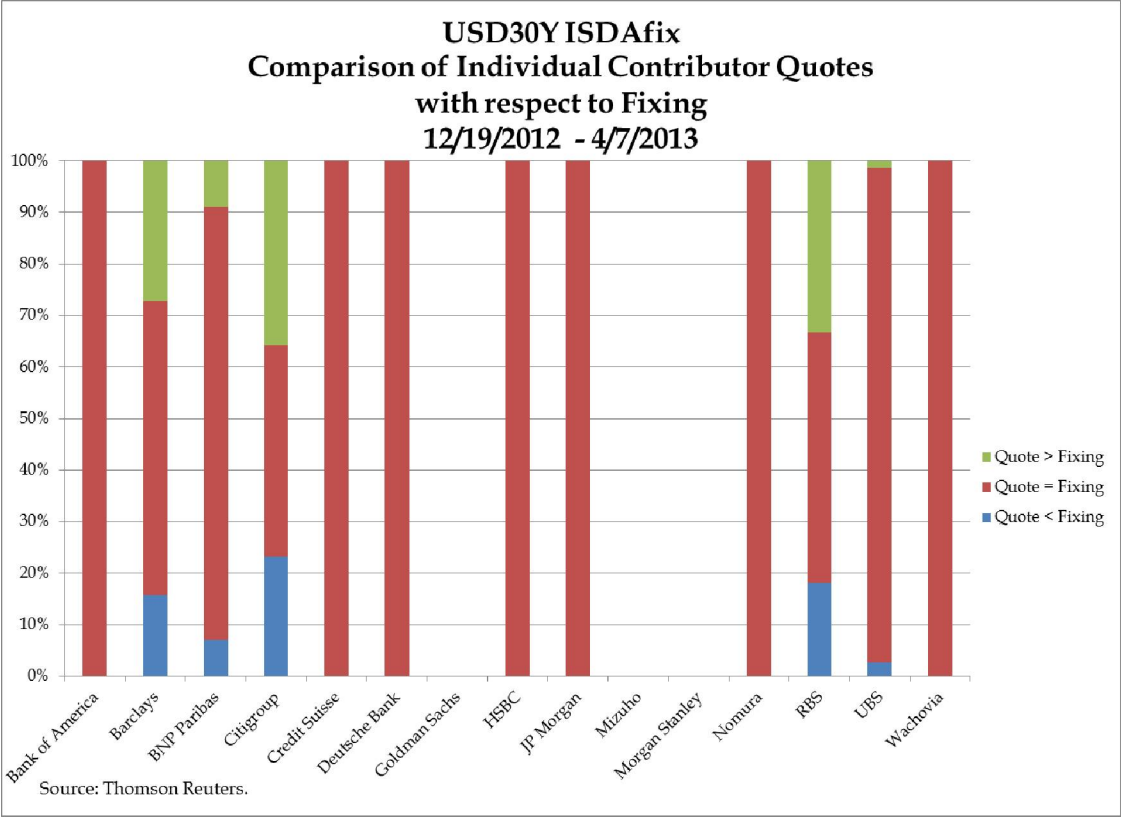
110. The above chart shows the average percentage of USD ISDAfix quote submissions for various durations that were identical to the ISDAfix reference rate for the day they were submitted. In Period 1 (from January 2, 2009 to December 18, 2012), about 95% of ISDAfix quote submissions were identical to both the reference rate submitted by ICAP and the published ISDAfix rate for that day. In all subsequent periods, measuring the extent to which ISDAfix submissions matched the ISDAfix rate after December 19, 2012 (when the UBS LIBOR settlement became public), one sees a massive drop in the level of submissions identical to the ISDAfix rate.

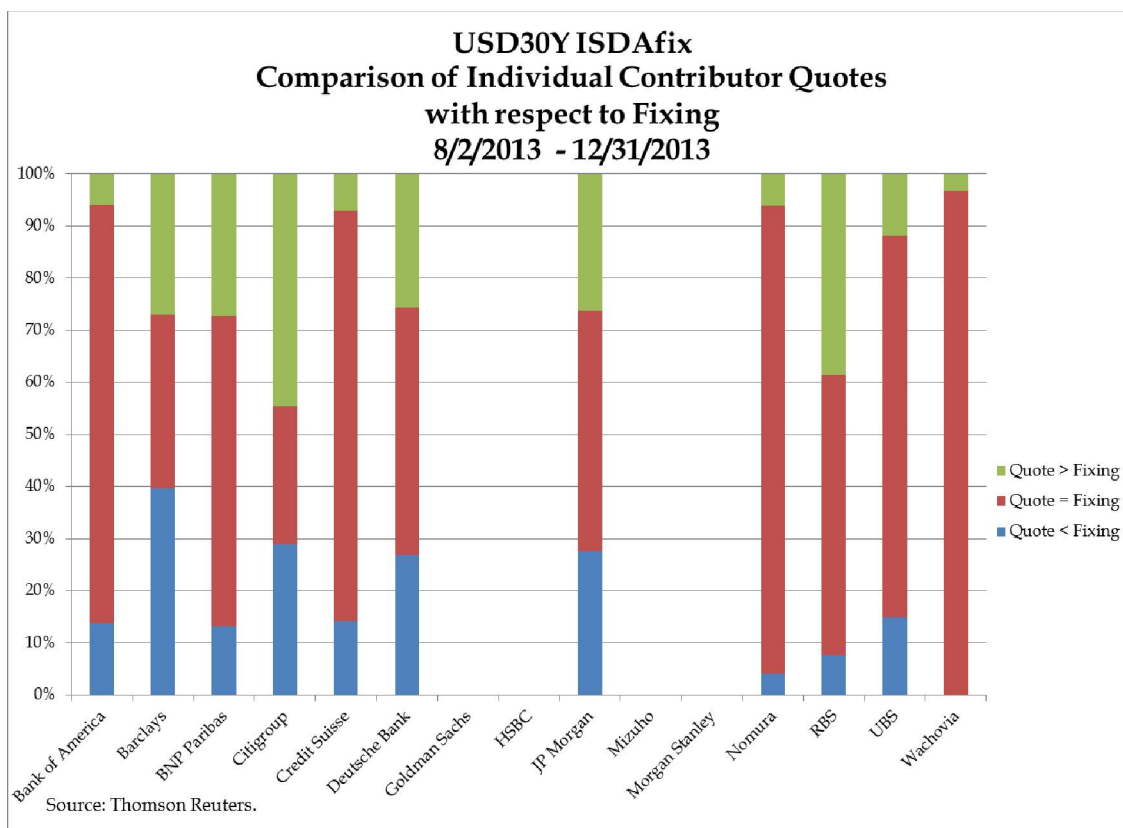
111. For example, in the USD6Y tenor, in Period 1, 95.73% of ISDAfix submissions were identical to the published ISDAfix rate. In the same tenor in Period 4, only 29.02% of

submissions were identical to the ISDAfix rate. The above chart shows a dramatic shift from largely identical submissions to increasingly diverse submissions following the revelation of the role of brokers in the LIBOR scandal and related regulatory investigations.

112. This practice ran across virtually every ISDAfix contributor. The following charts demonstrate the percentage of individual Defendant Banks' ISDAfix submissions that were identical to the ISDAfix rate for several different time periods.





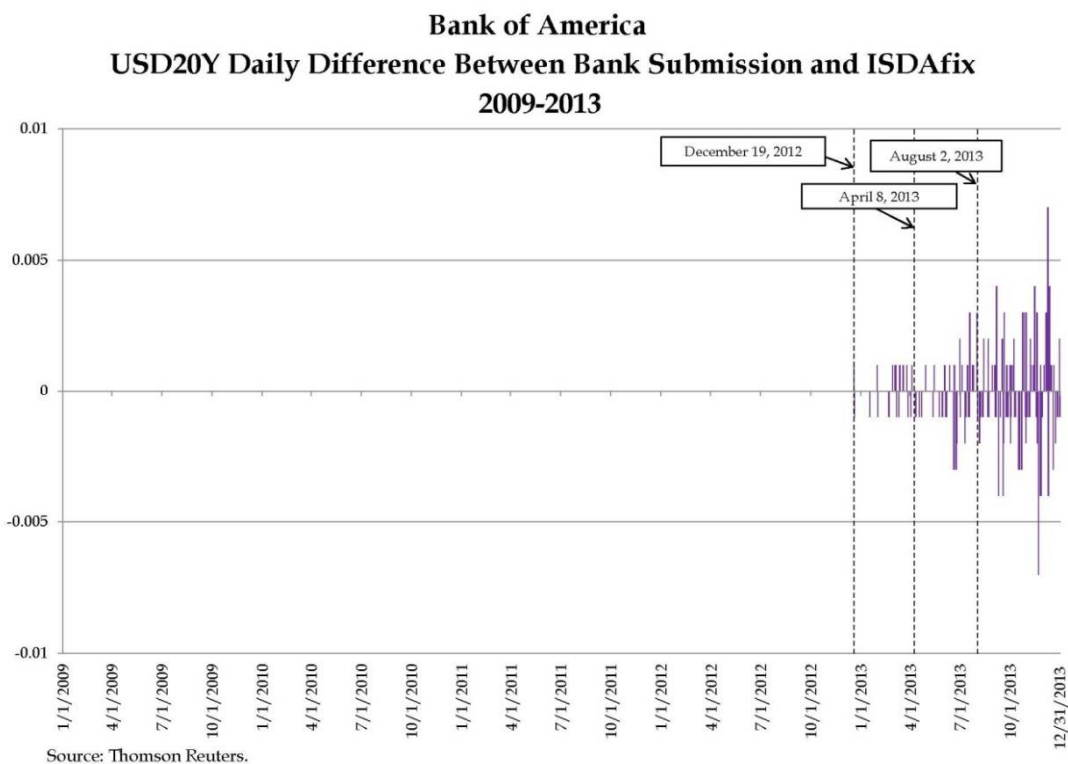


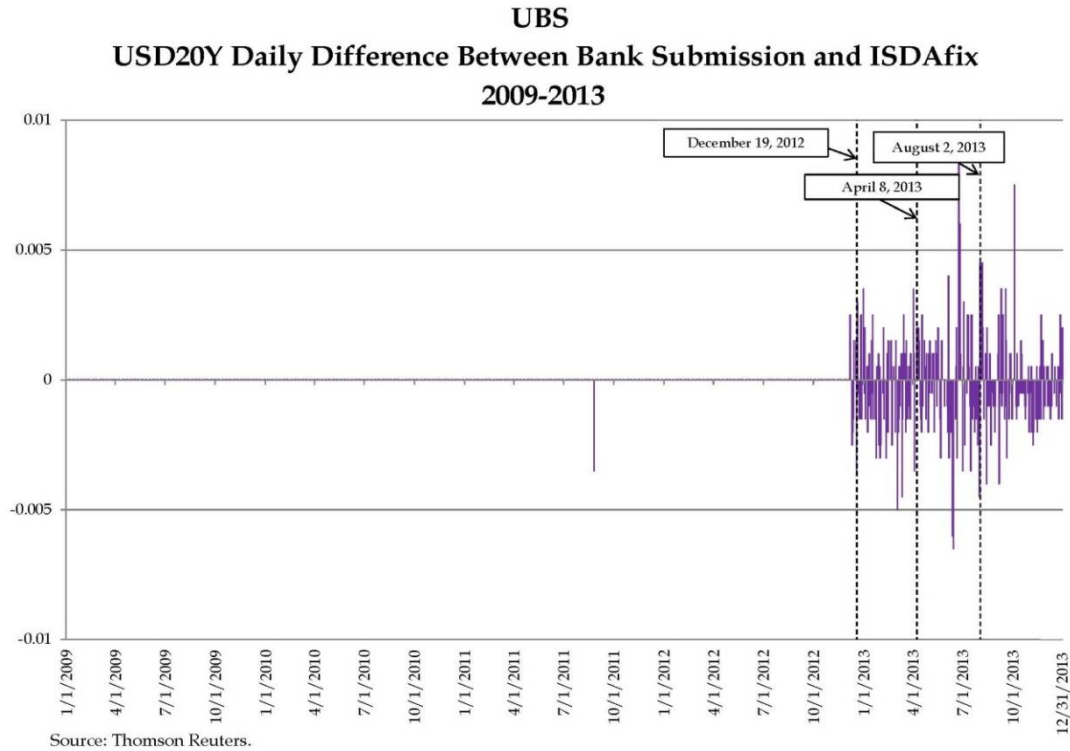
113. In the above charts, red represents the percentage of the time a Defendant Bank's ISDAfix submission was identical to the ISDAfix rate. Blue reflects the percentage of the time the ISDAfix rate was greater than the bank's quote, while green represents the percentage of the time that the ISDAfix rate was lower than the bank's quote. Note that 15 rate quotes cannot be identical to the ISDAfix rate without also being identical to each other.

114. The first chart demonstrates that all Defendant Banks submitted identical quotes to ICAP well over 90% of the time prior to December 19, 2012. After December 19, 2012, amid news of brokers' role in LIBOR and other benchmark scandals, Defendant Banks' submissions started to disperse. For several banks, the percentage of days where their quotes are identical to the eventual ISDAfix rate goes from over 90% to under 50%. Virtually every bank shows a significant change in behavior. The picture that emerges from this study is the beginning of a structural break in the conspiracy where nearly every single ISDAfix contributor withdraws from

the conspiracy and begins either to stop submitting altogether or to submit rates that truly reflect its actual swap rates in the marketplace.

115. Going one step further and looking at bank-specific data reveals a similar pattern. For every Defendant Bank that continued making ISDAfix submissions, quote patterns show almost no divergence from the ISDAfix rate prior to December 19, 2012, and marked, increasing divergence after. The following charts represent Bank of America's and UBS's submission patterns over time in the USD 20Y tenor.





116. In the above charts, the purple line represents the extent to which the individual banks' ISDAfix quote submissions deviated from the day's ISDAfix rate. Note that in both charts, the purple line barely appears or does not appear at all until December 2012. Before December 2012, the banks' USD quote submissions always matched the ISDAfix rate. Hence the difference between the banks' submissions and the ISDAfix rate was zero, represented by a horizontal purple line at the level of zero. After December 19, 2012, the purple line begins to move upwards and downwards with increasing regularity – the banks' quote submissions frequently do not match the ISDAfix rate.

117. It also merits emphasis that the number of contributor banks providing regular quotes has significantly decreased since December 2012. Of the original 15 ISDAfix panel

banks, only seven remain.³² As with the rate quote dispersions, these departures are directly linked to the ongoing investigations into rate-fixing of ISDAfix and other benchmarks. Increased regulatory scrutiny, as well as possible criminal penalties, have made participation in ISDAfix less profitable and, without the ability to manipulate the rates, Defendants “don’t see any upside.”³³ Indeed, “[f]irms are pulling out of rates such as . . . ISDAfix on growing concern that they may face lawsuits, fines and criminal penalties if found to have engaged in wrongdoing.”³⁴

118. The below chart represents the average difference between the highest and lowest ISDAfix quote submissions on each day for the periods stated. For each period, Plaintiffs’ experts subtracted the lowest ISDAfix quote submission on each day from the highest quote submission and then averaged the difference for the whole period. The numbers go steadily up after December 19, 2012, indicating that the differences among ISDAfix submissions substantially increased after disclosure of the involvement of banks and brokers in the LIBOR conspiracy and other benchmark scandals. This pattern continues over time, with the average difference between the highest and lowest ISDAfix submission steadily increasing as Defendant Banks came under fire from regulators. In fact, across many tenors, the average difference between minimum and maximum daily quotes more than quadrupled from Period 1 to Period 4. The market provides no explanation for this phenomenon; the only explanation is that the Defendant Banks changed their behavior amid increasing regulatory scrutiny.

³² Intercontinental Exchange, *ISDAFIX Characteristics and Contributor Panels: US Dollar [USD] – Rates*, https://www.theice.com/publicdocs/services/ISDAFIX_USD_Rates.pdf (last visited Oct. 28, 2014).

³³ Liam Vaughan, *Banks Drop Off IsdaFix Panel Amid Rate-Rigging Probes*, BLOOMBERG (Apr. 15, 2013), <http://www.bloomberg.com/news/print/2013-04-14/banks-drop-off-isdafix-panel-amid-rate-rigging-probes.html>.

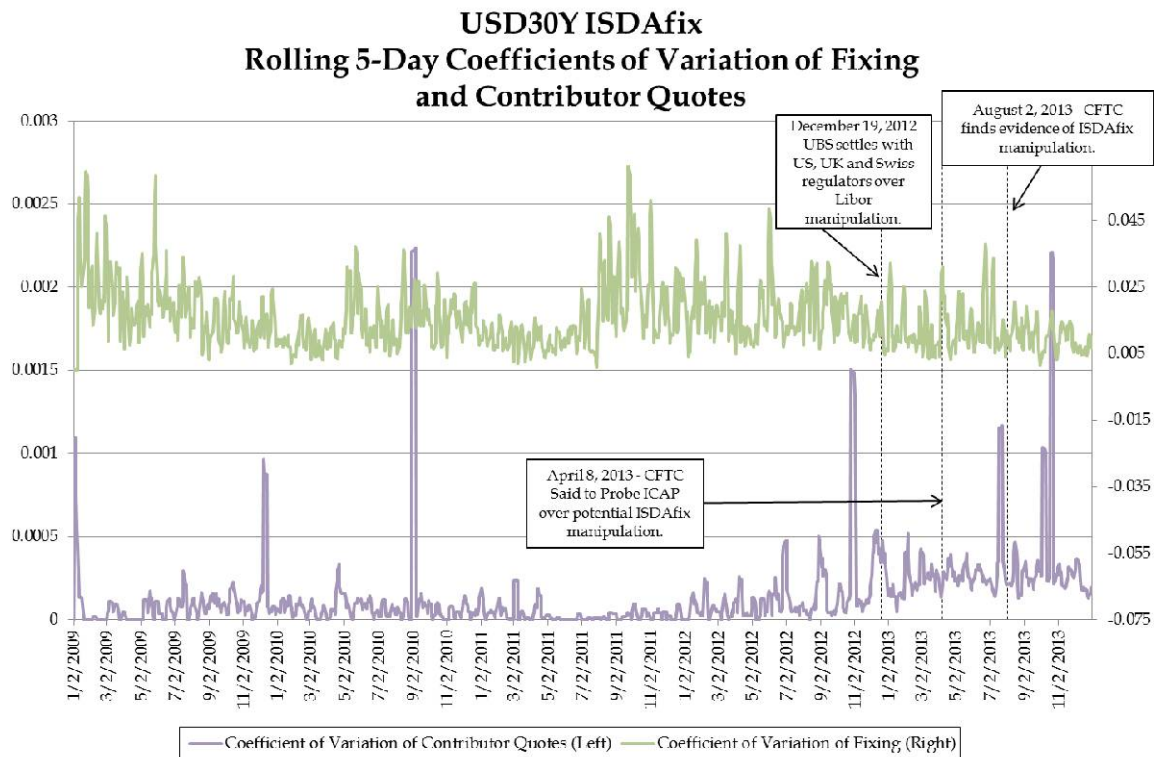
³⁴ *Id.*

| Average Difference Between Minimum and Maximum Daily Contributor Quotes for ISDAfix | | | | |
|---|-------------------------|-------------------------|-----------------------|-------------------------|
| | Period 1 | Period 2 | Period 3 | Period 4 |
| Tenor | (1/2/2009 - 12/18/2012) | (12/19/2012 - 4/7/2013) | (4/8/2013 - 8/1/2013) | (8/2/2013 - 12/31/2013) |
| USD1Y | 0.0013 | 0.0019 | 0.0029 | 0.0040 |
| USD2Y | 0.0018 | 0.0045 | 0.0026 | 0.0034 |
| USD3Y | 0.0020 | 0.0033 | 0.0035 | 0.0039 |
| USD4Y | 0.0026 | 0.0031 | 0.0037 | 0.0045 |
| USD5Y | 0.0016 | 0.0038 | 0.0028 | 0.0039 |
| USD6Y | 0.0014 | 0.0034 | 0.0043 | 0.0056 |
| USD7Y | 0.0018 | 0.0032 | 0.0038 | 0.0049 |
| USD8Y | 0.0013 | 0.0041 | 0.0048 | 0.0056 |
| USD9Y | 0.0013 | 0.0038 | 0.0046 | 0.0055 |
| USD10Y | 0.0021 | 0.0027 | 0.0032 | 0.0044 |
| USD15Y | 0.0016 | 0.0041 | 0.0049 | 0.0057 |
| USD20Y | 0.0012 | 0.0043 | 0.0050 | 0.0059 |
| USD30Y | 0.0010 | 0.0025 | 0.0033 | 0.0044 |
| Source: Thomson Reuters, Bloomberg. | | | | |

119. It also merits further emphasis that 2009 was far more economically volatile than 2013, as 2009 was still significantly affected by the financial crisis. This led to high variability in ISDAfix rates from one day to the next. However, despite this high variability of ISDAfix rates, the Defendant Banks' ISDAfix quote submissions matched each other almost every single day. Indeed, during 2009 there was almost no distinction between the Defendant Banks' individual ISDAfix quote submissions, as they were identical to each other across either all or all but one submission every day. Thus, despite each Defendant Banks' submission changing significantly every day (as shown by the daily variability of ISDAfix rates), such changes were completely coordinated and occurred in unison. In 2013, by contrast, economic markets were more stable, resulting in smaller daily changes in ISDAfix rates as compared to 2009. Yet, despite higher market predictability, Defendant Banks' ISDAfix quote submissions increasingly differed from each other. Why were Defendant Banks' quotes so unified when ISDAfix rates were less predictable, yet diverged when the market stabilized?

120. This is counter to what would be expected to happen if market forces had influenced ISDAfix quote submissions. Periods of high uncertainty cause more variable ISDAfix rates, which should, in turn, be positively correlated with more deviation between individual quote submissions. However, that is not what happened. Defendant Banks were unified and submitted identical ISDAfix rates when the market was highly volatile, and submitted much more diverse quotes when ISDAfix rates became more predictable and stable. Market forces alone do not explain this behavior. Something else, such as the break of a cartel, must be responsible for the end of uniformity in Defendant Banks' submissions.

121. To underscore this point, for the 2009-2013 time period, Plaintiffs' experts charted both the variation in individual ISDAfix quotes for the USD 30-year swap rate and the variation of actual ISDAfix rates for that same USD swap rate, with both measures calculated over rolling five-day windows.



Sources: Thomson Reuters, Bloomberg.

122. The above chart presents the coefficient of variation – a normalized measurement of the level of dispersion – for USD 30-year ISDAfix quote submissions calculated daily and averaged over rolling five-day windows. A higher average coefficient of variation means that the submissions for those five days differed more from each other (*i.e.*, that the Defendant Banks' submissions diverged).

123. The chart also tracks the coefficient of variation for the actual USD 30-year ISDAfix rate over the same rolling five-day windows. A higher coefficient of variation means that USD 30-year ISDAfix rates differed more from each other over those five days (*i.e.*, that there was more variability and uncertainty in the swap markets).

124. If higher market uncertainty, which would raise the coefficient of variation for ISDAfix rates, was responsible for the change in Defendant Banks' submissions, then there should be a correlation to higher average coefficients of variation for the individual submissions themselves. But that is not the case for the period from January 2009 through November 2013. The lower, purple line represents the average level of variation in USD 30-year ISDAfix quote submissions for rolling five-day windows over time. The purple line rises when the Defendant Banks' daily ISDAfix quote submissions diverge. The higher, green line represents variation in the USD 30-year ISDAfix rate over the same rolling five-day windows.³⁵ The green line rises when the USD 30-year ISDAfix rate substantially changes from day to day within such five-day windows and falls when that same rate is stable. While the green line may spike or fall for any particular period, what is important is that the overall trend stays steady, slowly decreasing on average from 2009 through 2013.

³⁵ The data in this chart is solely from the Reuters actual/360 swap rate data. *See infra* note 44.

125. Indeed, while the rate of variation of contributor quote submissions begins to rise substantially after December 18, 2012, the actual ISDAfix rate for USD 30-year swaps proves to be demonstrably more stable after that point than it was in the previous year. As the variation in submissions increases during late 2012 through 2013, the variation in the USD 30-year ISDAfix rate declines. If the dispersion of quote submissions was caused by changes in market stability, one would expect both measures to increase or decrease at the same time. But, in reality, exactly the opposite happened. The increased dispersion of quote submissions after December 2012 has nothing to do with market forces; it is inextricably linked to a change in behavior after Defendants were implicated in LIBOR and other benchmark scandals.

126. That the conspiracy began to break in December 2012 demonstrates consciousness of guilt on the part of Defendants. This is the only plausible explanation for the profoundly anomalous pattern of quote submissions from at least 2009 to the present.

2. Manipulation of ISDAfix Through Trading Activities

127. Throughout the Class Period, Defendants conspired to push ISDAfix rates to artificial levels through a manipulative trading strategy – called “banging the close” – intended to move actual swap rates minutes before the ISDAfix setting window.

128. As noted, the ISDAfix setting process starts with ICAP providing a “reference point” to the Defendant Banks for their submission of rates in accordance with the ISDA definition. That “reference point” is based on the then-current swap rate of trades brokered by ICAP and executable bids and offers submitted by dealers.

129. Defendants conspired to manipulate the actual swap rate immediately before the ISDAfix setting window so as to push the “reference point” that ICAP would submit to the Defendant Banks to a particular rate. By moving the “reference point,” the Defendant Banks caused the ISDAfix setting process to begin at an artificial level and were able to disguise their

off-market quotes, as described below. Defendant Banks executed a series of rapid-fire trades and submitted executable bids and offers that were not reflective of the market, but were artificial and reflective of their desire to move ISDAfix rates to whatever level benefitted their trading books. This “banging the close” strategy could not have achieved the desired goal without the Defendants’ overarching conspiracy to submit identical rates matching ICAP’s reference rate, day-in and day-out.

130. Defendant Banks’ conspiracy was reached through a series of agreements among the Defendant Banks’ traders. These agreements were carried out through telephone calls, emails, and instant message or chat room conversations between swaption and other interest rate traders at the Defendant Banks. On these telephone calls, or through electronic communications, these traders agreed on predetermined levels to which they would work to push the relevant swap rate.

131. Once the traders had reached these agreements, they enlisted rate-swap traders to execute manipulative trades through ICAP and submit executable bids and offers to ICAP that moved the rate. According to anonymous witnesses interviewed by Bloomberg, “swaption traders at banks worked with rate-swap traders at their own firms to manipulate ISDAfix.”³⁶ Pursuant to their agreements with traders at other Defendant Banks, these “swaption traders told their rate-swap colleagues the level at which they needed ISDAfix to be set that day in order to bolster the value of their derivatives positions before these were settled the next day.”³⁷ Those

³⁶ Matthew Leising, *Swaps Probe Finds Banks Rigged Rate at Expense of Retirees* BLOOMBERG (Aug. 2, 2013), <http://www.bloomberg.com/news/2013-08-02/swaps-probe-finds-banks-manipulated-rate-at-expense-of-retirees.html>.

³⁷ *Id.*

“rate-swap trader[s] would then tell a broker at ICAP . . . to execute as many trades in interest-rate swaps as necessary to move ISDAfix to the desired level.”³⁸

132. Frequently, these communications would involve only a subset of the Defendant Banks who had a particular interest in moving an ISDAfix rate to a particular level on a given day. On other days, a different subset of banks may have had an interest in manipulating ISDAfix rates to a different level. But the success of the conspiracy could not have been accomplished without the larger agreement of all of the ISDAfix submitting banks to conform their quotes to the reference rate provided by ICAP.

133. Correspondence produced by the Defendant Banks to the CFTC “show[s] that traders at Wall Street banks instructed ICAP plc brokers in Jersey City, New Jersey, to buy or sell as many interest-rate swaps as necessary to move the benchmark . . .”³⁹ According to a source interviewed by Bloomberg, the Defendant Banks “sought to change the value of the swaps because the ISDAfix rate sets” swaptions prices.⁴⁰

134. Pursuant to these agreements between the Defendant Banks’ rate-swap traders and ICAP, the Defendants would execute an inordinately high volume of transactions during or just before the first two minutes of the ICAP polling window. According to one witness interviewed by Bloomberg, “[t]his would be done just before 11 a.m. in New York.”⁴¹

135. The ICAP brokers had a strong incentive to participate in this conspiracy, as they would receive commissions on derivatives executed to move the ISDAfix rate and generate more overall transaction flow from the Defendant Banks. Consequently, ICAP brokers gladly assisted

³⁸ *Id.*

³⁹ *Id.*

⁴⁰ *Id.*

⁴¹ *Id.*

Defendant Banks in executing an exceedingly high volume of trades just before the “reference point” was set.

136. ICAP brokers profited off each and every one of these trades; the higher the volume, the better. The approximately 20 interest rate swap brokers at ICAP in Jersey City, New Jersey would receive commissions based on every interest rate swap they facilitated. This group of brokers made \$100 million to \$120 million annually for ICAP in 2008 and 2009, according to individuals interviewed by Bloomberg. ICAP paid its brokers on average 61% of the revenue they generated in the six months ending in September 2012, according to an ICAP presentation dated November 14, 2012. ICAP paid brokers who used its electronic trading systems about 10-15% of revenue they generated.⁴² The top three to five brokers were each paid \$5 million to \$7 million annually. The amount of profit flowing through ICAP, in part because of the Defendant Banks’ manipulative trading, earned ICAP’s New Jersey office the name “Treasure Island.”

137. Defendant Banks were all too willing to pay the large execution fees to ICAP because they stood to profit millions of dollars on interest rate derivatives by moving the USD ISDAfix rates. This is true even if the USD ISDAfix rates moved only as little as a basis point, because interest rate derivatives involve huge notional amounts. For example, for a \$100 million 10-year swap transaction, each change of one basis point amounts to a gain of about \$93,000.⁴³ Thus, in this market, even a hundredth of a percentage point matters. On swaptions, Defendant

⁴² Matthew Leising, *ICAP Brokers on ‘Treasure Island’ Said to Reap ISDAfix Rewards* BUSINESSWEEK (Apr. 10, 2013), <http://www.businessweek.com/news/2013-04-10/icap-brokers-on-treasure-island-said-to-reap-isdafix-rewards>; *see also* ICAP, *Half Year Results Six months to 30 September 2012*, ICAP.COM, 8 (Nov. 14, 2012), http://www.icap.com/investor-relations/reports-and-presentations/~/_media/Files/I/Icap-Corp/reports-and-presentations/year-2012-13/hy-presentation-30-sept-2012.pdf.

⁴³ Mackenzie, *et al.*, *supra* note 6.

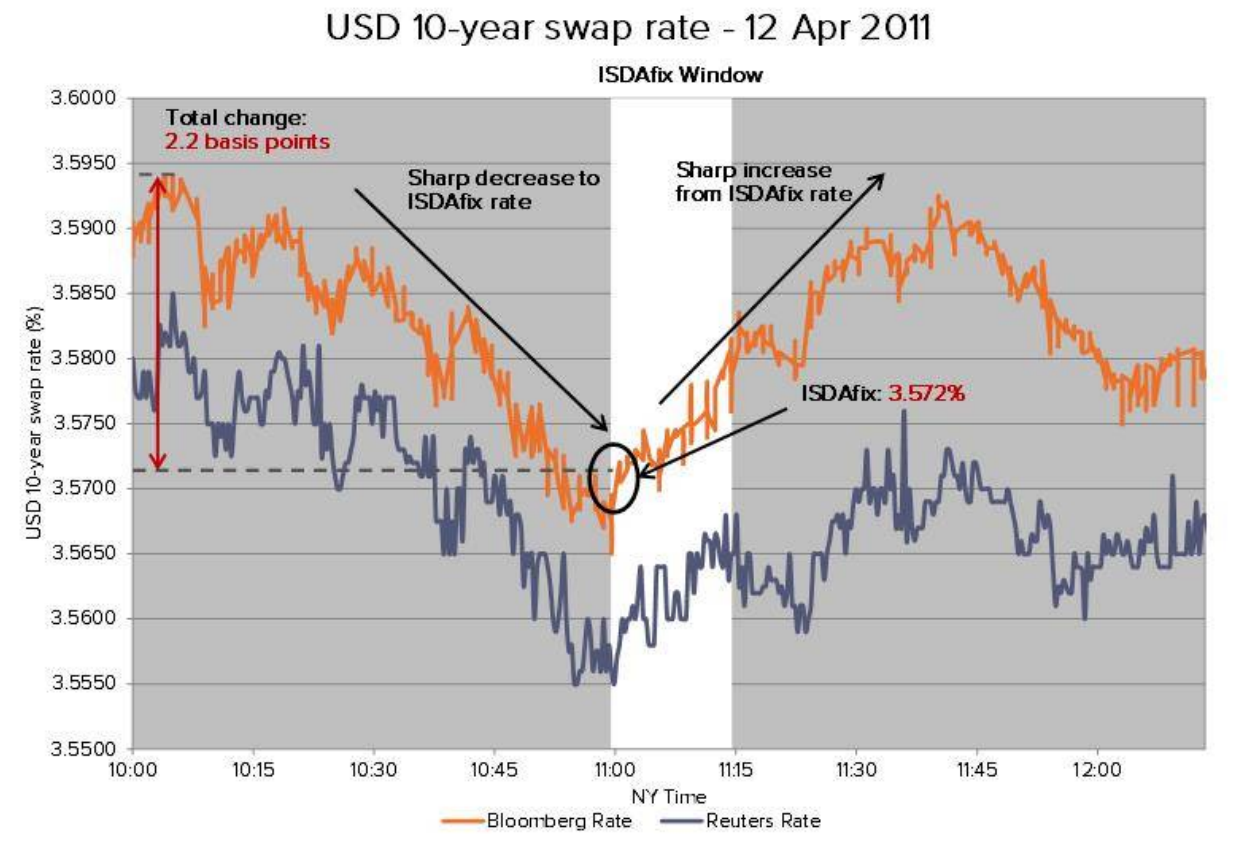
Banks stood to gain even more because by “manipulating ISDAfix by as little as a quarter of a basis point, or 0.0025 percentage point” they “stood to earn millions.”⁴⁴

138. Economic analysis confirms that Defendants were “banging the close” by executing a series of rapid fire interest rate swaps and submitting executable bids and offers just prior to the opening of the polling window. Plaintiffs’ experts analyzed swap rates surrounding the USD polling period for each day from January 2007 to December 2013. Their aim was to determine whether there existed anomalies in trading patterns consistent with a conspiracy to manipulate ISDAfix rates.

139. This analysis revealed numerous dates during the Class Period where statistically significant, highly anomalous transactional patterns show sharp plunges or spikes in a USD ISDAfix rate either during or immediately prior to the polling period, consistent with a conspiracy to “bang the close.” The results are consistent with a conspiracy to keep swap rates artificially high or low through the polling period.

140. Examples from April 12, 2011 and July 5, 2011 demonstrate this manipulative practice:

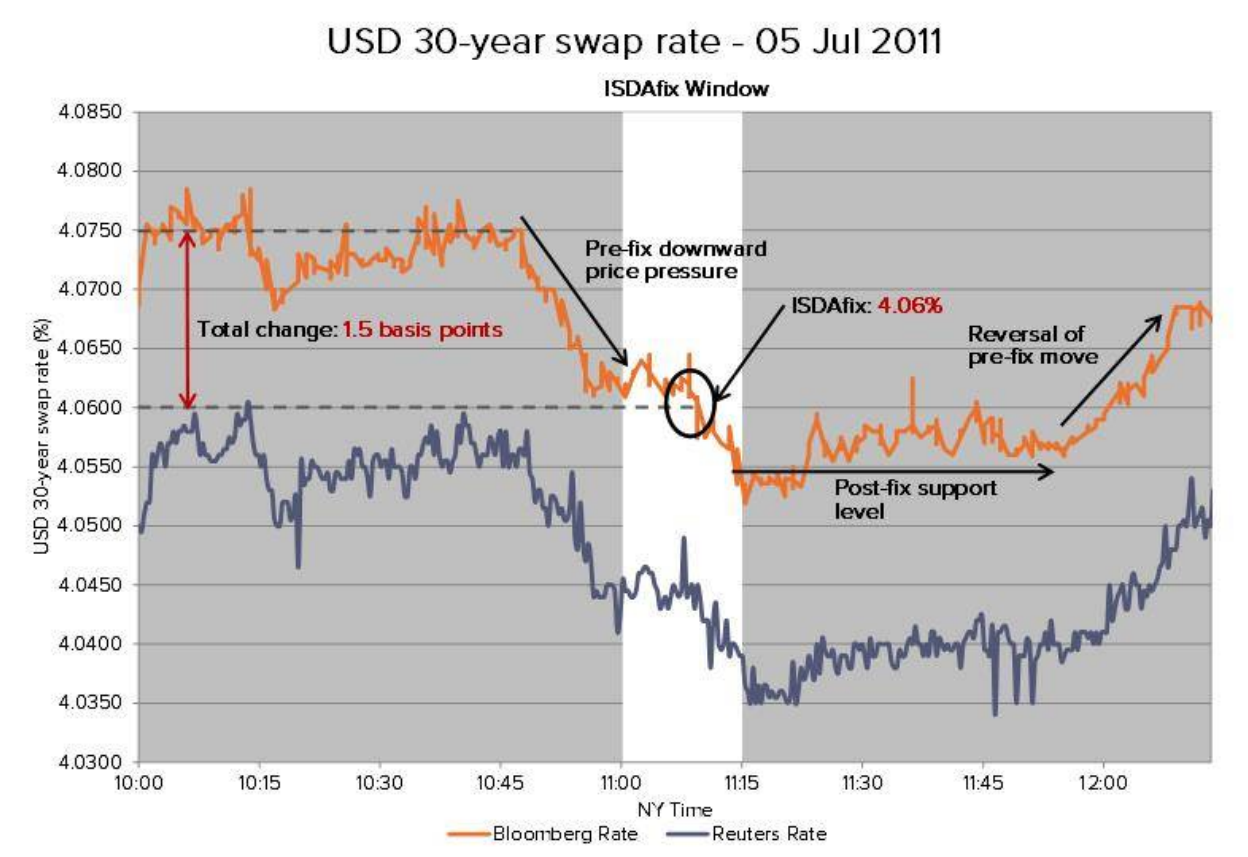
⁴⁴ Leising, *supra* note 36.



141. The chart above, mapping 10-year USD swap rates on April 12, 2011, demonstrates substantial downward rate pressure in the hour leading up to the polling period, followed by a quick reversal after the polling period.⁴⁵ This chart provides a paradigmatic example of manipulation designed to keep the ISDAfix rate artificially low. Defendants pushed through a series of transactions and submitted executable bids and offers at artificially low fixed

⁴⁵ The two lines represent historical intra-day swap prices quoted using two different sets of conventions of quoting swap rates. The orange line represents a swap rate quoted on a “semi-annual, 30/360” basis and is available through Bloomberg. The blue line represents a swap rate quoted on an “annual, act/360” basis and is available through Reuters. ISDAfix is quoted on the same basis as the orange Bloomberg rate, and the ISDAfix reference point and contributor quotes are linked to that rate. The two rates are very similar, and their trends will track each other with only a small, consistent gap in basis points. Plaintiffs present data using both where available to demonstrate the similarity between the two, but there is a greater historical availability for the Reuters rate, and in some charts only the Reuters data is available. Plaintiffs will note when the data presented is solely based off the Reuters rate.

rates before the fixing process started in an effort to drive the ISDAfix rate down and then subsequently reversed course the moment the ISDAfix reference point was set.

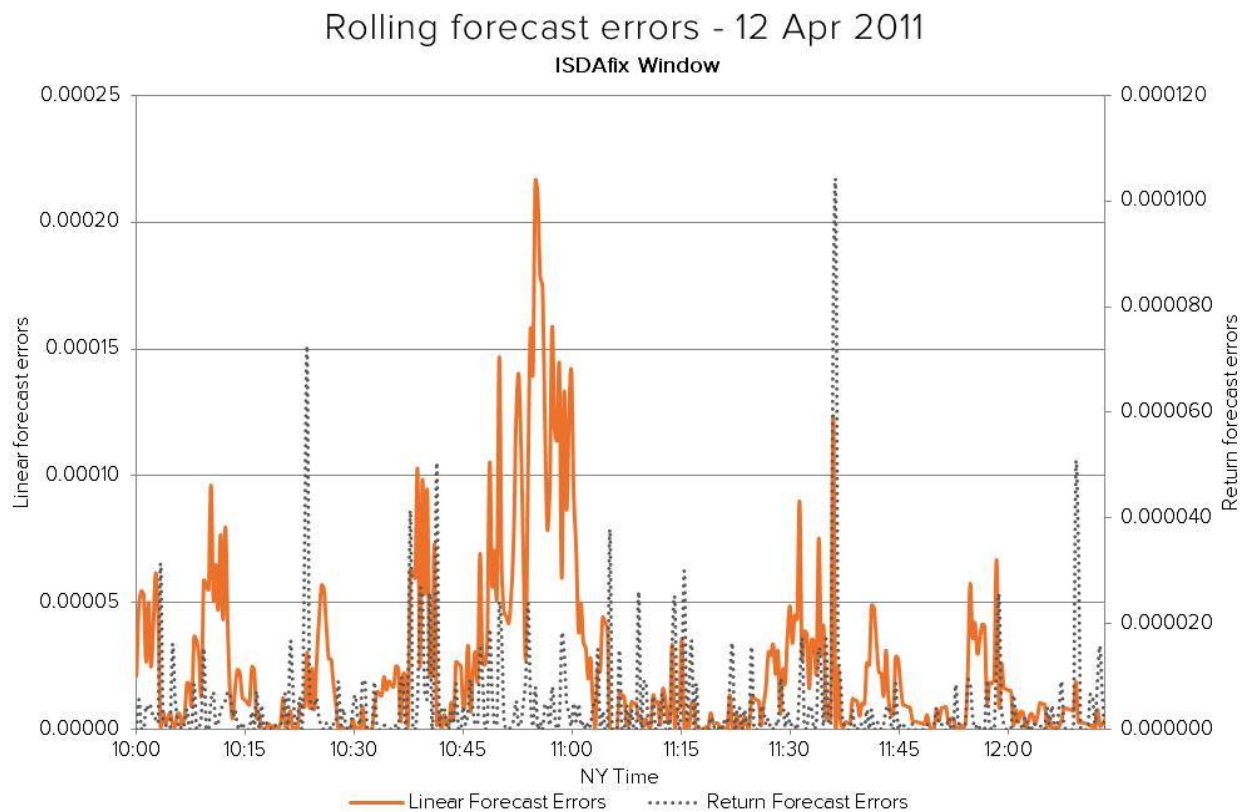


142. The chart above likewise shows a sharp drop in the 30-year swap rate just before the polling period, followed by a swift reversal 60 minutes later. This is another archetypal example of Defendants’ efforts to execute an inordinately high volume of low-rate transactions and submit low-rate executable bids and offers in the minutes leading up to the polling period.

143. To further illustrate this form of manipulation, Plaintiffs’ experts calculated “rolling forecast errors” associated with anomalous moves in the swap rate. A measurement of “rolling forecast errors” consists of two separate metrics: the “linear forecast error,” which is the squared difference between the current swap rate and the average swap rate in the previous 30

minutes, and the “return forecast error,” which is calculated the same way using returns, as opposed to swap rates themselves.

144. A higher linear forecast error means that the ISDAfix rate is changing at a more rapid pace. Economic analysis confirms that often swap rates surrounding the polling period varied substantially from swap rates in the 30 surrounding minutes. Frequently, this is a pattern not present outside the polling period.



145. The above chart demonstrates that on April 12, 2011, the USD 10-year swap rate underlying the USD 10-year ISDAfix rate was changing twice as quickly during the 15 minutes before the polling period than at any other time in the morning. This strongly suggests a calculated shift in transactional behavior just prior to the start of the polling period – behavior that was not replicated outside that period.

146. Regularly on certain days throughout the Class Period, the period just before the polling period saw unexpected bursts of activity in USD swaps at ICAP due to Defendant Banks “banging the close.” Just before the 11:00 a.m. EST ISDAfix rate-setting window, a surge of trades and executable bids and offers caused swap rates to rapidly change. Once the reference point was generated at 11:02 a.m. and the ISDAfix rate-setting process was underway, the unusual activity promptly ceased. As a result the evidence shows swap rates rapidly changing from just prior to 11:00 a.m. until the ISDAfix reference point was set, after which swap rates typically returned to their prior level. All of this points to one conclusion: Defendants were “banging the close” with the cooperation of ICAP to maximize the benefits to their positions for that day by manipulating USD ISDAfix rates.

3. Defendants Conspired with ICAP to Delay Publication of Trades

147. The Defendant Banks also manipulated ISDAfix rates by conspiring with ICAP to delay entry of certain swap transactions on Screen 19901 until the polling period was over. They did this to prevent undesired movements of the target swap rate before the ISDAfix setting was complete.

148. Banks often go through ICAP if they wish to engage in an interest rate swap with another dealer. ICAP brokers manually enter rates onto a screen and are in full control of when rates are published. Typically, when ICAP brokers an interest rate swap, it reports the swap rate for that transaction on Screen 19901 on a real-time basis.

149. The Defendant Banks conspired with ICAP to delay the publication of rates for certain interest rate derivative transactions that would move the swap rate in the opposite direction of how they were planning to manipulate ISDAfix.

150. Specifically, when one or more of the Defendant Banks wished to push ISDAfix up or down, they would simply instruct ICAP brokers to delay publication of unfavorable

transactions. By conspiring to delay publication until after 11:02 a.m., Defendants were able to ensure that unfavorable transactions did not impact the ISDAfix reference point. According to a former ICAP broker who witnessed the practice first hand, because “ICAP enters the prices manually onto the screen,” that “allow[ed] dealers to tell the brokers to delay putting trades into the system instead of in real time.”⁴⁶ The result was an artificial ISDAfix rate that was not reflective of actual market prices.

151. Input of swap rates would not be delayed unless ICAP decided to delay publication or ICAP was instructed to delay entry.

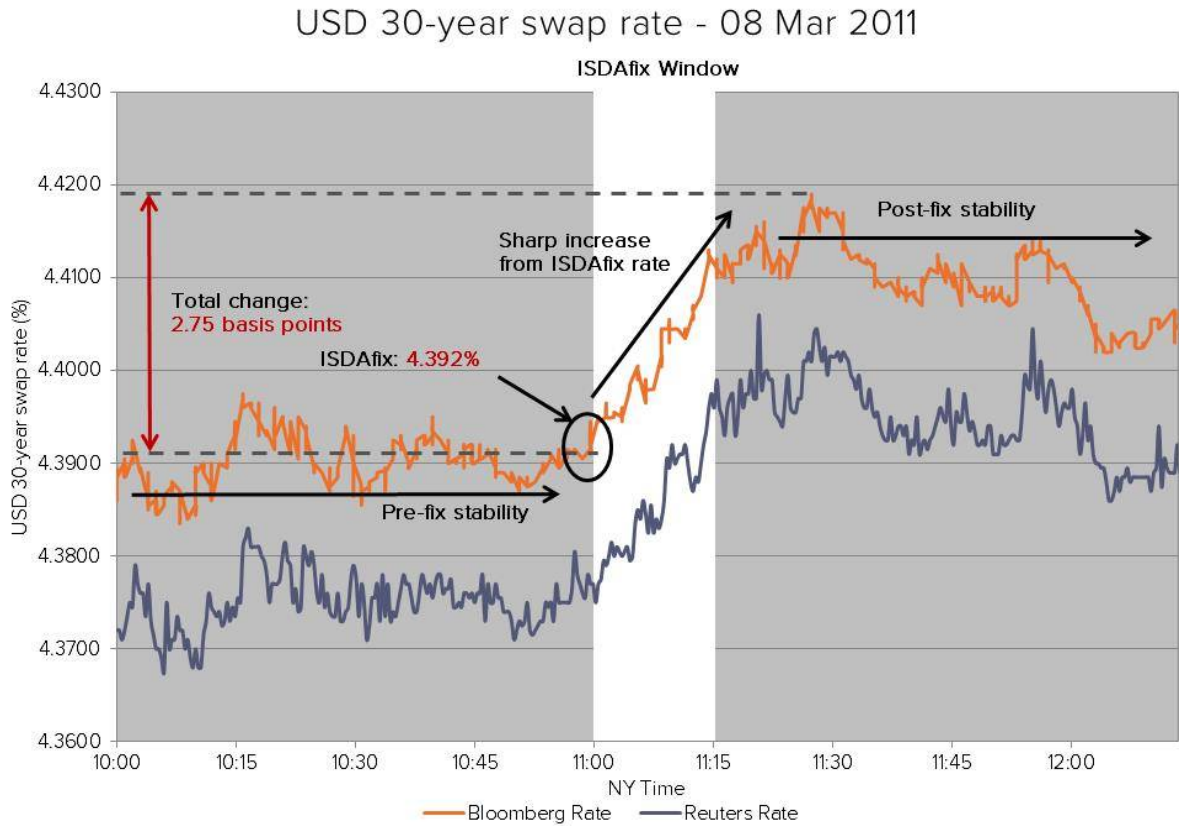
152. This practice was lucrative for Defendants because “[p]ublishing stale prices can potentially boost profits for banks in a market where trades are tied to tens of millions of dollars at a time.”⁴⁷ According to Bloomberg, “[i]f such a delay prevents the cost of the swap from moving one basis point, or 0.01 percentage point, that equals about \$1 million of profit for the dealer on a \$500 million swap that matures in 20 years.”⁴⁸

153. Economic analysis reveals transaction patterns strongly indicating that ICAP delayed the input of unfavorable transactions. This usually happened when Defendant Banks wished to maintain an existing, favorable swap rate through the beginning of the polling period. On numerous days, the swap rate remained stable until just after 11:00 a.m. EST, after which it shot up or plunged. The following charts detailing swap rates on March 8, 2011 and April 5, 2011 demonstrate this phenomenon:

⁴⁶ Leising, *supra* note 42.

⁴⁷ Liam Vaughan, *Banks Drop Off IsdaFix Panel Amid Rate-Rigging Probes*, BLOOMBERG (Apr. 15, 2013), <http://www.bloomberg.com/news/2013-04-14/banks-drop-off-isdafix-panel-amid-rate-rigging-probes.html>.

⁴⁸ Matthew Leising, *ISDAfix Probe Unveils Benchmark Affecting Bonds to Annuities*, BLOOMBERG (Apr. 15, 2013), <http://www.bloomberg.com/news/2013-04-14/isdafix-probe-unveils-obscure-rate-affecting-bonds-to-annuities.html>.

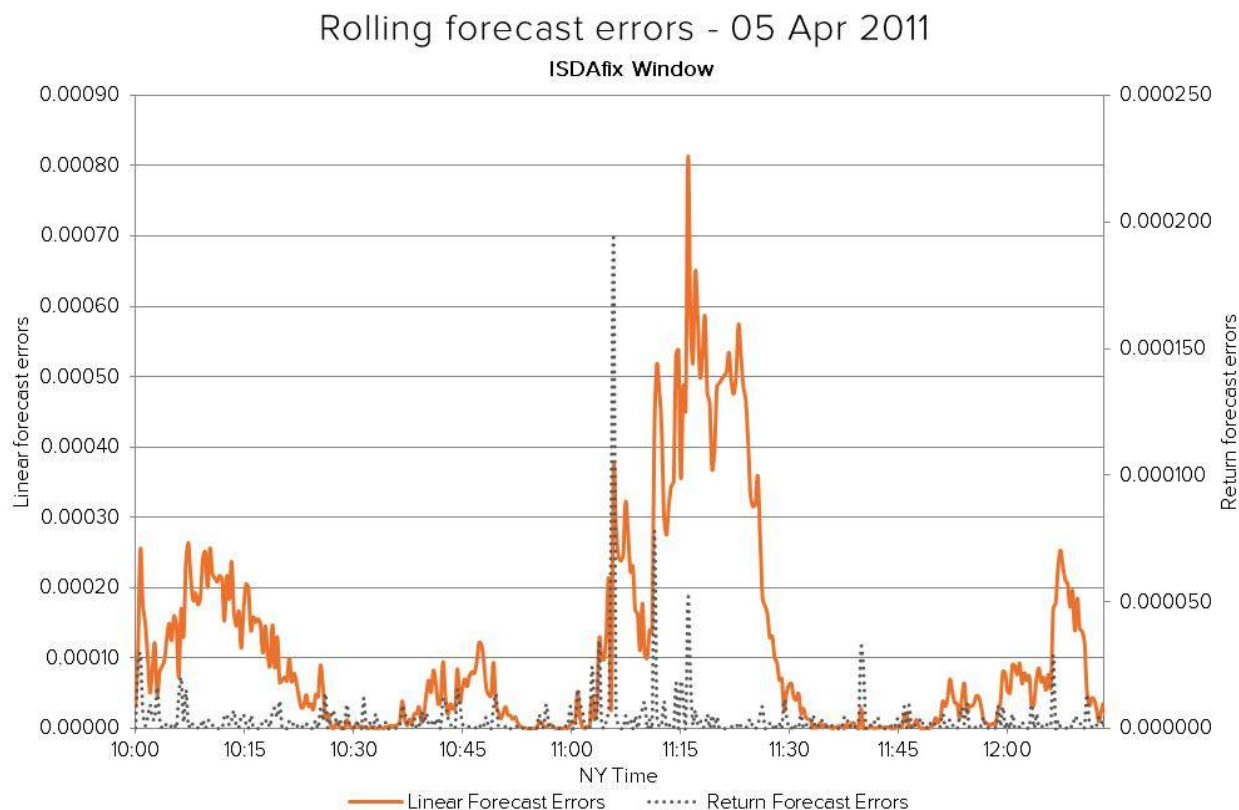




154. In each of the above charts, the orange and blue lines represent the average swap rate at a given point in time as calculated by Bloomberg and Reuters, respectively. In both charts, the average swap rate remains relatively stable until just after 11:00 a.m., when ICAP releases the ISDAfix “reference point.” Immediately after the “reference point” is released, the swap rate shoots up. This is precisely what one would expect to see if ICAP were manipulating the process by delaying input of certain data. The net result is an artificially low ISDAfix rate, to the benefit of Defendants and to the detriment of Plaintiffs and the Class.

155. Once more, Plaintiffs’ experts performed an analysis of “rolling forecast errors” in an effort to determine whether there had been manipulation of the ISDAfix rate. Again, a high rolling forecast error means that there are substantial shifts in the swap rates at a given point in time. Plaintiffs’ experts calculated and charted the squared difference between the swap

rate/return rate at a given minute, and the swap rate/return rate in the preceding 30 minutes. This analysis revealed strong evidence of delayed input on the part of ICAP brokers.



156. In the above chart, which measures data for the same day as the chart immediately above ¶ 154, one sees gyrations in swap rates beginning just after 11:00 a.m. EST, even though there is stability in the hour before and the hour after. The rolling forecast error is approximately three times higher during the period immediately after the reference point is set than it is at any other time. This suggests that swap rates accurately reflecting the market were not input until just after 11:02 a.m. EST. When they were eventually input, swap rates began to drastically change, eventually stabilizing at a level substantially different than the ISDAfix rate for that day as shown by the chart immediately above ¶ 154. This again suggests that ICAP brokers intentionally delayed inputting unfavorable swap rates to set the ISDAfix rate at a pre-determined level.

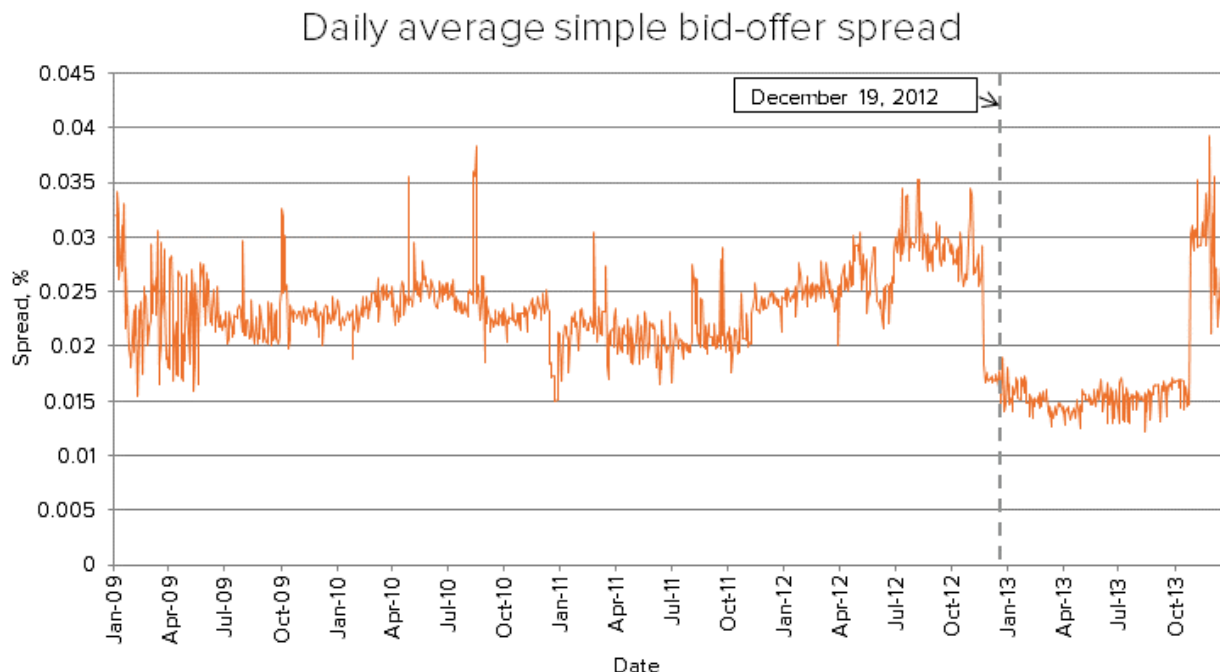
157. This practice was widespread until December 19, 2012, when UBS announced its settlement of the LIBOR matter. In the UBS settlement, there was, for the first time, a reference to inter-dealer brokers, like ICAP, being implicated in the LIBOR rate-fixing scandal. The U.K. FSA found that “UBS, through four of its Traders, *colluded with interdealer brokers* to attempt to influence JPY LIBOR submissions” made by Panel Banks.⁴⁹ The collusion was extensive; the FSA found UBS made “more than 1000 documented requests to 11 Brokers at six Broker Firms.”⁵⁰ Inter-dealer brokers were thus firmly implicated in LIBOR manipulation. Specifically, media reports disclosed that inter-dealer brokers worked with banks to publish false information on trading screens to facilitate a series of sham transactions for which the brokers received commissions, and to illicitly influence the rate submissions of other banks, all in an effort to manipulate the LIBOR rate.⁵¹

158. Almost immediately after the UBS settlement was announced, trading patterns in interest rate swaps shifted.

⁴⁹ FSA, *Final Notice to UBS AG* at 3 (Dec. 19, 2012) available at <http://www.fsa.gov.uk/static/pubs/final/ubs.pdf> (emphasis added).

⁵⁰ *Id.*

⁵¹ As discussed in ¶¶ 85-88, ICAP was found to have knowingly disseminated false and misleading information in connection with successful attempts to manipulate a benchmark rate, and was forced to settle investigations into its conduct for \$87 million.



159. In this chart, the orange line represents the daily average spread between bids and offers for 10-year USD swaps.⁵² The higher the line, the greater the average difference between bids and offers on that day. The data shows that there was a marked tightening of spreads in late 2012 that lasted until October 2013.⁵³ Around December 19, 2012, the spread between bids and offers became significantly smaller, represented by the orange line falling to below 0.02%. The orange line also becomes less volatile, with fewer significant peaks and troughs.

160. If the entry of swap rates was delayed, it could cause the spread between bids and offers to increase because ICAP would record the Defendant Banks trading at their post-fix bids and offers and their delayed pre-fix bids and offers simultaneously. Thus, as the market would have moved during the time that some entries were delayed, it would momentarily appear as if

⁵² The data in this chart is solely from the Reuters actual/360 swap rate data.

⁵³ The increase in spreads in October 2013 was likely caused by the combination of the federal government shutdown and the uncertainty surrounding the implementation of regulations under the Dodd-Frank act. See Matthew Phillips, *The CFTC Is Drowning in Market Data*, BLOOMBERG BUSINESSWEEK (Oct. 31, 2013), <http://www.businessweek.com/articles/2013-10-31/the-cftc-is-drowning-in-swaps-futures-trading-data>.

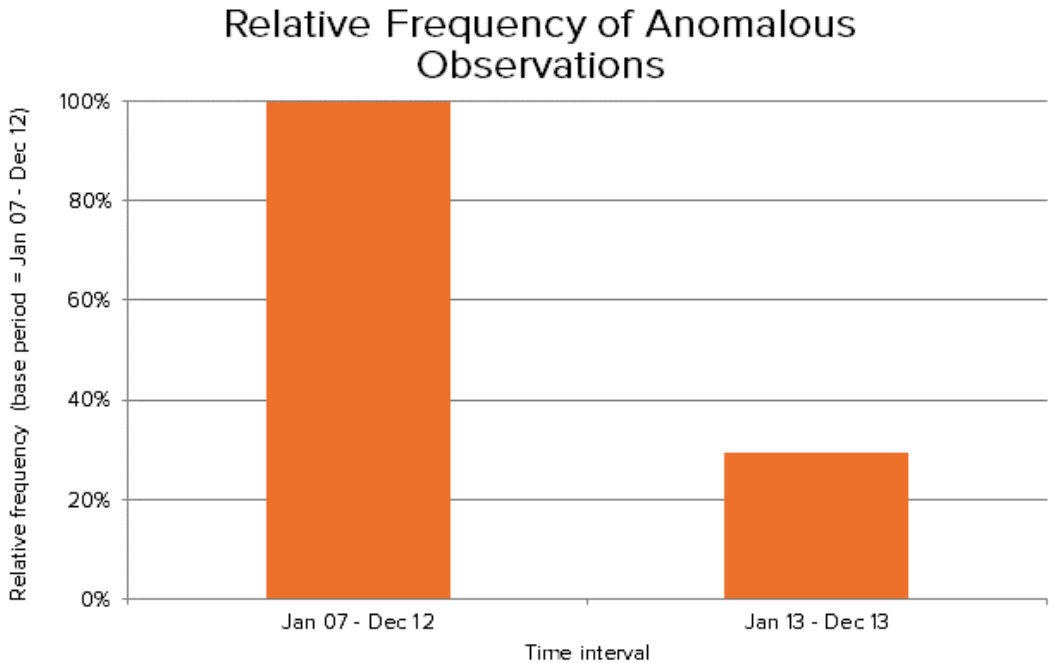
the Defendant Banks had a distortedly large bid-offer spread as all of their delayed transactions were entered simultaneously with their current trades. Thus, Defendant Banks' average spread would also be more volatile, as it would not represent Defendant Banks' reaction to a stable and predictable market but would instead reflect the results of a manipulated benchmark where the extent of manipulation varied each day.

161. This pattern of large, volatile spreads lasted through late 2012. After late 2012, when news of brokers' involvement in manipulating benchmarks like LIBOR and the potential investigation into other benchmarks was released, these high, volatile spreads are replaced with a lower, almost constant bid-offer spread.

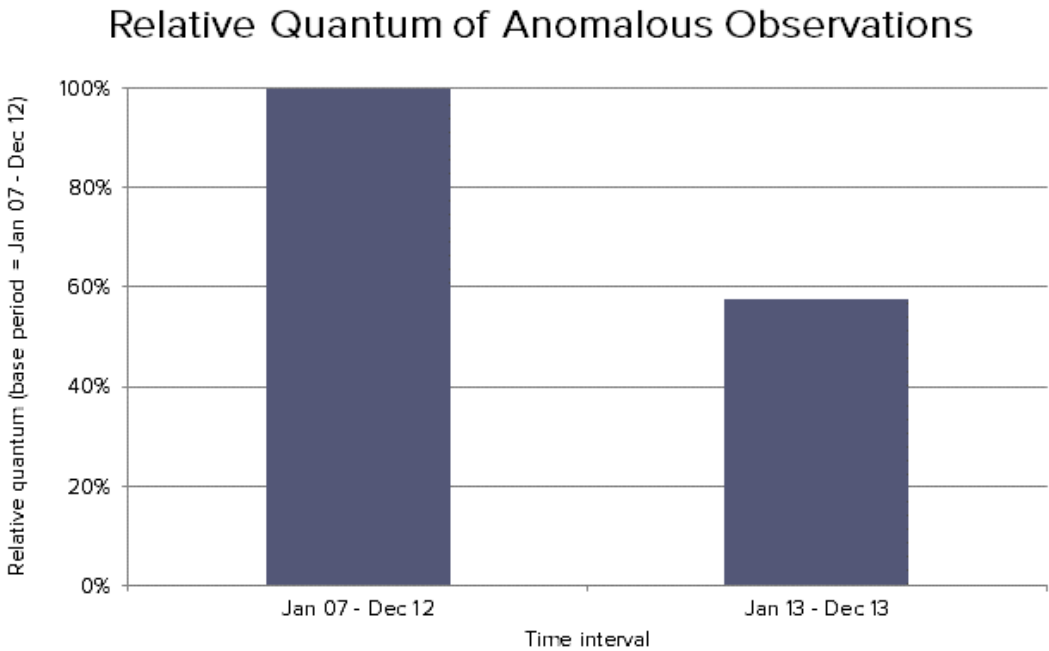
4. Defendants Agreed to Submit ISDAfix Quotes Based on Manipulated Reference Rates

162. The data shows that Defendants regularly colluded to match ICAP's manipulated ISDAfix reference rate. During at least the period of 2007 through December 2012, there were frequently massive, anomalous movements in the swap rates at or before the polling window, creating a manipulated ISDAfix reference rate. Yet during this same period, Defendants were far more likely to agree to that reference rate as an accurate measure of swap rates than after December 2012, when the ISDAfix reference rate was subject to fewer and smaller anomalous movements.

163. Plaintiffs' experts constructed a model that examined historic data of USD swap rates for swaps with durations of 10 and 30 years. The model was designed to look for anomalous movements in such swap rates either before or during the 11:00 a.m. EST fixing window.



164. The graph above shows a relative comparison of how frequently there were anomalous movements either before or during the 11:00 a.m. EST fixing window. The data shows that there was roughly a 70% reduction in anomalous movements of swap rates around the fixing window after December 2012.



165. This graph shows a relative comparison of the quantum – or size – of the anomalous movements before or during the 11:00 a.m. EST fixing window. The data shows that such movements were over 40% smaller during the period after December 2012 than the anomalous movements during the period of January 2007 through December 2012.

166. The two graphs show that anomalous movements around the ISDAfix window were three times as common and almost twice as significant before December 2012 than afterwards. Defendant Banks were sophisticated and regular participants in the swap and swaption markets and either were or should have been aware of such anomalous movements. Defendant Banks were receiving an ISDAfix reference rate from ICAP that they knew was the result of an anomalous movement in swap rates, and, therefore, the reference rate was not likely to reflect accurate swap rates. Yet, as discussed further above, during the period of more frequent and larger anomalous movements that spanned 2007 through 2012, Defendant Banks were far more likely to agree that the ISDAfix reference rate set by ICAP reflected real market prices than they were after December 2012.

167. The charts between ¶¶ 112 and 113 show that Defendant Banks submitted quotes that were identical to ICAP's ISDAfix reference rate well over 90% of the time from 2009 through 2012. After December 19, 2012, however, the Defendant Banks' quotes began to diverge from the reference rate, as shown by the growing green and blue portions of each bar.

168. As explained above, during the period of high anomalous rate movements, the Defendant Banks would agree to the ISDAfix quote rate well over 90% of the time. After December 2012, when there were only a third as many anomalous movements and such movements were almost half as potent, the Defendant Banks were increasingly likely to disagree with the ISDAfix reference rate.

169. In other words, Defendant Banks did not blink when ICAP sent them reference rates influenced by anomalous movements. Instead, they readily agreed that such rates were accurate, and it was not until after the UBS settlement exposed similar activity that this agreement to accept ICAP's rate was broken. As the market became less manipulated, with fewer and weaker anomalous movements, one would expect Defendants to be more likely to accept the reference rate as an accurate rate, not less. Instead, Defendants became less likely to agree on an accurate ISDAfix rate. The only plausible explanation for why Defendants would be more likely to accept a reference rate when anomalous movements were more common and larger is that the Defendants had agreed to do so.

5. Defendants Manipulated ISDAfix to Profit on Swaptions and Other Interest Rate Derivatives

170. Defendant Banks conspired to manipulate ISDAfix to profit on an array of financial instruments that are linked to the ISDAfix rate. While Defendants manipulated ISDAfix to benefit their derivative books generally, they likely benefited most from cash-settled swaptions.

171. As discussed previously, the ISDAfix rate is crucial to the settlement value of cash-settled swaptions. How much a Defendant Bank has to pay to the purchaser of an in-the-money swaption typically depends entirely on the ISDAfix rate.

172. The Defendant Banks had a clear motive to manipulate the ISDAfix rate. Because the Defendant Banks are the dealers of cash-settled swaptions and often serve as counterparties, they could influence the profitability of their own derivatives by controlling the ISDAfix rate. For example, the settlement value of a cash-settled swaption is determined by comparing the pre-determined fixed rate outlined in the swaption to the comparable ISDAfix rate on the exercise date of the swaption. By driving the ISDAfix rate up or down several basis

points, Defendants ensured that they would make lower payments on in-the-money swaptions at the expense of Plaintiffs and the Class.

E. Defendants' Misconduct Breached the Terms of their Swap Contracts

173. All of the cash-settled swaptions and many of the other derivative transactions that settled with reference to ISDAfix were documented under the ISDA Master Agreement. ISDA Master Agreements are market-standard agreements that establish a framework for swaps and other derivative transactions between two counterparties. The parties customize the ISDA Master Agreement through use of a Schedule, which contains elections, additions, and amendments. ISDA Master Agreements are also typically supplemented by a Credit Support Annex, which sets the terms of the counterparties' obligations to post collateral for net exposures under those agreements. Finally, confirmations are used to document particular transactions.

174. Separate sets of definitions published by ISDA are used in confirmations for transactions. For swaptions and many of the other types of derivative instruments that refer to ISDAfix, the relevant definitions are the 2006 ISDA Definitions.

175. Under the 2006 ISDA Definitions, the purchaser of an in-the-money cash-settled swaption is entitled to receive a "Cash Settlement Amount" in accordance with Section 18 of those same Definitions.⁵⁴ The 2006 ISDA Definitions also state that it is the responsibility of the "Calculation Agent" to "determin[e] any Cash Settlement Amount," and further state that "[w]henever the Calculation Agent is required to act, make a determination or to exercise judgment in any other way, it will do so in good faith and in a commercially reasonable manner."⁵⁵

⁵⁴ ISDA, *2006 ISDA Definitions*, Section 14.1(a).

⁵⁵ *Id.*, Section 4.14.

176. As standard market practice, the Schedules to the ISDA Master Agreements involved here specify that each Defendant would act as “Calculation Agent” for the interest rate derivatives it entered into with Plaintiffs and the Class. As the 2006 ISDA Definitions expressly state, Defendant Banks, as Calculation Agents, had a duty to determine Cash Settlement Amounts in good faith for every swaption transaction they entered into. Defendant Banks breached such terms, and others, in each of their respective agreements when they determined Cash Settlement Amounts based on an ISDAfix rate that Defendant Banks knew was manipulated.

177. The ISDA Master Agreements also have a term requiring that each party “comply in all material respects with all applicable laws . . . to which it may be subject if failure so to comply would materially impair its ability to perform its obligations under this Agreement.” Defendant Banks breached such terms, and others, in each of their respective agreements when they violated numerous laws by colluding to manipulate and actually manipulating ISDAfix rates.

178. The Defendant Banks’ conduct also breached their implied duty of good faith and fair dealing created by their respective contractual relationships with Plaintiffs and the Class. The manipulation of ISDAfix rates allowed Defendant Banks either to make their own positions more profitable or to make their counterparties’ position worth less.

**EQUITABLE TOLLING OF THE STATUTE OF LIMITATIONS DUE TO
DEFENDANTS’ CONCEALMENT OF THE CONSPIRACY**

179. Defendants actively and effectively concealed their collusion, as alleged herein, from Plaintiffs and the Class. As a result of Defendants’ fraudulent concealment, all applicable statutes of limitations affecting Plaintiffs’ and the Class’s claims have been tolled.

180. Defendants' conspiracy was by its nature secretive and self-concealing. Defendants engaged in a form of price fixing, which is inherently self-concealing and could not be detected by Plaintiffs or other members of the Class. The secret nature of Defendants' conspiracy – which relied on non-public methods of communication, such as secure websites and private phone calls, to conceal their agreements to manipulate ISDAfix – prevented Plaintiffs from uncovering their unlawful conduct.

181. Moreover, Defendants actively conspired to conceal their unlawful conduct. Defendants actively and jointly undertook trading strategies designed to conceal their collusive conduct by, as alleged above, executing trading strategies to push the “reference point” used by ICAP to a particular level so as to conceal their submission of off-market quotes to ICAP. The Defendant Banks also conspired with ICAP to delay the publication of real transactions to conceal the rates at which they were then executing, so as to prevent their conspiracy from being uncovered.

182. Due to Defendants' efforts to conceal their collusive conduct, Plaintiffs could not, through the exercise of reasonable diligence, have learned of facts indicating that Defendants were colluding to manipulate the ISDAfix rate until April 2013 at the earliest, when news sources first reported that the CFTC was investigating ICAP and the manner in which the ISDAfix rate is set. Even with the disclosure of the CFTC investigation, Plaintiffs at that time did not know the full scope or purpose of Defendants' conspiracy.

183. Additionally, even after investigations into the LIBOR scandal cast a spotlight on some of Defendants' unlawful activities, Defendants did not fully break ranks, but instead continued to manipulate ISDAfix and engaged in ongoing efforts to keep their collusion hidden. It was only after subsequent investigations specifically into the manipulation of ISDAfix that

Defendants began to wind down their conspiracy. When Defendants were confronted by the media about the allegations against them, they routinely and uniformly denied them.

184. Thus, while Plaintiffs regularly monitored their investments and conducted due diligence to try to avoid being harmed by financial misconduct, practically speaking, there were limits to what could be done, given that so much of the over-the-counter interest rate derivatives market was opaque and shrouded in Defendants' secrecy. Further, reasonable due diligence could not have uncovered Defendants' conspiracy because: (1) Defendants' trades and trading strategies are not public information; (2) Defendants' quotes to ISDAfix were not openly published; and (3) the bilateral, non-exchange traded nature of the trades at issue further obscures what Defendants were, and are, doing at any particular time.

185. As a result of the self-concealing nature of the rate-fixing 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 Plaintiffs' and the Class's claims.

CLASS ACTION ALLEGATIONS

186. Plaintiffs bring this action on behalf of themselves and as a class action under Rules 23(a), (b)(2), and (b)(3) of the Federal Rules of Civil Procedure, seeking monetary damages on behalf of the following class (the "Class"):

All persons or entities who, beginning as early as January 1, 2006 and continuing to June 30, 2013 (the "Class Period"), entered into interest rate derivative transactions, including interest rate swaps and swaptions, or purchased or sold financial instruments, that were benchmarked, priced, valued, or settled by reference to USD ISDAfix rates or that were executed shortly before, during, or shortly after the time of the daily ISDAfix setting window.

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.

187. Plaintiffs believe that there are thousands of members of the Class as described above, the exact number and their identities being known by Defendants, making the Class so numerous and geographically dispersed that joinder of all members is impracticable.

188. 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 ISDAfix rates and the price of interest-rate derivatives in violation of the Sherman Act;
- b) the identity of the participants in the conspiracy;
- c) the duration of the conspiracy;
- d) the nature and character of the acts performed by Defendants and their co-conspirators in furtherance of the conspiracy;
- e) whether the conduct of Defendants and their co-conspirators, as alleged in this Complaint, caused injury to the business and property of Plaintiffs and other members of the Class;
- f) whether Defendants and their co-conspirators fraudulently concealed the conspiracy's existence from the Plaintiffs and the members of the Class;
- g) whether Defendants' conduct violated the Commodity Exchange Act;
- h) whether Defendants' conduct caused cognizable legal injury under the Commodity Exchange Act;

- i) Whether Defendants have acted or refused to act on grounds generally applicable to the Class, thereby making appropriate final injunctive relief or corresponding declaratory relief with respect to the Class as a whole;
- j) the appropriate injunctive and equitable relief for the Class;
- k) whether Defendants were unjustly enriched at the expense of Plaintiffs and the Class;
- l) whether Defendants breached their contracts with the Class;
- m) whether Defendants breached their duty of good faith and fair dealing with the Class; and
- n) the appropriate measure of damages sustained by Plaintiffs and other members of the Class.

189. During the Class Period, Plaintiffs purchased swaptions and other interest rate derivatives that were valued, executed, or settled using rates that were manipulated by Defendants, and their interests are coincident with and not antagonistic to those of the other members of the Class. Plaintiffs are members of the Class; have 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, Plaintiffs are represented by counsel who are competent and experienced in the prosecution of antitrust and class action litigation.

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

191. 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.

192. A class action is superior to other available methods for the fair and efficient adjudication of this controversy. Treatment as a class action will permit a large number of similarly situated persons to adjudicate their common claims in a single forum simultaneously, efficiently and without the duplication of effort and expense that numerous individual actions would engender. The Class is readily definable and is one for which records should exist in the files of Defendants and their co-conspirators, 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 claim 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.

CLAIMS FOR RELIEF

FIRST CLAIM FOR RELIEF

(Conspiracy to Restrain Trade in Violation of §1 of the Sherman Act)

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

194. 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 §1 of the Sherman Act, 15 U.S.C. §1, *et seq.*

195. During the Class Period, Defendants entered into a series of agreements designed to create profit or limit liabilities amongst themselves by coordinating the manipulation of the prices and settlement value of interest rate derivatives and the USD ISDAfix rates through the contributor quotation process or through other activities designed to artificially suppress, inflate, maintain, or otherwise alter USD ISDAfix rates.

196. This conspiracy to manipulate the prices of interest rate derivatives entered into around the time of the ISDAfix window and the ISDAfix rates themselves caused injury to both Plaintiffs and members of the Class because they were deprived of the benefit of a legitimate contributor quotation process and accurate ISDAfix rates reflecting actual market conditions. Plaintiffs and members of the Class also were deprived of the ability to accurately price interest rate derivatives entered into around the time of the ISDAfix window and to accurately determine settlement values of swaptions and other interest rate derivatives through reference to accurate ISDAfix rates. Plaintiffs and members of the Class thus received during the term of their transactions or upon settlement less in value than they would have received absent Defendants' conspiracy and overt acts taken in furtherance thereof.

197. The conspiracy is a *per se* violation of §1 of the Sherman Act. Alternatively, the conspiracy resulted in substantial anticompetitive effects in the over-the-counter derivatives market. There is no legitimate business justification for, or pro-competitive benefits caused by, Defendants' conspiracy and overt acts taken in furtherance thereof. Any ostensible procompetitive benefits are pretextual or could have been achieved by less restrictive means.

198. As a direct, material, and proximate result of Defendants' violation of §1 of the Sherman Act, Plaintiffs and the Class have suffered injury to their business and property, within the meaning of §4 of the Clayton Act, throughout the Class Period.

199. Plaintiffs and members of the Class are entitled to treble damages for Defendants' violations of §1 of the Sherman Act under §4 of the Clayton Act.

200. Plaintiffs and members of the Class are also entitled to an injunction against Defendants, preventing and restraining the violations alleged above, under §16 of the Clayton Act.

SECOND CLAIM FOR RELIEF

(Manipulation in Violation of the Commodity Exchange Act)

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

202. Each Defendant is liable under §§6(c), 9, and 22, codified respectively at 7 U.S.C. §§9, 13 & 25, as well as CFTC Rules 180.1 and 180.2, for manipulation or attempted manipulation of the price of USD interest rate swaps as set by ISDAfix or any contract or swap benchmarked, traded, priced and/or settled to ISDAfix, or traded, priced and/or settled around the time of the ISDAfix setting window.

203. The Defendant Banks had the ability to manipulate ISDAfix and interest rate derivatives, such as swaps and swaptions, referencing ISDAfix or executed around the time of the rate-setting window. The Defendant Banks, through interstate commerce, knowingly submitted or caused to be submitted artificial rate quotes to ICAP. These submissions were used to determine the official published ISDAfix rates. By virtue of the ISDAfix setting methodology, the Defendant Banks had the ability to influence and affect the rates that would become the official ISDAfix rates. Further, because of their market power as the major dealers of interest rate derivatives, the Defendant Banks had the ability to influence the actual price of interest rate derivatives entered into around the time of the ISDAfix setting window through manipulative trading strategies or the delaying of publication of actual transactions.

204. Defendant ICAP also had the ability to manipulate the USD ISDAfix rates and the price and settlement value of interest rate derivatives, such as swaps and swaptions, because it served both as the inter-dealer broker for the Defendant Banks in executing transactions and the administrator of ISDAfix. As a result, ICAP had the ability alone to move ISDAfix (and the perceptions thereof) to any particular level.

205. As evidenced by extensive communications produced to the CFTC and reported in the press, the Defendants fully, intentionally, and systematically manipulated ISDAfix and interest rate derivatives prices to artificial levels for the express purpose of obtaining hundreds of billions of dollars in ill-gotten trading profits on interest rate derivatives, including swaps and swaptions, held by them or other co-conspirators, the price of which (and thus profits or losses) were benchmarked, traded, priced, and/or settled to ISDAfix, or traded, priced and/or settled around the time of the ISDAfix setting window. As an intended and direct consequence of Defendants' knowingly unlawful conduct, the prices of Plaintiffs' interest derivatives were manipulated to artificial levels by the Defendants.

206. During the Class Period, ISDAfix and the prices of interest rate derivatives that were benchmarked, traded, priced, and/or settled to ISDAfix or traded, priced and/or settled around the time of the ISDAfix setting window did not result from legitimate market information, competition, or supply and demand factors. As the foregoing economic evidence confirms, the ISDAfix rate and the value of interest rate derivatives were regularly manipulated to artificial levels during the Class Period.

207. Defendants directly caused artificial ISDAfix rates and artificial prices of interest rate derivatives. By executing manipulative trades among themselves, submitting artificial executable bids and offers, submitting identical quotes to ICAP, and conspiring to delay the publication of trades, the Defendant Banks directly caused artificial ISDAfix rates and values of interest rate derivatives that were benchmarked, traded, priced, and/or settled to ISDAfix, or traded, priced and/or settled around the time of the ISDAfix setting window.

208. As a direct result of Defendants' unlawful conduct, Plaintiffs and members of the Class have suffered actual damages and injury in fact due to artificial ISDAfix rates and prices

for interest rate derivatives that were benchmarked, traded, priced, and/or settled to ISDAfix or traded, priced and/or settled around the time of the ISDAfix setting window.

THIRD CLAIM FOR RELIEF

(Principal-Agent Liability in Violation of §2 of the Commodity Exchange Act)

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

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

211. Plaintiffs and members of the Class are each entitled to actual damages sustained in interest rate swaptions and other financial instruments for the violations of the CEA alleged herein.

FOURTH CLAIM FOR RELIEF

(Aiding and Abetting Liability in Violation of §22 of the Commodity Exchange Act)

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

213. Defendants knowingly aided, abetted, counseled, induced, and/or procured the violations of the CEA alleged herein. Defendants did so knowing of each other's manipulation of the ISDAfix rate and willfully intended to assist these manipulations, which resulted in interest rate swaptions and other derivative products pricing becoming artificial during the Class Period in violation of §22(a)(1) of the CEA, 7 U.S.C. §25(a)(1).

214. Plaintiffs and members of the Class are each entitled to actual damages sustained in interest rate swaptions and other financial instruments for the violations of the CEA alleged herein.

FIFTH CLAIM FOR RELIEF

(Breach of Contract)

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

216. This count is against the Defendant Banks only.

217. With respect to swaptions and other interest rate derivatives that settled by reference to ISDAfix rates, Defendant Banks had an explicit contractual duty to act in good faith when determining the payments, if any, due to Plaintiffs and members of the Class. Defendant Banks, however, manipulated the benchmark which was used to make that determination. Despite knowing that the core benchmark for calculating the payments owed to Plaintiffs and Class members was set to artificial levels, the banks used the numbers generated by that manipulated benchmark to pay out less to than Defendants truly owed, breaching their duty of good faith.

218. Defendant Banks and Class members (including Plaintiffs) entered into ISDA Master Agreements, which were accompanied by Schedules, Credit Support Annexes, and confirmations that used terms defined in the 2006 ISDA Definitions.

219. Under the ISDA Master Agreement, accompanying documents, and the 2006 ISDA Definitions, Defendant Banks, as Calculation Agents, had a duty to determine the Cash Settlement Amount due under their swaptions and other interest rate derivatives that settled by reference to ISDAfix rates in good faith and in a commercially reasonable manner. Defendant Banks breached this duty when they determined the Cash Settlement Amount with reference to an ISDAfix rate that they knew was regularly manipulated. Defendant Banks also were contractually obligated by the ISDA Master Agreements to “comply in all material respects with all applicable laws . . . to which it may be subject if failure so to comply would materially impair

its ability to perform its obligations under this Agreement.” Defendant Banks breached this obligation by violating numerous laws through their collusion to manipulate and actual manipulation of ISDAfix rates.

220. Defendant Banks breached their swaptions and other interest rate derivatives that settled by reference to ISDAfix rates with Plaintiffs and members of the Class through their collusion to manipulate ISDAfix rates, their actual manipulation of ISDAfix rates, their failure to disclose their knowledge that the ISDAfix rates were manipulated, and their collection of overpayments from (or making underpayments to) Plaintiffs and Class members based on the manipulated ISDAfix rates.

221. Because of the acts of Defendant Banks and their co-conspirators as alleged herein, Class members’ (including Plaintiffs’) swaptions and other interest rate derivatives that settled by reference to ISDAfix rates were made less profitable than they would have been in the absence of manipulation. As a result of Defendant Banks’ breaches of their contracts with Plaintiffs and Class members, the Class members (including Plaintiffs) have suffered economic losses and damages in an amount to be determined at trial, and are entitled to be placed in the same situation as if Defendant Banks had fully performed under their ISDA Master Agreements. Plaintiffs and members of the Class seek all losses caused by ISDAfix manipulation, including loss of interest, lost profits, and all losses on the swaptions and other interest rate derivatives that settled by reference to ISDAfix rates that they directly transacted with a Defendant Bank as their counterparty. Plaintiffs and members of the class have also incurred reasonable out-of-pocket expenses, including legal and expert fees, to enforce and protect their rights under their contracts with Defendant Banks.

SIXTH CLAIM FOR RELIEF

(Breach of Implied Covenant of Good Faith and Fair Dealing)

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

223. This count is against the Defendant Banks only.

224. As stated above, Defendant Banks and members of the Class (including Plaintiffs) entered into ISDA Master Agreements, accompanying documents, and transactions using terms defined by the 2006 ISDA Definitions. Implied in these agreements was a covenant that the counterparties would deal with each other in good faith and would not engage in any conduct to deprive the other of the benefits of their respective agreements. Also implied was a promise by the Defendant Banks that ISDAfix rates – by which the swaptions and other interest rate derivative transactions would be valued – would not be manipulated to the Defendant Banks’ benefit and Class members’ detriment.

225. Defendant Banks failed to perform their obligations in good faith under these agreements by knowingly, intentionally, and secretly manipulating ISDAfix rates to either reduce the payments they would have to make or to increase the payments they were entitled to receive at the expense of the Plaintiffs and members of the Class, or by negotiating settlement amounts to terminate swaptions and other financial instruments based on manipulated ISDAfix rates. At the very least, Defendant Banks acted with reckless disregard for the interests of Plaintiffs and members of the Class.

226. As the banks knew, their manipulation of ISDAfix rates deprived Plaintiffs and members of the Class of the benefit of their bargain. Had the Defendant Banks not manipulated ISDAfix rates, Class members’ swaptions and other interest rate derivative transactions would

have been more profitable or Plaintiffs' losses on those transactions would have been lower. As a direct and proximate result of Defendant Banks' knowing, intentional, and bad faith violation of the ISDA Master Agreement's implied covenant of good faith and fair dealing, Plaintiffs and members of the Class have suffered damages in an amount to be determined at trial. Plaintiffs and members of the Class seek all losses caused by ISDAfix manipulation, including loss of interest, lost profits, and all losses on the swaptions and other financial instruments that they directly transacted with a Defendant Bank as their counterparty.

SEVENTH CLAIM FOR RELIEF

(Unjust Enrichment)

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

228. This count is against the Defendant Banks only.

229. Defendant Banks and members of the Class, including Plaintiffs, entered into interest rate derivatives transactions. Such transactions were either directly valued by comparison to an ISDAfix rate or were valued by Plaintiffs with reference to ISDAfix rates that were supposed to reflect actual market conditions. Rather than compete honestly and aggressively with each other, Defendant Banks colluded to manipulate ISDAfix rates to ensure they had an unfair advantage in the marketplace.

230. Defendant Banks financially benefited from their unlawful acts described herein, including, but not limited to, coordinating the manipulation of the ISDAfix rates through the contributor quotation process or through other activities designed to artificially suppress, inflate, maintain, or otherwise alter the ISDAfix rate. These unlawful acts caused Plaintiffs and Class members to suffer injury, lose money, and otherwise be deprived of the benefit of accurate ISDAfix rates reflecting actual market conditions, as well as the ability to accurately value

swaptions and other financial instruments through reference to an accurate ISDAfix rate, and thus received, upon execution or settlement of their trades, less in value than they would have received absent Defendants' wrongful conduct.

231. Because of the acts of Defendant Banks and their co-conspirators as alleged herein, Defendant Banks have been unjustly enriched at the expense of Plaintiffs and members of the Class.

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

PRAYER FOR RELIEF

Plaintiffs demand relief as follows:

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

B. That the unlawful conduct alleged herein be adjudged and decreed to violate §1 of the Sherman Antitrust Act, 15 U.S.C. §1;

C. That Defendants be permanently enjoined and restrained from continuing and maintaining the conspiracy alleged in the Complaint under Section 16 of the Clayton Antitrust Act, 15 U.S.C. §26;

D. That the Court award Plaintiffs and the Class damages against Defendants for their violations of federal antitrust laws, in an amount to be trebled under Section 4 of the Clayton Antitrust Act, 15 U.S.C. §15, plus interest;

E. That the Court award Plaintiffs 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;

F. That the Court award Plaintiffs and the Class damages against Defendants for their express breaches of contract, as well as their breaches of their implied duty of good faith and fair dealing;

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

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

DEMAND FOR JURY TRIAL

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

DATED: October 31, 2014

/s/ Daniel L. Brockett

Daniel L. Brockett
Daniel Cunningham
Marc L. Greenwald
Steig D. Olson
**QUINN EMANUEL URQUHART
& SULLIVAN, LLP**
51 Madison Avenue, 22nd Floor
New York, New York 10010-1601
Telephone: (212) 849-7000
Fax: (212) 849-7100
danbrockett@quinnemanuel.com
danielcunningham@quinnemanuel.com
marcgreenwald@quinnemanuel.com
steigolson@quinnemanuel.com

Jeremy D. Andersen (*pro hac vice*)
865 South Figueroa Street, 10th Floor
Los Angeles, California 90017
Telephone: (213) 443-3000
Fax: (213) 443-3100
jeremyandersen@quinnemanuel.com

*Counsel for Alaska Electrical Pension
Fund; County of Beaver,
Pennsylvania; County of Washington,
Pennsylvania; County of
Westmoreland, Pennsylvania; and
City of New Britain, Connecticut*

Jay W. Eisenhofer
Linda P. Nussbaum
Peter A. Barile III
GRANT & EISENHOFER, P.A.
485 Lexington Avenue
New York, NY 10017
Telephone: (646) 722-8500
Fax: (646) 722-8501
jeisenhofer@gelaw.com
lnussbaum@gelaw.com
pbarile@gelaw.com

*Counsel for County of Montgomery,
Pennsylvania*

/s/ David W. Mitchell

Patrick J. Coughlin
David W. Mitchell
Brian O. O'Mara
Randi D. Bandman
Lonnie Browne
**ROBBINS GELLER RUDMAN
& DOWD LLP**
655 West Broadway, Suite 1900
San Diego, CA 92101
Telephone: (619) 231-1058
Fax: (619) 231-7423
patc@rgrdlaw.com
davidm@rgrdlaw.com
bomara@rgrdlaw.com
randib@rgrdlaw.com
lbrowne@rgrdlaw.com

*Counsel for Alaska Electrical Pension
Fund; County of Beaver,
Pennsylvania; County of Washington,
Pennsylvania; County of
Westmoreland, Pennsylvania; and
City of New Britain, Connecticut*

Stanley D. Bernstein
Ronald J. Aranoff
BERNSTEIN LIEBHARD LLP
10 East 40th Street, 22nd Floor
New York, New York 10016
Telephone: (212) 779-1414
Fax: (212) 779-3218
bernstein@bernlieb.com
aranoff@bernlieb.com

*Counsel for Alaska Electrical Pension
Fund; County of Beaver,
Pennsylvania; County of Washington,
Pennsylvania; County of
Westmoreland, Pennsylvania; and
City of New Britain, Connecticut*

/s/ David R. Scott

David R. Scott
Christopher M. Burke
Donald A. Broggi
Sylvia M. Sokol
Kristen M. Anderson
Thomas K. Boardman
**SCOTT+SCOTT,
ATTORNEYS AT LAW, LLP**
The Chrysler Building
405 Lexington Ave, 40th Floor
New York, New York 10174-4099
Telephone: (800) 404-7770
Fax: (212) 223-6334
david.scott@scott-scott.com
cburke@scott-scott.com
dbroggi@scott-scott.com
ssokol@scott-scott.com
kanderson@scott-scott.com
tboardman@scott-scott.com

*Counsel for Alaska Electrical Pension
Fund; County of Beaver,
Pennsylvania; County of Washington,
Pennsylvania; County of
Westmoreland, Pennsylvania; and
City of New Britain, Connecticut*

James E. Cecchi
**CARELLA, BYRNE, CECCHI,
OLSTEIN, BRODY &
AGNELLO, P.C.**
5 Becker Farm Road
Roseland, NJ 07068
Telephone: (973) 994-1700
Fax: (973) 994-1744
jcarella@carellabyrne.com

*Counsel for County of Montgomery,
Pennsylvania*

Gregory S. Ascioffa
Jay L. Himes
David J. Goldsmith
Robin A. Van Der Meulen
Matthew J. Perez
LABATON SUCHAROW LLP
140 Broadway
New York, New York 10005
Telephone: (212) 907-0700
Fax: (212) 818-0477
gascioffa@labaton.com
jhimes@labaton.com
dgoldsmith@labaton.com
rvandermeulen@labaton.com
mperez@labaton.com

*Counsel for Genesee County
Employees' Retirement System*

R. Bryant McCulley
McCULLEY McCLUER PLLC
2113 Middle Street, Suite 208
Sullivan's Island, SC 29482
Telephone: (205) 238-6757
Fax: (662) 368-5806
bmcculley@mcculleymccluer.com

*Counsel for Magnolia Regional
Health Center*

Shelly L. Friedland (SF-2449)
TRIEF & OLK
150 East 58th Street
34th Floor
New York, NY 10155
Telephone: (212) 486-6060
Fax: (212) 317-2946
sfriedland@triefandolk.com

*Counsel for Magnolia Regional
Health Center*

Stuart H. McCluer
McCULLEY McCLUER PLLC
1223 Jackson Avenue East
Suite 200
Oxford, MS 38655
Telephone: (662) 550-4511
Fax: (662) 368-5806
smccluer@mcculleymccluer.com

*Counsel for Magnolia Regional
Health Center*

Michael C. Dell'Angelo
BERGER & MONTAGUE, P.C.
1622 Locust Street
Philadelphia, PA 19103
Telephone: (215) 875-3000
Fax: (215) 875-4604
mdellangelo@bm.net

*Counsel for Magnolia Regional
Health Center*

Matthew Duncan
**FINE, KAPLAN AND BLACK,
R.P.C.**
1 South Broad St. 23rd Floor
Philadelphia, PA 19107
Telephone: (215) 567-6565
Fax: (215) 568-5872
md@finekaplan.com

*Counsel for Magnolia Regional
Health Center*