

**JUDGE FURMAN**

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

**14 CV 7126**

ALASKA ELECTRICAL PENSION FUND,  
on behalf of itself and all others similarly  
situated,

Plaintiff,

vs.

BANK OF AMERICA CORPORATION;  
BARCLAYS BANK PLC; BNP PARIBAS  
SA; CITIGROUP INC.; CREDIT SUISSE  
AG; DEUTSCHE BANK AG; GOLDMAN,  
SACHS & CO.; HSBC BANK PLC; ICAP  
PLC; J.P. MORGAN CHASE & CO.;  
NOMURA HOLDINGS INC.; ROYAL  
BANK OF SCOTLAND PLC; UBS AG; and  
WELLS FARGO & CO.,

Defendants.

No.: \_\_\_ Civ. \_\_\_

**CLASS ACTION COMPLAINT**

**JURY TRIAL DEMANDED**



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Plaintiff Alaska Electrical Pension Fund (“Alaska Electrical” or “Plaintiff”), individually and on behalf of all persons and entities similarly situated, brings this antitrust class action for treble damages and injunctive relief and alleges as follows:

**NATURE OF THE ACTION**

1. While it may not be familiar to the average investor, the “ISDAfix” benchmark rate is one of the more important benchmarks in the U.S. financial system. ISDAfix is a key interest rate for a broad range of interest rate derivatives and other financial instruments. It impacts 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.

2. 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 (as defined below), ISDAfix for swap rates priced in U.S. dollars (“USD”) was set every day between 11:00 and 11:15 a.m. Eastern Time. For USD swap rates, ISDAfix was administered by Defendant ICAP and was based on the submissions of the Defendant Banks.

3. Each day throughout the Class Period, ICAP was supposed to calculate and publish USD ISDAfix rates. Pursuant to a protocol established by the International Swaps and Derivatives Association (“ISDA”) – the creator of ISDAfix – ICAP was supposed to set ISDAfix rates by taking a “reference rate,” which was the average trading rate of interest rate swaps at 11:00 a.m. as calculated by ICAP, and then have each Defendant Bank either validate the

reference rate or else submit its own rate. ICAP would then adjust the reference rate based on the Defendant Banks' submissions and publish the ISDAfix benchmark rates for USD interest rate swaps of various terms.

4. 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 Plaintiff Alaska Electrical and the Class here. ISDAfix, which was based on averaging of real transaction data as calculated by ICAP, was intended to reflect competitive prices.

5. It turns out, however, that throughout the Class Period, the Defendant Banks and ICAP entered into a secret conspiracy to fix the ISDAfix rate at artificial levels. Instead of competing 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.

6. In particular, the Defendant Banks entered into an overarching agreement that, when any subset of banks faced particular exposure to the settlement of an ISDAfix-linked transaction on a certain day, the other banks and ICAP would help manipulate USD ISDAfix rates 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.

7. Defendants conspired to manipulate ISDAfix in at least three ways. *First*, the Defendant Banks conspired to manipulate the fixed swap rate 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 rates 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.

8. For its part, ICAP, which not only set the ISDAfix USD rates, but is also 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.”

9. Economic analyses commissioned by Plaintiff confirm this manipulative strategy. Numerous days throughout the Class Period, as defined below, show highly anomalous, statistically significant upward or downward spikes just before the benchmark setting that, within minutes after the conclusion of the process, recover to pre-benchmark fixed rates. These price spikes, which are entirely consistent with the evidence of Defendants’ conspiracy, can only be explained as the result of collusion among Defendants and ICAP.

10. *Second*, on numerous occasions throughout the Class Period, ICAP would agree with the Defendant Banks that it would delay the reporting of 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 ISDAfix rates 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 detailed herein confirms these collusive tactics.

11. *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.

12. The tell-tale evidence of Defendants' conspiracy is firmly established by the economic data. In particular, 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.

13. 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*, down to five decimal points. This resulted in the official ISDAfix

rate and the individual banks' contributions being identical to the ICAP reference rate 95% of the time for at least four years. ISDAfix rate quote submissions go to five decimal points – to a thousandth of a basis point. 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* between (at least) 2009 and December 2012. Just as conspicuously, this obvious coordination only stopped when the Defendant Banks learned that their benchmark-setting efforts were under investigation.

14. 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 market for swaptions is huge. The amount of notional derivatives underlying swaptions contracts outstanding as of July 26, 2013 totaled \$29.5 trillion, according to the Depository Trust & Clearing Corp.

15. 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.

16. The Defendant Banks are dealers that bought and sold cash-settled swaptions tied to ISDAfix with Plaintiff 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.

17. While this unlawful conspiracy was carried out for years in secret, without detection, it was ultimately uncovered in early 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 began interviewing ICAP brokers and employees of the Defendant Banks. In August 2013, based on recorded telephone calls and e-mails 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. Other regulators, such as the U.K. Financial Conduct Authority and Germany’s financial regulator Bafin, have also launched probes.

18. 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 Goldman Sachs, HSBC, Nomura, Royal Bank of Scotland, and Wells Fargo 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.

19. 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 and early 2013, the overwhelming majority of ISDAfix quote submissions were identical, as soon as 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 dispersion after early 2013 other than an abandonment of the prior conspiracy in reaction to government scrutiny and a shared realization that identical submissions across all contributing banks was not what should have happened for so many years.

20. Nonetheless, while Defendants are being investigated by government regulators and ICAP has been removed from its post, Plaintiff and the Class have not had their injuries redressed. Those injuries, which were felt on almost all interest rate derivatives transactions that referenced ISDAfix, are likely in the billions of dollars class-wide.

#### **JURISDICTION AND VENUE**

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

22. Venue is proper in this District pursuant to Sections 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 Plaintiff's 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.

23. 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. In addition, Defendants' activities, and those of their co-conspirators, were within the flow of, were intended to, and had a substantial effect on foreign and interstate commerce.

### **THE PARTIES**

#### **Plaintiff**

24. Plaintiff Alaska Electrical Pension Fund ("Alaska Electrical") is a pension fund that transacted with one or more Defendant Banks in interest rate derivatives that were tied to or directly affected by ISDAfix, and as a result was injured by Defendants' anticompetitive conduct.

#### **Defendants**

25. Whenever in this Complaint reference is made 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.

26. 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 was involved in and contributed to the setting of the ISDAfix rate, and transacted in interest rate derivatives with members of the Class.

27. 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 was involved in and contributed to the setting of the ISDAfix rate, and transacted in interest rate derivatives with members of the Class.

28. 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 was involved in and contributed to the setting of the ISDAfix rate, and transacted in interest rate derivatives with members of the Class.

29. 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 was involved in and contributed to the setting of the ISDAfix rate, and transacted in interest rate derivatives with members of the Class.

30. Defendant **Credit Suisse AG** is a corporation organized and existing under the laws of Switzerland, with its principal place of business in Zurich, Switzerland and branch locations in New York, New York. As used herein, “Credit Suisse” includes Defendant Credit Suisse AG and its subsidiaries and affiliates. During the Class Period, Credit Suisse was involved in and contributed to the setting of the ISDAfix rate, and transacted in interest rate derivatives with members of the Class.

31. 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 was involved in and contributed to the setting of the ISDAfix rate, and transacted in interest rate derivatives with members of the Class.

32. Defendant **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 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 was involved in and contributed to the setting of the ISDAfix rate, and transacted in interest rate derivatives with members of the Class.

33. 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 was involved in and contributed to the setting of the ISDAfix rate, and transacted in interest rate derivatives with members of the Class.

34. Defendant **J.P. Morgan 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, “JP Morgan” includes Defendant J.P. Morgan Chase & Co. and its subsidiaries and affiliates, including J.P. Morgan Chase Bank N.A. During the Class Period, JP Morgan was involved in and contributed to the setting of the ISDAfix rate, and transacted in interest rate derivatives with members of the Class.

35. Defendant **Nomura Holdings, Inc.** is a corporation organized and existing under the laws of Japan, with its principal place of business in Tokyo, Japan, and a branch location in New York, New York. As used herein, “Nomura” includes Defendant Nomura Holdings, Inc. and its subsidiaries and affiliates. Throughout the majority of the Class Period and until approximately October 2013, Nomura was involved in and contributed to the setting of the ISDAfix rate, and transacted in interest rate derivatives with members of the Class.

36. 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 was involved in and contributed to the setting of the ISDAfix rate, and transacted in interest rate derivatives with members of the Class.

37. 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 was involved in and contributed to the setting of the ISDAfix rate, and transacted in interest rate derivatives with members of the Class.

38. Defendant **Wells Fargo & Co.** is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business in San Francisco, California. As used herein, “Wells Fargo” or “Wachovia” includes Defendant 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 was involved in and contributed to the setting of the ISDAfix rate, and transacted in interest rate derivatives with members of the Class.

39. Bank of America, Barclays, BNP, Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, HSBC, JP Morgan, Nomura, RBS, UBS and Wells Fargo are referred to collectively herein as the “**Bank Defendants.**”

40. Defendant **ICAP plc** is a company organized and existing under English law, with its principal place of business in London, England, and a branch location 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.

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

42. 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**

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

44. The largest derivatives market in the world is the interest rate derivatives market. The most “vanilla” type of interest rate derivative is the interest rate swap, which is a transaction in which the parties 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 that is tied to an independent benchmark such as the London Interbank Offered Rate (“LIBOR”).<sup>1</sup>

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<sup>1</sup> 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

45. 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.

46. As the market for interest rate derivatives has grown, so too has the number and type of interest rate derivatives. One of the most common interest rate derivatives 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 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. 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.

47. 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-

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American and British regulatory agencies to have engaged in manipulation of LIBOR. The investigation into other participants in the LIBOR scandal, including other Defendant Banks, is ongoing.

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.

48. 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. The most common benchmark for performing this calculation is ISDAfix. Indeed, ISDAfix is the benchmark nominated to be the default rate by ISDA in the 2006 ISDA Definitions, which provide defined terms for documenting 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.

49. 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.

50. 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.

51. 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.

52. 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 H.15 Statistical Release, 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.

53. During the Class Period, as defined below, all of these interest rate derivatives and other financial instruments were transacted in the over-the-counter market, 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.

54. 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, four inter-dealer brokers are responsible for 83.6% of all activity in the market, with ICAP having the largest share of the market at 29.4%. The interest rate derivatives market is highly active and profitable for inter-dealer brokers like ICAP. At the end of 2012, there were \$370 trillion of rate swaps outstanding, and ICAP brokered \$1.4 trillion of those transactions every day.

55. During the relevant time 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 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. Such screens are critical for the companies that monitor them, and can make or break profit and loss. Screen 19901 was updated periodically throughout the day by ICAP as trades were executed.

**B. ISDAfix**

56. 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).

57. 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.”<sup>2</sup> ISDAfix “provides a transparent, readily available value and settlement rate.”<sup>3</sup> 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. 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.

58. According to ISDA’s definition of ISDAfix, each ISDAfix rate should represent “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 US \$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 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.”<sup>4</sup>

59. 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 rates published for the Euro, British Pound Sterling, the Hong Kong Dollar, Japanese Yen, the Swiss Franc, and the U.S. Dollar. The length or terms of swaps with an ISDAfix rate range from 1-year swaps to 30-year swaps. All ISDAfix rates are expressed as a percentage to three decimal

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<sup>2</sup> Intercontinental Exchange, *ISDAFIX*, <http://www.theice.com/iba/isdafix#contributors-users> (last visited Aug. 5, 2014).

<sup>3</sup> *Id.*

<sup>4</sup> ISDA, *ISDA Response to the European Commission’s Public Consultation on the Regulation of Indices* 7 (Nov. 29, 2012), <http://www2.isda.org/news/isda-response-to-the-european-commissions-public-consultation-on-the-regulation-of-indices>.

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 Pound Sterling and Swiss Francs. An ISDAfix rate is calculated either once or twice a day, depending on the currency.

60. 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.<sup>5</sup>

61. The ISDAfix rate was based on contributions submitted to ICAP or Reuters by banks during a 15 minute “polling window” in which the rate is calculated. During the Class Period, the Bank Defendants were the contributing banks for USD ISDAfix rates.

62. The polling window opened at 11:00 a.m. Eastern time for USD rates. The polling window for swaps of a specified term started with ICAP indicating, through the website, a reference-point swap spread and swap rate generated from recent swaps of that term completed through ICAP and executable bids and offers for swaps of that term submitted to ICAP, which ICAP brokers inputted manually onto the 19901 Screen.<sup>6</sup> Contributors could then privately submit their rates or accept ICAP’s reference rates.

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<sup>5</sup> 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.

<sup>6</sup> According to ISDA, ICAP would generate the reference point using (1) the “most recent swap spreads from completed trades and executable bids and offers in market size done/posted at ICAP” and displayed on Reuters page or screen 19901 at 11:00 AM, and (2) “executed trades and executable bids and offers at 11 [AM] for US Treasury securities from ICAP’s BrokerTec US Treasury electronic trading platform.” ISDA, *ISDAfix* (Oct. 18, 2012),

63. Contributing banks were asked to submit rates to ICAP for the full set of designated maturities for swaps of the given ISDAfix currency within the polling window. Contributors could update or amend their submissions at any time during this polling window. Quotes were submitted through a private, secure website.

64. At the end of the window, ICAP reviewed the submissions and published a calculated rate. ICAP calculated this rate by eliminating certain of the highest and lowest submissions (“topping and tailing”) and then averaging the remaining quotes (assuming enough quotes were received). This generated that day’s USD ISDAfix rates, which were then published on ISDAFIX screen 3.

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

65. The government investigations into possible manipulation of ISDAfix resulted, in part, from cooperation agreements reached in the earlier investigation of 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.

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

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<http://archive-org.com/page/476008/2012-10-18/http://www2.isda.org/asset-classes/interest-rates-derivatives/isdafix/> (last visited Aug. 28, 2014).

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, led to enormous fines and settlements for Defendants Barclays and UBS.

67. 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.

68. UBS's settlement "exposed the systemic problems with the rate-setting process."<sup>7</sup> According to Tracey McDermott, the enforcement director for the U.K. Financial Services Authority ("FSA"), UBS ignored "the integrity of benchmarks [which] are of fundamental importance to . . . international financial markets."<sup>8</sup> 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.

69. 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

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<sup>7</sup> Mark Scott & 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](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).

<sup>8</sup> *Id.*

attempts to manipulate, at times successfully, the official fixing of the daily Yen LIBOR.”<sup>9</sup>

ICAP and its clients, most noticeably UBS, worked together to hide their collusion from the rest of the market.

70. 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 their manipulation of Yen LIBOR, with Mythili Raman, head of the Justice Department’s criminal division, stating “We’re not done.”<sup>10</sup>

71. 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 they are conducting their own full investigation rather than merely assisting the CFTC. The investigation into ISDAfix is turning up the same 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 if they withhold any evidence.

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<sup>9</sup> 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>.

<sup>10</sup> David Enrich, Jean Eaglesham & Devlin Barrett, *ICAP is Fined \$87 Million in Libor Scandal*, Wall St. J. (Sept. 25, 2013), <http://online.wsj.com/news/articles/SB10001424052702303342104579096942161083458>.

72. In April 2013, the CFTC issued its first round of ISDAfix-related subpoenas. The CFTC is said to be sifting through millions of emails, 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 USD 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.”<sup>11</sup> 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.

73. 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. ISDAfix is shaping up to be the equivalent of the LIBOR scandal, if not larger.

**D. Defendants Conspired to Manipulate ISDAfix**

74. Throughout the Class Period, the Defendant Banks conspired to manipulate the ISDAfix benchmark rate so as 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 several ways, as summarized in the introduction above and expanded upon below.

75. The facts of this collusion have been confirmed not only by Plaintiff’s investigation, but also by government regulators such as the CFTC, the press, economic analyses

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<sup>11</sup> ICAP Group Holdings Plc, *Issue of EUR 350,000 3.125 Per Cent. Notes Dues March 2019 Under the £1,000,000,000 Global Medium Term Note Programme* 9 (Mar. 4, 2014), available at <http://www.icap.com/~media/Files/I/Icap-Corp/pdfs/002%20Final%20Terms.pdf>.

commissioned by Plaintiff, and even the conduct of Defendants themselves after their conspiracy was uncovered. But while Defendants' conspiracy is now evident, the Class remains injured – to the tune of billions of dollars – as a direct result of Defendants' conspiracy to manipulate ISDAfix.

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

76. The first thing Defendants did was to agree in advance to submit identical rate quotes to ICAP. After the ISDAfix “reference point” was set by ICAP, ISDAfix contributors submitted rate quotes to 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 gamed this process by agreeing to submit not their real rate quotes, but the same reference rate reported by ICAP – in effect, fixing prices. From at least 2009 to December 2012, 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.

77. 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. 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.

78. 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, e-mail 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 e-mails linked to this conspiracy.

79. Dispersion refers to the extent to which each ISDAfix quote submission varies from every other ISDAfix quote submission. Plaintiff's 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.

80. 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 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, we know LIBOR was manipulated, and the pattern there in 2006-2007 is consistent with similar behavior in ISDAfix.

81. 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 without collusion.

82. 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.

<b>Instrument</b>	<b>Dispersion (basis points)</b>	<b>Ratio to USD ISDAfix</b>
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

83. 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.<sup>12</sup> 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, we see substantially greater levels of dispersion.

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

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<sup>12</sup> The data within this table are based on ISDAfix submissions by dealer banks across a selected sample of days up to 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.

<b>Instrument</b>	<b>Dispersion (basis points)</b>	<b>Ratio to USD ISDAfix</b>
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

85. The above chart demonstrates that other benchmarks feature levels of dispersion<sup>13</sup> 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.

86. But all this changed starting in late 2012, with 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.

87. 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

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<sup>13</sup> The data within this table are 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 hopes of heading off further regulatory scrutiny of their conspiracy.

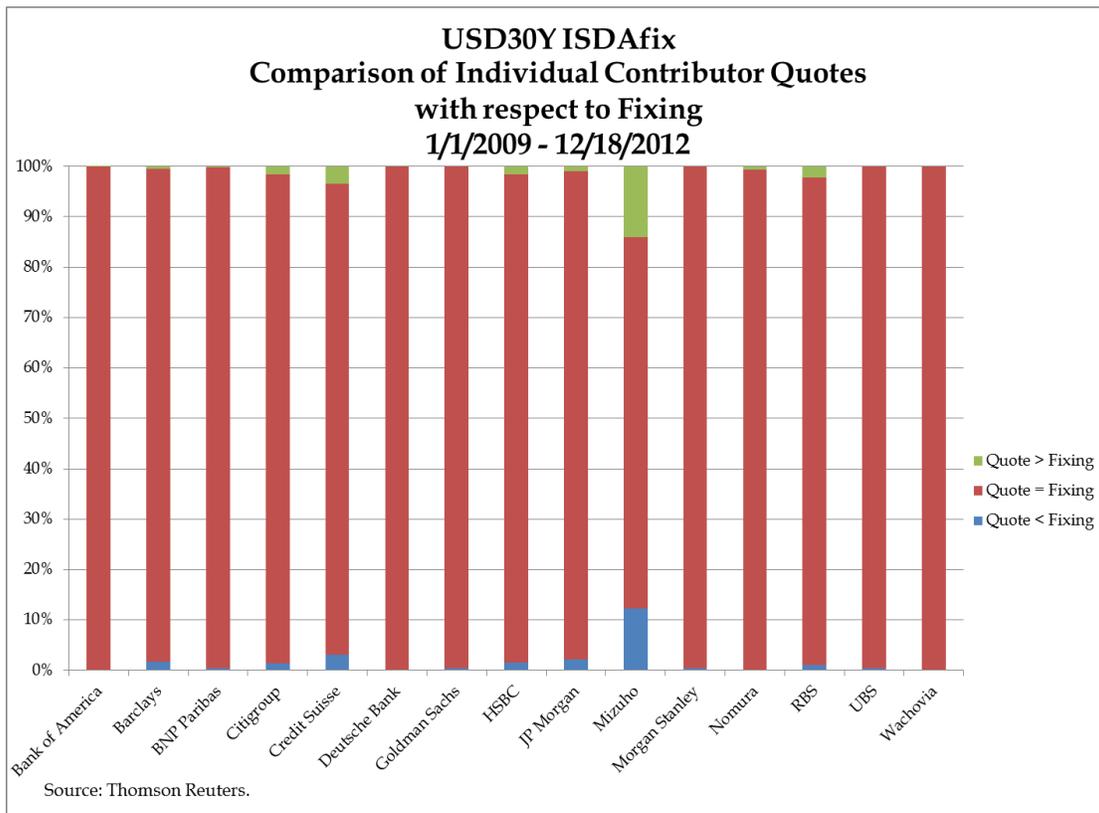
Average Percentage of Daily Contributor Quotes That Are Identical to ISDAfix				
Tenor	Period 1 (1/2/2009 - 12/18/2012)	Period 2 (12/19/2012 - 4/7/2013)	Period 3 (4/8/2013 - 8/1/2013)	Period 4 (8/2/2013 - 12/31/2013)
USD1Y	94.23%	67.72%	55.65%	43.00%
USD2Y	94.88%	61.99%	48.97%	38.68%
USD3Y	94.71%	58.41%	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.				

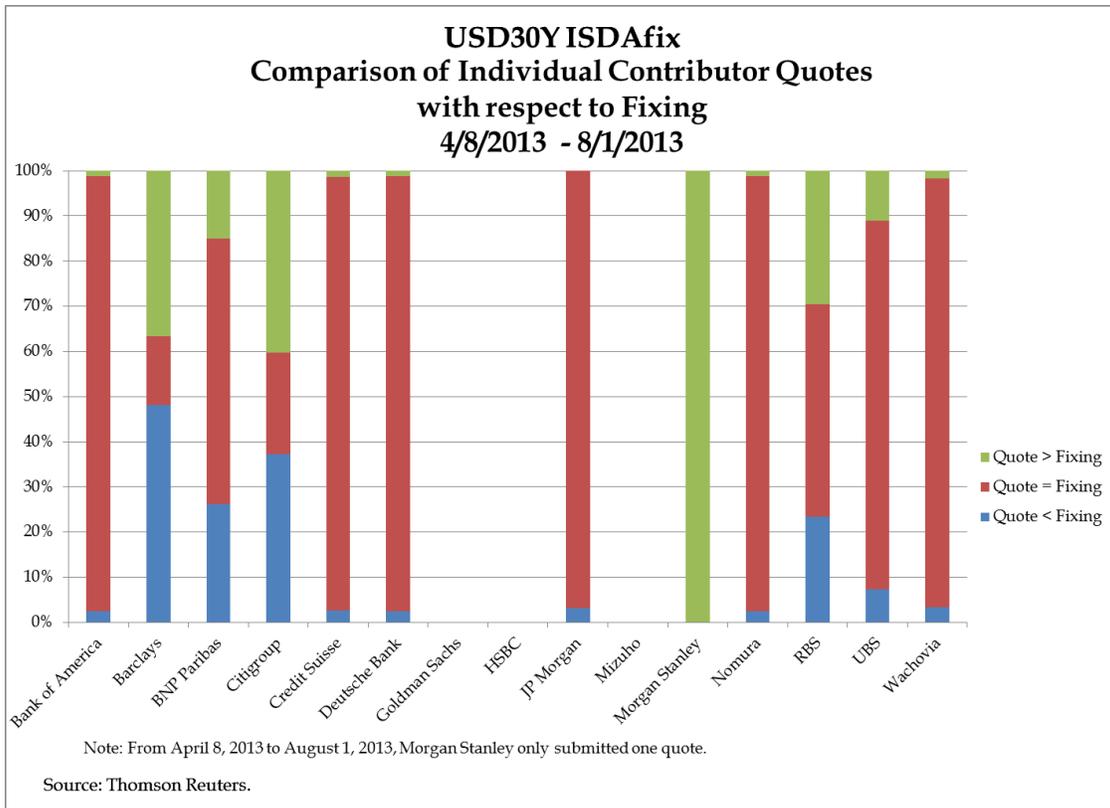
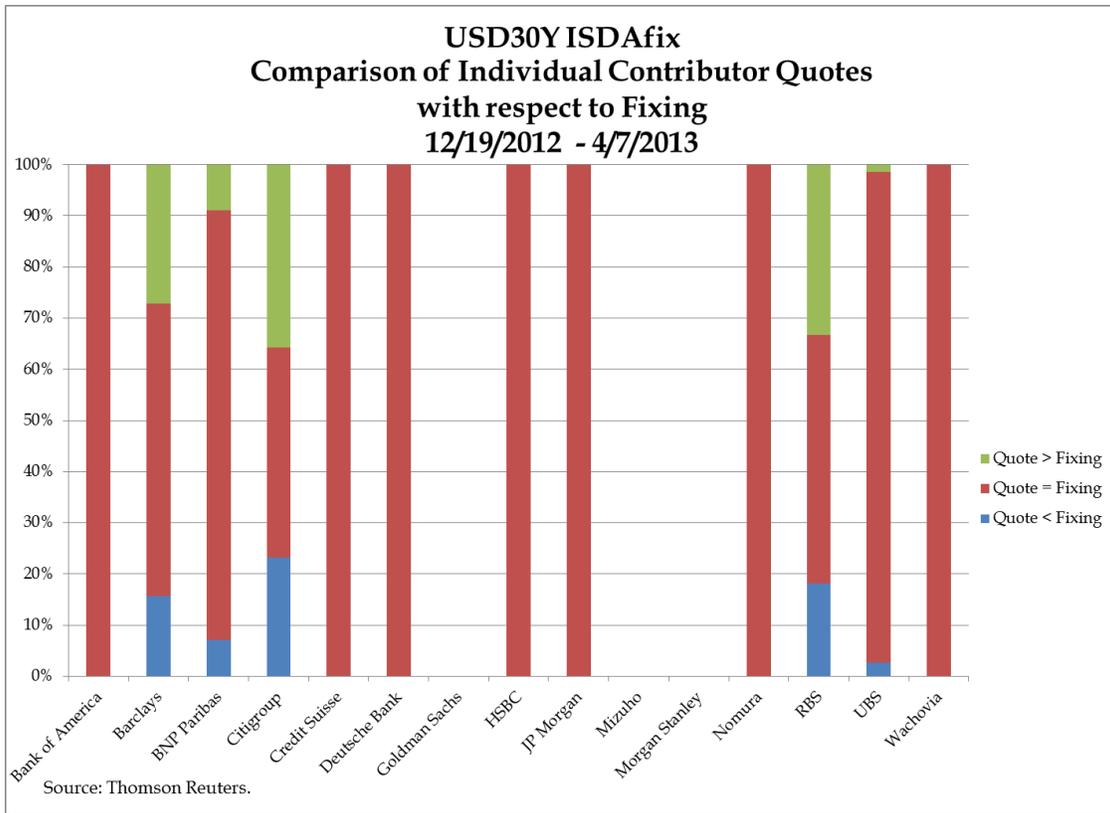
88. The above chart shows the average percentage of USD ISDAfix quote submissions for various durations that were identical to the ISDAfix reference rate for the day they were submitted. In Period 1 (from January 2, 2009 to December 18, 2012), well over 90% of ISDAfix quote submissions were identical 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.

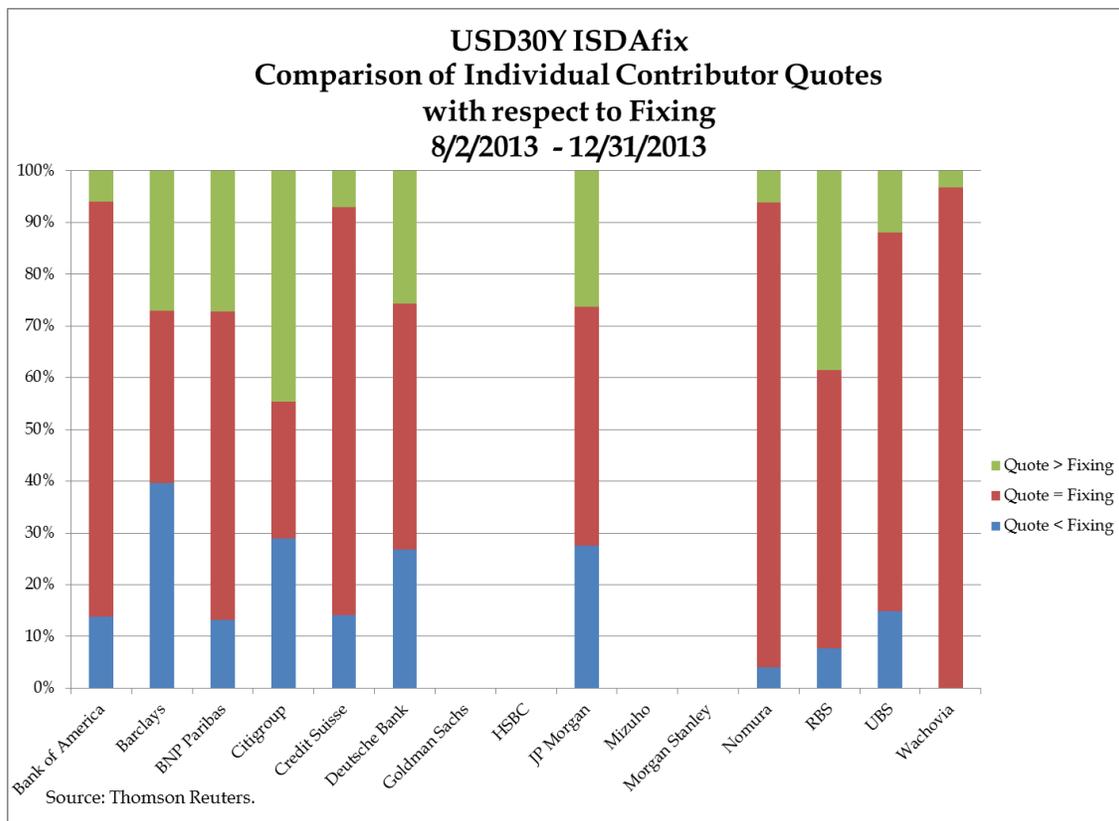
89. For example, in the USD6Y tenor, in Period 1, 95.73% of ISDAfix submissions were identical to the published ISDAfix rate. In the same tenor in Period 4, *only 29.02%* of

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.

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





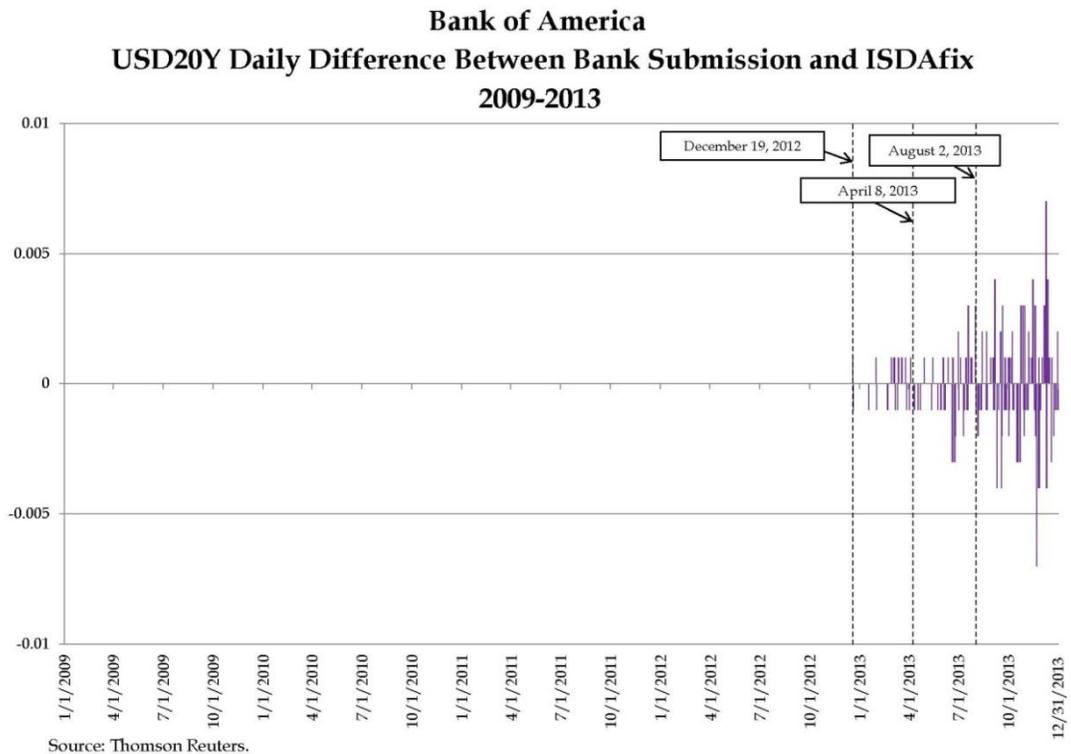


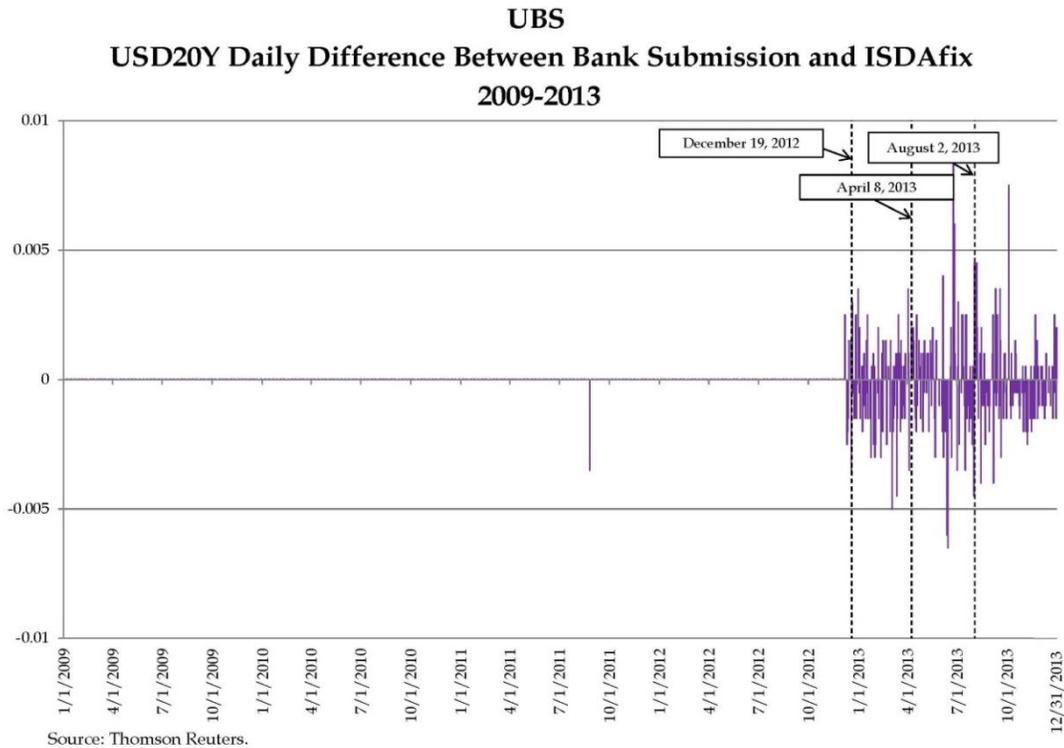
91. In the above charts, red represents the percentage of the time a Defendant Bank's ISDAfix submission was identical to the ISDAfix rate. Blue reflects the percentage of the time the ISDAfix rate was greater than the bank's quote, while green represents the percentage of the time that the ISDAfix rate 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.

92. 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 dispersed. 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 one 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.

93. 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 divergence after. The following charts represent Bank of America’s and UBS’ submission patterns over time in the USD 20Y tenor.





94. In the above charts, the purple line represents the extent to which the individual bank's ISDAfix quote submission 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. Suddenly, after December 19, 2012, the purple line moves upwards and downwards almost every day – the banks' quote submissions frequently do not match the ISDAfix rate. Charts demonstrating the same phenomenon are available for every other Defendant Bank, and have been attached as Appendix A.

95. 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 8 remain.<sup>14</sup> As with the rate quote dispersions, these departures are directly linked to the ongoing investigations into rate-fixing in 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.”<sup>15</sup> 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.”<sup>16</sup>

96. 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, Plaintiff’s 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

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<sup>14</sup> Intercontinental Exchange, *ISDAFIX Characteristics and Contributor Panel: US Dollar [USD] – Rates*, [https://www.theice.com/publicdocs/services/ISDAFIX\\_USD\\_Rates.pdf](https://www.theice.com/publicdocs/services/ISDAFIX_USD_Rates.pdf) (last visited Aug. 5, 2014).

<sup>15</sup> 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>.

<sup>16</sup> *Id.*

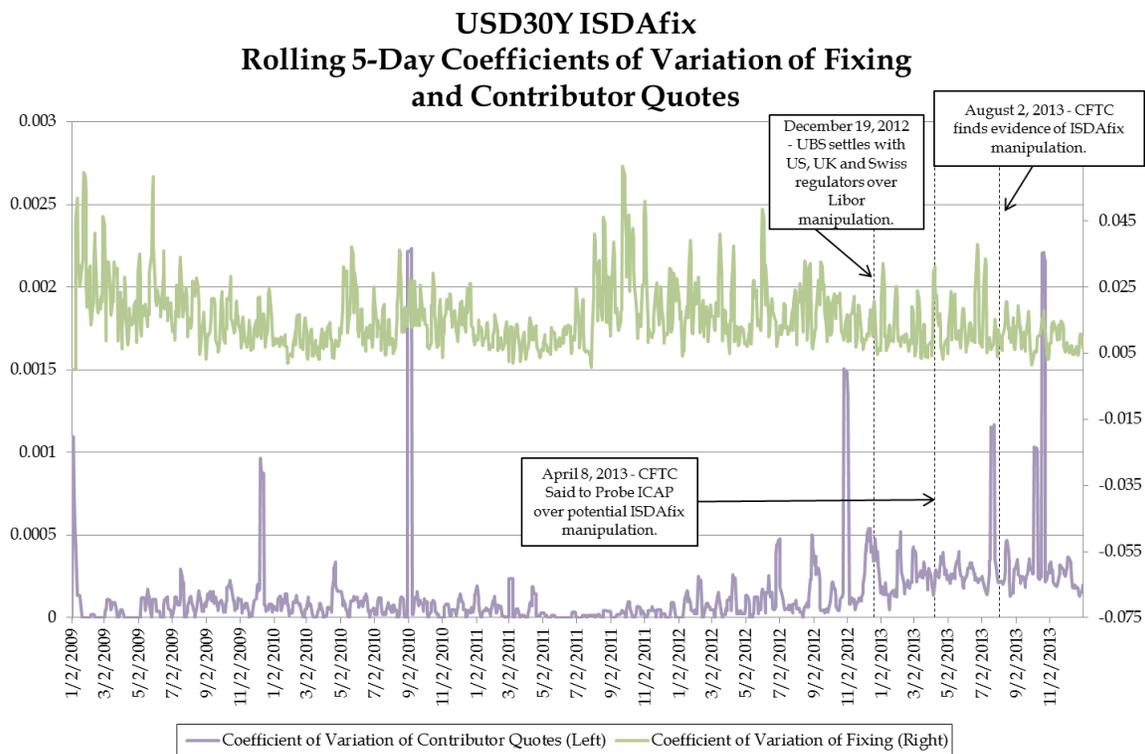
Defendant Banks changed their behavior amid increasing regulatory scrutiny.

Average Difference Between Minimum and Maximum Daily Contributor Quotes for 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	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.				

97. 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, and 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 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?

98. 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. But 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.

99. To underscore this point, for the 2006-2013 time period Plaintiff’s 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.

100. 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).

101. 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).

102. 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.<sup>17</sup> 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.

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<sup>17</sup> The data in this chart is solely from the Reuters actual/360 swap rate data. *See infra* note 24 below.

103. Indeed, while the rate of variation of contributor quote submissions rises 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 ICAP was implicated in LIBOR and other benchmark scandals.

104. 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 2009 to the present.

## **2. Manipulation of ISDAfix Through Trading Activities**

105. 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.

106. 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.

107. 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 been successful without the Defendants’ overarching conspiracy to submit identical rates matching ICAP’s reference rate, day-in and day-out.

108. Defendant Banks’ conspiracy was reached through a series of agreements among the Defendant Banks’ traders. These agreements were carried out through telephone calls, e-mails, 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.

109. 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.”<sup>18</sup> 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

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<sup>18</sup> 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>.

the next day.”<sup>19</sup> Those “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.”<sup>20</sup>

110. Frequently, these communications would involve only a subset of the Defendant Banks who had a particular interest in moving ISDAfix rates 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 be accomplished without the larger agreement of all of the ISDAfix submitting banks to conform their quotes to the reference rate provided by ICAP.

111. Correspondence produced by the Defendant Banks to the CFTC “shows that traders at Wall Street banks instructed ICAP brokers in Jersey City, New Jersey, to buy or sell as many interest rate swaps as necessary to move the benchmark.”<sup>21</sup> 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.”<sup>22</sup>

112. 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.”<sup>23</sup>

113. 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

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<sup>19</sup> *Id.*

<sup>20</sup> *Id.*

<sup>21</sup> *Id.*

<sup>22</sup> *Id.*

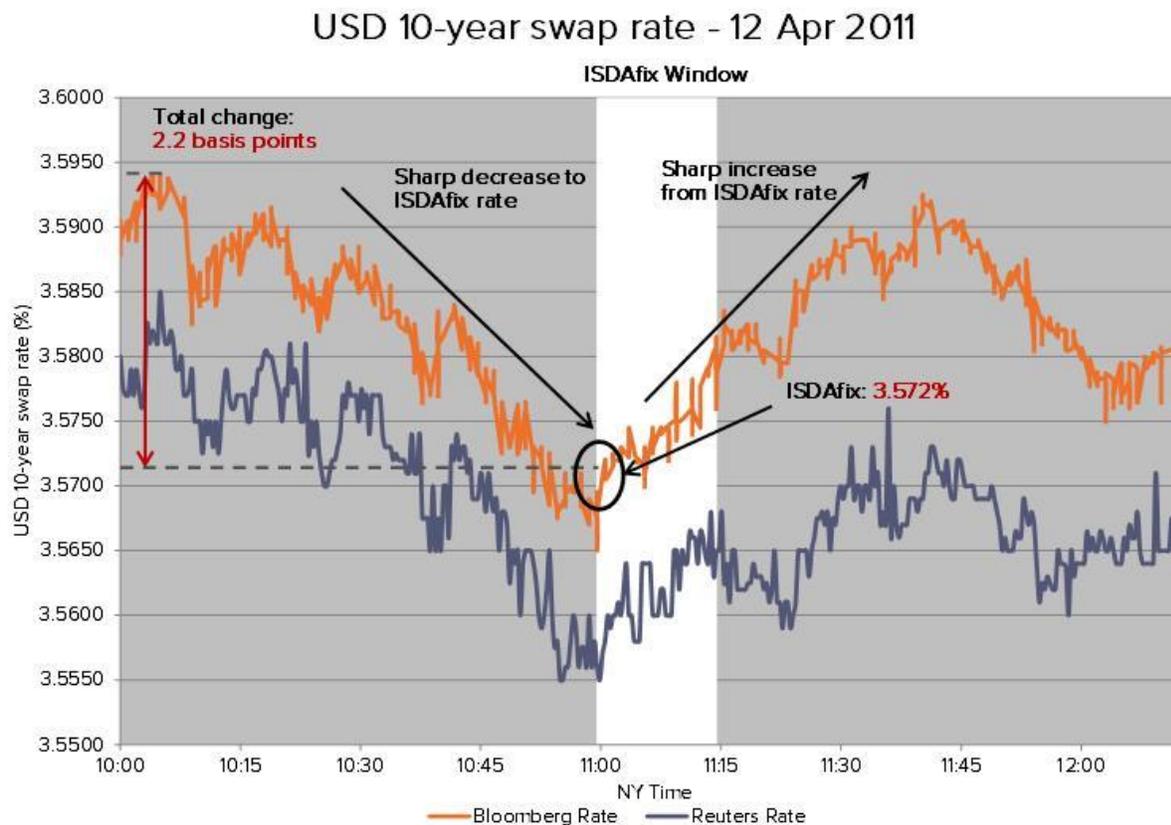
<sup>23</sup> *Id.*

overall transaction flow from the Defendant Banks. Consequently, ICAP brokers gladly assisted Defendant Banks in executing an exceedingly high volume of trades just before the “reference point” was set. 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*. 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.”

114. 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. Plaintiff’s 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.

115. This analysis revealed numerous dates during the Class Period where statistically significant, highly anomalous transactional patterns show sharp plunges or spikes in an ISDAfix USD 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.

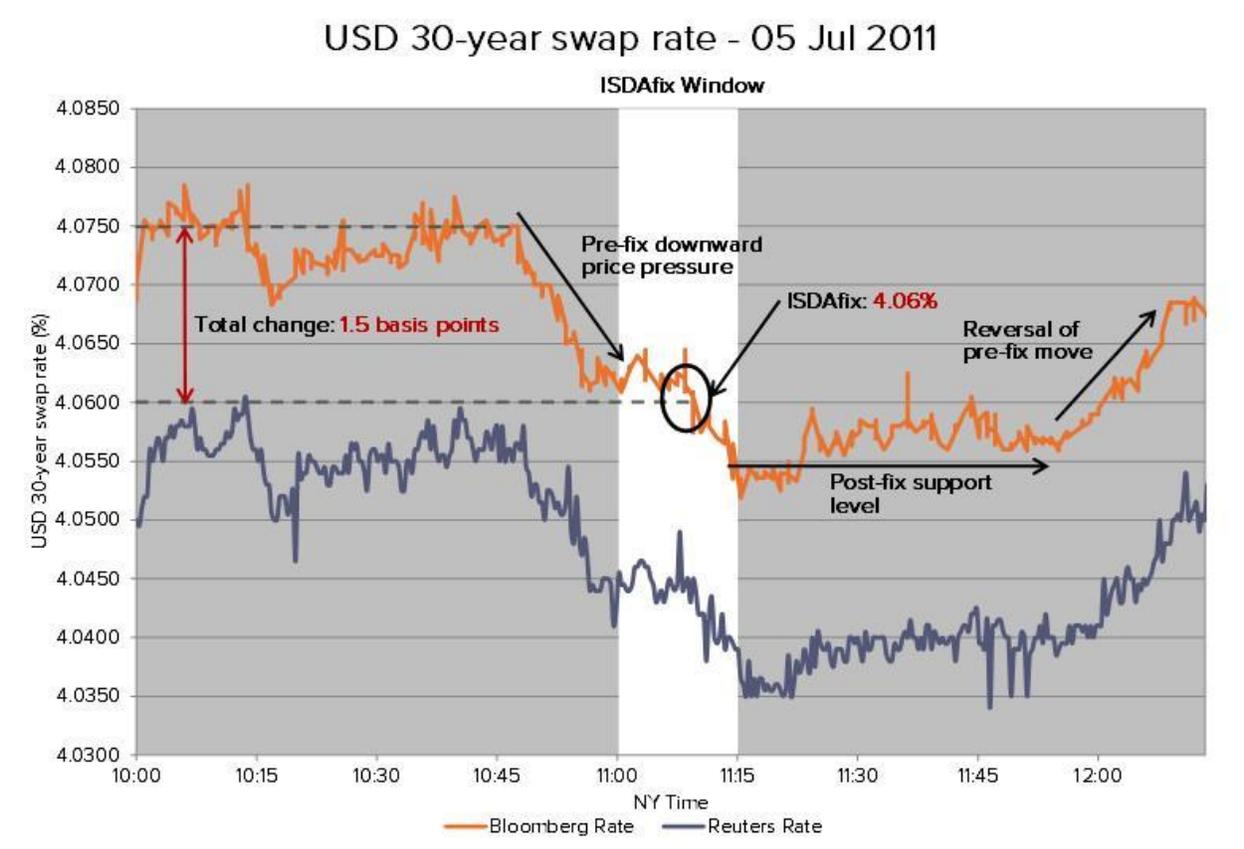
116. Examples from April 12, 2011 and July 5, 2011 demonstrate this manipulative practice:



117. 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.<sup>24</sup> 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

<sup>24</sup> 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. Plaintiff presents 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. Plaintiff 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.

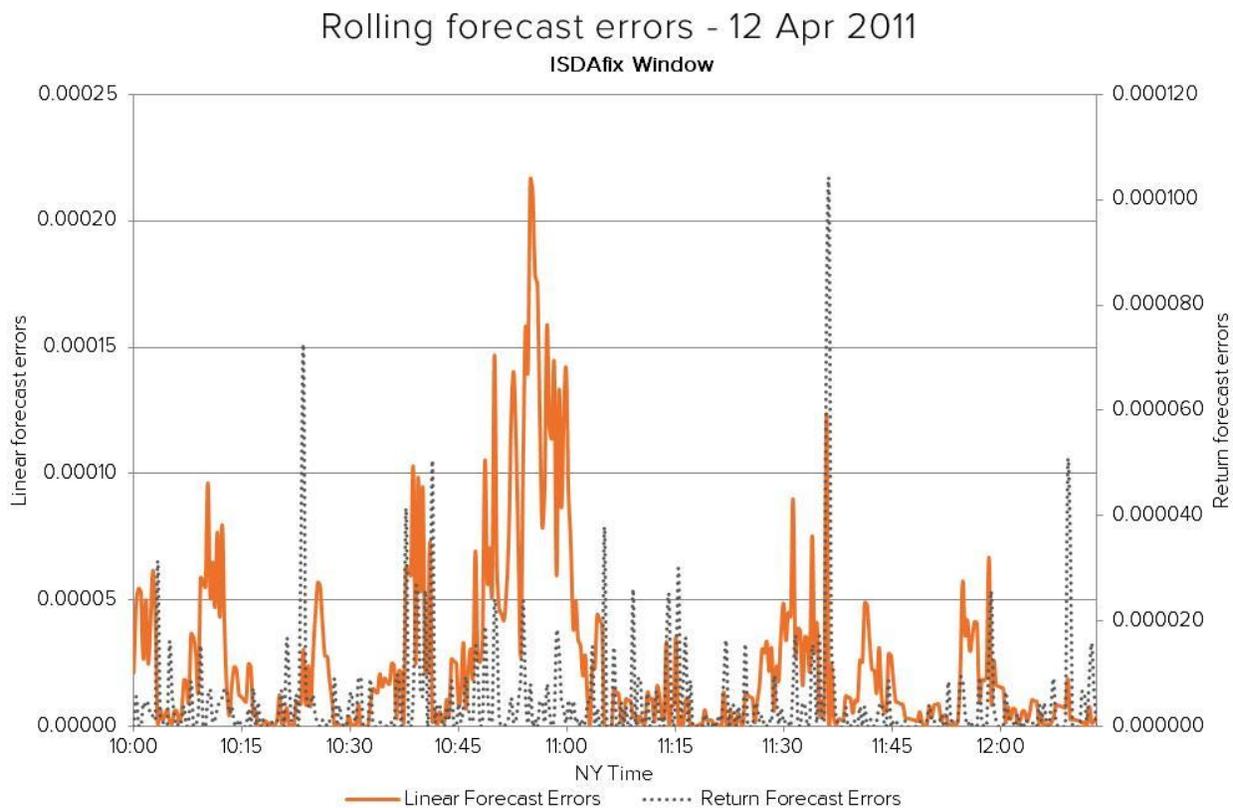


118. The chart above likewise shows a sharp drop in the 30-year swap rate just before the polling period, followed by a swift reversal 60 minutes later. This is another archetypal example of Defendants’ efforts to execute an inordinately high volume of low-rate transactions and submit low-rate executable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

119. To further illustrate this form of manipulation, Plaintiff’s 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.

120. 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.



121. 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 fifteen 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.

122. 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.**

123. 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 swap rate before the ISDAfix setting was complete.

124. Banks typically 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.

125. 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 direction opposite of how they were planning to manipulate ISDAfix.

126. 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 that 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 real time.”<sup>25</sup> The result was an artificial ISDAfix rate that was not reflective of actual market prices.

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

128. 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.”<sup>26</sup> According to *Bloomberg*, “If 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.”<sup>27</sup>

129. Economic analysis revealed 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

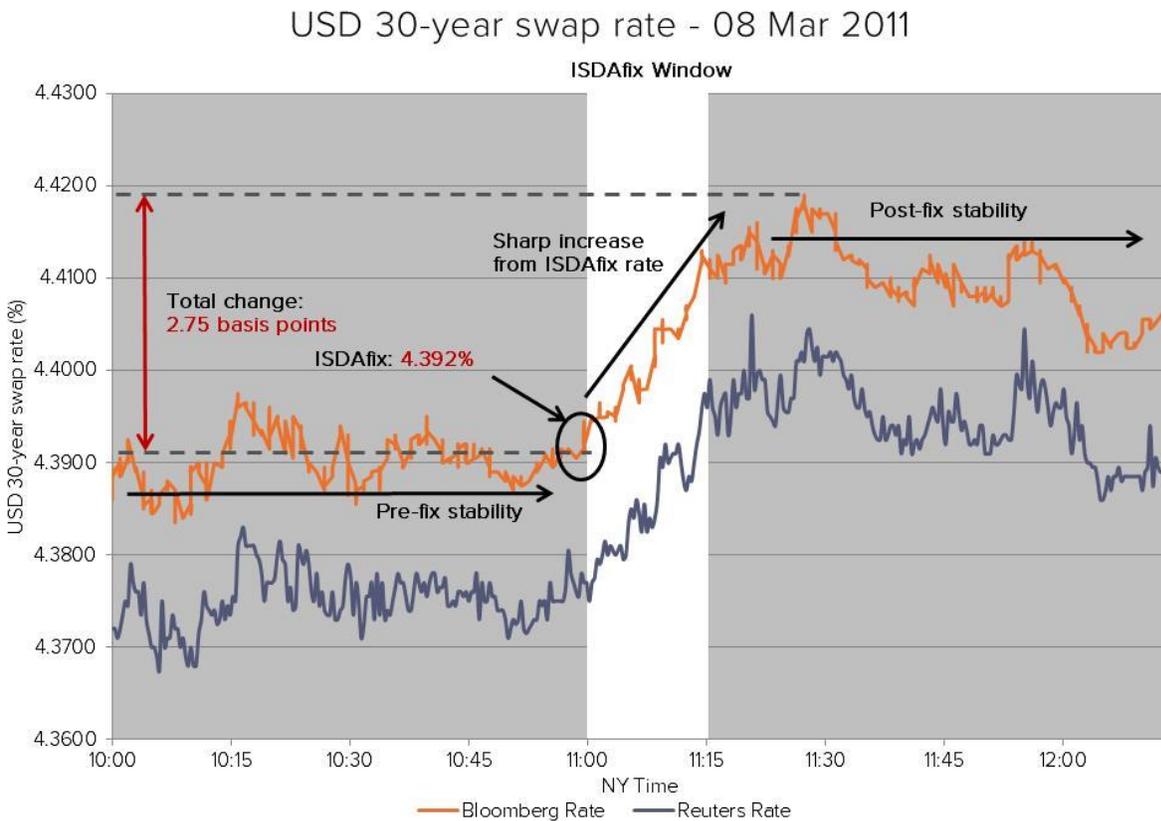
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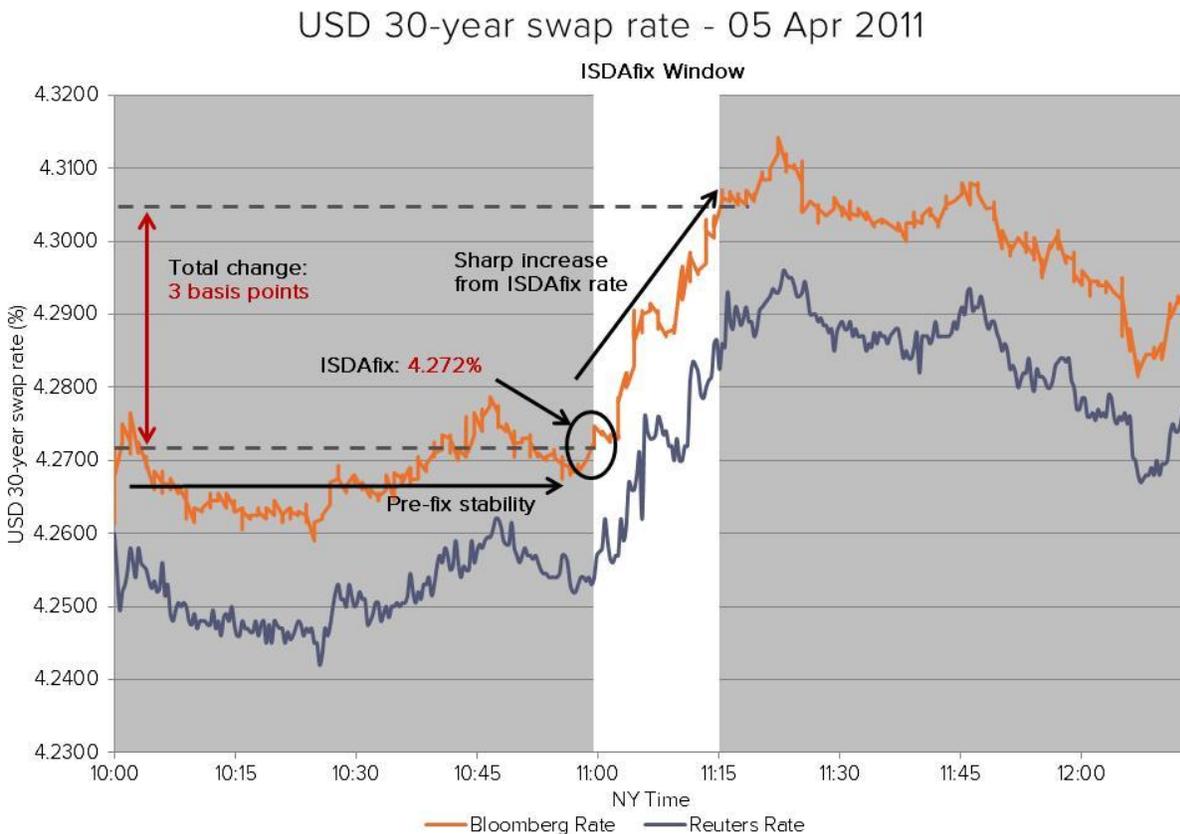
<sup>25</sup> Matthew Leising, *ICAP Brokers on ‘Treasure Island’ Said to Reap ISDAfix Rewards* Businessweek (Apr. 10, 2013), <http://www.businessweek.com/news/2013-04-10/icap-brokers-on-treasure-island-said-to-reap-isdafix-rewards>.

<sup>26</sup> 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>.

<sup>27</sup> 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>.

shot up or plunged. The following charts detailing swap rates on March 8, 2011 and April 5, 2011 demonstrate this phenomenon.

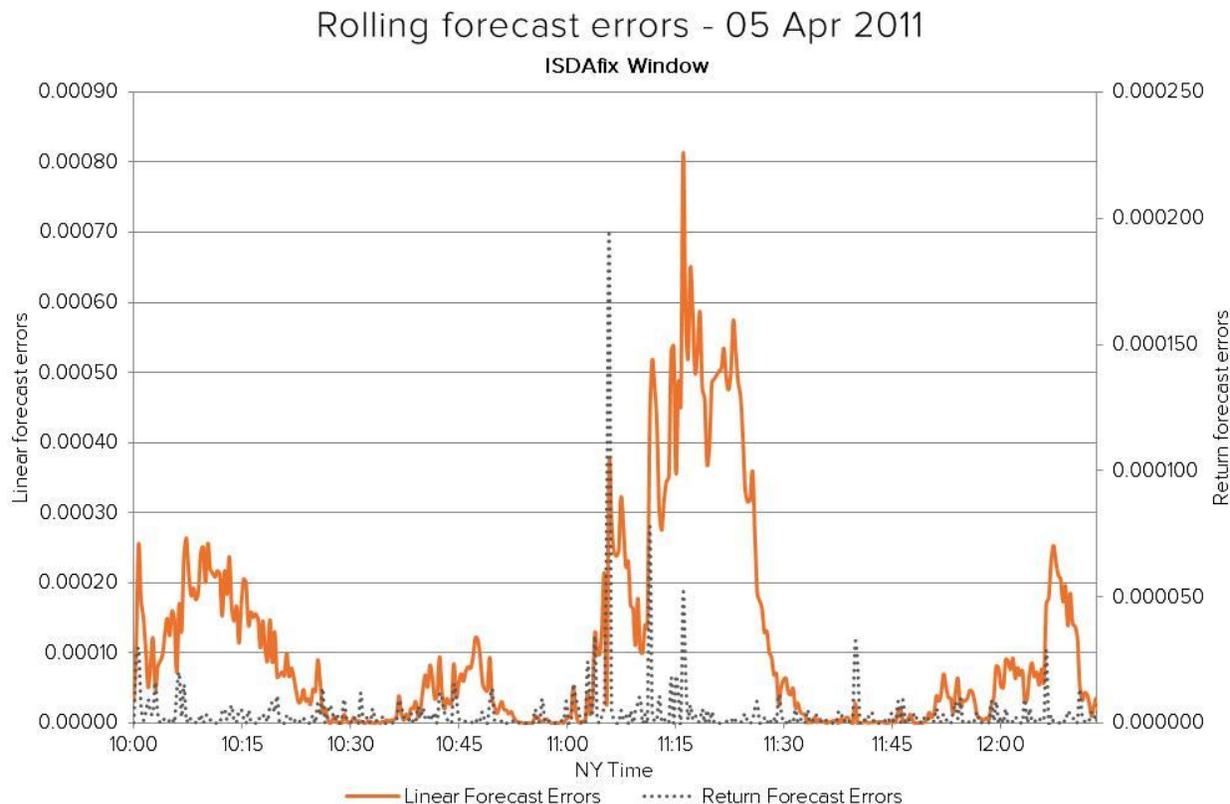




130. In each of the above charts, the orange and blue lines represent the average swap rate at a given point in time as calculated by Bloomberg and Reuters, respectively. In both charts, the average swap rate remains relatively stable until just after 11:00 a.m., when ICAP releases the ISDAfix “reference 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 Plaintiff and the Class.

131. Once more, Plaintiff’s 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. Plaintiff’s 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.



132. In the above chart, which measures data for the same day as the chart immediately above paragraph 130, 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 paragraph 130. This again suggests that ICAP brokers intentionally delayed inputting unfavorable swap rates to set the ISDAfix rate at a pre-determined level.

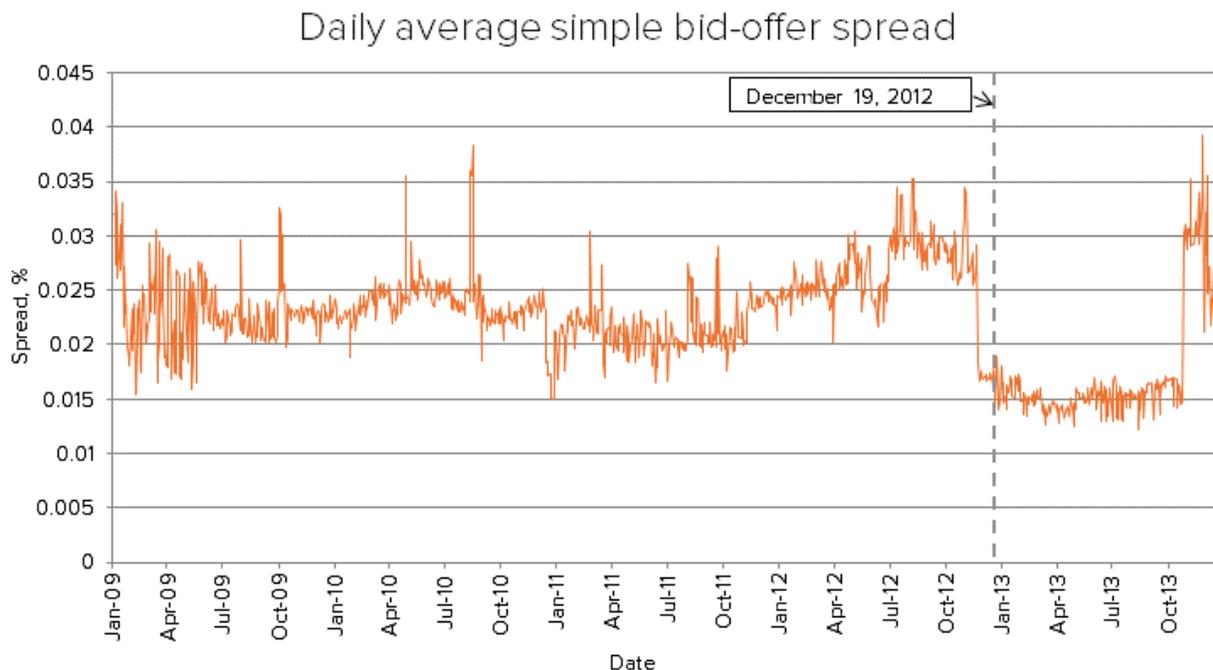
133. This practice was widespread until December 19, 2012, when UBS announced its settlement of the LIBOR matter. In the UBS settlement, there was for the first time a reference to inter-dealer brokers, like ICAP, being implicated in the LIBOR rate-fixing scandal. The U.K. FSA found that “UBS, through four of its Traders, **colluded with interdealer brokers** in coordinated attempts to influence JPY LIBOR submissions made by Panel Banks.”<sup>28</sup> The collusion was extensive; the FSA found UBS made “more than 1000 documented requests to 11 Brokers at six Broker Firms.”<sup>29</sup> 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.

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

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<sup>28</sup> FSA, *Final Notice to UBS AG* at 2, FSA.GOV.UK (Dec. 19, 2012) *available at* <http://www.fsa.gov.uk/static/pubs/final/ubs.pdf> (emphasis added).

<sup>29</sup> *Id.* at 3.



135. In this chart, the orange line represents the daily average spread between bids and offers for 10-year USD swaps.<sup>30</sup> 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.<sup>31</sup> 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.

136. 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

<sup>30</sup> The data in this chart is solely from the Reuters actual/360 swap rate data.

<sup>31</sup> The increase in spreads in October 2013 was likely caused by the combination of the federal government shutdown and the institution of regulations under the Dodd-Frank act that moved swaps trading onto public exchanges. 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>.

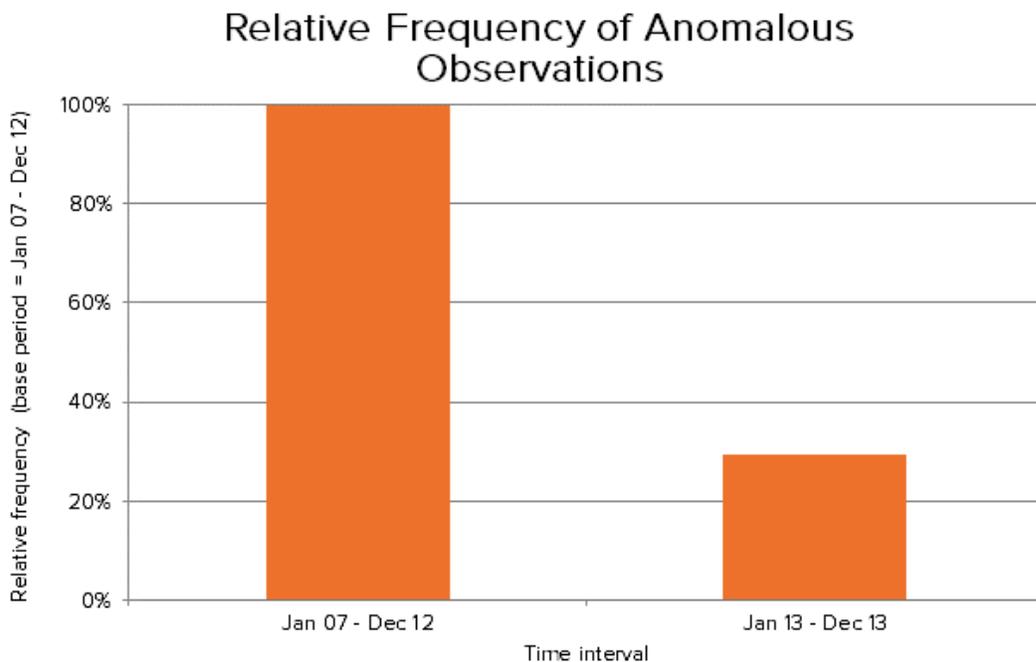
have moved during the time that some entries were delayed, it would momentarily appear as if the Defendant Banks had a distortedly large bid-offer spread as all of their delayed transactions were entered simultaneously with their current trades. Thus Defendant Banks' average spread would also be more 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.

137. 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. Such data shows that the practice of delaying entry of some transactions ended in late 2012 as the UBS settlement was announced.

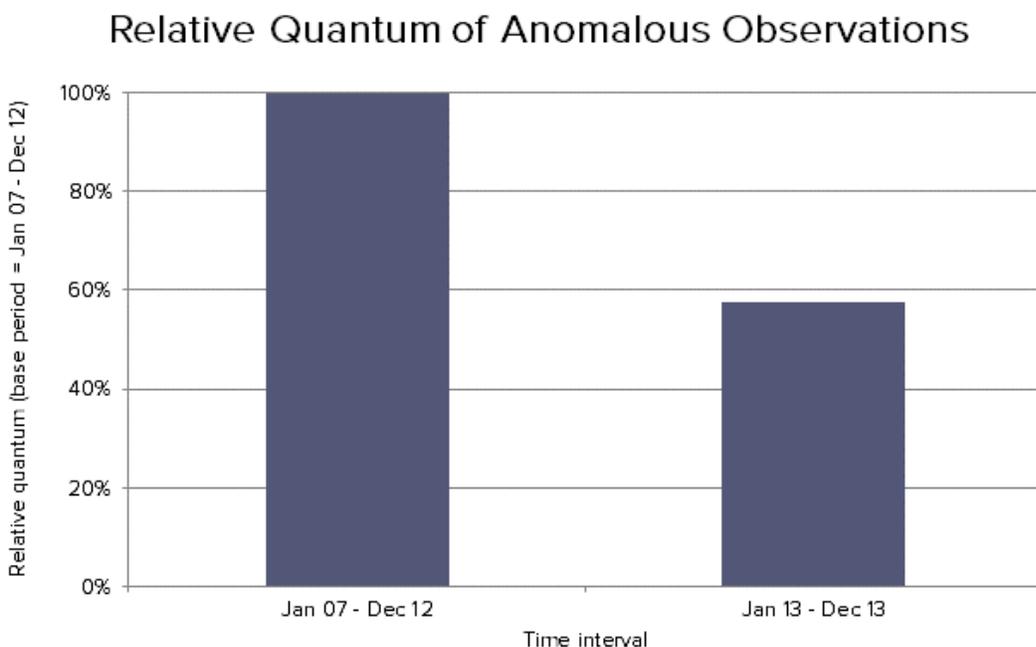
#### **4. Defendants Agreed to Submit ISDAfix Quotes Based on Manipulated Reference Rates**

138. The data shows that Defendants regularly colluded to match ICAP's manipulated ISDAfix reference rate. During 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.

139. Plaintiff's 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.



140. 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.



141. 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.

142. 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, 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.

143. The charts between paragraphs 90 and 91 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.

144. 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.

145. 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**

146. 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.

147. 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.

148. 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 Plaintiff and the Class.

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

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

150. 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 Plaintiff 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 Plaintiff from uncovering their unlawful conduct.

151. 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.

152. Due to Defendants' efforts to conceal their collusive conduct, Plaintiff 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, Plaintiff at that time did not know the full scope or purpose of Defendants' conspiracy.

153. 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.

154. Thus, while Plaintiff regularly monitored its 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 privately self-reported; 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.

155. 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 Plaintiff's claim.

**CLASS ACTION ALLEGATIONS**

156. Plaintiff brings this action on behalf of itself and as a class action under Rule 23(a), (b)(2), and (b)(3) of the Federal Rules of Civil Procedure, seeking 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 January 2014 (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.

157. Plaintiff believes 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.

158. 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 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 Plaintiff and other members of the Class;
- f. Whether Defendants and their co-conspirators fraudulently concealed the conspiracy's existence from the Plaintiff and the members of the Classes;
- g. Whether Defendants' conduct caused cognizable legal injury under the Commodity Exchange Act ("CEA");
- h. The appropriate injunctive and equitable relief for the Class;
- i. Whether Defendants were unjustly enriched at the expense of Plaintiff and the Class; and
- j. The appropriate measure of damages sustained by Plaintiff and other members of the Class.

159. Plaintiff purchased swaptions and other interest rate derivatives that were valued, executed, or settled using rates that were manipulated by Defendants, and its interests are coincident with and not antagonistic to those of the other members of the Class. Plaintiff is a member of Class; has claims that are typical of the claims of the Class members; and will fairly and adequately protect the interests of the members of the Class. In addition, Plaintiff is represented by counsel who are competent and experienced in the prosecution of antitrust and class action litigation.

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

161. 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.

162. 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.

### **CAUSES OF ACTION**

#### **FIRST CAUSE OF ACTION**

##### **(Conspiracy to Restrain Trade in Violation of Section 1 of the Sherman Act)**

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

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

165. 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

USD ISDAfix rates through the contributor quotation process or through other activities designed to artificially suppress, inflate, maintain, or otherwise alter USD ISDAfix rates.

166. This conspiracy to manipulate ISDAfix rates caused injury to both Plaintiff and the Class because they were 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 for some period during and following Defendants' unlawful conduct, and thus received, upon settlement of their trades, less in value than they would have received absent Defendants' wrongful conduct.

167. The conspiracy is a *per se* violation of Section 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' conduct.

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

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

## **SECOND CAUSE OF ACTION**

### **(Manipulation in Violation of the Commodity Exchange Act)**

170. Plaintiff incorporates by reference and realleges the preceding allegations as though fully set forth herein.

171. Each Defendant is liable under Sections 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 during the ISDAfix setting window.

172. The Defendant Banks had the ability to manipulate ISDAfix and interest rate derivatives, such as swaps and swaptions, referencing ISDAfix or executed during 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 during the ISDAfix setting window through manipulative trading strategies or the delaying of publication of actual transactions.

173. Defendant ICAP also had the ability to manipulate the USD ISDAfix rates and the price 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 the ISDAfix rates to any particular level.

174. As evidenced by extensive communications produced to the CFTC and reported in the press, the Defendants fully, intentionally and systematically manipulated USD ISDAfix 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. As an intended and direct consequence of Defendants' knowingly

unlawful conduct, the prices of ISDAfix and derivatives referencing ISDAfix were manipulated to artificial levels by the Defendants.

175. During the Class Period, ISDAfix and the prices of interest rate derivatives that were benchmarked, traded, priced and/or settled to ISDAfix 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.

176. 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.

177. As a direct result of Defendants' unlawful conduct, Plaintiff 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.

### **THIRD CAUSE OF ACTION**

#### **(Principal-Agent Liability in Violation of Section 2 of the Commodity Exchange Act)**

178. Plaintiff incorporates by reference and realleges the preceding allegations as though fully set forth herein.

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

180. Plaintiff and Class Members are each entitled to actual damages sustained in interest-rate swaptions and other financial instruments for the violations of the CEA alleged herein.

#### **FOURTH CAUSE OF ACTION**

##### **(Aiding and Abetting Liability in Violation of Section 22 of The Commodity Exchange Act)**

181. Plaintiff incorporates by reference and realleges the preceding allegations as though fully set forth herein.

182. 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 Section 22(a)(1) of the CEA, 7 U.S.C. § 25(a)(1).

183. Plaintiff and Class Members are each entitled to actual damages sustained in interest-rate swaptions and other financial instruments for the violations of the CEA alleged herein.

#### **FIFTH CAUSE OF ACTION**

##### **(Unjust Enrichment)**

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

185. Defendants 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 Plaintiff 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.

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

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

**PRAYER FOR RELIEF**

Plaintiff demands relief as follows:

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

B. That the unlawful conduct alleged herein be adjudged and decreed to violate Section 1 of the Sherman Act;

C. That Defendants be permanently enjoined and restrained from continuing and maintaining the conspiracy alleged in the Complaint;

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

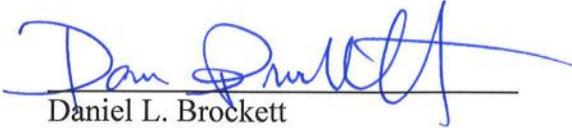
E. That the Court award Plaintiff and the Class their costs of suit, including reasonable attorneys' fees and expenses, as provided by law; and

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

**DEMAND FOR JURY TRIAL**

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

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