UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

IN RE EUROPEAN GOVERNMENT BONDS ANTITRUST LITIGATION	)	Lead Case No. 1:19-cv-2601
	)	Hon. Victor Marrero
	)	Hon. Sarah Netburn
	)	JURY TRIAL DEMANDED

FIFTH AMENDED CONSOLIDATED CLASS ACTION COMPLAINT

Plaintiffs Ohio Carpenters' Pension Fund ("Ohio Carpenters"), Electrical Workers Pension Fund Local 103 I.B.E.W. ("IBEW Local 103"), and San Bernardino County Employees' Retirement Association ("SBCERA") (collectively, "Plaintiffs"), on behalf of themselves and all others similarly situated, file this Complaint against Defendants Bank of America, N.A. and Merrill Lynch International (together, "Bank of America"); Natixis S.A. ("Natixis"); NatWest Markets plc (f/k/a Royal Bank of Scotland plc) and NatWest Markets Securities Inc. (f/k/a RBS Securities Inc.) (together, "NatWest" and formerly "RBS"); Nomura Securities International Inc. and Nomura International PLC (together, "Nomura"); UBS AG, UBS Europe SE (f/k/a UBS Limited and UBS Deutschland AG), and UBS Securities LLC f/k/a UBS Warburg LLC (together, "UBS"); UniCredit Bank AG ("UniCredit"); Citigroup Global Markets Limited and Citigroup Global Markets Inc. (together, "Citigroup"); JPMorgan Chase Bank, N.A., J.P. Morgan Securities plc (f/k/a J.P. Morgan Securities Ltd.), and J.P. Morgan Securities LLC (f/k/a J.P. Morgan Securities Inc.) (together, "JPMorgan"); Jefferies International Limited and Jefferies LLC (f/k/a Jefferies & Company, Inc.) (together, "Jefferies"); and State Street Corporation and State Street Bank and Trust Company (together, "State Street") (collectively, "Defendants"). Plaintiffs' allegations are made on personal knowledge as to Plaintiffs and Plaintiffs' own acts and upon information and belief as to all other matters.

I. NATURE OF THE ACTION

1. Plaintiffs' claim arises from Defendants' and their co-conspirators' anticompetitive scheme to fix, raise, maintain, stabilize, or otherwise manipulate the price of Euro-denominated bonds issued by European governments ("European Government Bonds" or "EGB") and sold and purchased throughout the United States from at least as early as January 1, 2007 through at least December 31, 2012 (the "Class Period").

2. European Government Bonds are sovereign debt issued by European central governments that have adopted the Euro as their official currency, including Austria, Belgium, Finland, France, Germany, Italy, Portugal, Greece, Ireland, the Netherlands, and Spain, among others (collectively, the "Eurozone"). As of 2012, the global holdings of European Government Bonds were around $8 trillion. Major purchasers and holders of European Government Bonds include U.S. institutional investors, mutual funds, hedge funds, pension funds, and insurance companies.

3. Defendants are among the world's largest dealers of European Government Bonds. Defendants compete with each other and other dealers to acquire European Government Bonds in the "primary market," – *i.e.*, the auction process that European governments use to issue new European Government Bonds. Many Defendants, enumerated below, are known as "primary dealers," and they hold significant power and influence in the European Government Bond market.

4. Bond dealers also compete for customers based on the prices they quote for the purchase and sale of European Government Bonds in the post-auction (*i.e.*, secondary) market. The smaller the "spread" (difference) between the "bid" (buy) and "ask" (sell) quoted to the customer, the better and more competitive the prices are for customers.

5. In exchange for the primary dealers' commitment to make markets for European Government Bonds – *i.e.*, quote a price to buy or sell – and purchase new European Government Bonds in auctions, European Government Bond issuers grant primary dealers access to non-public information about new European Government Bond issuances, as well as the funding needs of the issuers. Primary dealers also obtain valuable customer order-flow information – *e.g.*, customer identity, order size, and price – in the run-up to the auction, which allows the dealers to gauge

investor appetite for the newly-offered European Government Bonds that will then trade in the post-auction, secondary market.

6. European Government Bond issuers rank the primary dealers in terms of their level of participation in the auctions and their ability to provide liquidity in the secondary market. Primary dealers can improve their ranking by obtaining large quantities of European Government Bonds at each auction. These rankings are important because European Government Bond issuers reward high-ranking primary dealers with other business, including lucrative underwriting and derivatives trading business.

7. This case has arisen out of Defendants' and their co-conspirators' agreement to collusively bid above the market price for the bonds issued at auction, guaranteeing themselves a dominant share of supply (and thus control over the price) for each newly auctioned European Government Bond. An analysis of European Government Bond prices at and around the time of the auctions demonstrates the persistent overpricing of bonds at the auctions. Defendants profited from this misconduct by selling the bonds they purchased in the auctions at artificially inflated prices in the secondary market to investors like pension funds, insurance companies, and mutual funds, who routinely bought, sold, and held European Government Bonds.

8. Defendants' and their co-conspirators' collusive bidding also maintained or increased their rankings among primary dealers, which in turn gave Defendants and their co-conspirators access to more lucrative business from European Government Bond issuers. In essence, Defendants and their co-conspirators were willing to trade the short-term costs of overbidding in European Government Bond auctions for increased trading profits when they sold those bonds to investors in the secondary market and the chance to reap even larger rewards from future highly profitable government contracts.

9. Economic analysis also shows that Defendants extracted additional, illicit gains from the European Government Bond market by agreeing to fix the bid-ask spreads they quoted to customers, thereby further increasing the prices investors paid for the European Government Bonds or decreasing the prices at which investors sold the bonds. No primary dealer could widen its bid-ask prices unilaterally without losing trading business to its competitors. Such action also could jeopardize a primary dealer's ability to secure new underwriting business from European Government Bond issuers in the future. Thus, Defendants conspired to widen the bid-ask prices – a sort of "safety in numbers" approach (albeit an unlawful one).

10. Plaintiffs have uncovered direct evidence of pricing coordination among Defendants in electronic chatrooms, as well as economic evidence indicating parallel supracompetitive pricing by the Defendants (and by individual Defendants) and plus factors. Defendants' traders orchestrated and maintained their conspiracy via regular electronic communications, including non-public instant messaging and chatrooms. Through such communications, these traders secretly discussed their respective customers' identities and confidential information about the size and nature of their orders before agreeing to the bids they would place and the prices that they would quote to their customers for European Government Bonds.

11. Through documents produced pursuant to cooperation agreements with two settling banks, facts (including direct quotations from transcripts) recited in the European Commission Decision (discussed below) and discovery produced by Defendants, Plaintiffs have obtained direct evidence of Defendants' conspiracy. These materials show that Defendants and their co-conspirators agreed to and did manipulate the prices of European Government Bonds on the secondary market through concerted action, including buying and selling bonds on the secondary

market at set prices and buying of bonds at auction to pre-set allocations. In furtherance of the scheme, Defendants and their co-conspirators exchanged commercially sensitive information, including the prices they offered to customers, and coordinated on trading strategies. This conduct benefitted the Defendants, to the detriment of investors in the market, including Plaintiffs and the Class.

12. Furthermore, the materials now available to Plaintiffs include electronic chatroom transcripts involving Defendants' employees. Not only do these chat messages show Defendants' express assent to the conspiracy, they also show how traders coordinated and strategized via a shared jargon language that they developed over years of colluding. This is further evidence that each Defendant was an active participant in the conspiracy to restrain the European Government Bond market during the Class Period.

13. These chat transcripts show that Defendants' traders were in constant communication via permanent inter-bank, non-public chatrooms where they pooled information and traded European bonds as a team to stay a step ahead of investors, who lacked access to such information. For example, several Defendants' traders belonged to the self-named "Cods & Chips" chat group, a private chatroom used by Defendants and their co-conspirators to effectuate their conspiracy in the European Government Bonds market. The communications from that secret chatroom show that Defendants shared proprietary information about market and bid positions and disclosed current bid positions prior to the market close – all in furtherance of their conspiracy to fix prices in the European Government Bond market.

14. After an extensive investigation, European regulators similarly discovered Defendants' misconduct. The investigation commenced after Defendant NatWest revealed the cartel to the European Commission ("the Commission") and received full immunity. The

investigation resulted in the Commission issuing a Statement of Objections in January 2019 to seven banks – six of which are named Defendants in this action – for participating "in a collusive scheme that aimed at distorting competition when acquiring and trading European government bonds ('EGBs')."[1] A Statement of Objections reflects the Commission's preliminary view that the evidence collected during its investigation shows that the banks violated competition laws.

15. Then, on May 20, 2021, the Commission issued its 248-page final "Commission Decision" (the "Decision"), finding that eight banks, including Defendants Bank of America, Natixis, Nomura International, NatWest, UBS AG, and UniCredit Bank AG, infringed European Union competition laws by entering into agreements and engaging in concerted practices that "had the object of restricting and/or distorting competition" in the sector of European Government Bonds.[2] The Commission issued a press release regarding its formal findings, but at that time the Decision remained private until it was publicly released in redacted form in October 2021. The Commission found that the collusive contacts and constant exchanges of information among the traders at the Defendant banks took place primarily via electronic, non-public chatrooms, a considerable amount of which were recorded.

16. As a result of its conclusion that the banks had breached European Union antitrust laws via their participation in a cartel in the primary and secondary market for European Government Bonds, the Commission imposed substantial fines on several of the banks totaling €371 million ($454.4 million). Defendant UBS AG was fined €172,378,000 ($210.9 million), which would have been far larger but for a 45% reduction in its fine (€140 million or $172 million)

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[1] European Commission, Press Release, "Antitrust: Commission sends Statement of Objections in European government bonds cartel" (Jan. 31, 2019), http://europa.eu/rapid/press-release_IP-19-804_en htm.u.

[2] European Commission, *CASE AT.40324 – European Government Bonds, Commission Decision* (May 20, 2021), https://ec.europa.eu/competition/antitrust/cases1/202142/AT_40324_7971056_3662 _3.pdf (henceforth referred to as the "Decision"), ¶496.

for cooperating with the Commission's investigation; Defendant Nomura International was fined €129,573, 000 ($158.5 million); and Defendant UniCredit Bank AG was fined €69,442,000 ($85 million).[3] Defendant NatWest, because it received full immunity for reporting the cartel, avoided a fine of €260 million ($318.1 million), which would have been the largest fine imposed on any Defendant.[4] No fines were imposed on Natixis (which also cooperated with the Commission under its leniency program) and Bank of America, N.A. ("BANA"), as the Commission found their conduct fell outside the limitation period for imposing fines, but that limitation did not prevent the Commission from making findings about BANA's and Natixis's infringement of competition law.[5]

17. Defendants' misconduct injured investors in European Government Bonds. Defendants have inflated the prices at which they sold European Government Bonds to investors and reduced the prices at which they purchased these products from investors, including Plaintiffs and members of the Class (defined below). Thousands of investors have transacted billions of dollars' worth of European Government Bonds in the United States directly with Defendants. Plaintiffs, on behalf of themselves and all others similarly situated, seek damages as a result of the unlawful conduct, trebled as provided by law.

II. JURISDICTION AND VENUE

18. This Court has subject-matter jurisdiction under §§4 and 16 of the Clayton Act (15 U.S.C. §§15(a) and 26). This Court also has subject-matter jurisdiction under 28 U.S.C. §§1331 and 1337(a).

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3 *Id.*, ¶¶896-903, 907.

4 *Id.*, ¶¶69, 895.

5 *Id.*, ¶778.

19. Venue is proper in this District pursuant to 15 U.S.C. §§15(a) and 22, and 28 U.S.C. §1391(b), (c), (d) because during the Class Period all Defendants resided, transacted business, were found, or had agents in this District; a substantial part of the events or omissions giving rise to these claims occurred in this District; and a substantial portion of the affected interstate trade and commerce discussed herein has been carried out in this District.

20. Defendants Citigroup Global Markets Limited, Jefferies International Limited, JP Morgan Securities plc, Merrill Lynch International, Natixis S.A., Nomura International plc, NatWest Markets plc, State Street Bank and Trust Company, UBS AG, and UniCredit Bank AG conduct business in this District themselves or through their subsidiaries and affiliates as agents, as well as through branch offices and trading hubs located in this District, as described below.

21. This Court has personal jurisdiction over each Defendant because, as described below, these Defendants played an integral role in conducting substantial European Government Bond promotion, marketing, trading, and sales in this District and in the United States continuously throughout the Class Period and derived substantial profits from these activities.

22. As alleged below, a substantial part of the events giving rise to Plaintiffs' claim occurred in this District and the United States. Defendants and their co-conspirators agreed to fix the prices of European Government Bonds that Defendants distributed into the United States for sale to investors located in this District and throughout the United States.

23. Defendants, both on their own and acting through their subsidiaries and affiliated entities as agents, purposefully availed themselves of this forum by, *inter alia*: (a) agreeing to widen bid-ask spreads, thereby charging investors increased prices for purchases and paying investors decreased prices for sales of European Government Bonds in this District and throughout the United States; (b) directing European Government Bond sales and trading personnel to solicit

investors for billions of dollars' worth of price-fixed European Government Bond transactions in this District and throughout the United States; and (c) collecting unlawful overcharges from investors in this District and throughout the United States.

24. During the Class Period, the European Primary Dealers Association (the "EPDA") was the premier trade association for European Government Bond primary dealers, composed of the 20 largest primary dealers. As of 2012, 25 banks were designated as Association for Financial Markets in Europe ("AFME") Primary Dealer Members.[6] Only the largest European Government Bond primary dealers were designated AFME Primary Dealer Members. Defendants are members of the EPDA and were active participants in this trade association. As of 2008, the EPDA reported that its members cumulatively traded more than 85% of all volume in the European Government Bonds market.

25. Most entities that are designated European Government Bond primary dealers are part of a global bank's fixed income trading and sales networks. These networks include fixed income sales employees who manage relationships with customers and provide market information and trade recommendations, as well as traders who determine prices quoted to investors for specific categories of fixed income products. Large global banks also employ staff members responsible for ensuring that the bank meets regulatory requirements so that it can execute fixed income transactions with customers located in different jurisdictions and ensuring that these transactions are accompanied by the appropriate trade documentation. Banks use these networks to trade European Government Bonds with investors in major financial markets, including New York.

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[6] In 2009, the EPDA merged with the AFME. Former principal members of the EPDA became known as "AFME Primary Dealer Members."

26. Defendants Merrill Lynch International, Citigroup Global Markets Ltd., Jefferies International Limited, JP Morgan Securities plc, Natixis S.A., NatWest Markets plc, Nomura International PLC, UBS AG (through subsidiary UBS Europe SE), State Street Bank and Trust, and UniCredit Bank AG (the "Primary Dealer Defendants") were designated European Government Bond primary dealers during the Class Period. Traders employed by the Primary Dealer Defendants were responsible for determining prices quoted to investors in European Government Bond transactions, including hundreds of millions, if not billions, of dollars' worth of transactions that these entities executed directly with investors in the United States.

27. Each of the Primary Dealer Defendants purposefully exploited the U.S. market for European Government Bonds in at least five ways. ***First***, when a sales person employed by a Defendant or affiliated entity received an order from a customer to purchase or sell a European Government Bond, the sales person requested a price quote from a Primary Dealer Defendant's trader. When traders made pricing decisions, they knew the identity and location of the customer requesting a quote. Thus, when the Primary Dealer Defendants' traders quoted fixed prices for European Government Bonds to investors in the U.S. market as more particularly alleged below, they intentionally restrained competition in the U.S. market for European Government Bonds. The economic analysis of market prices referenced in this Complaint includes prices that each Primary Dealer Defendant quoted to investors in the United States market during U.S. trading hours.

28. ***Second***, unlike an exchange-based market like the stock market, the European Government Bond market is a relatively opaque, over-the-counter ("OTC") market in which Defendants must interact with customers directly to secure business. Each Primary Dealer Defendant purposefully availed itself of the U.S. market for European Government Bonds by sending trade recommendations, trade ideas, targeted price levels at which to execute trades,

research, and information about the Primary Dealer Defendant's inventory to sales personnel assigned to cover the U.S. market. Because these same traders were simultaneously carrying out a conspiracy to fix the prices of European Government Bonds, these acts constituted purposeful availment of the U.S. market. Specific examples of efforts to exploit the U.S. market for European Government Bonds are alleged for each Defendant in this section, below.

29. ***Third***, each Primary Dealer Defendant acquired European Government Bonds in the primary market, colluded on the prices at which these bonds were sold to Plaintiffs and the Class in the secondary market, and distributed these bonds into the United States.

30. ***Fourth***, each Primary Dealer Defendant collected funds, including overcharges from their price-fixing conspiracy, from customer accounts located in the United States.

31. ***Fifth***, each Primary Dealer Defendant charged fixed prices in the U.S. market to investors located here. For example, the analysis described in Part VII.B., below, includes prices that each Primary Dealer Defendant quoted in the United States. By quoting fixed prices in the U.S. market and collecting the resulting overcharges from investors located here, each Primary Dealer Defendant purposefully availed itself of the U.S. market for European Government Bonds.

32. The Primary Dealer Defendants, either themselves or through an affiliated entity that was part of the banks' fixed-income trading and sales network, had substantial fixed-income trading and sales operations in this District. From these desks, Defendants' banks promoted, marketed, and sold European Government Bonds to investors located in this District and throughout the United States.

33. Figure 1 below shows that Defendants had U.S.-based dealer affiliates headquartered in this District that helped to promote, market, and sell sovereign bonds, including European Government Bonds, to investors located in this District and throughout the United States.

Figure 1 – Headquarters of AFME Primary Dealer Members' U.S.-Based Dealer Affiliates

AFME Primary Dealer Member	U.S. Dealer Affiliate and Its Headquarters
Citigroup Global Markets Limited	Citigroup Global Markets Inc. New York, NY
Jefferies International Limited	Jefferies LLC New York, NY
JP Morgan Securities plc (f/k/a J.P. Morgan Securities Ltd.)	JP Morgan Securities LLC New York, NY
Merrill Lynch International	Merrill Lynch Pierce Fenner & Smith Inc. New York, NY
Natixis S.A.	Natixis Securities Americas LLC New York, NY
Nomura International plc	Nomura Securities International Inc. New York, NY
NatWest Markets plc (f/k/a The Royal Bank of Scotland plc)	NatWest Markets Securities Inc. New York (until at least 2009), Stamford, CT
State Street Bank and Trust Company	State Street Global Markets, LLC Boston, MA
UBS Europe SE (f/k/a UBS Limited and UBS Deutschland AG)	UBS Securities LLC New York, NY
UniCredit Bank AG	UniCredit Capital Markets LLC New York, NY

34. Defendants also focused on customers in critical geographic markets by designating certain geographic locations in which they maintained significant fixed income trading and sales

operations as hubs. As shown in Figure 2, Defendants designated the New York metropolitan area as a U.S. hub for their global fixed income trading and sales operations.

Figure 2 – Locations of AFME Primary Dealer Members' Fixed Income Trading Hubs

AFME Primary Dealer Member	Fixed Income Trading and Sales Hubs
Citigroup Global Markets Limited	**New York**, London, Zurich, Hong Kong, Singapore
Jefferies International Limited	**New York**, London, Paris
J.P. Morgan Securities plc (f/k/a J.P. Morgan Securities Ltd.)	**New York**, London, Sao Paulo, Tokyo, Hong Kong, Singapore, Mumbai
Merrill Lynch International	**New York**, London, Hong Kong
Natixis S.A.	**New York**, Paris, Hong Kong
Nomura International plc	**New York**, London, Hong Kong, Tokyo
NatWest Markets plc (f/k/a The Royal Bank of Scotland plc)	**New York** (until at least 2009), **Stamford (CT)**, London, Singapore
State Street Bank and Trust Company	**Boston (MA)**, Toronto, Montreal, London, Paris, Zurich, Munich, Sydney, Tokyo, Hong Kong, Singapore
UBS Europe SE (f/k/a UBS Limited and UBS Deutschland AG)	**New York, Stamford (CT), London,** Zurich, Singapore
UniCredit Bank AG	**New York**, London, Munich, Paris, Madrid, Hong Kong, Shanghai

35. Accordingly, Defendants' activities were within the flow of, were intended to, and did have a substantial effect on the interstate and foreign commerce of the United States.

A. Merrill Lynch International Purposefully Availed Itself of the U.S. Market for European Government Bonds

36. Merrill Lynch International ("MLI") traders located in MLI's London headquarters were responsible for determining European Government Bond prices charged to investors located in the United States, including transactions that MLI entered into with Plaintiffs.

37. MLI conducts substantial activities as part of Bank of America Corporation's "Global Banking and Markets" business segment. In this capacity, during the Class Period, MLI served as a European Government Bond primary dealer from its headquarters in London. MLI distributed European Government Bonds into the United States to U.S.-based affiliates that were also organized under Bank of America Corporation's Global Banking & Markets business segment, such as Merrill Lynch, Pierce, Fenner & Smith, Incorporated.

38. MLI also distributed promotional materials and research concerning European Government Bonds to investors in the United States to attract business in the U.S. market. MLI acted throughout the Class Period to cultivate European Government Bond business in the United States. For example, MLI's "European Rates Research" team supported MLI's U.S. trading and sales efforts by conducting research, supplying trade ideas, and publishing analysis of European Government Bonds for MLI's customers and distributed these materials to customers in the U.S. market. This team reported to Bank of America Corporation's "Global Research" division within its "Global Banking & Markets" business segment, which was headquartered in this District.

39. As another example, MLI tailored research publications concerning European Government Bonds for investors in the U.S. market. MLI listed U.S.-based sales employees as contacts through which domestic investors could request European Government Bond prices and execute European Government Bond transactions. The May 4, 2011 edition of "World at a Glance," published by Bank of America Corporation's "Global Banking & Markets" business

segment, contains a dedicated section with trade ideas, projections, and analysis of the European Government Bond market for customers to consider when making investment decisions. This section was prepared by Max Leung, an MLI employee based in London, and expressly notes that some of the securities discussed in the publication may only be purchased by "Qualified Institutional Buyers" as defined under U.S. law.

40. The examples alleged above were not isolated occurrences, but instead illustrate MLI's continuous, successful efforts to attract customers for its European Government Bonds business in the United States, leading to substantial volumes of sales, including to Plaintiffs and the Class. MLI employees regularly contributed to and helped to distribute similar research on European Government Bonds in the United States market throughout the Class Period, while MLI traders supported these efforts by providing pricing for European Government Bond transactions that MLI executed with domestic customers.

41. MLI's domestic operations, either directly or through its U.S. subsidiaries, led to significant sales of European Government Bonds to customers in the U.S., including Plaintiffs SBCERA, IBEW Local 103, and Ohio Carpenters.[7]

42. Accordingly, throughout the Class Period, MLI purposefully availed itself of the U.S. market for European Government Bonds.

B. Natixis Purposefully Availed Itself of the U.S. Markets for European Government Bonds

43. Natixis S.A. ("Natixis") targeted the United States during the Class Period by stationing sales employees in New York to arrange European Government Bond trades with customers located in the United States, boosting its presence here in order to market European

[7] Attached hereto is an Appendix A which displays the Defendant counterparties with which Plaintiffs directly traded European Government Bonds with during the Class Period.

Government Bonds to U.S. investors. Over a three-month period in 2011, Natixis made 15 new appointments to its Fixed Income, Commodities, and Treasury ("FICT") Americas team, which marketed European Government Bonds to customers from its offices in New York.

44. These New York-based sales employees, organized under Natixis's FICT Americas division, were responsible for arranging European Government Bond trades with customers located in the United States at prices determined by Natixis's European Government Bond traders.

45. Natixis also operates a U.S. branch, licensed by the New York State Department of Financial Services, at 1251 Avenue of the Americas, New York, New York 10020.

46. Because it conducts substantial business in the United States on its own and through its subsidiaries, Natixis is required under the Dodd-Frank Act to submit an annual Resolution Plans to the Federal Reserve Board, identifying its "Core Business Lines and Activities." Natixis annually identifies its "fixed income, foreign exchange, commodities, and credit markets" business as a key component of its Global Markets business line in the United States.

47. Natixis's domestic operations led to significant sales of European Government Bonds to customers in the United States, including Plaintiffs SBCERA and Ohio Carpenters.

48. Accordingly, throughout the Class Period, Defendant Natixis purposefully availed itself of the United States market for European Government Bonds.

C. NatWest Purposefully Availed Itself of the U.S. Market for European Government Bonds

49. Defendant NatWest Markets plc (f/k/a The Royal Bank of Scotland plc) ("NatWest Markets") operates three U.S. branches in Stamford, Connecticut, San Francisco, California, and San Jose, California.

50. NatWest Markets is a wholly-owned subsidiary of NatWest Group plc, whose American Depository receipts trade on the New York Stock Exchange.

51. NatWest Markets reports that it operates three global trading "hubs," one of which is located in Stamford, Connecticut. NatWest Markets also reports that it operates "sales offices across key locations in the UK, EU, US and Asia." Through its trading hub in Stamford and its sales offices in the United States, NatWest markets, prices, and executes European Government Bond trades with investors located in the United States.

52. NatWest organizes its operations and those of its subsidiaries on an integrated "business line" basis. Its fixed income sales and trading operations, though it includes staff employed by both NatWest Markets and NatWest Markets Securities Inc. ("NatWest Securities"), form part of the same "Capital Markets" division of its "Corporate and Investment Banking" business line.

53. NatWest Market's European Government Bond traders also operating within the Global Banking & Markets division, acquired European Government Bonds, distributed European Government Bonds into the United States to investors, and determined prices for European Government Bond transactions executed with customers in the United States.

54. NatWest purposefully acted in the United States to attract investors in the United States' fixed income markets. For example, NatWest Markets regularly publishes and distributes marketing materials providing existing and prospective customers with market updates, trade recommendations, and reports on fixed-income products, including European Government Bonds. The marketing materials state that its sales team assigned to the U.S. market has "had real success building client trust by consistently and proactively providing them with relevant market colour, content and ideas, backed up by seamless trade execution and delivery of innovative solutions."[8]

[8] NatWest Markets PLC, 2018 ANNUAL RESULTS 2 (2019), https://investors.natwestgroup.com/~/media/Files/R/RBS-IR-V2/results-center/15-02-2019/natwest-markets-annual-results-15-02-2019.pdf.

These materials include updates, market information, and trade recommendations for European Government Bond transactions.

55. NatWest's success at exploiting the U.S. market is the result of sustained marketing and promotional efforts throughout the Class Period. For example, NatWest Markets publishes "European Rates Weekly," a research periodical that almost always features analysis and trade recommendations for European Government Bonds. During the Class Period, NatWest Markets disclosed that it prepared the publication for, and distributed it to, "major institutional investors" in the U.S. market (*i.e.*, Plaintiffs and the Class). The publication always closed with an invitation for interested investors in the United States to contact its U.S. agents, *i.e.*, fixed-income sales employees located at NatWest Securities headquarters in Stamford, Connecticut, who were tasked with managing customer relationships and arranging European Government Bond trades with NatWest Markets.

56. These examples are not exhaustive, but illustrative of the substantial and continuing acts that NatWest took to develop a customer base for European Government Bonds in the United States throughout the Class Period. These efforts led to significant sales of European Government Bonds to customers in the United States, including Plaintiffs SPCERA, IBEW Local 103, and Ohio Carpenters.

57. NatWest Markets' London-based European Government Bond traders also traveled to this District to market and transact European Government Bonds. In the following December 30, 2010 chat that included NatWest Markets, UBS Europe SE (f/k/a UBS Limited), and State Street Bank and Trust, a NatWest Markets trader described a trip to New York and told the other chatroom members that he continued managing his trading book from New York:

December 30, 2010

State Street Bank and Trust Trader 1: bet snow was fun

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NatWest Markets Trader 1: ny wasnt the worst hit and we still got like a foot and a half

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UBS Europe Trader 1: what [t]ime u out of there

NatWest Markets Trader 1: think 4 something

NatWest Markets Trader 1: gotta stick around as gotta close

UBS Europe Trader 1: ya

UBS Europe Trader 1: same

58. Throughout the Class Period, NatWest Markets transacted substantial business in this District. It operated an additional branch in New York, New York that was licensed, supervised, and regulated by the New York State Department of Financial Services and regulated by the Board of Governors of the Federal Reserve System. The Bloomberg financial news service reports that NatWest's New York Branch "offers a wide range of banking, insurance and finance-related products and services."[9]

59. NatWest Markets and NatWest Securities conduct business in this District, including by executing European Government Bond transactions directly with investors located in this District.

60. NatWest Markets engaged in billions of dollars in transactions in this District throughout the Class Period. In a consent decree with the New York State Department of Financial Services, NatWest admitted that it "conducted more than 3,500 transactions valued at

[9] *Natwest Markets PLC/ New York NY*, BLOOMBERG, https://www.bloomberg.com/profile/company/15319Z:US (last visited Nov. 4, 2022).

approximately $523 million through New York correspondent banks involving Sudanese and Iranian customers" alone.[10]

61. In NatWest Markets' 2013 Resolution Plan, it reported that it books corporate loan products to its New York branch, provides funding to those loans on its balance sheet, and accepts third-party deposits through a certificate of deposit program.

62. NatWest Markets serves as an official foreign exchange counterparty to the Federal Reserve's New York Branch. In this capacity, it engages in substantial market making in foreign exchange products in this District. It is also an active clearing member of the New York Mercantile Exchange.

63. According to a 2010 report in *The New York Times*, NatWest Securities moved traders from New York City offices to its Stamford, Connecticut headquarters during 2009.[11] Prior to this 2009 transfer, NatWest Securities' U.S.-based fixed income trading, including trading of European Government Bonds, was based in New York.

64. NatWest Securities, operating as part of the Global Banking and Markets Division with NatWest, engaged in substantial government bond sales and trading business in this District prior to moving to Stamford. For example, in an investor presentation in 2009, NatWest reported that 33% of its Global Banking and Markets revenue was generated in the United States in a slide titled "The US operations are Core to the Group."[12] Significantly, the presentation specified that

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[10] *Consent Order Under New York Banking Law §44 Regarding the Royal Bank of Scotland PLC*, IRAN WATCH (Dec. 11, 2013), https://www.iranwatch.org/library/governments/united-states/state-governments/new-york-state-department-financial-services/consent-order-under-new-york-banking-law-ss-44.

[11] Louise Story, R.B.S.'s Shining Star in Connecticut, N.Y. TIMES (Feb. 17, 2010), https://www.nytimes.com/2010/02/18/business/18rbs.html ("R.B.S. traders and investment bankers moved into the new building throughout last year from several offices in Stamford, in Greenwich, Conn., and in New York City.").

[12] *Investor Round Table on US Business*, THE ROYAL BANK OF SCOTLAND GROUP (Mar. 8, 2010), https://investors natwestgroup.com/~/media/Files/R/RBS-IR-V2/archived-presentations/2010/rbs-americas-presentation.pdf.

the U.S. operations of Global Banking and Markets "offers strong financial market and banking products to GBM clients, particularly in rates and mortgage markets."[13] At NatWest, European Government Bonds are considered part of the "rates" market.

65. After moving its U.S.-based fixed income trading and sales employees to Stamford, Connecticut in 2009, NatWest Securities continued to market and trade EGBs with customers located in this District throughout the Class Period.

66. Accordingly, throughout the Class Period, the NatWest Defendants purposefully availed themselves of the U.S. market for European Government Bonds.

D. Nomura Purposefully Availed Itself of the U.S. Market for European Government Bonds

67. Nomura International PLC ("Nomura International") was a European Government Bond primary dealer for multiple Eurozone countries during the Class Period. It purposefully availed itself of the U.S. market for European Government Bonds by making substantial sales in the United States, quoting fixed prices to U.S. investors, and cultivating a domestic European Government Bond customer base here on its own behalf and through its U.S. broker-dealer affiliate, Nomura Securities International Inc. ("Nomura Securities").

68. Both Nomura International and Nomura Securities are subsidiaries of Nomura Holdings Inc. Nomura Holdings publishes annual reports and issues regulatory disclosures on a consolidated basis. In these reports and disclosures, it refers to itself and its subsidiaries as the "Nomura Group." It reports that it sells government bonds, which include European Government Bonds, to institutional investor clients through its Wholesale Division. The Wholesale Division functions as a single business unit, though it consists of fixed income trading and sales staff

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[13] *Id*.

employed by both Nomura Securities and Nomura International. The Wholesale Division's clients include institutional investors in the U.S. market.

69. For example, Nomura Securities Managing Director, Gregory Cignarella, sold European Government Bonds to asset managers, commercial banks, insurance companies, and hedge funds from Nomura Securities' New York offices from July 2010 until the end of the Class Period. Jill Scalisi specialized in Global Credit and Structured Credit for Nomura Securities in New York from October 2009 until June 2011.

70. Nomura Securities employed an economist, Jens Nordvig, as a Head of Fixed Income Research from October 2009 until the end of the Class Period. Mr. Nordvig, who was based in New York, regularly provided commentary and research on European Government Bonds to U.S. investors in Nomura Securities' name, and to financial media in this District and throughout the United States, including *The Wall Street Journal*, *New York Times*, *Businessweek*, CNBC, and Bloomberg TV.

71. These employees are among many other full-time staff within Nomura's Wholesale Division that interacted with customers and promoted European Government Bonds from Nomura International's inventory to investors in this District and throughout the United States. Nomura International traders were responsible for determining the prices at which these domestic European Government Bond transactions occurred.

72. Nomura Holdings states that its Wholesale Division includes a "[r]obust international platform," a "[g]lobal client base across more than 30 countries," and it "[f]acilitat[es] . . . cross-border transactions worldwide."[14] A key strength of the Wholesale Division is its

[14] *Nomura Report 2018: Integrated Report,* NOMURA HOLDINGS, INC., at 42, https://www.nomuraholdings.com/investor/library/ar/2018/pdf/nomura_report_all.pdf (last visited Nov. 4, 2022).

"[u]nderwriting and sales capabilities" for fixed income products, which include European Government Bonds.[15]

73. Part of the Nomura Group management's vision includes strengthening its business within the United States. In a recent annual report, the Nomura Group wrote that Nomura aims to "connect[] Asia including Japan to Europe and the Americas [to obtain] a competitive edge that sets [Nomura] apart from [its] peers."[16] Nomura describes its core business as "[c]onnecting Markets East & West" and wrote to investors that the United States is a "key strategic region for Nomura."[17]

74. Nomura Holdings' stock trades on the New York Stock Exchange.

75. Nomura Holdings employs senior executives in its New York office that are responsible for overseeing the Nomura Group's business activities in the Americas region. For example, the Executive Managing Director and Group Co-Chief Executive Officer (Head of the Americas), the Head of Global Markets, the Co-Head of the Americas, and the Executive Chairman for the Americas region for Nomura Holdings, Inc. are all based at Worldwide Plaza, 309 West 49th Street, New York, New York 10019-7316. Nomura International lists the same headquarters and the same company phone number.

76. Nomura International's domestic operations, either directly or through its U.S. subsidiaries, led to significant sales of European Government Bonds to customers in the United States, including Plaintiffs SBCERA and IBEW Local 103.

77. Accordingly, throughout the Class Period, Defendant Nomura International purposefully availed itself of the U.S. market for European Government Bonds.

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15 *Id*. at 10.

16 *Id*. at 14.

17 *Id*. at 6, 32.

E. UBS Purposefully Availed Itself of the U.S. Market for European Government Bonds

78. UBS AG is a multinational banking institution organized as a public limited company under the laws of Switzerland.

79. UBS AG maintains two branches in the United States, at 299 Park Avenue, New York, New York 01701 and 600 Washington Boulevard, Stamford, Connecticut 06901.

80. UBS AG is a wholly owned subsidiary of UBS Group AG, whose stock trades on the New York Stock Exchange.

81. Because UBS AG conducts substantial business in the United States both on its own behalf and through its domestic subsidiaries, it is required to submit an annual Resolution Plan to the Federal Reserve Board under the Dodd-Frank Wall Street Reform and Consumer Protection Act. In its first Resolution Plan, filed in 2013, UBS AG informed the Federal Reserve Board that the "great majority of [its] operations are located in three jurisdictions: Switzerland, the United Kingdom and the United States."[18]

82. UBS AG organizes its international operations and those of its subsidiaries on an integrated "business division" basis. Throughout the Class Period, UBS AG's bank-wide European Government Bond sales and trading business formed part of its Investment Bank business line.

83. UBS AG employed sales personnel within the Investment Bank business line to market European Government Bonds in the United States during the Class Period to U.S. investors. For example, the senior European Government Bonds sales employee for UBS Investment Bank was stationed in New York in 2007. These employees were responsible for arranging European

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[18] *2013 UBS US Resolution Plan: Public Sector*, UBS (Oct. 2013), https://www.federalreserve.gov/bankinforeg/resolution-plans/ubs-1g-20131001.pdf.

Government Trades with U.S. customers that were priced by and sourced from UBS Europe SE, and its European Government Bond primary dealer predecessors, UBS Deutschland AG and UBS Limited.

84. Both UBS Limited and UBS Deutschland AG sold European Government Bonds directly to investors in the United States and distributed European Government Bonds into the United States. The UBS traders referenced in this Complaint were agents of these trading entities and therefore are referenced as traders of their successor subsidiary, UBS Europe SE.

85. Defendant UBS Securities LLC f/k/a UBS Warburg LLC ("UBS Securities") operations formed part of UBS AG's global "Investment Bank" business line during the Class Period. UBS AG had full knowledge of UBS Securities' European Government Bonds sales and trading operations and oversaw all of UBS Securities' operations. UBS AG was responsible for UBS Securities' staffing decisions, and UBS Securities' executives simultaneously held positions in the global Investment Bank organizational structure. For example, UBS Securities' Chief Executive Officer throughout the Class Period simultaneously held the position of Chief Operating Officer for UBS Investment Bank in the Americas.

86. UBS AG benefitted from UBS Securities' European Government Bond trading operations throughout the Class Period. In each year's Annual Report, filed with the SEC, UBS AG included the revenue of UBS Securities in its financial statements, presenting the total figure "as a single economic entity."

87. UBS AG represents that UBS Securities serves as the agent of UBS AG and its subsidiaries, including UBS Europe SE and its European Government Bond primary dealer predecessors, UBS Limited and UBS Deutschland AG, in the United States for European

Government Bond trading operations, noting in its Annual Reports that "[s]ecurities activities in the US are conducted through UBS Securities LLC, a registered broker-dealer."

88. When U.S. investors engaged in European Government Bond transactions in the United States with entities organized under UBS AG's bank-wide Investment Bank division, which included UBS AG, UBS Europe SE (and its European Government Bond primary dealer predecessors, UBS Limited and UBS Deutschland AG), and UBS Securities, these trades were priced by European Government Bond traders on behalf of UBS Limited and UBS Deutschland AG. These traders transmitted prices and inventory for European Government Bond trades with U.S. investors into the United States that were used to execute trades with Plaintiffs and the Class.

89. UBS AG's and UBS Europe SE's domestic operations, either directly or through their U.S. subsidiaries, led to significant sales of European Government Bonds to customers in the United States, including Plaintiffs Ohio Carpenters and SBCERA.

90. Accordingly, throughout the Class Period, Defendants UBS AG and UBS Europe SE purposefully availed themselves of the United States market for European Government Bonds.

F. UniCredit Purposefully Availed Itself of the U.S. Markets for European Government Bonds

91. UniCredit S.p.A. organizes itself and its subsidiaries (which it refers to collectively as "UniCredit Group" in its annual reports and required regulatory disclosures) as an "organisational and business model . . . [which] maintains a divisional structure."[19] This divisional structure segments UniCredit S.p.A.'s subsidiaries into certain business units based on the type of business activity that the division undertakes.

[19] *Organisational Structure*, UNICREDIT, https://www.unicreditgroup.eu/en/unicredit-at-a-glance/organizational-structure html?topmenu= INT-TM_ABO2_en054 (last visited Nov. 4, 2022).

92. UniCredit Group's European Government Bond trading and sales business is part of a business division it calls "Corporate & Investment Banking" (the "CIB Division"). The CIB Division's main operating entity is UniCredit Bank AG, which carries out certain "global product lines" in jurisdictions where the CIB Division is active through locally incorporated subsidiaries and branch offices. One of these "global product lines" within the CIB Division is the Markets product line, which engages in European Government Bond trading and sales with customers in major financial centers where UniCredit Bank AG maintains a branch office, including in New York. UniCredit Group describes the CIB Division's business model as serving as a "[s]trategic long-term partner that meets clients' specific needs and delivers access to Western, Central and Eastern Europe" to investors located outside of those regions, including investors located in the United States. Pursuant to this business model, the CIB Division (operating through UniCredit Bank AG and UniCredit Capital Markets LLC) offers European Government Bond trading and sales to customers, including in this District and throughout the United States, as alleged in more detail below.

93. One of the key geographic markets for UniCredit Group's CIB Division is the United States. Defendant UniCredit Bank AG has an office located in this District at 150 East 42nd Street, New York, New York 10017. UniCredit Bank AG's New York branch solely undertakes activities for the CIB Division (*i.e.*, the division that engages in European Government Bond trading and sales activities). UniCredit Bank AG's New York branch is so significant to UniCredit Bank AG's overall business that it describes this branch as an additional company "headquarters."[20]

[20] *Our Worldwide* Presence, UBS, https://www.unicreditgroup.eu/en/worldwide/our-worldwide-presence/americas/united-states/unicredit-bank-ag-branch.html (last visited Nov. 7, 2022).

94. Because it conducts substantial business in the United States both on its own behalf and through UniCredit Bank AG and UniCredit Capital Markets LLC, UniCredit S.p.A. is required to submit annual Resolution Plans to the Federal Reserve Board under the Dodd-Frank Act. In its annual Resolution Plan, UniCredit S.p.A. refers to "itself and its subsidiaries" collectively as "UniCredit" and reports that "UniCredit operates through US subsidiaries and branches of such entities."[21] UniCredit S.p.A. is required under the Dodd-Frank Act to identify and report on its "Core Business Lines" operating in the United States. "Core Business Lines" are defined as "those business lines of the covered company [*i.e.*, UniCredit S.p.A. and UniCredit Bank AG], including associated operations, services, functions and support, that, in the view of the covered company, upon failure would result in a material loss of revenue, profit, or franchise value." 12 C.F.R. §381.2.

95. UniCredit S.p.A. operates Core Business Lines in the United States that engage in European Government Bond trading and sales with investors located here. One of these Core Business Lines is "Integrated Credit Trading," which engages in European Government Bond trading and sales activities with investors in the United States. UniCredit Bank AG conducts these activities from offices located in Europe, as well as through its New York headquarters.

96. UniCredit Bank AG's New York-based European Government Bond trading and sales activities are highly integrated with its European operations. For example, in its Resolution Plan for 2013, UniCredit S.p.A. reported that its "US branches and subsidiaries are so integrated into [UniCredit S.p.A. and UniCredit Bank AG] that the ability to separately divest or reorganize them apart from [UniCredit S.p.A. and UniCredit Bank AG] is highly unlikely."[22] As part of this

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[21] UniCredit S.p.A. Resolution, FDIC, https://www fdic.gov/regulations/reform/resplans/plans/unicredit-165-1312.pdf (last visited Nov. 7, 2022).

[22] *Id*.

integration, UniCredit Bank AG's New York Headquarters engages in European Government Bond transactions using inventory acquired in the primary market.

97. UniCredit Bank AG offers European Government Bond pricing quotes and engages in European Government Bond transactions directly with investors in the U.S. market. To ensure access to the domestic European Government Bond investor base, UniCredit Bank AG distributes European Government Bond price quotes through various channels, including the Bloomberg Terminal, one of the two most popular sources for European Government Bond pricing information for institutional investors in the United States, as well as over the telephone and through other electronic means. By using the Bloomberg Terminal and other distribution channels that U.S. investors use to access European Government Bond pricing information and execute European Government Bond trades, UniCredit Bank AG distributes European Government Bonds to investors located in the United States.

98. To further target the United States market for fixed income products, including European Government Bonds, UniCredit Bank AG operates a U.S.-based domestic dealer subsidiary, Defendant UniCredit Capital Markets LLC.[23] UniCredit Capital Markets is registered with the Securities and Exchange Commission ("SEC") and Financial Industry Regulatory Authority ("FINRA"), and reports that one of its key business activities is "Fixed Income distribution of foreign securities to US institutional qualified investment buyers [*i.e.*, U.S. investors like Plaintiffs]."[24] These foreign securities include European Government Bonds.

99. UniCredit Bank AG has knowledge of, benefits from, and exercises some control over UniCredit Capital Markets LLC's fixed income trading and sales activities in the United

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[23] Resolution Plan, UNICREDIT S.P.A., https://www federalreserve.gov/supervisionreg/resolution-plans/unicredit-bk-3g-20181231.pdf (last visited Nov. 7, 2022).

[24] *Id.*

States, which includes its European Government Bond-related activities conducted from its headquarters located in this District. UniCredit Capital Markets LLC is headquartered in the same office as UniCredit Bank AG's New York Headquarters. UniCredit Bank AG's New York headquarters has its own legal and compliance personnel. These personnel also monitor and control the activities of UniCredit Capital Markets LLC employees. The Head of Legal and Compliance simultaneously serves as UniCredit Capital Markets' President & Chief Compliance Officer and is authorized to sign documents filed with the SEC on UniCredit Capital Markets LLC's behalf. UniCredit Capital Markets LLC lists three directors in its disclosures with FINRA. These directors are all high-ranking officers with leadership positions at UniCredit Bank AG's New York headquarters.

100. UniCredit Bank AG also employs sales teams within its "credit" business line to build relationships with fixed income investors in the United States, including European Government Bond investors.

101. UniCredit Bank AG's and UniCredit S.p.A.'s domestic operations, either directly or through their U.S. subsidiaries, led to significant sales of European Government Bonds to customers in the United States, including Plaintiff SBCERA.

102. Accordingly, throughout the Class Period, UniCredit Bank AG and UniCredit S.p.A purposefully availed themselves of the U.S. market for European Government Bonds.

G. Citigroup Purposefully Availed Itself of the U.S. Market for European Government Bonds

103. Citigroup Global Markets Limited actively cultivated the U.S. market for European Government Bonds during the Class Period. Between 2007 and 2011, Citigroup Global Markets Limited routinely sent London-based European Government Bonds trader Lee Smallwood on client visits to New York.

104. In addition to its own direct transactions, Citigroup Global Markets Limited also transacted European Government Bonds in the United States through Defendant Citigroup Global Markets Inc., a New York-based, SEC-registered broker-dealer affiliate operating as part of the same Citigroup Inc. business line.

105. Citigroup Inc. organizes its activities on a "business line" basis. Both Citigroup Global Markets Limited and Citigroup Global Markets Inc. operate within the "Markets and Securities Services" business line, known during the Class Period as "Global Markets." Markets and Securities Services personnel around the world are responsible for Citigroup's sales and trading of fixed income products, including European Government Bonds, despite being employed by nominally separate legal entities. Citigroup Inc. reported the results from both Citigroup Global Markets Limited and Citigroup Global Markets Inc. together under its Markets and Securities Services business line, boasting that the "breadth, depth and strength of our sales and trading, distribution, and research capabilities span a broad range of asset classes, currencies, sectors and products," including European Government Bonds.

106. Citigroup Global Markets Inc. also employed "FX & Rates eCommerce Product Management" specialist, Vice President Bijon Mehta from the beginning of the Class Period until May 2007. Mehta helped determine business strategy for European Government Bond sales in the United States and worked with European Government Bonds sales and trading employees at Citigroup Global Markets Limited in this capacity.

107. Citigroup Global Markets Inc. employed systematic trading specialist Jamie Mortimore in New York throughout the Class Period. Mortimore developed pricing and risk management tools for European Government Bonds and reported to Citigroup Global Markets Limited's global head of European Government Bond trading.

108. Citigroup Global Markets Limited's domestic operations, either directly or through its U.S. subsidiaries, led to significant sales of European Government Bonds to customers in the United States, including Plaintiff SBCERA.

109. Citigroup Global Markets Inc. distributed European Government Bonds into the United States and transacted European Government Bonds directly with investors in the United States.

110. Citigroup Global Markets Limited was responsible for pricing all of Citigroup Global Markets Inc.'s European Government Bond transactions with U.S. investors during the Class Period, and each of these trades was executed using Citigroup Global Markets Limited's European Government Bond inventory.

111. Accordingly, throughout the Class Period, Defendant Citigroup Global Markets Limited purposefully availed itself of the U.S. market for European Government Bonds.

H. JPMorgan Purposefully Availed Itself of the U.S. Market for European Government Bonds

112. J.P. Morgan Securities plc traders priced all of Defendant J.P. Morgan Securities LLC's and Defendant JPMorgan Chase Bank, N.A.'s European Government Bond transactions with U.S. investors during the Class Period. These trades were executed using J.P. Morgan Securities plc's European Government Bond inventory.

113. JPMorgan Chase & Co. organizes its activities on a "business segment" basis. Both J.P. Morgan Securities plc and J.P. Morgan Securities LLC operate within the global "Corporate & Investment Bank" business segment, known during the Class Period as "Investment Bank." Corporate & Investment Bank personnel around the world are responsible for JPMorgan Chase & Co.'s sales and trading of fixed income products, including European Government Bonds, despite being employed by nominally separate legal entities.

114. J.P. Morgan Securities plc distributed research and pricing information on European Government Bonds into the United States during its Class Period through Defendant J.P. Morgan Securities LLC f/k/a J.P. Morgan Securities Inc., a New York-based, SEC-registered broker-dealer acting as its domestic agent. For instance, "J.P.Morgan"-branded newsletters including fixed income research by J.P. Morgan Securities plc personnel, included a disclosure that "JPMSI distributes in the U.S. research published by non-U.S. affiliates and accepts responsibility for its contents."

115. J.P. Morgan Securities plc's domestic operations, either directly or through its U.S. subsidiaries, led to significant sales of European Government Bonds to customers in the United States, including Plaintiff SBCERA.

116. Accordingly, throughout the Class Period, Defendant J.P. Morgan Securities plc f/k/a J.P. Morgan Securities Ltd. ("JP Morgan Securities"), purposefully availed itself of the U.S. market for European Government Bonds.

I. Jefferies Purposefully Availed Itself of the U.S. Market for European Government Bonds

117. Jefferies Financial Group Inc. organizes its activities on a "business segment" basis. Both Jefferies International Limited ("Jefferies International") and Jefferies LLC operate within the global "Investment Banking, Capital Markets and Asset Management" business segment. Prior to a 2013 merger, "Capital Markets" and "Asset Management" were two separate segments, and the European Government Bond trading and sales activities were housed within Capital Markets.

118. Jefferies Financial Group Inc. operates its Capital Markets business segment as a consolidated international business line using personnel employed by nominally separate legal entities. Jefferies Financial Group Inc. reports that "Jefferies Group and its subsidiaries operate as a global full service, integrated securities and investment banking firm," and that Jefferies provides

"clients sales and trading of investment grade and high yield corporate bonds, U.S. and European government and agency securities."

119. As the entity within Jefferies Financial Group Inc. responsible for European Government Bond trading, Jefferies International also published and distributed marketing materials concerning European Government Bonds to Jefferies LLC's sales staff so that these materials could be sent to European Government Bond customers in the United States. For example, Jefferies International published a marketing newsletter titled "Jefferies European Economic Outlook" containing information about investing in European Government Bonds. The newsletter closes with a disclaimer stating that "This commentary has been distributed in the U.S. by Jefferies LLC headquartered at 520 Madison Avenue, New York, NY 10022, a U.S.-registered broker-dealer."

120. Jefferies International was responsible for pricing all New York-based, SEC-registered broker-dealer Jefferies LLC's European Government Bond transactions with U.S. investors during the Class Period, and these transactions were executed using Jefferies International's European Government Bond inventory.

121. Jefferies International's domestic operations, either directly or through its U.S. subsidiaries, led to significant sales of European Government Bonds to customers in the United States, including Plaintiff SBCERA.

122. Accordingly, throughout the Class Period, Defendant Jefferies International purposefully availed itself of the U.S. market for European Government Bonds.

III. THE PARTIES

J. Plaintiffs

123. Plaintiff Ohio Carpenters' Pension Fund ("Ohio Carpenters") is a Taft-Hartley multi-employer pension fund located in Ohio that provides retirement, disability, and survivor

benefits to its participants and beneficiaries. Ohio Carpenters transacted in European Government Bonds issued by France, Germany, Greece, Ireland, Italy, the Netherlands, and Portugal directly with one or more of the European Government Bond cartel members, including Merrill Lynch International, Bank of America N.A., Natixis S.A., NatWest Markets Securities Inc. (f/k/a RBS Securities Inc.), NatWest Markets plc (f/k/a The Royal Bank of Scotland plc), UBS AG, UBS Europe SE, UBS Securities LLC f/k/a UBS Warburg LLC, Citigroup Global Markets Inc., Jefferies & Company, Inc., and JP Morgan Securities plc. As a direct and proximate result of Defendants' collusive activities, Ohio Carpenters was injured in its business or property.

124. Plaintiff Electrical Workers Pension Fund Local 103 I.B.E.W. ("IBEW Local 103") is a defined-benefit plan located in Dorchester, Massachusetts. IBEW Local 103 manages more than $1 billion in assets on behalf of over 8,000 members and beneficiaries. During the Class Period, IBEW Local 103 transacted in European Government Bonds issued by Italy, France, and Germany directly with one or more of the European Government Bond cartel members, including Merrill Lynch International, Nomura International, NatWest Markets plc (f/k/a The Royal Bank of Scotland plc), and UBS AG. As a direct and proximate result of Defendants' collusive and manipulative activities, IBEW Local 103 was injured in its business or property.

125. Plaintiff San Bernardino County Employees' Retirement Association ("SBCERA") is a public pension plan that provides retirement, disability, and death benefits on behalf of approximately 42,000 members and beneficiaries. SBCERA serves 17 employers throughout California and invests more than $10 billion in assets. SBCERA was established on January 1, 1945. During the Class Period, SBCERA transacted in European Government Bonds issued by: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Portugal, and Spain directly with one or more of the European Government Bond cartel members, including

Merrill Lynch International; UniCredit Bank AG (Hypovereinsbank); Natixis; Nomura International; NatWest Markets PLC (f/k/a Royal Bank of Scotland PLC); UBS AG; J.P. Morgan Securities Limited; J.P. Morgan Securities Plc; JPMorgan Chase Bank NA London; Jefferies International Limited; State Street Bank and Trust Co.; Citigroup Global Markets Inc.; and Citigroup Global Markets Limited. As a direct and proximate result of Defendants' collusive activities, SBCERA was injured in its business or property.

K. Defendants

1. The Bank of America Defendants

126. Defendant Bank of America, N.A. ("BANA") is an Office of the Comptroller of the Currency ("OCC")-registered national banking association with its principal place of business located at 100 North Tryon Street, Charlotte, North Carolina. BANA is a wholly-owned subsidiary of Bank of America Corporation.

127. Bank of America Corporation, as a bank holding company, does not itself conduct operating activities. Rather, Bank of America Corporation operates principally through BANA and its subsidiaries, including Defendant Merrill Lynch International ("MLI").

128. In 2008, Bank of America Corporation completed a merger with Merrill Lynch & Co. in 2008. In the merger, Bank of America Corporation absorbed all of Merrill Lynch & Co.'s subsidiaries and business units, including the European Government Bond trading business carried out by Merrill Lynch & Co.'s London-based trading and sales entity, MLI.

129. BANA organizes its activities on a "line of business" basis. Its fixed income sales and trading operations, including its European Government Bond sales and trading operations, are organized under its "Global Banking & Markets" Business Line.

130. Following the merger of Bank of America Corporation and Merrill Lynch & Co. in 2008, the merged bank's European Government Bond sales and trading operations were conducted

out of an MLI trading desk located in London, and the European Government Bond trading business formerly operated by BANA continued operating under the name of MLI.

131. Employees within the Global Banking & Markets Business Line market, price, and sell fixed income products, including European Government Bonds, to clients such as large global corporations, financial institutions, and U.S.-based businesses.

132. MLI is a private unlimited company incorporated in England and Wales with its principal place of business located at 2 King Edward Street, London, X0 EC1A 1HQ, United Kingdom. MLI is a wholly-owned indirect subsidiary of Bank of America Corporation, and is its largest subsidiary based outside the United States. MLI is a broker and dealer in equities, fixed income, currency, and commodities financial instruments. During the Class Period, MLI served as a European Government Bond primary dealer.

133. According to Bank of America Corporation's corporate structure, MLI operates as a division of BANA, despite its status as a separately incorporated legal entity. In this capacity, MLI is subject to BANA's direction and control and is responsible for carrying out BANA's fixed income trading and sales business in Europe, which includes trading and sales of European Government Bonds. Bank of America Corporation reports that BANA is its largest operating subsidiary, and in that capacity "operat[es] the Core Business Lines" of Bank of America Corporation, including the Global Banking & Markets business line of which MLI is a part. MLI reports that its income is "wholly derived from Global Banking and Markets" activities.

134. Bank of America Corporation reports that BANA is a "global leader in corporate and investment banking and trading across a broad range of asset classes serving corporations, governments, institutions and individuals around the world." MLI is the entity that conducts trading in the European Government Bond asset class on behalf of BANA, which is not a European

Government Bond primary dealer itself, but participates in and receives revenue from these activities through its subsidiary, MLI.

135. BANA also reports that, as indirect subsidiary, MLI "ha[s] access to BANA's strong, stable deposit base" as a source of funding. BANA reports revenues derived from MLI in its financial results, including the revenues derived from MLI's European Government Bond trading and sales activities.

136. BANA exercises significant operational control over MLI through personnel operating in London. For example, the Branch Head of BANA's London Branch is Bernard Mensah. Mr. Mensah is also the Chief Executive Officer of MLI. BANA explains on its website that Mr. Mensah is "responsible for the development and execution of Bank of America's strategy and extensive business activities internationally,"[25] which includes sales and trading. He is also responsible for "ensuring the effective delivery of the broad Bank of America franchise to its corporate and institutional clients internationally."[26]

137. BANA further reports that it uses MLI to connect BANA's U.S.-based customers to international markets, including in Europe. It states that it "provides non-U.S. market access for Global Banking and Global Markets clients."

138. MLI's corporate governance functions are also directed by BANA. BANA reports that to provide "strong management oversight," it uses a "regional president" in geographic areas that it has a presence. The regional president's role is to ensure that local affiliates, such as MLI,

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[25] In promotional materials, Bank of America Corporation (a non-operating holding company) uses the trade name "Bank of America" to refer to itself and its subsidiaries, which include BANA and MLI. It uses similar nomenclature in annual reports, stating that "Bank of America Corporation is a Delaware corporation, a bank holding company (BHC) and a financial holding company. When used in this report, 'the Corporation' . . . may refer to Bank of America Corporation individually, Bank of America Corporation and its subsidiaries, or certain of Bank of America Corporation's subsidiaries or affiliates."

[26] *Bernard Mensah, President of International, Bank of America Chief Executive Officer, MLI*, BANK OF AMERICA NEWSROOM, https://newsroom.bankofamerica.com/bernard-mensah (last visited Nov. 4, 2022).

deploy "enterprise operating strategies." Regional management teams, led by the regional president, "have responsibility for strategic performance, financial performance, risk, and control management." Accordingly, the regional management team established by BANA is responsible for strategic performance, financial performance, risk, and control management for MLI.

139. MLI is headquartered in BANA's London Branch, which is not a separate entity but rather a branch office of BANA, at 2 King Edward Street, London.

140. During the Class Period, MLI priced and executed European Government Bond transactions directly with investors in the United States, including Plaintiffs Ohio Carpenters, IBEW Local 103, and SBCERA.

2. Natixis

141. Defendant Natixis S.A. ("Natixis") is a multinational banking institution with its principal place of business at 30, avenue Pierre Mendès-France 75013 Paris, France. Natixis is organized as a public company under the laws of France.

142. During the Class Period, Natixis traded European Government Bonds directly with investors in the United States and distributed European Government Bonds into the United States. During the Class Period, Natixis served as a European Government Bond primary dealer.

143. Natixis employed European Government Bond traders to operate a European Government Bond trading desk during the Class Period. These traders acquired European Government Bonds, distributed European Government Bonds into the United States to investors, and determined prices for European Government Bond transactions executed with customers in the United States, including Plaintiffs Ohio Carpenters and SBCERA.

3. The NatWest Defendants

144. Defendant NatWest Markets plc (f/k/a The Royal Bank of Scotland plc) is a U.K. public limited company with its principal place of business at 250 Bishopsgate, London, EC2M

4AA, United Kingdom. During the Class Period, NatWest Markets traded European Government Bonds directly with investors in the United States and distributed European Government Bonds into the United States. During the Class Period, NatWest Markets served as a European Government Bond primary dealer.

145. NatWest Markets organizes its activities and those of its subsidiaries "on a divisional basis" according to function. It conducts fixed income sales and trading, including European Government Bond sales and trading, through its "Markets" division organized under its "Global Banking and Markets" business. NatWest Markets' subsidiaries that undertake activities within the Markets division do so as part of a "unified service" for NatWest Markets' corporate and institutional clients, which include pension funds and other institutional investors.

146. NatWest Markets employed a trader identified in chat conversations below as "State Street Bank and Trust Trader 1" prior to his tenure at State Street Bank and Trust. While at NatWest, State Street Bank and Trust Trader 1 was the Head of European Government Bond trading. As head of trading at NatWest, State Street Bank and Trust Trader 1 was responsible for overseeing all of NatWest's European Government Bond trading. State Street Bank and Trust Trader 1 later led Defendant State Street Bank and Trust's European Government Bond trading desk before leaving to join Nomura International. As shown in the chats alleged in Part V, below, former State Street Bank and Trust Trader 1 actively participated in private chatrooms in which he and traders employed at other Defendants routinely exchanged sensitive pricing and customer order information in the furtherance of the conspiracy.

147. Defendant NatWest Markets Securities Inc. (f/k/a RBS Securities Inc.) ("NatWest Securities") is a Delaware corporation with its principal place of business at 600 Washington

Boulevard, Stamford, Connecticut 06901. NatWest Securities is a registered broker-dealer with the SEC and is the RBS Group's primary U.S.-based broker-dealer.[27]

148. During the Class Period, NatWest Markets and NatWest Securities sold European Government Bonds directly to investors in the United States and distributed European Government Bonds into the United States, including to Plaintiffs Ohio Carpenters, IBEW Local 103, and SBCERA.

4. The Nomura Defendants

149. Defendant Nomura International is a multinational financial services company, organized as a United Kingdom public limited company, with its principal place of business at Nomura House, 1 St. Martin's-Le-Grand London, United Kingdom EC1A 4NP. Nomura International, together with its subsidiaries, operates as a securities broker internationally and in the United Kingdom.

150. Nomura International served as a European Government Bond primary dealer during the Class Period. The company trades in and sells fixed income and equity products, including related derivatives, and provides investment banking, corporate finance, and private equity services.

151. Defendant Nomura Securities International Inc. ("Nomura Securities") is a New York corporation and an SEC-registered broker-dealer with its principal place of business at Worldwide Plaza, 309 West 49th Street, New York, New York 10019. During the Class Period, Nomura Securities sold European Government Bonds directly to investors in the United States and distributed European Government Bonds into the United States.

[27] *The Royal Bank of Scotland* Group plc Resolution Plan (2015), https://www.fdic.gov/resources/resolutions/resolution-authority/resplans/plans/rbs-165-1512.pdf.

152. Nomura International and Nomura Securities conduct business in this District. During the Class Period, Nomura International transacted European Government Bonds directly with investors in this District, including with Plaintiffs IBEW Local 103 and SBCERA.

5. The UBS Defendants

153. Defendant UBS AG is a multinational banking institution organized as a public limited company under the laws of Switzerland. UBS AG maintains a principal place of business at Bahnhofstrasse 45, 8001 Zurich, Switzerland. During the Class Period, UBS AG sold European Government Bonds directly to investors in the United States, including all three Plaintiffs, and distributed European Government Bonds into the United States.

154. Defendant UBS Europe SE, a direct, wholly-owned subsidiary of UBS AG, is a German stock corporation with its principal place of business at Bockenheimer Landstrasse 2-4, D-60306 Frankfurt am Main, Germany. UBS Europe SE is the successor company of both UBS Deutschland AG, a German corporation that merged with UBS Europe SE in December 2016, and UBS Limited f/k/a UBS Warburg Ltd., a United Kingdom limited company that merged with UBS Europe SE in March 2019. Both UBS Limited and UBS Deutschland AG served as European Government Bond primary dealers during the Class Period.

155. During the Class Period, both UBS Limited and its predecessor UBS Warburg Ltd., traded European Government Bonds directly with Plaintiff Ohio Carpenters.

156. UBS AG and UBS Europe (or its predecessors) employed the traders that participated in the chatroom transcripts collected from cooperating parties (*infra*, Part V) and the European Commission Decision.[28] These traders priced, sourced, and sold European Bonds on

28 Decision, ¶62.

behalf of UBS subsidiaries UBS Limited and UBS Deutschland AG, now merged and operating as UBS Europe SE.[29]

157. Defendant UBS Securities LLC f/k/a UBS Warburg LLC ("UBS Securities") is a Delaware limited liability company with its principal place of business at 1285 Avenue of the Americas, New York, New York 10019. UBS Securities, an SEC-registered broker-dealer, acts as agent for its corporate parents and affiliates, including UBS AG and UBS Europe SE, in the United States.

158. During the Class Period, UBS Securities sold European Government Bonds directly to investors in the United States, including Plaintiff Ohio Carpenters, and distributed European Government Bonds into the United States.

6. The UniCredit Defendants

159. Defendant UniCredit Bank AG is a wholly-owned, multinational subsidiary of UniCredit S.p.A., with its principal place of business located at Arabellastr 12, 81925 Munich, Germany.

160. During the Class Period, UniCredit Bank AG sold European Government Bonds directly to investors in the United States, including Plaintiff SBCERA, and distributed European Government Bonds into the United States to its New York branch and its wholly-owned, domestic subsidiary, UniCredit Capital Markets LLC.

7. The State Street Defendants

161. Defendant State Street Bank and Trust Company ("State Street Bank and Trust") is a multinational banking institution incorporated in Massachusetts. State Street Bank and Trust maintains a principal place of business at 1 Lincoln Street, Boston, Massachusetts 02111. During

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29 *Id.*, ¶62 n.58.

the Class Period, State Street Bank and Trust served as a European Government Bond primary dealer.

162. State Street Bank and Trust maintains a permanent New York office at 780 Third Avenue, 8th Floor, New York, New York 10017.

163. State Street Bank and Trust is a wholly-owned subsidiary of Defendant State Street Corporation, a Massachusetts corporation with its principal place of business at 1 Lincoln Street, Boston, Massachusetts 02111. State Street Corporation's stock is listed on the New York Stock Exchange.

164. During the Class Period, United States-based traders within State Street Bank and Trust's Fixed Income Rates Business, led by Head of North American Rates Trading Andrew Newman, traded European Government Bonds directly with U.S. investors, including Plaintiff SBCERA.

8. The Citigroup Defendants

165. Defendant Citigroup Global Markets Limited is a U.K. private limited company with its principal place of business at Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB, United Kingdom. Citigroup Global Markets Limited is a wholly-owned broker-dealer subsidiary of Citigroup Inc., a Delaware corporation with its principal place of business in New York, New York. During the Class Period, Citigroup Global Markets Limited served as a European Government Bond primary dealer.

166. Throughout the Class Period, Citigroup Global Markets Limited distributed European Government Bonds into the United States and transacted European Government Bonds directly with investors in the United States, including Plaintiffs Ohio Carpenters and SBCERA.

167. Defendant Citigroup Global Markets Inc. is a New York corporation with its principal place of business at 388 Greenwich Street, New York, NY 10013. It is a wholly-owned SEC-registered broker-dealer subsidiary of Citigroup Inc.

168. In addition to its own direct transactions, Citigroup Global Markets Limited also transacted European Government Bonds in the United States through Citigroup Global Markets Inc., an affiliate operating as part of the same Citigroup Inc. business line. Citigroup Global Markets Inc., acting on behalf of Citigroup Global Markets Limited, transacted European Government Bonds directly with investors in the United States, including Plaintiffs Ohio Carpenters and SBCERA. These trades were priced by traders at Citigroup Global Markets Limited and executed using Citigroup Global Markets Limited's European Government Bond inventory.

9. The JPMorgan Defendants

169. Defendant J.P. Morgan Securities plc f/k/a J.P. Morgan Securities Ltd. is a U.K. public limited company with its principal place of business at 25 Bank Street, Canary Wharf, London, E14 5JP, United Kingdom. During the Class Period, J.P. Morgan Securities plc served as a European Government Bond primary dealer.

170. Throughout the Class Period, J.P. Morgan Securities plc distributed European Government Bonds into the United States and transacted European Government Bonds directly with investors in the United States, including Plaintiffs Ohio Carpenters and SBCERA.

171. J.P. Morgan Securities plc is a wholly-owned broker-dealer subsidiary of JPMorgan Chase & Co., a Delaware corporation with its principal place of business in New York, New York.

172. Defendant J.P. Morgan Securities LLC f/k/a J.P. Morgan Securities Inc. is a Delaware limited liability company with its principal place of business at 383 Madison Avenue,

New York, New York 10179. It is a wholly-owned, SEC-registered broker-dealer subsidiary of JPMorgan Chase & Co.

173. Defendant JPMorgan Chase Bank, N.A., a wholly-owned banking subsidiary of JPMorgan Chase & Co., is a U.S. national banking association with its OCC-registered head office at 1111 Polaris Parkway, Columbus, Ohio 43240.

174. JPMorgan Chase Bank, N.A. regularly transacts business through several dozen branches located in this District.

175. JPMorgan Chase Bank, N.A. distributed European Government Bonds to U.S. investors as an agent of its affiliate J.P. Morgan Securities plc. JPMorgan Chase Bank, N.A. also transacted European Government Bonds directly with investors in the United States, including Plaintiffs Ohio Carpenters and SBCERA.

10. The Jefferies Defendants

176. Defendant Jefferies International is a U.K. private limited company with its principal place of business at 100 Bishopsgate, London, England, EC2N 4JL, United Kingdom. During the Class Period, Jefferies International served as a European Government Bond primary dealer.

177. Throughout the Class Period, Jefferies International distributed European Government Bonds into the United States and transacted European Government Bonds directly with investors in the United States, including Plaintiff SBCERA. Jefferies International also transacted European Government Bonds with U.S. investors through its broker-dealer affiliate, Defendant Jefferies LLC.

178. Jefferies International is a wholly-owned subsidiary of Jefferies Financial Group Inc., a New York corporation with its principal place of business in New York, New York.

179. Defendant Jefferies LLC f/k/a Jefferies & Company, Inc. is a Delaware limited liability company with its principal place of business at 520 Madison Avenue, New York, New York 10022. It is a wholly-owned SEC-registered broker-dealer subsidiary of Jefferies Financial Group Inc.

180. During the Class Period, Jefferies LLC transacted European Government Bonds with U.S. investors as an agent of its affiliate Jefferies International. Jefferies LLC transacted European Government Bonds directly with investors in the United States, including Plaintiff Ohio Carpenters.

181. "Defendant" or "Defendants" as used in this Complaint, includes, in addition to those named specifically above, all Defendants' predecessors, including those merged with or acquired by Defendants and each Defendant's parents and wholly owned or controlled subsidiaries or affiliates that played a material role in the unlawful acts alleged in this Complaint.

182. Each Defendant named herein acted as the agent or joint-venturer of or for the other Defendants with respect to the acts, violations, and common course of conduct alleged herein, including in the United States.

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

11. Co-Conspirators

184. RBC Europe Limited f/k/a Royal Bank of Canada Europe Limited ("RBC Europe") is a U.K. private limited company with its principal place of business at 100 Bishopsgate, London, United Kingdom, EC2N 4AA. RBC Europe is a wholly-owned subsidiary of Defendant Royal

Bank of Canada. During the Class Period, RBC Europe served as a European Government Bond primary dealer.

185. Royal Bank of Canada is a multinational banking institution, organized as a Canadian chartered bank. Its principal place of business is located at 200 Bay Street, Toronto A6 M5J2J5, Ontario, Canada.

186. Royal Bank of Canada operates three federal branches in the United States, all of which are subject to regulation and supervision by the OCC and the Board of Governors of the Federal Reserve System. Its New York federal branches are located at 3 World Financial Center, 200 Vesey Street, New York, New York 10281.

187. Royal Bank of Canada's stock is registered with the SEC and is listed on the New York Stock Exchange.

188. During the Class Period, Royal Bank of Canada distributed European Government Bonds to U.S. investors as an agent of its subsidiary RBC Europe. Royal Bank of Canada transacted European Government Bonds directly with investors in the United States, including Plaintiff SBCERA.

189. RBC Capital Markets, LLC f/k/a Dain Rauscher Inc. ("RBC Capital Markets") is a Minnesota limited liability company with its principal place of business at 3 World Financial Center, 200 Vesey Street, New York, New York 10281. RBC Capital Markets is a wholly-owned subsidiary of Defendant Royal Bank of Canada and an SEC-registered broker-dealer.

190. Throughout the Class Period, RBC Capital Markets engaged in European Government Bonds sales and trading in the United States, distributed European Government Bonds to U.S. investors as an agent of its affiliate RBC Europe, and transacted European Government Bonds directly with investors in the United States.

191. Various other entities and individuals known and unknown to Plaintiffs at this time participated as co-conspirators in the acts complained of and performed acts and made statements that aided and abetted and were in furtherance of the unlawful conduct alleged in this Complaint.

IV. FACTUAL BACKGROUND

A. European Government Bond Market

192. The Eurozone is a monetary union comprised of a group of European nations that coordinate economic, fiscal, and monetary policy through a central bank, the European Central Bank, and use a common currency, the euro.

193. Government entities in the Eurozone issue debt in the form of bonds, which are typically used to fund ongoing and future operations. European Government Bonds are issued on the primary market and subsequently traded on the secondary market.

194. Examples of European Government Bonds include French "OATs" (Obligations Assimilables du Trésor) (bonds), Italian "BTPs" (Buoni del Tesoro Poliannuali) (bonds), Belgian "OLOs" (Obligations Lineaires), Portuguese "OTs" (Obrigacoes do Tesouro), Spanish "BONOS" (Bonos del Estado), and German Bundesanleihen or short "Bunds" (10-30 year bonds).

195. European Government Bonds are treated as a single class of debt securities due to Eurozone members' common monetary policy, common currency, common membership criteria, highly integrated financial market, high degree of economic interdependence, common governance with respect to financial regulation, common central bank, high degree of common systemic risk, and implicit backing in default. For the same reasons, European Government Bond dealers generally organize their trading and sales businesses so that the same team of traders are responsible for determining pricing for European Government Bonds issued by different Eurozone members. Each Defendant organized its European Government Bond business in this manner. For example, MLI traders located at MLI's London headquarters were responsible for making

pricing decisions and determining bids for European Government Bonds issued by different European Union countries. Nomura International PLC, NatWest, Natixis, UBS Europe SE, and UniCredit Bank AG, RBC Europe, Citigroup Global Markets Limited, JP Morgan Securities plc, and Jefferies International Limited organized their European Government Bond trading desks in a similar manner. *See generally* Part II, *supra*.

196. Eurozone members developed the "Euro convergence criteria" that all prospective members must meet before joining the Eurozone to ensure that new members meet Eurozone standards and to further the goal of creating an integrated financial market. All new Eurozone members must establish that they have a comparable: (a) degree of inflation; (b) ratio of government budget deficit to gross domestic product; (c) ratio of outstanding government debt to gross domestic product; and (d) long-term interest rates to existing Eurozone members prior to joining the Eurozone.

197. To achieve economic integration, Eurozone members established several centralized bodies to create and implement monetary policy. For example, the European Council is responsible for deciding on the main policy orientations for the Eurozone, while the European Central Bank is responsible for implementing monetary policy. Eurozone members also agree to deficit and debt limits that apply to all Eurozone members through these centralized bodies.

198. Eurozone members created the European Central Bank with the mission "to safeguard liquidity and promote European financial integration." The European Central Bank defined "financial integration" as follows:

> [T]he market for a given set of financial instruments or services [is] to be fully integrated when all potential market participants in such market (i) are subject to a single set of rules when they decide to deal with those financial instruments or services, (ii) have equal access to this set of financial instruments or services, and (iii) are treated equally when they operate in the market.

199. Following their economic integration, the yield on bonds, or return that an investor receives from a bond, from different Eurozone sovereigns began to converge closer together and the market began pricing them as closer substitutes.

200. By March 2007, the European Central Bank reported that the European Government Bond market was "highly integrated." It concluded that "yields in the government bond [*i.e.*, European Government Bond] market . . . are increasingly driven by common factors."[30] The European Central Bank also concluded that the introduction of the euro and the adoption of a common monetary policy for Eurozone members, among other factors, had caused yields on European Government Bonds from the different Eurozone members to "converge[] . . . towards 1, the level of perfect integration."[31]

201. Global holdings of European Government Bonds were approximately $8 trillion (€6.3 trillion) as of 2012. The United States is a prominent market for European Government Bonds, with hundreds of billions of dollars in trading volume annually. Figure 3 below shows the market value of U.S. residents' holdings, stated in millions of U.S. dollars, of European Government Bonds in each year of the Class Period.

Figure 3 – European Government Bonds Held by U.S. Investors (in millions)

	2007	**2008**	**2009**	**2010**	**2011**	**2012**
Market Value of EGB Holdings	$412,632	$316,240	$402,966	$394,223	$428,561	$534,150

30 *Financial Integration in Europe*, EUROPEAN CENTRAL BANK, at 13 (March 2007), https://www.ecb.europa.eu/pub/pdf/fie/financialintegrationineurope200703en.pdf?1470741bc6dcc84cb69ab158c75f5a7e (emphasis omitted).

31 *Id.*

B. European Government Bond Primary Market

202. European Government Bonds are typically sold in auctions sponsored by European governments' ministries of finance within the Eurozone. Governments delegate the issuing of bonds to their treasury department and, more specifically, to the debt management office. Although less common, European Government Bond offerings can also be made through syndication, in which a group of banks underwrites and conducts the initial sales of European Government Bonds.

203. The sale of European Government Bonds during the auction (or syndication) is known as the "primary market." Depending on the country, these auctions either allocate bonds at a single price to all those who bid above a certain level (known as "single price auction") or to each bidder in descending price order until the supply in that offering runs out (known as "multi-price" auctions). For example, in the single price auctions used for 10-year Italian bonds, the bonds are allocated to the primary dealer that bids the highest price first and then continues in descending order until the supply in that issuance is exhausted. The bid at which supply runs out sets the price known as the "stop out price" – and this is the price paid by every bidder allocated bonds in the auction. Multi-price auctions (such as those for French OATs), in contrast, do not set a single price for all auction participants but rather allocate bonds to dealers in descending price order at the price they bid.

204. To ensure active participation in their auctions, European Government Bond issuers typically select a relatively small group of banks to serve as "primary dealers" of the European Government Bonds. These primary dealers control a significant amount of European Government Bonds issued in auctions. For example, during the Class Period, the EPDA, discussed above in the venue allegations, reported that its members collectively traded more than 80% of all volume in the European Government Bonds market. Often, the same banks act as primary dealers for

multiple issuers' European Government Bonds. In an auction not subject to a conspiracy, primary dealers compete with each other for acquiring European Government Bonds issued by the debt management office.

205. Figure 4 below identifies each Eurozone country and the Defendants and co-conspirators that served as primary dealers of European Government Bonds in that country during the Class Period. Figure 4 shows that there is significant overlap among Defendants and co-conspirators that serve as primary dealers. In fact, several Defendants and co-conspirators are primary dealers in multiple countries, including Germany, Italy, France, Greece, Portugal, and Austria.

Figure 4 – European Government Bonds Primary Dealers

	Austria	Belgium	Finland	France	Germany	Greece	Ireland	Italy	The Netherlands	Portugal	Slovakia	Slovenia	Spain
MLI	X		X	X	X	X	X	X					
Citigroup Global Markets Ltd.	X	X	X	X	X	X	X	X	X			X	X
Jefferies International Limited					X				X	X		X	
JP Morgan Securities plc	X	X	X	X	X	X	X	X		X		X	X
Natixis		X		X	X				X				X
Nomura International plc	X	X	X	X	X	X	X	X	X	X			X
RBS/NatWest	X	X	X	X	X	X	X	X	X	X			X
State Street Bank and Trust					X								
UBS Europe SE	X	X		X	X	X	X	X					
UniCredit	X				X	X		X		X	X	X	

206. Typically, the banks are selected as primary dealers based on the following criteria:

(a) their experience in trading sovereign debt and long-term commitment to participating in the sovereign debt market;

(b) their ability to make markets for investors in the post-auction or "secondary market";

(c) their financial strength, which includes their credit rating, capitalization, and appetite for risk; and

(d) their general ability to promote an active trading market for a country's European Government Bonds.

207. Primary dealers are generally required, at each auction, to bid a minimum percentage of the full offering. The minimum bid requirement is usually determined as the ratio of the total number of primary dealers to the full offering – *e.g.*, if there are 10 primary dealers, each primary dealer must bid at least 10% of the total offering. This is to ensure that in the event that no one outside of the primary dealer group bids in a given auction, all of the auctioned European Government Bonds will still be purchased by the primary dealers. It also ensures that primary dealers receive a continuous supply of newly issued European Government Bonds to trade with investors. Primary dealers are not, however, guaranteed to win that portion of bonds for which they bid. The allocation depends on the prices they submitted at auction, as discussed above.

208. Prior to each European Government Bond auction, there is a relatively active forward market – known as the "when-issued" market – where dealers (and to a much lesser extent, customers) can offer price quotes to buy or sell the to-be auctioned European Government Bond. One to two weeks prior to an auction, a European Government Bond issuer will announce a date for the upcoming bond auction, along with all the characteristics of the bonds to be offered, *e.g.*, ISIN, coupon, maturity, amount. The bonds can then be quoted and traded immediately in the

when-issued market. A dealer or customer buying the when-issued European Government Bond is obligated to take delivery of the newly issued bond and pay the price under the terms of the transaction. A dealer or customer selling the when-issued European Government Bond is obligated to make delivery of the newly issued bond and accept payment. Trading in the when-issued market takes place up until the time of the auction.

209. European Government Bond customers typically do not have access to real-time pricing in the when-issued market. As a result, customers only see static, non-executable bids and offers. Dealers, by contrast, are able to see real-time bids and offers and thus are able to learn the demand for, and how other dealers value, the new issue. Dealers can learn the market yield, which in a normally functioning market would form the basis for the auction-determined yield.

210. The primary dealers provide valuable information to European Government Bond issuers. Primary dealers often acquire and possess significant amounts of information about client demand and order flows in their roles as market makers. Certain investors, including pension funds and life insurance companies, have long-dated liabilities on their balance sheet that they need to hedge. European Government Bonds have longer durations and lower credit risk than corporate bonds and therefore can more effectively hedge certain forms of long-term liabilities. As these bonds mature, and as the assets under management grow, there is a constant need for bond proceeds to be re-invested to keep the average maturity of the portfolio constant, month-in, month-out.

211. Through the information primary dealers receive about customer demand, primary dealers are able to judge interest in the auction, and in turn, the likely trading activity for auctioned securities in the secondary market. Given the wealth of information primary dealers acquire through their customers, European Government Bond issuers rely heavily on primary dealers'

knowledge of investor appetite to better understand what type of offering will attract the most interest in the issuance. Indeed, often prior to the auction, the European Government Bond issuers will discuss with primary dealers how the market is evaluating an offering.

212. European Government Bond issuers monitor the performance of primary dealers in the auctions, ranking them based on how aggressively they bid in the auction – *i.e.*, whether primary dealers will bid large amounts of the auctioned bonds at high prices. Each issuer's debt management office publishes a ranking of primary dealers according to how well they are deemed to have met the obligations of that primary dealership. Primary dealers that consistently obtain the largest portions of auctioned European Government Bonds are ranked higher than dealers that do not.

213. Primary dealers are economically incentivized to maintain a high ranking because it gives them opportunities to participate in even more lucrative transactions with the issuer. One such lucrative opportunity for top-ranked primary dealers is serving as a lead manager of a syndicated issuance. In France, for example, lead syndicate managers are appointed based on expertise, rank, and contribution to the planning and preparation of the transaction. Syndicate managers then have the responsibility and opportunity for market-making in the secondary market for the security. Top-ranked primary dealers also receive preference in derivative transactions, including entering into interest rate swap transactions with the issuers to hedge risk in the government's portfolio. Primary dealers are also incentivized to increase or maintain their primary dealer ranking to acquire investment bank advisory projects from issuers. In addition, from time to time, issuers write call options for primary dealers, the value of which increases as the auction-clearing price increases. Dealers exercising these options are able to obtain additional supply of the newly auctioned securities, which they could then hold or resell in the secondary market.

214. While primary dealers are incentivized to sacrifice capital in the auctions in order to secure greater profits later – either through reselling inflated European Government Bonds in the secondary market or preserving preferential status in gaining more lucrative business – Defendants and their co-conspirators colluded so that they could consistently secure the potential rewards without over-risking capital.

C. Trading in the European Government Bond Secondary Market

215. After the initial issuance of European Government Bonds in the primary market, these bonds are further traded for investing and hedging purposes among bond dealers and investors – including pension, hedge, and mutual funds; domestic and international banks; insurance companies and other corporations; and state and local governments in the OTC secondary market. There is an active secondary market for European Government Bonds in the United States.

216. Defendants dominate the secondary market, acting as market makers by providing liquidity to investors and standing ready to buy and sell European Government Bonds whenever an investor seeks to do so.

217. In fact, Eurozone governments often require that primary dealers actively quote new European Government Bond issues to retain their primary dealer status. The governments also monitor the performance of the primary dealers in terms of the volumes they trade and quote in the secondary market. For example, France and Italy rank the performance of their primary dealers in the secondary market in terms of the number and quality of bid and ask quotes and the volume of trades made. It is not uncommon for central governments to demand that primary dealers provide minimum amounts of activity in the secondary market. If a primary dealer fails to do so, it risks receiving a lower ranking or being dropped as a primary dealer altogether.

218. Customers seeking to buy or sell European Government Bonds may contact one or more banks, such as Defendants or another primary dealer, and request pricing for a particular European Government Bond. The bank will quote the price for a European Government Bond in terms of a “bid” or an “ask,” which are usually set in terms of basis points (one basis point equals 1/100 of one percent). The bid represents the price at which a dealer will purchase the European Government Bond; the ask represents the price at which a dealer will sell the European Government Bond. The difference between these two values is the “bid-ask spread” (or “spread”), which reflects the dealer’s profit for acting as a market maker and assuming the risk that it may be unable to buy or sell the European Government Bond in the future at better prices than it is quoting at the time to its customer.

219. As is typical in many financial markets, trading of European Government Bonds is done through telephonic and, increasingly, electronic means. Salespersons at the dealer banks take orders and then relay them to bond traders at the banks’ trading desks so that they can be filled.

220. Rational customers want to buy low and sell high. Banks, including Defendants and their bond traders, compete for customers based on the bid and ask prices they offer, and, in turn, the spread between them. The narrower the bid-ask spread, the more competitive the prices. A bank can gain customers and business by offering a narrower bid-ask spread than its competitors. Conversely, if a bank widens the bid-ask spread – by either lowering the bid or raising the ask (or both) – it would likely lose customers to rivals offering narrower spreads. Only through collusion can a dealer quote a wider spread than market conditions otherwise dictate without losing market share and profits.

D. Structure of Defendants’ European Government Bond Businesses

221. Defendants’ European Government Bond trading and sales personnel are housed within each bank’s respective fixed income division. An entity within this division serves as a

primary dealer for European Government Bonds issued by multiple Eurozone countries. Traders employed at the primary dealer entity are also responsible for determining pricing for European Government Bond trades with investors. Defendants performed this function on behalf of their respective banking groups during the Class Period.

222. The primary dealer entity acquires European Government Bonds from issuers in the primary market. The traders who undertake primary dealing responsibilities are typically located in the same office, primarily in London and less often, Paris. When primary dealers acquire European Government Bonds, they place them into inventory and distribute them, as needed, to fill customer orders, through the bank's sales and trading network to trading hubs located in major financial centers, including in the United States. Sales personnel at these trading hubs help their respective European Government Bond primary dealers by interacting with investors, managing client relationships, and receiving and implementing customer European Government Bond orders from trading desks. As described above, Defendants' U.S. entities performed this function in the United States during the Class Period.

223. For example, when a salesperson in the United States sells a European Government Bond to a customer, a trader at the primary dealer entity is responsible for determining the price charged to the customer and executes an internal transaction from the primary dealer's inventory to send the European Government Bond to the bank's U.S. trading desk, which then delivers the bond to the customer. Through these internal transactions, the primary dealer entities distribute European Government Bonds into the United States through their respective U.S. desks to U.S. investors.

224. Defendants' primary dealer entities transacted European Government Bonds directly with customers located in the United States. On other occasions, Defendants also

distributed European Government Bonds to United States customers through their United States-based broker-dealer affiliates.

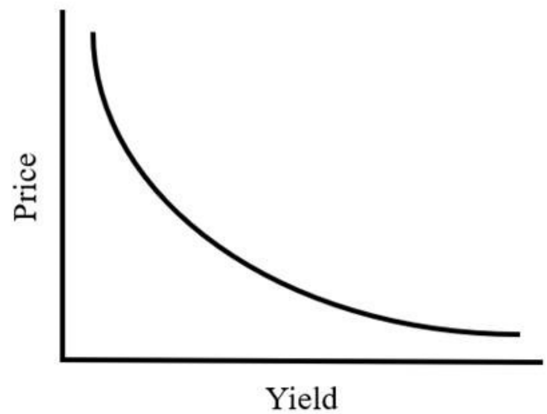
E. Pricing of European Government Bonds

225. As with other bonds, the prices of European Government Bonds are stated in terms of the bond's par value, coupon, maturity date, and yield. A bond's par value is its face value, payable on the bond's maturity date. A bond's coupon is the interest rate that the bond issuer must pay an investor. Coupons are paid to the bond-holder periodically – usually every 6 or 12 months – until the bond reaches maturity. Yield is a figure that shows the return that an investor receives by holding the bond to maturity.

226. Bond prices can be quoted as a function of the bond's par value or its yield. A bond with a par value of €1,000 may sell at a discount of 2%, or €980. European Government Bonds are also quoted in fractions of a euro (*e.g.*, 1/32). In the example above, a €1,000 par value bond may be quoted at "98-23." The "98" reflects the "handle" and the "23" reflects the number of "32nds" (*i.e.*, 23/32). The bond's price off of par, can be determined by dividing 23 into 32 (0.71875) and adding that to the handle of "98," which provides the bond's price as a percent of the bond's €1,000 face value – *i.e.*, 98.71875% or €987.1875. A bond may sell at a discount because its coupon is lower than prevailing interest rates in the marketplace, which means that in order to sell it, the holder must lower the price of the bond to make it competitive with other bonds in the market.

227. A bond's price can also be quoted in terms of its yield. Bond price and yield have an inverse relationship: lowering one will result in a rise in the other, as demonstrated by Figure 5 below:

Figure 5 – Relationship Between Bond Price and Yield



228. This inverse relationship is due to the fact that a bond's price will be higher when it pays a coupon that is higher than prevailing interest rates. As market interest rates increase, bond prices decrease. Because yield takes into account both a bond's coupon and its price, yield can be an effective means to compare bonds with different coupons, prices, and terms to maturity.

V. DEFENDANTS' WRONGFUL CONDUCT

229. Defendants and their co-conspirators are among the world's largest dealers of European Government Bonds in the primary market and market makers in the secondary market. In a competitive market, they would compete with one another for customers seeking to buy and sell European Government Bonds. They would also compete with each other to acquire bonds during European Government Bond auctions.

230. However, rather than compete with one another, Defendants and their co-conspirators entered into an unlawful agreement to manipulate the European Government Bond auctions and fix the bid-ask spreads for European Government Bonds that they bought from and sold to investors in the secondary market.

231. Specifically, with respect to the European Government Bond auctions, Defendants conspired to raise bond prices (depress yields) of the European Government Bonds they acquired at auction. To do this, Defendants shared confidential, commercially sensitive information about their bidding interest and customer orders through non-public, invitation-only, multi-dealer electronic chatrooms, among other means. The chatrooms allowed the participant co-conspirators to communicate privately by sending instant messages to the group. Sharing this information allowed Defendants and their co-conspirators to gain an understanding of overall interest in the auction and outbid their rivals, often by raising their bids above then-prevailing market prices in the pre-auction market. This conduct both shut out rivals and artificially inflated the auction-clearing prices for European Government Bonds, which then became the benchmark price for those securities in the secondary market.

232. Despite the relatively large, short-term cost of bidding up prices at European Government Bond auctions, Defendants were willing to bid up prices for two reasons. First, Defendants gained significant control over the supply of newly issued, in-demand European Government Bonds that they could then resell at a premium to investors in the post-auction, secondary market. Second, by obtaining consistently large shares of bond auctions, Defendants were able to maintain or increase their rankings with European Government Bond issuers, which in turn gave Defendants access to more lucrative syndications and derivatives deals, including interest rate swaps, with European Government Bond issuers. Thus, Defendants and their co-conspirators were willing to trade off large, albeit short-term, costs for the chance to secure even more lucrative rewards and colluded to ensure they obtained these rewards.

233. Additionally, Defendants manipulated European bond auction prices and allocations through the secondary market. Directly before a bond auction, Defendants would

coordinate buying, selling, and pricing bonds in the secondary market to distort the price of bonds offered at the auction. Defendants then agreed on overbidding levels to acquire and control the supply of the bonds at auction. Only the participants of the conspiracy knew that the bonds were misvalued at auction due to manipulation. After using this competitive advantage to purchase the bonds, Defendants could then sell bonds on the secondary market at a price inflated from the true competitive value of the bond. The quick depression and inflation of bonds on the secondary market between auctions raised the ask price quoted to investors, thus widening the bid-ask spread and resulting in inflated prices of European bonds on the secondary market.

234. Defendants also fixed bid-ask spreads on customer orders for European Government Bonds in the post-auction, secondary market. Defendants orchestrated their bid-ask spread fixing primarily through the same non-public, invitation-only, multi-dealer electronic chatrooms, where Defendants' traders discussed customer orders, the bid and ask prices offered to customers seeking a quote, and the prices of executed trades. Primary dealers are particularly well placed to see order information and estimate bond demand, allowing them to disclose information that may decrease uncertainties regarding the demand and thus the price of the bonds in the secondary market. Client order information is highly sensitive, and sharing this information with competitors is considered grounds for termination.[32]

235. Exchanging this information is prohibited, yet profitable for the Defendants, because it alerts horizontal competitors to the prices at which customers are valuing bonds, allowing conspirators to raise their offers (in the case of a customer purchase) or lower their bids

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[32] *See, e.g.*, Patrick Gower, *Barclays Trader Fired Amid FX Probe Is Third to Lose Lawsuit*, BLOOMBERG BUSINESS (May 26, 2017), https://www.bloomberg.com/news/articles/2017-05-26/barclays-trader-fired-amid-fx-probe-is-third-to-lose-lawsuit#xj4y7vzkg.

(in the case of a customer sale)[33] to collect additional profits. This conduct caused a corresponding loss to Defendants' customers, who unknowingly transacted at prices fixed by Defendants instead of prices set by supply and demand.

236. Absent an agreement to manipulate the auctions or fix bid and ask prices, no individual bank could afford to engage in such conduct. Because of the high risks and costs associated with misjudging demand at an auction, no individual bank would attempt to unilaterally manipulate European Government Bond auction prices. If a Defendant bid for too much supply at too high of a price at an auction, it would be left with inventory that could not be sold except at a steep discount. And if a Defendant bid for too little supply at too low of a price at an auction, it would be potentially shut out, either partially or entirely. Both acts are costly in the short run. Bidding too much unnecessarily risks capital with little chance for profit (this is especially true in multi-price auctions, where the price bid is the price paid). Bidding too little causes a Defendant to lose allocation in the auction, forcing it to acquire supply in a potentially more expensive secondary market.

237. Either circumstance – over-bidding or under-bidding – could risk a dealer's ranking (and potentially its primary dealer status), thereby jeopardizing its ability to gain more lucrative deals. Auction prices that move too high could cause prices to collapse in the secondary market, generating excessive volatility and making that issuer's European Government Bonds less attractive relative to other fixed income assets. If a dealer misses out on an auction by failing to place sufficiently competitive bids, it could affect the dealer's ranking with the issuer.

33 An artificially raised ask price (or artificially lowered bid price) increases the difference between the bid and the ask (*i.e.*, the bid-ask spread). *See* Part IV.E above, and Part VI.B below.

238. Similarly, no individual bank would widen its bid-ask spread unilaterally. To do so would result in that bank losing substantial trading business to competitors offering more competitive pricing. Further, consistently quoting non-competitive bid and ask prices would risk the bank's lucrative position as a primary dealer in European Government Bonds.

239. As was the case in other financial market cartels, in these communications, Defendants' traders exchanged confidential information about their customers' identities and orders (including, among other things, size, direction, and price). By exchanging this sensitive customer information, the conspiring traders could coordinate the prices they submitted at primary market auctions and the bid and ask prices they offered to their respective customers in the secondary market. Defendants' European Government Bond traders communicated with each other frequently. The repetitious nature of Defendants' traders' private chatroom discussions enabled them to both coordinate on pricing and effectively police their conspiracy. A conspiring bank's trader who failed to adhere to agreed-upon pricing could quickly be identified and barred from any further participation in the chatrooms. Accordingly, the European Government Bond traders had little incentive not to adhere to their agreement.

240. By communicating with one another about aligning the prices and spreads they quoted to investors, Defendants also discouraged investors from comparing prices. Shopping around for better pricing was ultimately a pointless endeavor because the quotes received from one cartel member would be substantially similar to those offered by the other cartel member. From the customer's perspective, the matching quotes suggested that the prices offered by any one cartel member were competitive. Unbeknownst to the customer, however, these prices were actually the product of collusion between the conspiring banks' European Government Bond traders.

241. In its Decision, the Commission found that European Government Bond traders were in close, continuous contact with each other via multilateral chatrooms. Contacts in the chatrooms "occurred regularly, sometimes daily, in particular when EGB came up for auction. Communications could be lengthy, lasting all day or spanning multiple days. The traders used professional jargon and abbreviations. On occasion, the participants also used nicknames and code words."[34]

242. The Commission focused its investigation on two chatrooms used by the co-conspirators called Cods & Chips and RBSUBSABN, both of which were created by the key European Government Bond traders in the cartel in January and February 2007, respectively.[35] The traders continuously changed the names of these chatrooms, but at all times, they continued coordinating trading and bidding on European Government Bonds, by, among other things, to sharing valuable confidential information therein, including their respective pricing of European Government Bonds. According to the Commission, "[t]he traders with access to the . . . chatrooms knew each other very well, met each other socially[] and were in contact via telephone, usually mobile phone, possibly to avoid any recording of the conversation."[36]

243. Specifically, in these communications:

> [T]he traders exchanged various pieces of commercially sensitive information that allowed them to be informed about each other's conduct and strategies, and may have allowed them to align or otherwise coordinate their conduct and help each other gain competitive advantages when [European Government Bonds] were issued, placed in the market, and traded. Relevant information exchanged concerned prices, volumes, and/or positions, such as: information on mid-prices, yield curves and spreads[] of bonds recently traded or being offered on the secondary market, volumes parties envisaged purchasing at the auctions, information on the bids, the level of overbidding and overbidding strategies at the auctions and so forth. The information exchanged between competitors was often

34 *See* Decision, ¶88.

35 *Id.*, ¶¶81-84.

36 *Id.*, ¶90.

precise and confidential. It was relevant to the traders' decision-making and allowed them to adjust their trading strategies as a result.[37]

244. The Commission had hundreds of communications between the key players in the cartel. These contacts showed agreements and concerted practices to (1) attempt to influence the prevailing market price on the secondary market in function of the conduct on the primary market; (2) attempt to coordinate the bidding on the primary market; (3) attempt to coordinate the level of overbidding on the primary market; and (4) attempt to exchange sensitive information, including on pricing elements, positions, and volumes and strategies for specific counterparties related to individual trades on the secondary market.[38]

245. As a result of Defendants' price-fixing agreement, investors, including Plaintiffs and the Class, either paid artificially high prices for European Government Bonds they bought or received artificially low prices for the European Government Bonds they sold, causing Plaintiffs and the Class injury to their business or property.

F. Defendants Coordinated Their Auction Bids, Inflated Auction Prices, and Shared Confidential, Commercially Sensitive Information in Advance of European Government Bond Auctions

246. As mentioned above, in advance of auctions for European Government Bonds, Defendants coordinated their bidding levels and shared confidential, commercially sensitive information regarding their customer order flow house trades, and price marks, house trades, and price marks with their co-conspirators. Cooperation materials provided by cooperating co-conspirators now provide direct evidence of Defendants carrying out their conspiracy through private electronic chatrooms, including one the co-conspirators named "Cods & Chips," among others. The sample chats described below demonstrate that traders at competing banks colluded

[37] *Id.*, ¶93.

[38] *Id.*

to purchase European bonds together at specific price levels and shared commercially sensitive information about order flow and prospective bidding activity in upcoming European Government Bond auctions. As employees at competing institutions, none of these traders should have been sharing such information – let alone coordinating bidding strategies – lest they give their rivals a competitive advantage in the auction. Absent a reciprocal agreement among these traders to align their bidding strategy and use the information exchange to their collective advantage, exchanging such information would be unprofitable and against their respective self-interests. Such conduct is, therefore, highly probative of a price-fixing conspiracy.

247. For example, September 27, 2011, traders from RBC Europe and State Street Bank and Trust [redacted] This reflects impermissible coordination of bidding strategies among competing firms:

<u>September 27, 2011</u>

<u>RBC Europe Trader 1</u>: [redacted]

<u>State Street Bank and Trust Trader 4</u>: [redacted]

<u>State Street Bank and Trust Trader 4</u>: [redacted]

<u>State Street Bank and Trust Trader 4</u>: [redacted]

<u>State Street Bank and Trust Trader 4</u>: [redacted]

<u>State Street Bank and Trust Trader 4</u>: [redacted]

<u>State Street Bank and Trust Trader 4</u>: [redacted]

<u>RBC Europe Trader 1</u>: [redacted]

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39 Terms in brackets in the chatroom conversations have been inserted based on interpretations of the slang used by the traders based on Plaintiffs' current understanding.

40 "Flattened" means that yields on short-term bonds rose relative to yields on long-term bonds. Such relative yield moves have price impacts.

State Street Bank and Trust Trader 4: [redacted]

State Street Bank and Trust Trader 4: [redacted]

RBC Europe Trader 1: [redacted]

RBC Europe Trader 1: [redacted]

RBC Europe Trader 1: [redacted]

State Street Bank and Trust Trader 4: [redacted]

RBC Europe Trader 1: [redacted]

State Street Bank and Trust Trader 4: [redacted]

248. In the following November 2, 2010 chat that included UBS Europe SE (f/k/a UBS Limited), NatWest Markets (f/k/a RBS plc), and another co-conspirator, [redacted] traders from another co-conspirator and UBS Europe SE [redacted]

November 2, 2010

Co-Conspirator Trader 1: [redacted]

UBS Europe Trader 1: [redacted]

Co-Conspirator Trader 1: [redacted]

UBS Europe Trader 1: [redacted]

NatWest Markets Trader 1: [redacted]

Co-Conspirator Trader 1: [redacted]

NatWest Markets Trader 1: [redacted]

249. In an October 28, 2010 chat that took place in a chatroom the traders [redacted] a UBS Europe SE trader [redacted] with traders from NatWest, State Street Bank and Trust, and another co-conspirator [redacted] The

UBS Europe SE trader [redacted]

October 28, 2010

Co-Conspirator Trader 1: [redacted]

UBS Europe Trader 1: [redacted]

UBS Europe Trader 1: [redacted]

UBS Europe Trader 1: [redacted]

NatWest Markets Trader 1: [redacted]

NatWest Markets Trader 1: [redacted]

UBS Europe Trader 1: [redacted]

State Street Bank and Trust Trader 1: [redacted]

UBS Europe Trader 1: [redacted]

UBS Europe Trader 1: [redacted]

UBS Europe Trader 1: [redacted]

250. In another chat on December 9, 2011, traders from JP Morgan Securities, RBC Europe, UBS Europe SE, and State Street Bank and Trust [redacted] The trader from UBS Europe SE [redacted] The UBS Europe SE trader [redacted]

December 9, 2011

JP Morgan Securities Trader 1:[41] [redacted]

State Street Bank and Trust Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

JP Morgan Securities Trader 1: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

JP Morgan Securities Trader 1: [redacted]

UBS Europe Trader 4: [redacted]

JP Morgan Securities Trader 1: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

JP Morgan Securities Trader 1: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

RBC Europe Trader 1: [redacted]

RBC Europe Trader 1: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

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UBS Europe Trader 4: [redacted]

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State Street Bank and Trust Trader 4: [redacted]

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41 JP Morgan Securities Trader 1 was employed by JP Morgan Securities plc.

251. In an April 4, 2011 chat, traders from Nomura International and another co-conspirator [redacted]

April 4, 2011

Nomura International Trader 2: [redacted]

Co-Conspirator Trader 1: [redacted]

Nomura International Trader 2: [redacted]

252. This [redacted] had persisted for years. In a July 28, 2008 chat, traders from JP Morgan Securities and NatWest Markets coordinated [redacted]

July 28, 2008

NatWest Markets Trader 3: [redacted]

JP Morgan Securities Trader 2: [redacted]

JP Morgan Securities Trader 2: [redacted]

JP Morgan Securities Trader 2: [redacted]

NatWest Markets Trader 3: [redacted]

NatWest Markets Trader 3: [redacted]

JP Morgan Securities Trader 2: [redacted]

NatWest Markets Trader 3: [redacted]

NatWest Markets Trader 3: [redacted]

253. In an October 2, 2008 chat, the same JP Morgan Securities and NatWest Markets traders [redacted]

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[42] "Steepening" means that yields on short-term bonds fell relative to yields on long-term bonds. Such yield moves result in price impacts. Steepening is the opposite of flattening.

October 2, 2008

NatWest Markets Trader 3: [redacted]

JP Morgan Securities Trader 2: [redacted]

NatWest Markets Trader 3: [redacted]

JP Morgan Securities Trader 2: [redacted]

NatWest Markets Trader 3: [redacted]

JP Morgan Securities Trader 2: [redacted]

JP Morgan Securities Trader 2: [redacted]

JP Morgan Securities Trader 2: [redacted]

NatWest Markets Trader 3: [redacted]

254. On November 12, 2008, a Citigroup Global Markets Limited trader asked if traders from JP Morgan Securities and other co-conspirators [redacted] In the same group chat the next day, the Citigroup Global Markets Limited trader opened the discussion about [redacted]

November 13, 2008

Citigroup Global Markets Trader 2: [redacted]

Co-Conspirator Trader 4: [redacted]

Citigroup Global Markets Trader 2: [redacted]

Citigroup Global Markets Trader 2: [redacted]

Citigroup Global Markets Trader 2: [redacted]

Citigroup Global Markets Trader 2: [redacted]

255. Citigroup and JP Morgan Securities traders' coordination of auction bidding strategies was not isolated to a single incident: it occurred repeatedly over many years. On

February 10, 2011, [redacted]

February 10, 2011

JP Morgan Securities Trader 1: [redacted]

JP Morgan Securities Trader 1: [redacted]

Citigroup Global Markets Trader 3: [redacted]

Citigroup Global Markets Trader 3: [redacted]

Citigroup Global Markets Trader 3: [redacted]

JP Morgan Securities Trader 1: [redacted]

Citigroup Global Markets Trader 3: [redacted]

JP Morgan Securities Trader 1: [redacted]

256. In a February 24, 2012 chatroom, a UBS Europe SE trader copied-and-pasted his chat messages with a co-conspirator trader [redacted] warned the traders from JP Morgan Securities and other co-conspirators [redacted] In the messages, the co-conspirator trader [redacted] The UBS Europe SE trader encouraged the JP Morgan Securities trader and other co-conspirators to [redacted]

February 24, 2012

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

Co-Conspirator Trader 5: [redacted]

UBS Europe Trader 4: [redacted]

Co-Conspirator Trader 5: [redacted]

Co-Conspirator Trader 5: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

Co-Conspirator Trader 5: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

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Co-Conspirator Trader 6: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

257. Several days later in a February 27, 2012 chat, the same UBS Europe SE trader shared similar chat messages with the same JP Morgan Securities and other co-conspirator traders. This time the two traders were [redacted] The scheme would injure all traders who [redacted] then resell (dump) at the inflated price after the auction to investors in the secondary market. The next day the UBS Europe SE trader confirms to the chatroom that their scheme was a success.

February 27-28, 2012

UBS Europe Trader 4:

Co-Conspirator Trader 5: [redacted]

Co-Conspirator Trader 5: [redacted]

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UBS Europe Trader 4: [redacted] . . .

258. Defendants' unlawful price coordination surrounding European Government Bond auctions persisted until the end of the Class Period. For instance, in a September 3, 2012 chat, traders from UBS Europe SE and JPMorgan Securities [redacted]

September 3, 2012

UBS Europe Trader 4: [redacted]

JP Morgan Securities Trader 1: [redacted]

UBS Europe Trader 4: [redacted]

***

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

JP Morgan Securities Trader 1: [redacted]

JP Morgan Securities Trader 1: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

JP Morgan Securities Trader 1: [redacted]

JP Morgan Securities Trader 1: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

JP Morgan Securities Trader 1: [redacted]

JP Morgan Securities Trader 1: [redacted]

UBS Europe Trader 4: [redacted]

259. As explained above, absent an agreement to fix prices, Defendants had no incentive to coordinate bidding strategies and share proprietary, commercially sensitive information because doing so would have placed them at a competitive disadvantage relative to their competitors. Yet, as these chats demonstrate, Defendants and their co-conspirators nonetheless coordinated parallel bidding strategies to manipulate auction prices, and shared confidential, commercially sensitive information in advance of the auction to benefit themselves at the detriment of their customers. Thus, these chats reflect Defendants' agreement to fix prices.

G. Defendants Fixed Prices, Coordinated Trading, and Shared Proprietary Information Regarding Price, Strategy, Market Share, Trading Positions, and Customer Orders in the Secondary Market for European Government Bonds

260. Defendants fixed prices in the secondary market for European Government Bonds through coordinated purchases and sales on the secondary market. Defendants, when trading as a cohesive unit, had the power to influence prices and attain favorable bid-ask spreads on the secondary market for the members of the conspiracy.

261. Defendants also shared confidential information regarding their trading positions to coordinate their trading. By sharing trading positions, Defendants' traders alerted other members of the cartel to take similar positions and avoid trading in a manner that would cause market prices to move against each other. This conduct allowed Defendants to collect outsized trading profits at the expense of other market participants, including Plaintiffs and the Class. Defendants' traders communicated with each other frequently, discussing their positions in an open manner reflective of coworkers at the same bank, rather than competitors at different banks. Defendants' sharing of order flow was not limited to their own trading positions.

262. Defendants also regularly exchanged customer flow information. Order flow is highly sensitive information because it provides information on customer supply and demand for

a bond, allowing a conspiring trader to adjust prices ahead of time and profit accordingly. This information would be closely guarded absent a conspiracy because a bank acting independently would instead use the information to its own benefit and for the benefit of its own customers, who also value this information for the same reasons. However, as the chats below demonstrate, Defendants' traders regularly shared order flow information because they understood that their co-conspirators would return the favor in the future.

263. Exchanging this information was especially significant given the nature of the European Government Bond Market. As explained in Part VIII, below, customers typically execute large block transactions when buying and selling European Government Bonds. Customers typically spread out their trading activity when opening or closing a position over several bond issuances and several dealers to ensure that the customer gets a favorable price, often over the course of several days. Accordingly, Defendants' traders knew that a customer order was rarely a "one-off" trade, but instead a reliable signal that there would be investor demand for a bond (and similar European Government Bonds) in the near future. By engaging in this conduct, Defendants ensured that all would profit from the conspiracy while imposing additional costs on unsuspecting investors, who would have been outraged to learn that their bond dealer was secretly revealing their proprietary information to rival dealers so that this information could be used against the customer.

264. Although sharing order flow information was damaging in itself and caused artificial prices in the European Government Bond market for the reasons explained above, Defendants often went one step further and disclosed the specific prices at which their customers sought to trade. Sharing such pricing information was profitable for the Defendants because it revealed the specific prices at which customers were willing to trade bonds, allowing Defendants

to adjust their bid prices lower or ask prices higher to collect additional profits when the customer requested a price from another Defendant. This conduct harmed all customers, in addition to the customer whose order was improperly shared among Defendants, because it enabled Defendants to offer higher ask prices or lower bid prices to any investor requesting a quote secure in the knowledge that there was investor demand for bonds at a given price level elsewhere in the market. The result of this conduct was higher ask prices (or lower bid prices), as reflected in an artificially wider bid-ask spread. This was a regular practice among Defendants' traders and came to be expected among the group, as reflected in the example chats provided by the cooperating banks excerpted below.

265. In the following March 10, 2011 chat, a Nomura International trader disclosed [redacted] to traders from UBS Limited Europe SE (f/k/a UBS Limited), Nomura International, State Street Bank and Trust, and NatWest Markets (f/k/a RBS plc). [redacted] As explained above, sharing the customers' information allowed the traders in the chatroom to capitalize on this information by adjusting their own pricing to collect additional profits. For example, the Nomura International trader's [redacted]

March 10, 2011

Nomura International Trader 2: [redacted]

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UBS Europe Trader 1: [redacted]

***

UBS Europe Trader 1: [redacted]

***

UBS Europe Trader 1: [redacted]

Nomura International Trader 2: [redacted]

***

Nomura International Trader 2: [redacted]

Nomura International Trader 2: [redacted]

State Street Trader 1: [redacted]

***

Nomura International Trader 2: [redacted]

NatWest Markets Trader 1: [redacted]

NatWest Markets Trader 1: [redacted]

UBS Europe Trader 1: [redacted]

Nomura International Trader 2: [redacted]

UBS Europe Trader 1: [redacted]

UBS Europe Trader 1: [redacted]

266. Similarly, in a March 16, 2011 chat, traders from UBS Europe SE, NatWest Markets, State Street Bank and Trust, and Nomura International [redacted] The NatWest Markets trader [redacted] the UBS Europe trader's [redacted]

March 16, 2011

NatWest Markets Trader 1: [redacted]

UBS Europe Trader 1: [redacted]

UBS Europe Trader 1: [redacted]

NatWest Markets Trader 1: [redacted]

267. In a January 18, 2011 [redacted] traders from UBS Europe SE, NatWest Markets, State Street Bank and Trust, and another co-conspirator [redacted] State Street Bank and Trust trader's [redacted] The trader at UBS Europe SE [redacted] The NatWest Markets trader [redacted]

January 18, 2011

UBS Europe Trader 1: [redacted]

UBS Europe Trader 1: [redacted]

UBS Europe Trader 1: [redacted]

Co-Conspirator Trader 1: [redacted]

UBS Europe Trader 1: [redacted]

***

NatWest Markets Trader 1: [redacted]

NatWest Markets Trader 1: [redacted]

UBS Europe Trader 1: [redacted]

NatWest Markets Trader 1: [redacted]

***

State Street Bank and Trust Trader 1: [redacted]

State Street Bank and Trust Trader 1: [redacted]

268. Similarly, on December 12, 2011, a State Street Bank and Trust trader asked traders from JP Morgan Securities and RBC Europe [redacted] As previously discussed, the European Government Bond market was opaque, [redacted]

December 12, 2011

State Street Bank and Trust Trader 4: [redacted]

JP Morgan Securities Trader 1: [redacted]

State Street Bank and Trust Trader 4: [redacted]

RBC Europe Trader 1: [redacted]

RBC Europe Trader 1: [redacted]

State Street Bank and Trust Trader 4: [redacted]

State Street Bank and Trust Trader 4: [redacted]

269. On February 4, 2011, a UBS Europe SE trader [redacted] traders at Nomura International and NatWest Markets [redacted] Then the NatWest Markets trader [redacted]

February 4, 2011

UBS Europe Trader 1: [redacted]

Nomura International Trader 2: [redacted]

NatWest Markets Trader 1: [redacted]

NatWest Markets Trader 1: [redacted]

NatWest Markets Trader 1: [redacted]

270. Later in the same chat, traders from Nomura International, NatWest Markets, and another co-conspirator [redacted] – reflecting improper coordination of bidding strategies among competing firms.

<u>February 4, 2011</u>

<u>Nomura International Trader 2</u>: [redacted]

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<u>Nomura International Trader 2</u>: [redacted]

<u>Nomura International Trader 2</u>: [redacted]

<u>Co-Conspirator Trader 1</u>: [redacted]

<u>Nomura International Trader 2</u>: [redacted]

***

<u>NatWest Markets Trader 1</u>: [redacted]

<u>Co-Conspirator Trader 1</u>: [redacted]

<u>Nomura International Trader 2</u>: [redacted]

<u>NatWest Markets Trader 1</u>: [redacted]

<u>Co-Conspirator Trader 1</u>: [redacted]

<u>Nomura International Trader 2</u>: [redacted]

271. In the following chat on April 13, 2011, a UBS Europe SE trader asked traders from NatWest and a co-conspirator bank [redacted] This sensitive information regarding positions and bidding should not have been shared among competitors.

<u>April 13, 2011</u>

<u>UBS Europe Trader 1</u>: [redacted]

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<u>NatWest Markets Trader 1</u>: [redacted]

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Co-Conspirator Trader 1: [redacted]

UBS Europe Trader 1: [redacted]

UBS Europe Trader 1: [redacted]

Nomura International Trader 1: [redacted]

272. On November 1, 2011, traders from Jefferies International and State Street Bank and Trust [redacted] The Jefferies International trader [redacted] Despite the two traders being competitors, the references to specific trade flow in real time highlights the collusive nature of the chatroom.

November 1, 2011

Jefferies International Trader 1: [redacted]

Jefferies International Trader 1: [redacted]

***

State Street Bank and Trust Trader 4: [redacted]

Jefferies International Trader 1: [redacted]

State Street Bank and Trust Trader 4: [redacted]

Jefferies International Trader 1: [redacted]

Jefferies International Trader 1: [redacted]

Jefferies International Trader 1: [redacted]

***

Jefferies International Trader 1: [redacted]

Jefferies International Trader 1: [redacted]

273. Defendants' traders also had standing agreements to exchange the "axes" for their respective trading desks. Axes refers to proprietary information about the desk's trading positions, including what bonds the bank intends to trade in the future, what bonds it has in inventory, and the prices at which it plans to trade. On October 26, 2010, a State Street Bank and Trust trader asked UBS Europe SE trader, [redacted] The UBS Europe SE trader [redacted] UBS's [redacted] the State Street Bank and Trust trader [redacted] UBS's [redacted] UBS Europe Trader 1:

October 26, 2010

State Street Bank and Trust Trader 1: [redacted]

UBS Europe Trader 3: [redacted]

UBS Europe Trader 3: [redacted]

State Street Bank and Trust Trader 1: [redacted]

State Street Bank and Trust Trader 1: [redacted]

UBS Europe Trader 3: [redacted]

UBS Europe Trader 3: [redacted]

UBS Europe Trader 3: [redacted]

State Street Bank and Trust Trader 1: [redacted]

State Street Bank and Trust Trader 1: [redacted]

UBS Europe Trader 3: [redacted]

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UBS Europe Trader 3: [redacted]

274. On October 27, 2011, a Citigroup Global Markets Limited trader [redacted] traders from UBS Europe SE, State Street Bank and Trust, and another co-conspirator [redacted] Then the co-conspirator trader [redacted] the Citigroup Global Markets Limited trader [redacted] the Citigroup Global Markets Limited trader [redacted] The co-conspirator trader [redacted]

<u>October 27, 2011</u>

<u>Citigroup Global Markets Limited Trader 1</u>: [redacted]

<u>Citigroup Global Markets Limited Trader 1</u>: [redacted]

<u>Citigroup Global Markets Limited Trader 1</u>: [redacted]

***

<u>Co-Conspirator Trader 2</u>: [redacted]

<u>Citigroup Global Markets Limited Trader 1</u>: [redacted]

***

<u>Co-Conspirator Trader 3</u>: [redacted]

<u>UBS Europe Trader 4</u>: [redacted]

<u>State Street Bank and Trust Trader 4</u>: [redacted]

<u>State Street Bank and Trust Trader 4</u>: [redacted]

<u>State Street Bank and Trust Trader 4</u>: [redacted]

<u>Co-Conspirator Trader 3</u>: [redacted]

Co-Conspirator Trader 3: [redacted]

***

Citigroup Global Markets Limited Trader 1: [redacted]

275. The sharing of confidential and proprietary information had been a common practice of the Defendants' traders for years. The sharing of target prices and trading strategy allowed Defendants' traders to price, purchase, and sell bonds as a cooperative unit to manipulate prices in the secondary market. In a June 9, 2008 chat, traders from JP Morgan Securities and NatWest Markets [redacted] The "mid-price" is a spread over the prevailing market price of the bond, representing the average between the prevailing bid and offer price for the bond. The mid-price is the reference price above which primary dealers will submit their bids during an auction which is expressed in cents with two decimal points. Then, the NatWest Markets trader disclosed that [redacted] and the JP Morgan Securities trader [redacted]

June 9, 2008

NatWest Markets Trader 4: [redacted]

JP Morgan Securities Trader 2: [redacted]

JP Morgan Securities Trader 2: [redacted]

JP Morgan Securities Trader 2: [redacted]

NatWest Markets Trader 4: [redacted]

JP Morgan Securities Trader 2: [redacted]

NatWest Markets Trader 4: [redacted]

JP Morgan Securities Trader 2: [redacted]

276. In a September 4, 2008 chat, a NatWest Markets trader [redacted] by a JP Morgan Securities trader. The JP Morgan Securities trader then asked the NatWest Markets trader to [redacted] *i.e.*, the other members of the "DBAC" chatroom at the center of the evidence described by the EC Decision and the underlying chat transcripts produced in the current litigation (outlined below in Part VII).

September 4, 2008

NatWest Markets Trader 3: [redacted]

JP Morgan Securities Trader 2: [redacted]

JP Morgan Securities Trader 2: [redacted]

NatWest Markets Trader 3: [redacted]

JP Morgan Securities Trader 2: [redacted]

NatWest Markets Trader 3: [redacted]

JP Morgan Securities Trader 2: [redacted]

277. On January 13, 2010, a Jefferies International trader directed the JP Morgan Securities trader to [redacted] Then, the traders, along with a co-conspirator, discuss [redacted]

January 13, 2010

Jefferies International Trader 2: [redacted]

Jefferies International Trader 2: qualcuno [someone is] wrong di [about] 40 ticks…

JP Morgan Securities Trader 1: [redacted]

JP Morgan Securities Trader 1: [redacted]

Jefferies International Trader 2: [redacted]

JP Morgan Securities Trader 1: [redacted]

JP Morgan Securities Trader 1: [redacted]

278. Two months later, on March 30, 2010, a JP Morgan Securities trader disclosed to traders at Jefferies International and a Co-conspirator bank that [redacted] The traders then discussed [redacted] Later in the day, the traders [redacted]

March 30, 2010

JP Morgan Securities Trader 1: [redacted]

Co-Conspirator Trader 8: [redacted]

JP Morgan Securities Trader 1: [redacted]

Co-Conspirator Trader 8: [redacted]

JP Morgan Securities Trader 1: [redacted]

Jefferies International Trader 2: [redacted]

***

Jefferies International Trader 2: [redacted]

***

JP Morgan Securities Trader 1: [redacted]

JP Morgan Securities Trader 1: [redacted]

JP Morgan Securities Trader 1: [redacted]

Jefferies International Trader 2: [redacted]

Jefferies International Trader 2: [redacted]

***

<u>JP Morgan Securities Trader 1</u>: [redacted]

<u>JP Morgan Securities Trader 1</u>: [redacted]

<u>JP Morgan Securities Trader 1</u>: [redacted]

<u>JP Morgan Securities Trader 1</u>: [redacted]

<u>Co-Conspirator Trader 8</u>: [redacted]

***

<u>Co-Conspirator Trader 8</u>: [redacted]

<u>Co-Conspirator Trader 8</u>: [redacted]

<u>Co-Conspirator Trader 8</u>: [redacted]

<u>Co-Conspirator Trader 8</u>: [redacted]

<u>Co-Conspirator Trader 8</u>: [redacted]

279. Through 2012, the Defendants continued to share proprietary pricing information and operate in tandem. In a May 10, 2012 chat, UBS Europe SE and JP Morgan Securities traders [redacted] The UBS Europe SE trader informed the JP Morgan Securities trader that he was [redacted] Then a trader at a co-conspirator bank [redacted]

<u>May 10, 2012</u>

<u>UBS Europe Trader 4</u>: [redacted]

<u>UBS Europe Trader 4</u>: [redacted]

<u>UBS Europe Trader 4</u>: [redacted]

<u>JP Morgan Securities Trader 1</u>: [redacted]

<u>UBS Europe Trader 4</u>: [redacted]

<u>UBS Europe Trader 4</u>: [redacted]

<u>UBS Europe Trader 4</u>: [redacted]

***

<u>UBS Europe Trader 4</u>: [redacted]

***

[redacted]

***

[redacted]

UBS Europe Trader 4: [redacted]

280. In a May 14, 2012 chat, a co-conspirator trader disclosed [redacted] and the UBS Europe SE trader [redacted] The competitors [redacted]

May 14, 2012

Co-Conspirator Trader 6: [redacted]

Co-Conspirator Trader 6: [redacted]

Co-Conspirator Trader 6: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

281. In a July 20, 2012 chat, traders from UBS Europe SE, JP Morgan Securities, and other co-conspirator banks [redacted] Afterwards, the UBS Europe SE trader [redacted] and based on that information the JP Morgan Securities trader [redacted] Later that day, the UBS Europe SE trader [redacted]

July 20, 2012

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

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Co-Conspirator Trader 6: [redacted]

Co-Conspirator Trader 6: [redacted]

UBS Europe Trader 4: [redacted]

Co-Conspirator Trader 6: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

Co-Conspirator Trader 6: [redacted]

Co-Conspirator Trader 6: [redacted]

Co-Conspirator Trader 6: [redacted]

Co-Conspirator Trader 6: [redacted]

UBS Europe Trader 4: [redacted]

Co-Conspirator Trader 6: [redacted]

Co-Conspirator Trader 6: [redacted]

Co-Conspirator Trader 6: [redacted]

UBS Europe Trader 4: [redacted]

Co-Conspirator Trader 6: [redacted]

Co-Conspirator Trader 6: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

Co-Conspirator Trader 6: [redacted]

Co-Conspirator Trader 6: [redacted]

JP Morgan Securities Trader 1: [redacted]

Co-Conspirator Trader 6: [redacted]

JP Morgan Securities Trader 1: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

JP Morgan Securities Trader 1: [redacted]

Co-Conspirator Trader 6: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

282. In an August 8, 2012 chat, a trader from JP Morgan Securities requested and received [redacted] from UBS Europe SE and other co-conspirator bank traders.

August 8, 2012

JP Morgan Securities Trader 1: [redacted]

JP Morgan Securities Trader 1: [redacted]

JP Morgan Securities Trader 1: [redacted]

JP Morgan Securities Trader 1: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

JP Morgan Securities Trader 1: [redacted]

***

RBC Europe Trader 1: [redacted]

Co-Conspirator Trader 6: [redacted]

283. As these sample chats demonstrate, Defendants' traders fixed prices in the secondary market for European bonds through coordinated trading positions and concerted manipulation informed by the confidential proprietary pricing and order flow information exchanged in chatrooms by the conspirators in furtherance of their agreement to fix prices of European Government Bonds.

284. As described above, Defendants' traders exchanged confidential information about their customers' identities and orders (including, among other things, size, direction, and price). By exchanging this sensitive customer information, the conspiring traders were able to coordinate trading strategies in the secondary market. Clients were identified either by name or by code names that were known among the group.

285. For example, in a December 7, 2011 chat, traders from JP Morgan Securities, RBC Europe, UBS Europe SE, and State Street Bank and Trust [redacted] the JP Morgan Securities trader [redacted] the UBS Europe SE and State Street Bank and Trust traders [redacted] These trading strategies and confidential customer flow in the secondary market should not be shared by competitors.

December 7, 2011

JP Morgan Securities Trader 1: [redacted]

JP Morgan Securities Trader 1: [redacted]

JP Morgan Securities Trader 1: [redacted]

RBC Europe Trader 1: [redacted]

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UBS Europe Trader 4: [redacted]

State Street Bank and Trust Trader 4: [redacted]

State Street Bank and Trust Trader 4: [redacted]

UBS Europe Trader 4: [redacted]

286. In a March 18, 2011 chat, a UBS Europe SE trader [redacted] Nomura International trader [redacted] Then UBS Europe SE [redacted] the Nomura International trader. [redacted] the Nomura International trader [redacted] the Nomura International trader [redacted] These offline discussions were commonplace among Defendants' traders. Finally, the Nomura International trader [redacted]

March 18, 2011

UBS Europe Trader 1: [redacted]

UBS Europe Trader 1: [redacted]

Nomura International Trader 2: [redacted]

***

Nomura International Trader 2: [redacted]

UBS Europe Trader 1: [redacted]

Nomura International Trader 2: [redacted]

UBS Europe Trader 1: [redacted]

UBS Europe Trader 1: [redacted]

UBS Europe Trader 1: [redacted]

Nomura International Trader 2: [redacted]

UBS Europe Trader 1: [redacted]

***

Nomura International Trader 2: [redacted]

State Street Bank and Trust Trader 1: [redacted]

Nomura International Trader 2: [redacted]

287. On November 2, 2011, a UBS Europe SE trader [redacted] The RBC Europe trader [redacted] This improper sharing of confidential proprietary customer trade was typical in these private group chats.

November 2, 2011

UBS Europe Trader 4: [redacted]

RBC Europe Trader 1: [redacted]

UBS Europe Trader 4: [redacted]

RBC Europe Trader 1: [redacted]

RBC Europe Trader 1: [redacted]

UBS Europe Trader 4: [redacted]

288. On November 4, 2011, traders from RBC Europe and State Street Bank and Trust [redacted] The State Street Bank and Trust trader [redacted]

November 4, 2011

State Street Bank and Trust Trader 4: [redacted]

RBC Europe Trader 1: [redacted]

State Street Bank and Trust Trader 4: [redacted]

RBC Europe Trader 1: [redacted]

RBC Europe Trader 1: [redacted]

RBC Europe Trader 1: [redacted]

State Street Bank and Trust Trader 4: [redacted]

289. Two days later, on November 6, 2011, the State Street Bank and Trust trader and the Jefferies International trader [redacted]

November 6, 2011

Jefferies International Trader 1: [redacted]

State Street Bank and Trust Trader 4: [redacted]

State Street Bank and Trust Trader 4: [redacted]

Jefferies International Trader 1: [redacted]

State Street Bank and Trust Trader 4: [redacted]

State Street Bank and Trust Trader 4: [redacted]

Jefferies International Trader 1: [redacted]

State Street Bank and Trust Trader 4: [redacted]

290. On December 9, 2011, traders from RBC Europe, JP Morgan Securities, UBS Europe SE, and State Street Bank and Trust [redacted] RBC Europe [redacted] the State Street Bank and Trust trader [redacted] The State Street Bank and Trust trader [redacted]

December 9, 2011

RBC Europe Trader 1: [redacted]

RBC Europe Trader 1: [redacted]

RBC Europe Trader 1: [redacted]

RBC Europe Trader 1: [redacted]

JP Morgan Securities Trader 1: [redacted]

JP Morgan Securities Trader 1: [redacted]

RBC Europe Trader 1: [redacted]

RBC Europe Trader 1: [redacted]

JP Morgan Securities Trader 1: [redacted]

RBC Europe Trader 1: [redacted]

State Street Bank and Trust Trader 4: [redacted]

RBC Europe Trader 1: [redacted]

State Street Bank and Trust Trader 4: [redacted]

State Street Bank and Trust Trader 4: [redacted]

State Street Bank and Trust Trader 4: [redacted]

291. In fact, the Defendants' traders knew that the disclosure of confidential client flows trumped all other market information and sharing that information between competitors gave them a significant advantage over the market because it allowed them to adjust prices ahead of customer demand. In a May 31, 2012 chat, a co-conspirator trader [redacted] UBS Europe SE trader [redacted] Later, the UBS Europe SE trader warned the traders from JP Morgan Securities and other co-conspirators that [redacted] After the UBS Europe SE trader [redacted] a co-conspirator trader [redacted]

May 31, 2012

Co-Conspirator Trader 6: [redacted]

Co-Conspirator Trader 6: [redacted]

***

<u>UBS Europe Trader 4</u>: [redacted]

<u>UBS Europe Trader 4</u>: [redacted]

***

<u>UBS Limited Trader 4</u>: [redacted]

<u>UBS Limited Trader 4</u>: [redacted]

<u>UBS Europe Trader 4</u>: [redacted]

***

<u>UBS Europe Trader 4</u>: [redacted]

<u>UBS Europe Trader 4</u>: [redacted]

<u>UBS Europe Trader 4</u>: [redacted]

<u>UBS Europe Trader 4</u>: [redacted]

<u>UBS Europe Trader 4</u>: [redacted]

292. As demonstrated above, Defendants' European Government Bond traders intended to and did use chatrooms to communicate with each other frequently detailing specific, contemporaneous, and confidential information relating to their own trading positions and strategies and customer orders and transactions. The repetitious nature of Defendants' traders' chatroom discussions enabled them to both coordinate on pricing and trading strategies and effectively police their conspiracy, which caused Plaintiffs and the Class, either to either pay artificially high prices for European Government Bonds they bought or receive artificially low prices for the European Government Bonds they sold, causing Plaintiffs and the Class injury to their business or property.

VI. DEFENDANTS' ANTICOMPETITIVE AND UNLAWFUL CONDUCT EXPOSED BY THE EUROPEAN COMMISSION DECISION AND DISCOVERY OF UNDERLYING EVIDENCE

293. On October 28, 2021, the European Commission's Decision was released to the public.[43]

294. While the Decision reflects that the European Commission focused on just two chatrooms, it nevertheless contains over 100 pages of direct quotations from transcripts of European Government Bond traders' chatroom conversations. Further, in discovery, Plaintiffs have obtained transcripts that underlie and substantiate a small, but important, section of the Decision. This robust, yet focused, evidence has exposed the unlawfulness of the conspiracy, but does not capture its full scope. As revealed by the cooperation materials alleged in Parts V and VIII, the conspiracy in this case reached far past two chatrooms.

295. The Decision and the chatroom transcripts produced to-date show that Defendants NatWest Markets, UBS Europe SE, Natixis S.A., UniCredit Bank AG, and Nomura International were some of the ringleaders of the alleged conspiracy. These Defendants explicitly agreed to, and did, fix the prices of European Government Bonds in the secondary market though (1) coordinating trading and pricing in the secondary market, (2) coordinating precise bidding strategies in the primary at auction to collectively manipulate the price and allocations of bonds, and (3) free exchanging proprietary price, client, and trading information that allowed the traders from competing banks to operate in parallel. These Defendants explicitly agreed to, and did, fix the prices of European Government Bonds in the secondary market by (1) coordinating trades and prices in the secondary market, (2) coordinating precise bidding strategies in the primary market at auction to collectively manipulate the price and allocations of bonds, and (3) exchanging

43 *See generally* Decision.

proprietary price, client, and trading information that allowed the traders from competing banks to operate in parallel. Moreover, the Defendants concealed the scheme and expected one another to contribute regularly for continued access. These facts provide compelling direct evidence of the conspiracy.

A. European Commission Investigation, Decision, and Fines Involving European Bond Market Cartel

296. In July 2015, the Commission began a multi-year investigation into potential unlawful cartel behavior in the European Government Bond market based on an application submitted by NatWest under the Commission's leniency program "in relation to possible collusive bidding in the EGB auctions."[44] On January 27, 2016, the Commission granted NatWest conditional immunity from fines. Thereafter, the Commission sent requests for information to BANA, Natixis, Nomura International, NatWest, ABN AMRO, UBS AG, UniCredit Bank AG, and other co-conspirators.

297. To investigate a potential action, the Commission's investigative powers allow it to: (a) send information requests to companies believed to have engaged in anticompetitive conduct; (b) conduct on-site inspections of a company's premises; (c) examine a company's business records; (d) remove copies of those records from the premises; and (e) ask members of staff or company representatives questions relating to the subject matter and purpose of the inspection and record the answers.

298. On January 31, 2019, following its over three-year-long investigation, the Commission issued a Statement of Objections, which is a charging instrument that reflects the Commission's preliminary view that an entity (or group of entities) violated the European

[44] *Id.*, ¶68.

competition laws. According to the Commission, a Statement of Objections is issued once fact-finding is complete to inform the parties concerned "in writing their view on the objections raised against them."[45] Further, the Commission prepares the Statement of Objections "in view of the nature and structure of the final decision that might be adopted."[46]

299. Although the Statement of Objections did not identify the targets of the Commission's investigation, media and other reports had disclosed that Defendants Bank of America, NatWest, Natixis, Nomura, UBS, UniCredit, and State Street were among the eight banks that received the Commission's Statement of Objections.

300. In a press release describing the Statement of Objections, the Commission alleged that "eight banks participated in a collusive scheme that aimed at distorting competition when acquiring and trading European government bonds ('EGBs'). Traders employed by the banks exchanged commercially sensitive information and coordinated on trading strategies. These contacts would have taken place mainly – but not exclusively – through online chatrooms."[47]

301. The Commission's press release noted that if its "preliminary view were confirmed, such behaviour would violate EU rules that prohibit anticompetitive business practices such as collusion on prices (Article 101 of the Treaty on the Functioning of the European Union and Article 53 of the EEA [European Economic Area] Agreement)."[48]

302. On May 20, 2021, after considering voluminous evidence and argument, the Commission issued its 248-page final Decision that concluded eight banks, including Defendants

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45 *Id.*, ¶74.

46 *Antitrust Manual of Procedures: Internal DG Competition working documents on procedures for the application of Articles 101 and 102 TFEU*, at 4, EUROPEAN COMMISSION (Mar. 2012), htpp://ec.europa.eu/competition/antitrust/antitrust_manproc_3_2012_en.pdf.

47 European Commission, Press Release, "*Antitrust: Commission sends Statement of Objections in European government bonds cartel*" (Jan. 31, 2019), http://europa.eu/rapid/press-release_IP-19-804_en.htm.

48 *Id.*

BANA, Natixis, Nomura, NatWest, UBS, and UniCredit, breached European Union antitrust laws – Article 101 of the Treaty on the Functioning of the European Union and Article 53 of the EEA Agreement that prohibit anticompetitive business practices through their participation in a cartel in the primary and secondary market for European Government Bonds.[49]

303. Both Article 101 and Article 53, in their respective provisions on price collusion, prohibit "all agreements between undertakings and concerted practices which . . . directly or indirectly fix purchase or selling prices or any other trading conditions."[50]

304. The Commission ultimately found the chatroom contacts involved four intertwined categories of agreements and concerted practices: (1) attempts to influence the prevailing market price on the secondary market in function of the conduct on the primary market; (2) attempts to coordinate the bidding on the primary market; (3) attempts to coordinate the level of overbidding on the primary market; and (4) other exchanges of sensitive information, including on pricing elements, positions and volumes, and strategies for specific counterparties related to individual trades on the secondary market.[51]

305. As a result of its Decision that the banks violated European Union competition laws in the primary and secondary market for European Government Bonds, the Commission imposed substantial fines on several of the banks totaling €371 million ($454.4 million). Defendant UBS AG was fined €172,378,000 ($210.9 million), which would have been far larger but for a 45% reduction in its fine (€140 million or $172 million) for cooperating with the Commission's investigation; Defendant Nomura International was fined €129,573,000 ($158.5 million); and

49 *See generally* Decision.

50 *Id.*, ¶¶357-58.

51 *Id.*, ¶382.

Defendant UniCredit Bank AG was fined €69,442,000 ($85 million).[52] Defendant NatWest, because it received full immunity for reporting the cartel, avoided a fine of €260 million ($318.1 million).[53] No fines were imposed on Natixis (which also cooperated with the Commission under its leniency program) and BANA, as the Commission found that their conduct fell outside the limitation period for imposing fines, but that limitation did not prevent the Commission from establishing BANA's and Natixis's infringement of competition law.[54]

306. The Commission found that the various European Government Bond traders employed by the banks that were involved in the unlawful conduct primarily communicated with each other in chatrooms and instant messages. It also found that:

> Many traders with access to the persistent chatrooms also used the telephone or instant messages for bilateral communications with each other or for communicating with other traders that did not have access to the CODS & CHIPS and DBAC chatrooms, often in parallel with, and in support of their communications in the persistent chatrooms.[55]

307. As stated in its Decision, "[t]hrough this network of collusive contacts and consistent exchanges of information within a circle of trust, the banks involved informed each other of their positions, prices and strategies and this allowed them to identify, align and coordinate their bidding and trading conduct on the primary and/or secondary markets and at times to coordinate prices and/or volumes of [European Government Bonds] issued and traded. By sharing commercially sensitive information, they created opportunities to coordinate their conduct with respect to auctions, syndications and trading of [European Government Bonds]."[56]

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52 *Id.*, ¶¶896-903, 907.

53 *Id.*, ¶¶69, 895.

54 *Id.*, ¶778.

55 *Id.*, ¶427. All footnotes are omitted unless otherwise noted.

56 *Id.*, ¶377.

308. The Decision continued: "Access to the chatrooms was based on an expectation that the participants would disclose commercially sensitive information with other competitors within a trusted group of traders."[57] Accordingly, "[t]he information exchanged allowed them to compare, align and coordinate their strategies with respect to the primary and/or secondary market."[58]

309. The Commission found that "[t]hrough their contacts, including on relevant parameters for the price setting of [European Government Bonds] on the primary market and for trading them on the secondary market, the participating banks coordinated their conduct in [European Government Bonds] and directly or indirectly fixed purchase or selling prices, altered the normal trading conditions of the market and shared the market (such as when exchanging confidential information about specific counterparties, as well as information on volumes in order to obtain the desired allocation at auctions)."[59]

310. It further found that "[t]he banks (through their respective traders) sought to alter the competitive process to their advantage by attempting to reduce the uncertainties, in terms of costs and potential allocations, that are inherent to competition for buying [European Government Bonds] on the primary market and for trading them on the secondary market. They created a situation of informational asymmetry and were better informed about their competitors' bidding and trading strategies when acquiring and trading [European Government Bonds]. They were able to align their strategy in light of each other's conduct."[60] Moreover, the traders "helped each other

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[57] *Id.*, ¶378.

[58] *Id.*, ¶380.

[59] *Id.*, ¶535.

[60] *Id.*, ¶536.

and tried to ensure that individual actions did not harm the strategy of a competitor or the common interest of the competitors involved."[61]

311. According to the Commission, "[t]he conduct ensured that the traders (and therefore the banks) involved were better informed than their competitors, and thereby reduced some of the normal market uncertainties and competitive tension which would otherwise have existed between the banks absent the disclosures. In this regard, traders were able to adjust or align their individual bidding strategies in the light of the volumes and/or bid levels their competitors proposed to submit for the same auctions (or vice versa) and shared with them."[62]

312. The Commission explained that "[t]he agreements and/or concerted practices created a situation of informational asymmetry between market participants stemming from the fact that each of the collaborating banks were informed of certain mid-prices, spreads, volumes, positions and trading and bidding strategies, including individual trades and prospective bids of their competitors."[63]

313. In addition, the Commission found "[t]he exchanges of information also enabled the banks to identify opportunities to align their conduct on the primary market. The traders were informed about each other's bidding strategies at the auctions, including on the level of overbidding and could therefore align their strategies. They helped each other to obtain and trade the desired volumes of [European Government Bonds]. Successful participation in auctions generates trading opportunities on the secondary market and further syndication business that equally generates further secondary trading. The exchanges also enabled the banks, even if they were not active in the auctions and/or syndications, to coordinate their trading opportunities on the

61 *Id.*, ¶381.

62 *Id.*, ¶538.

63 *Id.*, ¶539.

secondary market. This coordination revealed in itself a sufficient degree of harm to competition."[64]

314. Therefore, "[t]he conduct was not limited solely to the auctions on the primary market since these auctions generated increased trading activity on the secondary market. Information was also shared on price/spreads, deal volumes, customer details and orders for the EGB recently traded at or being offered and details of respective competitor trading positions and trading strategies in light of these positions. Such exchanges on the prices/spreads (including mid-prices), deal volumes, customer details and orders of [European Government Bonds] which are quoted on [dealer-to-dealer] and [dealer-to-customer] platforms, informed the banks about their competitors' trading strategies and enabled them to adjust their positions and strategy in light of the information exchanged and/or respect each other's positions and strategy. Ultimately, the banks assisted each other in generating trading business on the primary and secondary market."[65]

315. The Commission concluded that through all of the practices set out in its Decision, "the participating traders knowingly substituted cooperation for normal competition on both the primary and secondary markets. The restrictive character of the communications was confirmed and corroborated by the leniency applicants."[66]

B. The European Commission Decision and Supporting Chatroom Transcripts Are Evidence of Defendants' Agreement to Fix Prices and Rig Bids in the European Government Bond Market

316. Communications between Defendants referenced or relied upon by the Decision directly evidence Defendants' unlawful horizontal agreement to manipulate prices in the primary and secondary markets for European Government Bonds.

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64 *Id.*, ¶540.

65 *Id.*, ¶543.

66 *Id.*, ¶544.

317. Although trader names and certain other information are redacted in the Decision (and in the documents produced by Defendants underlying the Decision), the chatroom communications between traders from BANA[67], Natixis S.A.,[68] Nomura International,[69] NatWest Markets,[70] UBS Europe SE,[71] UniCredit Bank AG,[72] and other co-conspirators show the various traders in their own words agreeing to fix prices in furtherance of their European Government Bond conspiracy. In these instant-messaging group and direct chats, the traders at Defendant banks conversed almost daily.[73] The traders also used mutually understood coded language to discuss the pricing of European Government Bond syndications ahead of published pricing announcements and coordinate trades.[74]

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[67] *Id*., ¶54 & n.46 ("In the relevant period, Bank of America operated an EGB desk in London.45 The Bank of America employee that is mentioned in this Decision worked at this desk and was employed by *Bank of America, National Association,* a wholly owned subsidiary of Bank of America Corporation. Following the merger between Bank of America and Merrill Lynch in 2008, EGB trading was primarily conducted within the EGB desk of Merrill Lynch International, a subsidiary of the merged bank.").

[68] *Id*., ¶56 ("In the relevant period, Natixis operated an EGB desk in Paris. The Natixis employees mentioned in this Decision worked at this desk and were employed by *Natixis S.A.*").

[69] *Id*., ¶58 ("In the relevant period, Nomura operated an EGB desk in London. The Nomura employees mentioned in this Decision worked at this desk and were employed by *Nomura International plc* . . . .").

[70] *Id*., ¶60 ("In the relevant period, RBS operated an EGB desk in London and ABN-AMRO in Amsterdam. The activities of the Amsterdam desk were merged into the London desk after the acquisition on 17 October 2007. The RBS and ABN-AMRO employees mentioned in this Decision worked at the desk of RBS and/or ABN-AMRO. They were employed either by *The Royal Bank of Scotland Plc*, later renamed *NatWest Markets Plc,* and/or by *ABN Management Services Limited*, a wholly owned subsidiary of *ABN-AMRO Bank N.V*.").

[71] *Id*., ¶62 & n.58 ("In the relevant period, UBS operated an EGB desk in London, within its Investment Bank Division in *UBS AG*, a wholly owned subsidiary of *UBS Group AG*. The UBS employees mentioned in this Decision worked at this desk and were employed by UBS AG [and] traded EGBs on behalf of various UBS entities, such as UBS Limited [and] UBS Deutschland AG [later merged and renamed *UBS Europe SE*].").

[72] *Id*., ¶64 ("In the relevant period, UniCredit operated an EGB desk within its subsidiary *UniCredit Bank AG*, in Munich, Germany. The UniCredit employee mentioned in this Decision worked at this desk and was employed by *UniCredit Bank AG* . . . .").

[73] *Id*., ¶¶88, 420.

[74] *Id*., ¶252 ("[t]he traders discuss the timing of the syndication which is not publicly known. This allows them to either adjust their trading strategies or adjust the price in the secondary market with effect on the syndication. At 10:26, the Natixis trader asks again: '***this rag pxg now***?' to which the RBS trader replies: '***no u will no within 5 mins ok when I use everton***'. Everton is a code word that was most commonly used to alert each other on the timing of the pricing of the syndication. The name was chosen not to stand out and names of other Premier League football teams could be used as well. At 10:34, the RBS trader updates: '***heairing its a little later***.' At 11:51, the RBS trader discloses in encoded language: '***short think everton are playin 1.10***' to which the Natixis trader replies 'ok.'").

318. The European Commission investigation and Decision focused on two specific chatrooms. The Cods & Chips chatroom was created on January 5, 2007 – the "CODS" may have stood for "Cash on Delivery" or "Close of Day," whereas "CHIPS" potentially stood for "cheap as chips."[75] At certain times noted below, the traders also changed the name of Cods & Chips to "DBAC" which stood for "Don't be a C**t."[76] The other persistent chatroom – RBSUBSABN (or also renamed "DBAC" at certain times) – began on February 28, 2007 and lasted until roughly July 8, 2011.[77] Membership in these two chatrooms evolved as the traders left one bank for a competitor and regained entry into the chatroom at their new bank, but the two banks that were constant in these specific chatrooms were NatWest Markets and UBS Europe SE.[78] As noted above, even after these specific chatrooms were discontinued, Defendants' traders continued this conduct throughout 2011 and 2012 in different chatrooms. *See* Part V, *infra*.

C. Chats Contained in the Commission Decision Are Direct Evidence of Defendants' Traders Agreement to Fix and Manipulate Prices in the Secondary Market for European Bonds

319. On September 4, 2008, in the DBAC chatroom, traders from NatWest Markets (referred to as "RBS" by the Commission) and UBS Europe SE (referred to as "UBS" by the Commission) agreed on '"*wider*'" spreads to quote in the secondary market for Dutch bonds after discussing the specific overbidding levels they would offer at an upcoming auction for French bonds with a trader from Natixis.

> [A]t 08:16, the UBS trader asks the RBS trader what he is going to bid and the RBS trader replies: '*deciding between +10 and +15 but defo [definitely] +10' 'u?*'. The UBS trader reveals his bidding levels: '*+10 +12'*. Later that day, the traders of RBS ([...]), UBS ([...]) and Natixis ([...]) also shared information in DBAC about their spreads and pricing in relation to Dutch bonds on the secondary market. At

75 *Id.*, ¶82.

76 *Id.*, ¶83 n.92.

77 *Id.*, ¶83.

78 *Id.*, ¶¶84-85, Table 3.

> 11:15, the RBS trader asks: '*u wanna go over spreads i got everything wider not sure if im right*' '*37/37 56.4' '38/37 10.7'dsl37/37 7.6*' and the UBS trader replies: '*56.2*' '*10.7*' '*7.5*'. The RBS trader says: '*28 sspain*' and the UBS trader says: '*yup*.'[79] *yup*.'"

320. On September 11, 2008, in the DBAC chatroom, traders from NatWest Markets, UBS Europe SE, and Natixis, discussed the upcoming Italian European Government Bond auction, disclosing their specific pricing levels including their mid-prices. The UBS Europe SE trader informed the NatWest Markets and Natixis traders that he was currently pushing the yield curve for Italian bonds on the secondary market to raise the price on the secondary market.

> [A]t 06:57, the RBS trader asks: '*wheres ur mid 37s*' '*I got 78*' to which the UBS and Natixis traders both respond: '*80*'. The participants attempt to move the price of the EGB down in the secondary market ahead of the auction ('*steepen the curve*'). For instance, the UBS trader makes the comment at 06:58 that: '*at least we try and get* [the] *curve steeper*' and when the Natixis trader comments at 07:13 that: '*someone leaning on curve and btps now*,' the UBS trader responds: '*at least someone with me getting curve steeper*'. They compare their respective pricing. The Natixis trader states at 07:15: '*58.5* [price] *was out there earlier*' and the RBS trader notes: '*i got mid 58.3 happy to trade there*' and the Natixis trader adds: '*58.25 i got*.' At 07:20, the Natixis trader discloses that he thinks the curve will flatten and the price increase: '[market] *lower*' '*curve* [is going to] *flatten right bout 30 mins b4 tap*'. The UBS trader is not sure: '*maybe*' and asks what '*mid*' the other participants have. The UBS trader responds: '*57 74/5*' and the RBS trader says: '*same*.' At 07:27, the Natixis trader notes that: '*someone really pushing the curve right now*' to which the UBS trader responds: '*me*' and the RBS trader comments: '*me btp37*.' The UBS trader makes the comment: '*yup* [I] *hit a low bid*' to which the Natixis trader says: '*saw that low hit*' '*wondered what muppet did that*' with the UBS trader further responding: '*if we* [can't] *get the spread to widen at least get bonds cheap on curve'*.[80] *curve*.' Shortly after and in reference to the hit on the low bid, the UBS trader explains that: '*it was me*' '*mupprtbell*.' The RBS trader still hopes the price will decrease: '*hopefully* [market] *goes to 115.00/10 sell up there*' '*steepen curve*' to which the Natixis trader responds: '*thing is everyone is short btps so it suits everyone*' with the RBS trader noting: '*would be nice*' and the UBS trader agreeing."

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79 *Id*., ¶192.

80 *Id*., ¶196.

321. Then, as revealed by the full chat transcript, the trader from UBS Europe SE [redacted] The NatWest Markets trader [redacted] Still, only nine minutes later, the NatWest Markets trader [redacted]

September 11, 2008

Natixis Trader: [redacted]
UBS Europe Trader: [redacted]
NatWest Markets Trader: [redacted]
Natixis Trader: [redacted]
UBS Europe Trader: [redacted]
***

UBS Europe Trader: [redacted]
UBS Europe Trader: [redacted]
UBS Europe Trader: [Redacted]
Natixis Trader: [redacted]
Natixis Trader: [redacted]
UBS Europe Trader: [redacted]
Natixis Trader: [redacted]
UBS Europe Trader: [redacted]
NatWest Markets Trader: [redacted]
NatWest Markets Trader: [redacted]
UBS Europe Trader: [redacted]
UBS Europe Trader: [redacted]
UBS Europe Trader: [redacted]

Natixis Trader: [redacted]

NatWest Markets Trader: [redacted]

***

NatWest Markets Trader: [redacted]

NatWest Markets Trader: [redacted]

***

NatWest Markets Trader: [redacted]

UBS Europe Trader: [redacted]

UBS Europe Trader: [redacted]

NatWest Markets Trader: [redacted]

NatWest Markets Trader: [redacted]

Natixis Trader: [redacted]

NatWest Markets Trader: [redacted]

***

UBS Europe Trader: [redacted]

UBS Europe Trader: [redacted]

NatWest Markets Trader: [redacted]

NatWest Markets Trader: [redacted]

UBS Europe Trader: [redacted]

UBS Europe Trader: [redacted]

NatWest Markets Trader: [redacted]

UBS Europe Trader: [redacted]

NatWest Markets Trader: [redacted]

UBS Europe Trader: [redacted]

NatWest Markets Trader: [redacted]

322. Despite the NatWest Markets trader's [redacted], the traders from Natixis, NatWest Markets, and UBS Europe SE then discussed specific pricing levels, including their overbidding levels for Italian BTPs (Buoni del Tesoro Poliennali) maturing in 2037 and 2039. When the auction concluded, the traders congratulated each other:

> At 08:15, the traders align their overbidding levels. The UBS trader asks the RBS trader: '*what u over bidding* [...]' '*10 and 12*' '*or more*' '*with this move*' and inquires about the spread between BTP37s and BTP39s: '*where we got 37/39/*' '*btps*' '*now*' (08:21). They try to prevent the price of the EGB from increasing before the auction and are concerned about other traders making offers that could increase the price. They discuss the trades executed ahead of the auction on screen (information that would not typically be available to the other dealers in the communication as they would only know what their own trade offers/bids are) and at 08:24, when the Natixis trader says: '[...] [broker from Tullett Prebon] *bidding 37s now*,' the RBS trader comments: '*we need it to stay here*'. Other traders may be showing low offers: '*on-screen*' and the RBS trader refers at 08:26 to: '*other mofos offering as well*' '*some ammo*.' At 08:42, the Natixis trader indicates his offer to buy the EGB is the one on screen and the RBS trader asks the Natixis trader: '*why u selling*?' and the Natixis trader explains that he is selling to assist the other traders and prevent the price from rising before the auction: '*I got hit on telly earlier' 'so just offering it back' 'im helpful like that for you guys*'. At 09:00, when the auction window closes, the Natixis trader asks: '*give me a shout when you see the results pls lads*.' The RBS trader asks '*what u bid* [...]' *'54 here' 'that going ti get em?'* and the UBS trader replies '*59 and 60 here*.' The RBS trader comments: '*sh!t#*'. The UBS trader tries to reassure him: '*think you ll be ok' 'never dropped' 'the bid*' and the RBS trader discloses he received EUR 90 million: '*yeah I dropped' 'phew' 'got me 90'* '[...] *out*'. The UBS trader congratulates him: '*wel dun' '48*' and the Natixis trader says: '*ta*'. Overall, the participants were generally satisfied with their allocations.[81]

323. An hour later, the traders from NatWest Markets, Natixis, and UBS Europe SE agreed to push Italian BTP bond prices up in the secondary market by flattening the yield curve through coordinated trades and pricing. The traders also discussed spreads for French OATs (or Obligations Assimilables du Tresor) maturing in 2032, agreeing to quote the bonds with a mid-point of 2.5.

[81] *Id*., ¶197.

> At 09:10, after the auction, the participants reverse course and discuss strategy to increase the price of the Italian EGB on the secondary market and flatten the yield curve. The RBS trader asks: '*so we going to try and flatten this sh!t now?' 'think dlads wanted to*' to which the UBS trader responds '*ya*' '*shall we*'. The Natixis trader comments on the auction outcome and trading thereafter: '***should be** like this all the time*'. At 09:13 the UBS trader asks: '*wat bond everyone short of . . . should bid those' 'that ll get it flatter.*' The UBS trader suggested that the traders should jointly target those bonds in which other traders had short positions and so '*flatten*' the curve (increase prices). The traders continue to discuss employing a strategy to increase the price of BTPs with the UBS trader commenting: '*whheeyyyyyyyy*'. At 09:16 the UBS trader asks the group what mid-prices they have for the EGB which was just auctioned with the traders of Natixis, UBS and RBS all disclosing mid-prices. At 10:35, the traders discuss the spread of French OAT32s, including whether a mid-point of '*2.5*' is appropriate. The UBS trader suggests '*2.65 is fine 'so we do 2.5*' to which the RBS trader responds: '*yeah* [that is] *what I was thinking*.'[82]

324. A day later, on September 12, 2008, in the DBAC chatroom, traders from Natixis, NatWest Markets, and UBS Europe SE agreed to show the same price to a specific counterparty for European Government Bonds in the secondary market:

> [t]he RBS trader discloses . . . that he is '*being asked offer in 50m*' '*I had 51.5*'. The UBS trader asks him: '*wat did u show*' and the RBS trader replies: '*so i offered 50.9*' '*then i said off*' '*offered 50.6*' '*u seeit* [...]*?*'. The Natixis trader adds that: '*he wanted to lift at 50.9 i guess*'. The UBS trader discloses: '*here now*' '*50.15*' and the RBS trader writes: '*yeah*' '*ok i will show same*' and the group goes on to discuss the price they are showing this counterparty.[83]

325. The traders in the DBAC chatroom from NatWest Markets, UBS Europe SE, and Natixis also implemented a multi-day scheme to increase the price of Spanish European Government Bonds prior to an auction for 30-year bonds taking place on October 16, 2008. Starting on October 13, 2008, the traders started to exchange positions, including sharing specific prices to align the prices they would ultimately submit at auction:

> At 06:06, the RBS trader asks: *'when is apin?"spain?"the 2040?'* to which the UBS trader replies: '[...] *a spain queen' 'he should know*' and the Natixis trader says: '*It's the 16th I think.*' At 06:16, the UBS trader asks: '*wat we think curve*'

[82] *Id.*, ¶198.

[83] *Id.*, ¶200.

and the RBS trader replies: *'longs may get bid later but short end fuked'*, indicating that bonds with a long maturity might '*get bid*,' that is they might receive some buying interest from the market, but that investors have currently no interest in the short end of the curve, that is in bonds with short maturity. The UBS trader confirms: '*yea think we flatter even in down move*,' implying that even in the case of a general price decrease - equivalent to a general increase in yields, see recital (39) - the yield curve would end up '*flatter*'. This means that the interest rates for the short-term bonds would increase more than the interest rate for the long term bonds – hence RBS trader reference to '*short end fuked'*. From 06:34, the traders also exchange their mid-prices for different long term bonds maturing in 2023, 2028 and 2037 for different auctions that were taking place that week. They also cross check to see whether their levels were too high and check their positions. For instance, the UBS trader states at 07:54: *'what mid we got 37s' '34/5' 'I got 91.77' 'is that 2 high' /'july 28' 'mid'*, and the RBS trader replies*: 'that's too high I think' '91.15 37s'/'37 91.33 mid wat about 23s?'/ 'fuk the same'*. The traders also exchange their spreads between long term bonds. For instance, a trader of Natixis ([...]) asks at 09:00: *'where have you got 37/39 please?'* and the RBS trader replies: *'-.7'* and the UBS trader *'-.3'*. The traders also disclose the spreads between bonds maturing in 2037 and bonds maturing in 2040.[84]

326. The full chat transcript also [redacted]

<u>October 13, 2008</u>

<u>NatWest Markets Trader</u>: [redacted]

<u>UBS Europe Trader</u>: [redacted]

<u>Natixis Trader</u>: [redacted]

<u>NatWest Markets Trader</u>: [redacted]

<u>UBS Europe Trader</u>: [redacted]

<u>Natixis Trader</u>: [redacted]

<u>NatWest Markets Trader</u>: [redacted]

<u>UBS Europe Trader</u>: [redacted]

<u>Natixis Trader</u>: [redacted]

<u>UBS Europe Trader</u>: [redacted]

<u>NatWest Markets Trader</u>: [redacted]

<u>Natixis Trader</u>: [redacted]

[84] *Id.*, ¶206.

<u>NatWest Markets Trader</u>: [redacted]
<u>Natixis Trader</u>: [redacted]
<u>NatWest Markets Trader</u>: [redacted]
<u>NatWest Markets Trader</u>: [redacted]
<u>NatWest Markets Trader</u>: [redacted]
<u>NatWest Markets Trader</u>: [redacted]
<u>Natixis Trader</u>: [redacted]
<u>UBS Europe Trader</u>: [redacted]
<u>NatWest Markets Trader</u>: [redacted]

327. Two days later, on October 15, 2008, in the DBAC chatroom, the traders aligned their price levels and coordinated trades to inflate the price of Spanish bonds. The traders agreed to pump up the price of their jointly held bonds and sell them at the highest point of inflation, right before the auction:

> [A]t 10:54, the RBS trader asks for help from other DBAC traders to sell Spanish bonds at a higher price before auction: '*hey guys u watching spain 10 years*.' The Natixis trader replies there is a lot of interest in the bonds and this will have an impact on the auction next day: '*this tap tomorrow is gonna be a mess.*' The RBS trader proposes to increase their prices for the bonds by 25 basis points: '*mine as many as u have move them up 25 ticks'* as he thinks his client will buy them: '*this guy gonna buy bthem honest*.' Later from 12:56, the RBS trader asks again the Natixis trader to increase his price: '*poke it'*. The Natixis trader indicates that he increased his price to 107.00: '*i bid 107.00'* and asks the RBS trader whether he should increase more: '*poke it more'*. The RBS trader agrees '*ay'*. In the afternoon, from 16:27, the traders discuss non-core country bonds. The UBS trader asks: '*wat u think periph'* and the RBS trader replies: '*thats the best day its gonna have get some auctions and we fuk it again.'*[85]

328. On the day of the auction, October 16, 2008, the DBAC traders agreed to raise the price at which they sold Spanish bonds by coordinating trades in the secondary market of Spanish bonds and bonds from "periphery" countries like Portugal and Greece:

> The RBS trader comments at 06:09: '*periphary* [non-core countries] *gets its it doesnt it'* to which the UBS trader replies: '*fuking hope so'*. The RBS trader

85 *Id.*, ¶208.

comments: '*so steepened my curve 1.8*' to which the UBS trader replies: *'yup' '90.64' '27/8' '?'*. The Natixis trader says: *'got 70'* and the UBS trader adds: *'the way my model works only moves 20 yr s 1.4 bp steeper' 'righto' 'periph 10 bp wider' ':-)'*. The Natixis trader comments: '*spain 25bp tighter*', suggesting the traders increased the price of the Spanish bonds and therefore reduced their spread with other yield curves. The UBS trader adds: '*think iam gonna buy more spain to go against my pgbs* [Portuguese Government Bonds] *and ggbs* [Greek Government bonds] . . . *did nt see that*' '*probably*'. The traders continued their discussion regarding their trading strategy. The Natixis trader says: *'im not bidding' 'not even gonna show a bid'* and the UBS trader states: *'gonna squeeze it before'* (that is increase the price of the bonds ahead of the auction). The RBS trader, who was a primary dealer, says: *'just gonna miss it'*. The UBS trader suggests to the other traders to buy bonds before the auction, in line with their strategy: *'if you want some buy em before'*. Just before the auction, at 08:07, the Natixis trader states he will eventually show a bid but in order to miss the auction: '*im gonna bid like 2bps lower than mid so i miss it*'. Later at 08:16, the Natixis trader indicates: *'61 trades SP40s on sena'*. The RBS trader reveals his bid price: *'iam paying 40'*, the Natixis trader says: *'iam paying 20'* and the RBS trader replies: *'iam paying 30 then'*.[86]

329. The full DBAC chatroom transcript from October 16, 2008 also evidences that the traders [redacted] First, the NatWest Markets, UBS Europe SE, and Natixis traders [redacted] Second, the [redacted] Third, the UBS Europe SE trader [redacted]

<u>October 16, 2008</u>

<u>Natixis Trader</u>: [redacted]

<u>UBS Europe Trader</u>: [redacted]

<u>NatWest Markets Trader</u>: [redacted]

<u>NatWest Markets Trader</u>: [redacted]

<u>Natixis Trader</u>: [redacted]

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86 *Id.*, ¶209.

Natixis Trader: [redacted]

Natixis Trader: [redacted]

Natixis Trader: [redacted]

NatWest Markets Trader: [redacted]

Natixis Trader: [redacted]

Natixis Trader: [redacted]

Natixis Trader: [redacted]

NatWest Markets Trader: [redacted]

***

NatWest Markets Trader: [redacted]

Natixis Trader: [redacted]

Natixis Trader: [redacted]

Natixis Trader: [redacted]

NatWest Markets Trader: [redacted]

Natixis Trader: [redacted]

NatWest Markets Trader: [redacted]

NatWest Markets Trader: [redacted]

Natixis Trader: [redacted]

NatWest Markets Trader: [redacted]

***

NatWest Markets Trader: [redacted]

Natixis Trader: [redacted]

UBS Europe Trader: [redacted]

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UBS Europe Trader: [redacted]

UBS Europe Trader: [redacted]

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NatWest Markets Trader: [redacted]

330. Later that day, in DBAC, the traders continued to coordinate their trades in the secondary market for Spanish bonds to '"*cheat the Spanish banks and get a super price on the bookies*'":

> A non-DBAC trader told Natixis ([…]) on the day of the Spanish auction: '*Its fantastic to cheat the spanish banks and get a super price on the bookies*.' Only two banks had taken up most of the auction. The DBAC traders now expected the price to increase and continued to exchange their price levels and coordinate their strategy. In DBAC, at 11:53, the Natixis trader comments: '*u see the grid on sp40s?*' '*1 guy took 458m*' '*another 160m*' '*that's 60% of the whole thing*' and the UBS trader replies: '*thought that 119 happened*' '*they really gonna squeeze*'. The Natixis trader says: '*hope so*' and then asks: '*what u got 37/37 spain*' '*42.5 here*'. The UBS trader responds: '*42*' and the Natixis trader: '*what bout 37V40 in spain*?' and the RBS trader replies: '*1.4*', while the UBS trader says: '*1.25*' (12:25). Later at 14:43, the RBS trader tells the group: '*moved em down for u and iam short*'. The initially higher spread pick-up offered by RBS (1.4 vs. 1.25 at UBS) would make it more attractive for investors to '*make the switch*' (selling Spain 37 and buying Spain 40) with RBS. However, the RBS trader is ready to adjust his offered spread down in order not to compete with UBS. The UBS trader replies: '*how kind*' and the Natixis trader says at 14:45: '*good work*' '*everyone.*'[87]

331. On February 13, 2009, in the DBAC chatroom and in other chatroom, traders from NatWest Markets and UBS Europe SE exchanged bidding and trading strategies ahead of an upcoming Italian bond auction.

> [A]t 07:08, a RBS trader ([...]) comments: '*anyway we gonna try fuk itlay today?*' to which the UBS trader replies: '*yee*'. Then, the same RBS trader and the UBS trader exchange their positions and the sizes they will bid for at the auction. The RBS trader states: '*iam quite short but gonna use our auction book to tw at it got to buy 200mil*' to which the UBS trader replies: '*yup*' '*110mm*'.[88]

332. The full DBAC chat transcript shows that [redacted], the UBS Europe SE and NatWest Markets traders [redacted]

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[87] *Id.*, ¶211.

[88] *Id.*, ¶236.

[redacted] At 9:40, the NatWest Markets trader [redacted] The UBS Europe SE trader [redacted] The NatWest Markets trader [redacted] At 9:50, the UBS Europe SE trader [redacted] and the NatWest Markets trader [redacted]

February 13, 2009

NatWest Markets Trader: [redacted]
UBS Europe Trader: [redacted]
UBS Europe Trader: [redacted]
Natixis Trader: [redacted]
UBS Europe Trader: [redacted]
NatWest Markets Trader: [redacted]
NatWest Markets Trader: [redacted]
NatWest Markets Trader: [redacted]
NatWest Markets Trader: [redacted]
NatWest Markets Trader: [redacted]
NatWest Markets Trader: [redacted]
Natixis Trader: [redacted]
UBS Europe Trader: [redacted]
NatWest Markets Trader: [redacted]
NatWest Markets Trader: [redacted]
UBS Europe Trader: [redacted]
UBS Europe Trader: [redacted]
NatWest Markets Trader: [redacted]

333. On August 13, 2010, traders from NatWest Markets, UBS Europe SE, and a co-Conspirator in the DBAC chatroom, which was renamed Cods & Chips, discussed specific prices,

including agreeing to a mid-price of 75 and agreed to protect each other against a specific counterparty buying Dutch bonds in the secondary market. This reflects impermissible price fixing among competing banks:

> At 14:35, the UBS trader asks: '*wat mid u got dsl' '75' '?'* to which the RBS trader asks: *'37s?'* and confirms that he also has 75 as the mid. The UBS trader confirms that it is 37s and the trader of RBS tells him that his sales colleagues think there is a potential buyer. The UBS trader confirms: *'sounds like it' 'gonna bid them'*. A bit later, the traders also coordinate what offer to show him for 28s. At 14:46, the RBS trader shares that he: *'just offered 60m dsl28 to same guy'* and the UBS trader replies: *'iam bidding it up mate dont lose em'*. The trader of RBS agrees: '*yeah I offered well high'* and says he showed at: '*30' 'didnt even mant* [mean] *to lose them there.'*[89]

334. The traders continued using the Cods & Chips chatroom to fix prices and exchange proprietary information well into 2011. Specifically, throughout the day of September 28, 2011, the chatroom group, then comprised of traders from NatWest Markets, UBS Europe SE, Nomura International, and UniCredit Bank AG, disclosed their respective prices and positions in the market. The UBS Europe SE and UniCredit Bank AG traders even agree on a '"*higher*'" bid price for German bonds on the secondary market in an attempt to move the market following some headline news on Greece:

> [T]he UBS Europe SE trader says '*ft* [Financial Times] *headline*', to which the UniCredit trader replies: '*hiya*' '*yep*' '*Greece*' '*all this sort of stuff totally ignored by euro bond mkts but the dow came 150pts off on it*', commenting on the fact that EGB have not reacted yet on the (presumably bad) news on Greece while the dow (a US equity index) did decrease significantly. The UniCredit trader then inquires . . . asking whether other traders have seen any indication on how the price of German EGB (bunds) will open. The UBS Europe SE trader replies and gives his current indicative price: '*my bloke said 05 ?*'. The UniCredit trader agrees and discloses his (lower) pricing. . . . The UBS [Europe SE] trader suggests that this last price is too low: '*w should go higher*' '*no ?*' and the UniCredit trader agrees . . . .[90]

89 *Id*., ¶292.

90 *Id*., ¶343.

D. Chats Contained in the Commission Decision Are Direct Evidence of Defendants' Agreement to Manipulate the Price and Allocation of European Government Bonds in the Primary Market

335. On March 6, 2007, in the DBAC chatroom, traders from UBS Europe SE, BANA (Bank of America N.A. is referred to by the commission as "Bank of America"), NatWest Markets, and a co-conspirator bank coordinated their overbidding levels in advance of the upcoming Austrian auction for bonds maturing in 2021. When bidding at an auction, based on their own, individual assessment, primary dealers may decide to bid higher than the prevailing market price of the bond on the secondary market, which is known as "overbidding." In the chat below, the traders discuss specific pricing levels, with the UBS Europe SE trader telling the other traders that he was bidding '"*+14 up tp +18*"' for 100 million in bonds, or 14 cents/basis points and up to 18 cents/basis points over the mid-price. The UBS Europe SE trader later said he '"*was just helping ever[y]one*.'" The other traders discussed their specific prices as well, and following the auction, the traders congratulate each other on their success, stating '"*well done everybody*'":

> At 08:50, the Bank of America trader asks: '*What are we thinking for the austria ? We are +16 for about 70m.*' The UBS trader replies that he is going: '*+14 +18*' and needs 110 million, while the ABN-AMRO trader says he needs 60 million. The RBS trader says he needs 25 million. Ahead of the auction, the traders update each other with their bids. The UBS trader states: '*+14 up tp +18' 'for 100m*', and the Bank of America trader discloses: '*+15 +17 +19 . . . 20m each*'. The UBS trader states: '*85 mid here*' and the Bank of America trader confirms '*yep.*' The UBS trader reveals: '*+16 +17 is for 70mm here' '10000 thousand = 10mm*'. The ABN-AMRO trader responds: '*yes* [...]' '*good job we can get that one clear*'. The UBS trader says: '*was just helping ever[y]one*'. The RBS trader reveals: '*we are paying the figure for 40mm*'. The UBS trader explains: '*at the moment that will be my highest bid' '82 mid*'. The ABN-AMRO trader notes: '*we a tik higher*'. The UBS trader adds: '*u tinker' 'using 83 mid' '011 my highest*'. The RBS trader states: '*.001*' and the ABN-AMRO trader: '*00*'. After the auction, the traders discuss the auction results: the UBS trader reports 100mm, the ABN-AMRO trader 60m, the RBS trader 40, and the Bank of America trader 70m. The ABN-AMRO trader congratulates the group: '*well done everyone*' . . . .[91]

[91] *Id.*, ¶110.

336. On July 30, 2007, in the Cods & Chips chatroom, traders from NatWest Markets, UBS Europe SE, BANA, and a co-conspirator bank agreed to a bidding strategy for Italian bonds (BTP, Buoni del Tesoro Poliannuali) and Belgian bonds (OLO, Obligations Linéaires/Lineaire obligaties) prior to auction. The traders ultimately agreed to concentrate their bids at the Belgian treasury offer price and continued to update each other with trader positions, pricing, order flow, trading strategy, and recently executed (or to be executed) trades in various bonds:

> RBS trader ([...]) tells the group: '*im just going to bash them* [Italian auction] *i don't want em and dont give a fuuuuuk really'* and an ABN-AMRO trader ([...]) replies: '*prob the best way*'. A UBS trader ([...]) then asks: '*wat we gotta pay up for olo 48 shite*' and the same ABN-AMRO trader replies he is not overbidding: '*dunno' 'but we aint paying up for it*'. The same RBS trader shares with the other traders the price on the screen for BTPs (Italian EGB): '*its my px on the augl7s for info*'. This information is typically anonymised and aggregated. The Bank of America trader tells the same RBS trader that [...] asked whether RBS can reduce the prices of Italian BTPs of 3 and 10 years maturities ahead of the auction: '[...], *asking if u can bash the 3yr down as well?*'. The RBS trader replies: '*you prob better off asking* [...] *mate' 'the person who trades it over here is a bit difficult at the moment*'. From 07:37, the traders exchange their mid-prices, with an ABN-AMRO trader ([...]) stating: '*got 30ys 0.75bp wider and 15y 1.1bps wider*' and the Bank of America trader indicating that he traded at that price on Tradeweb: '*oat 21 traded 474 ontweb*'. The traders eventually decide not to pay a premium for Belgian OLOs with the same ABN-AMRO trader commenting: '*belg i dont see why we should psay a premium*' and then disclosing their mid-price and that they are bidding at mid-price only. They then discuss the results of the auction. At 09:39 the Bank of America trader says: '*that is good cheapening preauction ! ! ! !'*. The RBS trader ([...]) confirms: '*this is the way auctions should go' '!*' and the Bank of America trader agrees. Later, at 11:07, the traders exchange their views on the steepening of the curve ahead of the Belgian auction, allowing them to compare views and align their strategy. An ABN- AMRO trader ([...]) says: '*this curve gotta steepen a little tho eh?*' and a UBS trader ([...]) replies: '*probally' 'long*'. The same ABN-AMRO trader adds: '*no one is worried about the curve tho*'. A few minutes later, the traders disclose their bids. At 11:16, that ABN-AMRO trader reveals: '*offered 50m btp31s*' and a UBS trader ([...]) lets him know that it is his '*price on tv*' and he further asks: '*where u offer?*'. This information on screen is aggregated and anonymised. That ABN-AMRO trader replies: '*02*' and the UBS trader replies back: '*ok*'.[92]

[92] *Id.*, ¶122.

337. On September 24, 2007, in the Cods & Chips chatroom, traders from NatWest Markets, UBS Europe SE, and ABN Management Services Limited discussed specific prices for bonds maturing in 2037 and coordinated overbidding levels for an upcoming Belgian auction offering Belgian OLO (Obligations Linéaires/Lineaire obligaties) bonds. The traders also agreed to '"*steepen the curve*,'" *i.e.*, widening of the spread between long- and short-term interest rates:

> [A]t at 07:01, the ABN-AMRO trader says: '*need to push it cheaper cos it will prob trade like a dog after*'. The UBS trader confirms: '*yup' '+8 +10' 'iam gonna go'*. The ABN-AMRO trader notes that: '*the olo48s got really hosed into the tap and came something like +7/8 i think*'. The UBS trader suggests: '*shall we try get it down . . . what mid u got . . . I have 72*'. The ABN-AMRO trader discloses: '*109.78' 'i have 93 mid 37s' '95 now*' and the UBS trader reveals he just bought 6 million of bonds maturing in 2037: '*just bid' '6mm 37s*'. The ABN-AMRO trader says: '*that is me on olo31s'*. This information on screen is normally anonymised. The UBS trader comments: '*me 37s' 'lets steepen thi*s'. The RBS trader agrees: '*yeah lets steepen it*'. At 07:23, the ABN-AMRO trader notes: '*whole curve realy steepening up'*. The UBS trader says: '*nope' '2 cheap'*. A few minutes later, at 07:34, the UBS trader asks *'wat mid' 'we got 31s' '55' '.?*'. The ABN-AMRO trader responds: '*i have 55' 'but clearly high*'. At 08:25, the ABN-AMRO trader reveals that Lehman Brothers bought the bonds maturing in 2031 from them: '*lehman kunt lifting me olo31s*'. The UBS trader says: '*toss er' 'curve flattening a bit' they are cheap*'. The ABN-AMRO trader adds: '*lifted a couple of times now in olo31s*'. At 09:30, the ABN-AMRO trader enquires: '*what overbidding do we think in olo 10y?' 'and5y*', to which the UBS trader again confirms: '*10 12 10 yr*'. After the auction, at 12:49 the UBS trader asks: '*how many non comps (non competitive bids)' 'u got I got 16mm*' and the ABN-AMRO trader responds: '*dunno' 'haven't rung up yet*', later adding: '*I got 10m non comp in olo31s*'. The UBS trader congratulates the ABN-AMRO trader with: '*wel dun.'*[93]

338. On January 3, 2008, in the DBAC chatroom, traders from NatWest Markets and UBS Europe SE discussed specific pricing for French bonds maturing in 2038 and 2055, including agreeing to overbid at the auction. As the auction takes place, the traders continued to discuss their bids and compared prices until they ultimately received the bonds they wanted at the auction:

> [A]t 08:51, the UBS trader discloses his overbidding levels (+8 and +10) and volumes he intends to buy (50mm total) for the French 38s and 55s : '*I think iam gonna go +8 +10 38s' 'same 55s' 'iam om*[n]*ly buying 50mm total*'. A trader of

93 *Id.*, ¶124.

> RBS ([...]) responds: '*thinking the same*' '*in overbidding*'. The UBS trader confirms: '*ok*', and the trader of RBS adds: '*gotta get 100m total*' '*50 each i guess*'. At 09:02, the traders compare their positions. The RBS trader ([...]) asks: '*where u got 35/38?*', and reveals that he: '*got it flat*'. The UBS trader confirms: '*ya*'. The trader of RBS discloses that he is: '*offering 38s vs 35s*'. A few minutes later, the UBS trader announces: '*35/38s here now*'. They also compare prices. The trader of RBS reveals that he: '*showed +.25*', and adds: '*he wanted 0*'. The UBS trader replies: '*=5*' '*=5*' '*+5*'. Just before the auction closes, at 09:56, they update on the bidding. The UBS trader shares: '*bid 89.06 89.08 55s*' '*89.95 89.97 38s*' '*dunno if i get those*'. At 09:58, he continues: '*out*' '*89.95*' '*89.03*'. Afterwards, they give each other feedback on the results. The trader of RBS asks: '*everybody ok*' '?'. The UBS trader replies: '*YA*' '*got 50mm*'.[94]

339. On February 7, 2008, in the Cods & Chips chatroom, traders from BANA, NatWest Markets, and UBS Europe SE agreed on their bids for an upcoming French European Government Bond auction for bonds maturing in 2023 and not to '"*pay up large*'" because that '"*worked well as a strategy so far*'" in their ongoing agreement. As it gets closer to the auction, the traders discussed their overbidding levels for the bonds, with the UBS Europe SE trader asking, "'*+4 +5 +6 +7*'" and the NatWest Markets trader responding that a level of '"*+4ish at most*'" would obtain the target volume of bonds:

> [A]t 07:43, the Bank of America trader asks the participants: '*What you thinking for the 15yr's today*' and the UBS trader replies: '*bond is cheap vs wings*'. The Bank of America trader reveals that: '*we are thinking of just doing 23's and no 19's*' and the UBS trader says: '*iam only gonna buy 23s . . . don t think need to pay up large big auction really*' to which the Bank of America agrees. A trader of RBS thinks that: '*no agreed . . . shouldnt pay up . . . worked well as a strategy so far*'. At the same time, in the DBAC chatroom, traders of UBS ([...]) and RBS ([...], [...]) have a similar conversation about the French auction. At 08:09, the UBS trader asks what level of overbidding the other participants think is necessary suggesting: '*+4 +5 +6 +7*' before confirming at 08:10 that he thinks that: '*gets it*'. A trader of RBS responds that he was thinking: '*+4ish at most*' to obtain his target volumes.[95]

340. Also on February 7, 2008, traders from ABN Management Services Limited and NatWest Markets discussed the Dutch Debt Management Office accusing them of collusion – to

[94] *Id.*, ¶139.

[95] *Id.*, ¶151.

which ABN Management Services Limited replied that '"*we usually do*'" collude. "At 09:06, the ABN-AMRO trader says: '*dutch* [DMO] *accused me of colluding with you on the last dutch tap by the way, I denied, with a laugh*' and the RBS trader replies: '*we didn't did we*.' The ABN-AMRO trader adds: '*we usually do' 'cant remember tho*.'"[96] As the traders' own words reflect, they colluded on the "tap," an auction where European Government Bonds are issued at their original face value, maturity, and coupon rate, but then can be sold on the secondary market at an inflated price.

341. On February 17, 2008, the ABN Management Services Limited trader moved to Natixis, and on February 26, 2008, he offered to "'*lend a hand too*' to UBS' plan to '*destroy tomorrow*' an Italian auction."[97] UBS' reaction is: "'*excellent, normal service resumed,*'" meaning he would resume manipulating auction prices for the UBS Europe SE trader while at his new bank, Natixis.[98] By March 3, 2008, the Natixis trader (formerly of ABN Management Services Limited) was invited back into the DBAC and Cods & Chips chatrooms.[99]

342. On March 6, 2008, traders from NatWest, UBS, BANA, Natixis, and another co-conspirator bank discussed an upcoming auction in the Cods & Chips chatroom:

> Natixis has explained that the traders exchanged competitively sensitive information on mid-prices, their bidding strategy, pricing and bid sizes ahead of and at the time of the auction. For instance, the Natixis trader, in response to the ABN-AMRO trader's question regarding mid-prices, replies: '*i think he will be happy to sell them at mids*.' The Bank of America trader ([...]) agrees to bid at mid.[100]

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96 *Id.*, ¶152.

97 *Id.*, ¶154.

98 *Id.*

99 *Id.*

100 *Id.*, ¶164.

343. On July 3, 2008, in the DBAC chatroom, the traders from Natixis, NatWest Markets, and UBS discussed specific pricing levels for French OATs, or Obligations Assimilables du Tresor, maturing in 2019 and 2023. The NatWest Markets trader asked what the mid-price was for the OATs maturing in 2019, and the UBS Europe SE trader responded that he had '"*94.96*.'" Later in the chat, they discussed the OAT auction for bonds maturing in 2023, with the Natixis trader saying his mid-price is '"*19*,'" the UBS Europe SE trader saying his mid-price is '"*18*,'" and the NatWest Markets trader saying that his mid-price is '"*19*.'" They then agreed to overbidding levels for the bonds of '"*+4-5*'" or '"*+5 +6*'":

> At 06:29, the RBS trader ([...]) asks: '*wat mid 19s*', the UBS trader says '[...] *has 96' '94.96*', the Natixis trader replies: '*96 too*' and the RBS trader thanks them for the replies: '*ta thats the one iam buying and small 23s'*. The UBS trader announces: '*150 23s' 'I buying' 'wat we have to pay up*', the Natixis trader says: '*100-150 here . . . why we have to pay up?*' and the UBS trader thinks it will clear above. The Natixis trader notes: '*u might b right but i dont see why other than non comps*'. Later at 07:57, the other trader of RBS asks: '*wat we doing at auction lads*' and the UBS trader responds: '*just looking last 1 came up +5' '15 yrs*' and the Natixis trader thinks: '*fear of missing factor is the only reason for premium*'. The UBS trader agrees: '*yup' 'dont help with pricks on screen' 'wat mid we got 23s'*. The traders share then their mid-prices. The Natixis trader*: '19'*, the UBS trader*: '22/23' 'ok 18'* and the RBS trader: *'yes i am 19 gonna pay 23 here'*. The UBS trader adds: *'+5 +6' 'my idea'* and the Natixis trader agrees at 08:00*: 'ok' 'makes sense' '+4-5 i would say.'*[101]

344. As it got closer to the start of the French OAT auction, the traders from Natixis, NatWest Markets, and UBS Europe SE continued to discuss their collective trading strategy and bids in the DBAC chatroom, with the Natixis trader rethinking his trading strategy and deciding to buy less OATs maturing in 2023. They then discussed specific pricing levels, the NatWest Markets trader stated, '"*I am paying 10 for 23 90 for 19s*'" and the Natixis trader replied '"*08 on*

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[101] *Id*., ¶183.

23s here'" '"*88 19s*.'" Ultimately, the traders commended each other following the auction, stating '"*well done everybody*'":

> The Natixis trader notes at 08:36: '*gonna rething strategy and buy some 10yrs and fewer 23s now*'. At 08:40, he asks the others: '*mid 23s now?*' to which the UBS trader responds '*06' 'i guess'*. The Natixis trader says: '*07*' and the UBS trader replies: '*but 04 my shhet says*'. The RBS trader reports that he notified the DMO that he would bid less for the 23 year EGB: '*yes just told the trasury less 23*', suggesting that he would bid for more of the 10 year EGB. He says: '*I am paying 10 for 23 90 for 19s*' and the Natixis trader discloses: '*08 on 23s here' '88 19s*'. The RBS trader replies: '*88 19s 08 23s*'. After the auction, the participants discuss the results with the RBS trader stating at 08:57: '*well done guys*' and the Natixis trader saying: '*well done everybody*', before commenting on the mid-prices used.[102]

345. On July 23, 2008, in the DBAC chatroom, traders from Natixis, NatWest Markets, and UBS Europe SE discussed specific pricing levels ahead of a German European Government Bond auction for bonds maturing in 2040, including disclosing their mid-prices, overbidding levels, and agreeing to implement a '"*simular strategy*'" at the auction:

> At 05:56 the UBS trader says: '*iam short gonna bash some on open' 'just depends if they try and flatten it*' and the Natixis trader replies: '*they bound to try and flatten it tho eh?*'. The RBS trader says: '*wonder if time to cover short ad we rally a bit' 'or add to short*' and the Natixis trader replies: '*mkt always gets whacked into the bidding these days*'. Then the RBS trader asks: '*we going to be a bp flatter*', with the UBS trader replying: '*1bp steeper*' and the Natixis trader: '*rest of curve steeper of course*'. Later in the morning, the DBAC traders exchange mid-prices, overbidding levels and bidding strategy for the forthcoming German auction in order to secure a desired allocation of bonds from auction. At 08:07, the UBS trader asks: '*wat u overbbiding*[...]' '[...]'. The RBS trader expresses his disappointment at the market and indicates that he '*might small overbid' 'maybe bid high for 50m' 'then at market for like 100*'. The UBS trader replies: '*simular strategy*'. They compare their mids up until the auction. Later from 08:38 they begin disclosing their mid-prices of 40s ahead of the auction.[103]

346. On October 1, 2008, in the DBAC chatroom, traders from NatWest Markets, UBS Europe SE, and Natixis discussed an upcoming French OAT, or Obligations Assimilables du

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[102] *Id.*, ¶185.

[103] *Id.*, ¶188.

Tresor, auction. During the exchange, the traders agreed to coordinate their bids, because, as the Natixis trader explained, "'*if the bids r clustered at the right levels tom then they wont b able to ignore them.*'"

> At 13:00, the Natixis trader asks the RBS trader: *'how u set up for this auction tom?' 'you still got more france to sell?*' and the RBS trader reveals his positions: '*iam short 200 mil at mo*' and indicates he wants to depress the price of the French bonds: '*yes want to kill France don't we*'. The Natixis trader agrees with the strateIy: *'i want to try and lean on it tom'*. The RBS trader indicates that he has sold different French bonds such as: '*april 18 oct 18 and aptil 19s now'*, possibly in an attempt to depress the price of the French bonds ahead of the auction. The Natixis trader comments: '*ok' 'if the bids r clustered at the right levels tom then they wont b able to ignore them'* to which the UBS trader says: '*i hear you. bewteen us girls they have already asked for covers that will be 1/2 point down.*'[104]

347. Notably, the full DBAC chat transcript provides [redacted] that the traders at NatWest Markets and Natixis [redacted]

<u>October 1, 2008</u>

<u>NatWest Markets Trader</u>: [redacted]

<u>Natixis Trader</u>: [redacted]

<u>NatWest Markets Trader</u>: [redacted]

<u>Natixis Trader</u>: [redacted]

<u>Natixis Trader</u>: [redacted]

<u>NatWest Markets Trader</u>: [redacted]

<u>Natixis Trader</u>: [redacted]

<u>NatWest Markets Trader</u>: [redacted]

***

<u>Natixis Trader</u>: [redacted]

<u>UBS Europe Trader</u>: [redacted]

<u>Natixis Trader</u>: [redacted]

104 *Id.*, ¶202.

> <u>UBS Europe Trader</u>: [redacted]
>
> <u>Natixis Trader</u>: [redacted]
>
> <u>Natixis Trader</u>: [redacted]
>
> <u>UBS Europe Trader</u>: [redacted]

348. On October 2, 2008, in the DBAC chatroom, as well as in separate chatrooms between the Natixis trader and NatWest Markets trader, on the day of the French auction, the Natixis, NatWest Markets, and UBS Europe SE traders agreed to "'*concentrate their bids*'" for the French European Government Bond auction so that "'*the AFT has no choice but to hit them*'":

> [A]t 06:05, the RBS trader states: '*lets give those french twats some bonds this morning'* and the Natixis trader says: '*got to see it cheaper'*, to which the RBS trader replies: '*easy*'. The Natixis trader ([...]) also tries to coordinate in a separate chatroom with another trader. For instance, at 07:09, he asks: '*frog 10 y today' 'you know what your guys r planning?*' and continues: '*i think if the bks concentrate their bids around the same area, even if they're cheap, the AFT has no choice but to hit them'*. Thereafter, in another chatroom, he briefs RBS ([...]) on his action. At 07:37, he discloses, '*i spoke to calyon and he is going for 250... gonna chat just ahead of bidding to get lvls'*. A few minutes later, at 07:40, the RBS trader ([...]) tells him, '*call me now'*. Later that day, from 10:47, back in DBAC, the RBS trader, UBS and Natixis traders also discuss retaliation against the Spanish DMO: '*they cancelled our non comps for todays auction in spain' 'cos we never quoted tight enough' 'I told them I will take that into acct in the huge fuinding needs coming up' 'not gonna bid for the 40s now . . . fuk em'* to which the UBS trader responds: '*don't blame you' 'they need us more*' and the Natixis trader agrees.[105]

349. On January 26, 2009, traders from UBS Europe SE and NatWest Markets discussed prices and agreed to "*put the same bids in*" for the Belgian bond auction taking place later that day. The traders checked in with each other as the auction approached to make sure their prices were aligned:

> The two traders then continue to exchange information on the bid levels and agree on alignment. The UBS trader indicates that he would bid 30 million divided in three bids with three different premiums namely 20, 25, and 30 basis points above the mid-price, although he is uncertain whether this allow him to get his desired allocation. A t 09:26, the RBS trader discloses: '*so im a little higher*' and he asks:

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105 *Id.*, ¶204.

> '*are you putting the bids in urself*[?].' The UBS trader confirms: '*yip*.' The language of the RBS trader is explicit when he suggests: '*lets just put the same bids in*.' The UBS trader is quick to reveal: '*iam going +20 10' '+25 10' '+30 10'* and he assumes: '*idea*' *'ive got no clue' 'how it comes' 'i think high' 'look very sharp*.' Later that day, at 10:08, the RBS trader reveals: '*i just moved and now have same as you'*, to which the UBS trader: '*ok cool*.' A few minutes later, at 10:14, the RBS trader reveals: '*offering 25m olo31s*' to which the UBS trader replies: '*nice*.' A few minutes before the auction, the two traders check each other's positions. At 10:53, the RBS trader says: '*if bids in here i would be paying 70 against a 45 mid'* and he asks for confirmation ('*sound right?*'). The UBS trader replies: '*80 IS MY HIGHEST…AGAINST THAT*' '*45 mid 85/6*.' The RBS trader agrees: '*yup' 'exactly.'* At 10:59, only a few seconds before the closing of the auction bidding window, the UBS trader discloses that he is '*65 TO 80*.'[106]

350. On April 16, 2009, in the DBAC chatroom, traders from Natixis, NatWest Markets, and UBS Europe SE traded confidential information and discussed their bidding strategy for the Spanish auction that day, including how much they would "'*have to pay up from mid*'":

> [A]t 06:24, the Natixis trader discloses that he has made an offer: '*my offer sp24 on tv'*. This is an example of information exchanged on market positioning. In response, the UBS trader discloses his position: '*iam short 12mm'*. The Natixis trader reveals that his strategy is to '*cheapen it for tapmainly*'. At 06:53, the UBS trader asks: '*should nt be flatter down here*[?]' and a RBS trader ([...]) indicates: '*im going to flatten it*'. Later at 07:13, the same RBS trader asks the Natixis trader: '*u a pd* [primary dealer][...]*?*' to which the Natixis trader replies: *'yep' 'I gotta buy 100m' 'maybe small more' 'but im only short 75 so far'*. At 07:17, a RBS trader ([...]) asks: '*what we have to pay up from mid?*'. The Natixis trader replies: '*i guess the bidding will be 5-10 tiks'*. At 07:54, the Natixis trader discloses the conversation he had that day with the Spanish Tesoro '*just spoke to the Tesoro'*, in which they apparently told him that they would be '*allocating in the same way as before'*. A RBS trader ([...]) states that was '*gud info'*. The Natixis trader further explains that '*as long as the bids r at the mkt level they will get allocated' 'so there should b no problem in getting the paper u want*'. In parallel, the RBS trader ([...]) and the Natixis trader ([...]) also discuss their strategy for the auction in a separate chat. They align their volumes. At 08:03, the Natixis trader asks the RBS trader: '*what ru planning on the sp24s?' 'im gonna bid for 100-150m'* to which the RBS trader replies: '*ill bid about 100 i think u can lead me where ill do same as u'*. The Natixis trader assumes: '*def more likely to get em'* and then he adds: '*this level i think I'll b bidding like 103.05' '.unless it cheapens a little before'*. The RBS trader replies: '*ok ill bid same as u'*. At 08:07, the Natixis trader discloses: '*we get the paper at the avg px* [average price]' '*so if they alloctae low enough should b ok'*.[107]

[106] *Id*., ¶234.

[107] *Id*., ¶241.

351. On the same day, in a separate chatroom, ahead of two upcoming French (BTANs or Bons du Tresor a Interests Annuels) and Spanish European Government Bond auctions, traders from Natixis and NatWest Markets exchanged details about their positions and mid-prices:

> [A]t 07:56, the RBS trader asks: '*hi there you bidding these btans today?*'. The Natixis trader replies in the affirmative ('*hiya*') and he adds: '*we will b bidding but wont be me doing it*'. The RBS trader, further, asks: '*what you thinking about overbidding*[?]'. The Natixis trader is quick to reply: '*we r thinking u shuld get paper at mid'* while he, also, refers, to an upcoming Spanish auction when he says: *'esp in the 5y' 'there r a lot on holls still & it's a decent clip of suppl*y'. He reveals: '*we* [they] *r gonna go for around 300m in total so nothing too spectacular'*. The RBS trader replies: '*same here 50ish the 2 11's and 200ish the 14's'*. A bit later, at 08:34, the RBS trader asks: '*where did you spot mids in this spannish at auction time*[?]'. The Natixis trader replies: '*in 10yrs 21' 'in 15yrs 80ish'*. The RBS trader thanks him ('*ok ta'*). The Natixis trader, also, suggests that '*bunds did their usual sell off so overbidding prob more now*'. After a few minutes, the RBS trader asks: '*68, 81, 32 france?*' to which the Natixis trader replies: '*we a tik lower'*. The UBS trader thanks him for this information: '*ok ta'*. The Natixis trader reveals: '*we ended up at 81 also but less int in the other two'* and he adds: '*10/11 s'*.[108]

352. On June 3, 2009, in the DBAC chatroom, traders from Natixis, NatWest Markets, and UBS Europe SE agree on bidding strategy, overbidding levels, and mid-prices ahead of an upcoming German bond auction:

> At 07:01, an RBS trader ([…]) discloses that he '*cant overpay for too much in auction and I am too short*'. At 07:34, the same RBS trader asks: '*what we thinking premium?*' '*+10 ish?*' to which the Natixis trader responds: '*no more that that now its richened'* and the UBS trader asks: '*wat mid we got in it[?]'*, which prompts all three traders to disclose their respective mid-level prices. Later in the morning, at 08:50, the UBS trader discloses he is paying '*+10*' '*+5*' '*ave [average]*' and the Natixis trader approves: '*that should b about right i think*'. The four traders continue checking their mid-prices until the auction.[109]

108 *Id.*, ¶242.

109 *Id.*, ¶248.

353. The full DBAC chat transcript shows that the traders also [redacted]

<u>June 3, 2009</u>

<u>Natixis Trader</u>: [redacted]

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<u>NatWest Markets Trader</u>: [redacted]

<u>Natixis Trader</u>: [redacted]

<u>Natixis Trader</u>: [redacted]

<u>NatWest Markets Trader</u>: [redacted]

<u>Natixis Trader</u>: [redacted]

<u>Natixis Trader</u>: [redacted]

<u>UBS Europe Trader</u>: [redacted]

<u>UBS Europe Trader</u>: [redacted]

<u>UBS Europe Trader</u>: [redacted]

<u>UBS Europe Trader</u>: [redacted]

<u>Natixis Trader</u>: [redacted]

<u>Natixis Trader</u>: [redacted]

354. On October 6, 2009, traders from NatWest Markets and UBS Europe SE in the DBAC chatroom, which was renamed Cods & Chips, discussed specific price levels ahead of the Austrian European Government Bond auction at 9:00 a.m., including sharing their mid-prices and overbidding levels. In the chat below, during the minutes leading up to the auction, the NatWest Markets and UBS Europe SE traders agreed to a mid-price of "'*50/51 55 my highest*' '*+20*'" for Austrian bonds, known as "RAGs" or Republic of Austria Government Bonds maturing in 2026:

> At 06:56, the UBS trader asks if RBS is buying Austrian bonds '*any rag 26s'* and a RBS trader ([...]) replies: '*50*'. The UBS trader comments: '*how silly u reckon*' '*ave last time was +13*' '*+28 hightest'* and the same RBS trader replies: '*15*'. The UBS trader inquires about the mid-price and the RBS trader discloses: '*26.'* Later,

> at 08:08, the UBS trader suggests: '*lets get our mid right in this shite'*. A RBS trader ([...]) replies he is at '*37 mid'* and the UBS trader replies he is at '*32*'. The RBS trader asks the UBS trader what he is overpaying and the UBS trader replies: '*+20 20mm' '+15 30mm' '+10 25mm'*. At 08:21, the UBS trader asks whether '*these rags look fair value here'* to which a RBS trader ([...]) replies: '*yeah think they shitty and will get put away' 'just want to cover my short'*. The UBS trader discloses: '*i feel like creaminmg them'*. At 08:44, the UBS trader suggests: '*lets agree mids in 5 mins'* and a RBS trader ([...]) agrees: '*ok*'. A few minutes later, they share their mid-prices. At 08:54, the UBS trader indicates: '*501 my highest u' '?*' and the same RBS trader replies: '*with 50/51 55 my highest' '+20'*. The UBS trader says: '*same now'* while the same RBS trader comments: '*if we miss this is ridiculous'*. From 09:00 on, the UBS trader shares all of his final bids.[110]

355. On November 5, 2009, traders from NatWest Markets and UBS Europe SE in a chatroom discussed their strategy for an upcoming auction for French European Government Bonds disclosing specific prices, including their mid-prices, overbidding levels, and volumes. Illustrating the value of chatting with competitors prior to an auction, the NatWest Markets trader asked the UBS Europe SE trader "'*why do u only ever chat at auctions*[?]'" to which the NatWest Markets trader stated "'*its good to talk*.'" The NatWest Markets and UBS Europe SE traders then agreed to a price of +5, or 5 cents above the mid-price, for bonds maturing in 2016 and 2017, and then toward the end of the auction bidding window, at 9:53, the NatWest Markets and UBS Europe SE traders agreed to a price of +3, or 3 cents, above the mid-price. The traders then celebrated a successful auction, commenting "'*we all played it well we are all great and deserve 3 mil each*.'"

> [A]t 09:11, a RBS trader ([...]) asks: '*who doing 16's'*. A UBS trader ([...]) replies: '[...] [[...]]' and he asks: '*s*[w]*hich one u doing?*'. That RBS trader replies: '*16's and 17's'* and he asks that UBS trader: '*can you invite* [...] *on this chat*[?]'. Ten minutes later, he asks the UBS trader concerned ([...]): '*what you thinking of over bidding*[?]'. At 09:26, after also having been invited into the chat, the other RBS trader ([...]) asks him: '*why do u only ever chat at auctions*[?]'. That UBS trader replies: '*too shy*.' The first RBS trader ([...]) reminds him: '*its good to talk'*. At 09:27, a RBS trader ([...]) shares: '*iam paying plus 200 for 250ml*' and a UBS trader ([...]) discloses: '*going for 200mm 19s' 'plus 200 should do' 'I try plus 4-5*'. The same RBS trader speculates: '*my thoughts are they gonna tap again in dec and oct 19 may be there again so iam paying plus 2-3 ish not for very many at all'*. The

110 *Id*., ¶269.

> other RBS trader ([...]) says: '*think plus 5 the 16's and 17's'*. The other UBS trader ([...]) agrees: '*yeah, plus 5 should work'*. Ahead of the auction, at 09:32, a UBS trader ([...]) tells the group that he will only go +2 for 17s while a RBS trader ([...]) shares he has bid 101.10. The other RBS trader ([...]) discloses: '*63 and 74 for my 2 right now'*. They continue to update each other on their bids. A UBS trader ([...]) reveals he is '*03/03/05* [in] *19s*', while a RBS trader ([...]) discloses he is '*03*', and the same UBS trader reveals he is '*04-6'*. This discussion continues, and a few minutes before the closing of the auction bidding window, at 09:53, the same UBS trader reveals he is '*now 03'* while the same RBS trader replies: '*ye agreed'*. At 09:58, the same RBS trader comments: '*we all played it well we are all great and deserve 3 mil each'*.[111]

356. On February 3, 2010, traders from NatWest Markets, UBS Europe SE, and a Co-Conspirator in a chatroom aligned their bidding strategy ahead of a German bond auction. The NatWest Markets trader told the other traders that "'*all one price we can decide the price*'" and the traders continued to discuss specific pricing levels. After they agree to put in multiple bids at a price of the average, +2 and +4 over the mid-price, they congratulated each other on a successful auction, with the Co-Conspirator stating, '"*well done everybody*.'"

> At 08:15, the WestLB trader asks the RBS trader: *'What r u thinking on OB156s this morning?'* adding *'300m we r going for' 'mkt level may make overbidding a little more aggressive for a few players but I dont see most over paying too much on this one'*. The RBS trader replies: '*ok mate, i will take 500m with a price, havent thought about over bidding yet'*. They continue exchanging information on their overbidding levels and bidding strategies for the German EGB. At 08:23, the RBS trader informs: *'carry worth 1.8 cents'*. The WestLB trader shares: *'sec last time overbidding at 4c' 'think +3 could be enough this time...I go 4 cents 2 carry 2 overbidding'*. The RBS trader says: *'I go 4 cents 2 carry 2 overbidding'*. The WestLB trader replies: *'im gonna go some at avg and then +2 to + 4 i think' 'scaling the bids'*. The RBS trader says: *'all one price we can decide the price' 'but if you go for tail as well worth doing save some money'* to which the WestLB trader replies: *'kinda depends on how well we manage to get the hedge away'*. Closer to the auction, they update each other. At 09:35, the RBS trader says: *'still4 over mids'*. The WestLB trader confirms: *'yep' 'bond cheapened slightly so makes sense'*. The RBS trader says: *'yep' '91 right here'* and the WestLB trader says: *'yep' 'same' 'will be bidding for total 400m now'*. The RBS trader says: *'me 500m' '90 bid atm#'* and the WestLB trader discloses: *'i will do 150m at the avg' 'and rest at one price' '90 vs 10/11'*. At 10:03, after the auction, they congratulate each other on the results. The trader of WestLB says: *'well done everybody'*. The RBS trader

111 *Id*., ¶275.

> confirms: *'indeed apart from me trying to go from 100.88 to 188.87 for 500m' 'ended up paying 1 cent too much'*.[112]

357. On October 7, 2010, traders from NatWest Markets, UBS Europe SE, and a Co-Conspirator in the DBAC chatroom aligned their bidding for an upcoming French auction, including exchanging information on their bids, positions, and agreeing on their collective strategy at the auction. The competitors agreed on prices to bid at the auction, and then congratulated each other when their strategy worked, with the NatWest Markets trader stating, "'*well done everyone*.'" This reflects impermissible parallel pricing among competing banks:

> [A]t 06:27, the UBS trader says: *'so looking at* [an overbid in the region of] *that +12 +14'* and the RBS trader ([...]) joins in: *'how many you looking for?' 'im short 100m' 'might go for 200m'*. The UBS trader discloses that he is also short and that he will go for: *'prob 150 200'*, adding: *'so if we sort of near each other*.' The RBS trader replies '*defo 150 here most likely 200'*. The UBS trader then asks the RBS trader what he thinks of overbidding: *'+12 +14 gets it'* and the RBS trader agrees*:* 'should do*' 'i mean i think they do 4-5 10s, 2-3 26s and <1 bln 29s'* [I think they will auction 4-5 billion for the 10yr bond, 2-3 billion for the bond maturing in 2026 and less than 1 billion for the bond maturing in 2029]. The UBS trader then shares *'i am putting low bid in for 25mm 29s'*. A bit later, at 06:41, the UBS trader suggests that both UBS and RBS should account for a volume that could influence the outcome of the auction: *'if we 350 to 400mm should have a influence'*. Throughout the chat, the participants disclose their mid-prices and discuss the outcome of the auction. At 08:17, the other trader of RBS ([...]) says: *'hi for the 10yrs were thinking 6 cents overbidding, what you guys thinking pls?'*. The UBS trader replies: *'+ 6+7' 'yes' '26 28 mid 79/80' 'just gto hit at 20'*. The first trader of RBS ([...]) adds: *'these 29s might come a bit high no?'*. The UBS trader answers: *'yes small line' 'wat mid 26s now' '20 76/7' 'OR THAT 2 HIGH'*. The RBS trader says: *'that sounds at right got 18 here'*. The UBS trader discloses: '*70-71 12' 'WHAT MID* [...]*' '10 70-71'*. The RBS trader replies: *'13' 'bid 20' 'u?'*. The UBS trader says: *'20 22' 's[hould] be ok'*. After the auction, the RBS trader ([...]) concludes: *'low prints' 'well done everyone' 'got 29s at 53 for my order as well' 'bnp 600m 29s' 'no one else wanted them' 'looking at grib' 'that is sh!t' 'oh just realized they only filled him in 600 of an 800 order'*.[113]

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[112] *Id*., ¶282.

[113] *Id*., ¶297.

358. On October 13, 2010, in the DBAC chatroom, the traders from NatWest Markets and UBS Europe SE discussed their trading strategy and volumes for the Italian bond auction the next day, including disclosing their positions and agreeing on a strategy to inflate prices:

> At 14:52, the RBS trader ([...]) announces: *'i am going to be bidding these Italy tomorrow'*. The UBS trader confirms and asks for clarification: *'same' 'bidding them up u mean' 'or bidding them'*. The RBS trader clarifies: *'bidding em up'*. The UBS trader agrees: *'yea same' 'snow'*. The RBS trader is happy they work together: *'we will create bidding frenzy!'* and the UBS trader confirms: *'on them' 'yup'*.[114]

359. On February 3, 2011, traders from NatWest Markets, UBS Europe SE, Nomura International, and a co-conspirator in the DBAC chatroom discussed an upcoming French auction, including disclosing specific mid-prices, overbidding levels, and their bids and volumes. The traders celebrated their combined success at overbidding the auction, with the UBS Europe SE trader commenting, "'*nicely grouped we was*.'"

> [A]t 09:16, the UBS trader asks the other traders what mid they have for the OAT 23s on auction that day: *'what mid 23 france chaps' '49 81.2'*. The traders of WestLB, Nomura and RBS ([...]) immediately reply: *'45'. '48'. '43'* respectively. The Nomura trader then inquires on the level of overbidding: *'wat do u have to overpay for oat'*. The UBS trader replies with an estimate of: *'+ 8 >?'* (above the mid), whilst one trader of RBS ([...]) does not know yet: *'dunno' 'one sec'*. Another trader of RBS ([...]) provides his estimation based on past experience: *'not sure, normally when france widens into auction gotta bid 12yrs 10-15 cents higher, though last time the 26s were 3 cents, though no concession and they issued more than expected'*. The Nomura trader is grateful for this information: *'ta'*. Closer to the auction, at 09:41 and 09:42, the UBS trader updates the others of its bidding intentions: *'with 4 mid' 'iam probally gonna bid 56 for 100' '23s' '44'*, and the RBS trader ([...]) considers this a safe bid: *'yeah think that should be a safe bid here'*. From 09:46 until 09:50, the traders reveal their intended bidding levels, UBS: *'56 at the moment'*, Nomura: *'54 here' '52'* and RBS: *'53'* and at 09:59 the UBS trader concludes: *'54' 'final' 'nicely grouped we was'*.[115]

360. On February 14, 2011, traders from NatWest Markets, UBS Europe SE, Nomura International, and a co-conspirator in the DBAC chatroom discussed an upcoming Italian auction,

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114 *Id.*, ¶298.

115 *Id.*, ¶312.

including coordinating their auction bids and disclosing specific mid-prices. The UBS Europe SE trader asked the other traders about Italian BTPs, or Buoni del Tesoro Poliannuali, of five-year maturities ahead of the auction and the Nomura International trader eventually told him that they were overbidding by 10 cents. The NatWest Markets trader also asked how much the other traders were planning to overbid on the bonds maturing in 2040, with the UBS Europe SE and Nomura International traders responding +25 and +22, respectively:

> [A]t 08:03, the RBS trader inquires: *'any thoughts on the italy auction?'*. The Nomura trader replies: *'just always goes ok doesnt it wont cheapen up i dont think before' 'that said btps trade cheaper'*. The UBS trader adds: *'whats ur guys think about the 5 yrs' 'btps'*. The RBS trader has: 'no idea', but the Nomura trader states that: *'he thinks its cheap with the bonds about it'*, for which view the UBS trader says: *'ok thanks'*. The discussion continues on the overbidding. The RBS trader inquires: *'how much u thinking about over bidding on the 40s? 25 cents?'*. The UBS trader replies*: 'yes' 'bang on can uu ask ur 5 yr guys what they over bidding'*. The Nomura trader informs: *'10'*, for which the UBS trader is grateful: *'ta'*. The RBS trader confirms: *'yeah think around the same here, their not 100% sure yet'* '[...], [...] *what u guys over bidding on these longs pls'*. The WestLB trader informs: *'we r not involved'*. The traders of UBS indicates: *'25'* and the Nomura trader indicates: *'22 they saying'*. The RBS trader is content: *'cheers'*. The UBS trader updates: *'26 was our top bid' 'and 59 in 5 yrs'*. The trader or RBS says *'we bid 25'*.[116]

361. On February 17, 2011, traders from NatWest Markets and Nomura International in the DBAC chatroom aligned their overbidding in advance of the Spanish auction, agreeing to bid 15-20 cents above the mid-point for the bonds.

> At 07:50 the RBS trader asks: *'what we thinking about overbidding on this spain?'* and the UBS trader replies: *'we not primary' 'not sure how they come'*. The Nomura trader adds: *'we normally do a bp appearently here from the mid'* and the RBS trader confirms: *'cheers, we are thinking he same, 15-20 cents'*.[117]

362. On May 3, 2011, traders from NatWest Markets, UBS Europe SE, and Nomura International in the Cods & Chips chatroom discussed an upcoming Austrian auction 9:00 a.m. for

[116] *Id.*, ¶314.

[117] *Id.*, ¶316.

bonds maturing in 2026. The traders agreed on their overbidding levels at the auction, agreeing to bid 20 cents above the mid-point for the bonds.

> [At] 8:16 . . . [t]he RBS trader inquires: *'what we thinking overbidding for these 26s?'*. The Nomura trader replies: *'that's my bid at 82' '20 cents for 26 s?'*. The UBS trader confirms that this: *'sounds about right'* and the RBS trader confirms: *'yeah'*. About thirty minutes later the RBS trader says that he missed by one cent, and the trader of UBS replies that he got: *'10mm'*.[118]

363. On May 5, 2011, traders from NatWest Markets, UBS Europe SE, and Nomura International in the Cods & Chips chatroom discussed the upcoming auctions for Spanish and French bonds, including overbidding levels and aligning their bids in advance of the auction. Following the auction, the traders celebrated their success, with the NatWest Markets trader confirming '"*that auction came right where we wanted it around that .10 level*.'"

> [A]t 07:22, the UBS trader inquires: *'what we over paying for 26s' '8-10' 'or more'*. The Nomura trader replies: *'10 is what they saying iam plus 8 for the ten years'*. The UBS trader responds: *'ok' 'longs trade shite do you reckon not many 32s more 26s.?'*. The RBS trader acknowledges: *'feels it'*. The UBS trader suggests: *'maybe 8' 'gets some 26s' 'as well'*, to which the RBS trader replies: *'yeah think that's about right' 'I don't want to miss'*. The UBS trader adds: *'yeah I am short 100'* and the RBS trader informs: *'short abt 80'*. The UBS trader reveals *'think iam gona go +12 +10' 'last one came rather high'*. The RBS trader responds: *'I'm thinking there isn't as much demand this time around' 'but I'm thinking people nervous abt last time'*. The traders of UBS and Nomura agree. A bit later, at 08:04, the UBS trader again inquires: *'17/18 11 mid 26s' '?'*. The Nomura trader replies: *'12'* and the UBS trader thanks him: *'ta'*. The RBS trader updates: *'11'* and the UBS trader says: *'what we think + 10' 'or + 12'*. The Nomura trader confirms '*12*'. At 08:42, the discussion is again about the overbidding. The Nomura trader asks: *'what u guys overpaying in ten years'*. The UBS trader says '*7*'. The Nomura trader explains: *'ye iam a bit higher missed last one' 'well if we get them that worked well'*. The UBS trader updates: *'20 18 17' 'my bids in 26s'*. The RBS trader adds: *'20 bid'*. At 08:57, the UBS trader asks RBS: *'what u do in 26s* [...]'. The RBS trader replies: *'20' 'and what you guts pay 32s?'*. The Nomura trader adds*: '30'*. The UBS trader says: *'13 low' '17 ave' 'did less 26s and more 32s' 'strange eh'*. Afterwards, they discuss what appears to have been a successful auction. The RBS trader comments: *'man that auction came right where we wanted it around that .10*

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118 *Id.*, ¶327.

> *level'*. The Nomura trader agrees: *'was perfect fuking made some money for a change'*. The UBS trader comments: *'was bang on' 'dun me cods yesterday'*.[119]

E. Chats Contained in the Commission Decision Showing the Exchange of Confidential Proprietary Price, Client, and Trade Information Among Competitors Are Further Evidence of Defendants' Scheme to Fix Prices

364. On January 5, 2007, the first day of operation of the Cods & Chips chatroom, traders from NatWest Markets, UBS Europe SE, and ABN Management Services Limited communicated for the entire workday, sharing spreads and mid-prices for various European Government Bonds. The NatWest Markets trader asked the spread for Italian European Government Bonds maturing in 2037 and his competitor at ABN Management Services Limited responded, "'*we got 37.75*.'" The NatWest Markets trader replied "'*ok*'" and stated that he is "'*just gonna make it*,'" meaning he will be able to use the price information for the upcoming Italian European Government Bond auction:

> [A]t 08:46 the RBS trader enquires: '*wat spread 37/37 italy?*' and the UBS trader promptly replies: '*37/5*' '*?*'. A few seconds later the ABN-AMRO trader further complements: '*we got 37.75.*' The RBS trader quotes: '*ok cheers just gonna make it.*' At 13:36, the ABN-AMRO trader asks the mid-price for a (probably Italian) bond maturing in 2037: '*mid 37s?*' to which both the traders of UBS: '*47 49*', and RBS: '*47*', immediately respond. The ABN-AMRO trader expresses his gratitude to the other two participants for providing him with the relevant information and adds: '*just checking our pricer.*'[120]

365. On January 10, 2008, in the Cods & Chips chatroom, traders from NatWest Markets and UBS Europe SE coordinated to protect the BANA trader, despite being competitors. The BANA trader asked the co-conspirators to "'*turn 37's off lads*,' meaning to stop trading in the 37s bond." Both traders replied "'*off*' and [the] Bank of America trader thanks them."[121] Absent an

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[119] *Id.*, ¶328.

[120] *Id.*, ¶102.

[121] *Id.*, ¶144.

agreement to fix prices, the traders would have no incentive to refrain from bidding because doing so would have placed them at a competitive disadvantage relative to their competitors.

366. On October 3, 2008, in the DBAC chatroom, the NatWest Markets and UBS Europe SE traders recapped their week and congratulated each other: "[a]t 15:18, the NatWest Markets trader congratulates the UBS Europe SE trader on his trading by saying: '*well done*.' The UBS Europe SE trader immediately responds: '*how the fuk we keep doing this'* and later at 15:50 he adds: '*wat a week.*'"

367. Before the congratulations are doled out, the full DBAC chatroom transcript shows that the UBS Europe SE trader [redacted]

<u>October 3, 2008</u>

<u>UBS Europe Trader</u>: [redacted]
<u>Natixis Trader</u>: [redacted]
<u>UBS Europe Trader</u>: [redacted]
<u>UBS Europe Trader</u>: [redacted]
<u>UBS Europe Trader</u>: [redacted]
<u>Natixis Trader</u>: [redacted]
<u>Natixis Trader</u>: [redacted]
<u>UBS Europe Trader</u>: [redacted]
<u>Natixis Trader</u>: [redacted]
<u>NatWest Markets Trader</u>: [redacted]
<u>NatWest Markets Trader</u>: [redacted]
<u>NatWest Markets Trader</u>: [redacted]
***
<u>UBS Europe Trader</u>: [redacted]

UBS Europe Trader: [redacted]

NatWest Markets Trader: [redacted]

368. On November 10, 2008, traders at Natixis, NatWest Markets, and UBS Europe SE coordinated prices and trading strategies for Italian and French bonds, then discussed an upcoming Italian bond auction that would occur on November 13, 2008. Later, the traders discussed what mid-prices to show to a specific client:

> At 13:15, the Natixis trader asks the group if anyone is interested with regards to: *'a seller of 50m BTP27 v Jul28'* and then adds: '*not the lovliest of trades' 'let me know if either of you guys gets asked to quote it*'. The UBS trader replies: '*ok*' and the RBS trader responds: '*havent, what spread u show out of interest' 'i will show same.*' The Natixis trader then discloses his spread: *'71.66bp i showed*' *'see it 68 mid so bit cheeky but really think i will find no int 2 days ahead of 30y btps'*, suggesting there will be no interest two days ahead of the auction. The RBS trader responds: *'yup got 67 mid but hey' '2 v difficult bonds'* and the Natixis trader adds: *'it's got buttfuk written all over it'* and the RBS trader agrees. Minutes later the Natixis trader asks about the spread between Italian and French bonds: *'where we got btp23 vs oat23?'*. The UBS trader replies: '*99.30 98.77'* and the Natixis trader says: *'ok'* '*bout same'*. At 13:37, the UBS trader comments on other traders buying Italian bonds: *'chimps lifting 37 btp'*. The Natixis trader adds a comment on Italian BTPS 27s: *'got no feedback on the btp27s so he prob did it away'*. Later, at 14:24, the traders discuss what mid-prices to show to a client (nicknamed '*oil*'). The UBS trader says: *'btp 23s'* '*oil asking' 'wat mid'*. The Natixis trader reveals: '*39*' and the UBS trader states: *'same ok'*. The trader of Natixis then asks: '*which way is he on those* […]*?*' and the trader of UBS replies: *'no idea said id be a small buyer'*. The Natixis trader suggest to wait and see what happens : '*pk' 'see if he comes back'*.[122]

369. On November 13, 2008 – the day of the auction – before the auction window closed at 10:00 local time, traders from NatWest Markets and UBS Europe SE exchanged confidential information about their respective mid-prices, volumes, and overbidding levels to coordinate their bidding for the Italian auction:

> [A]t 09:21, the RBS trader asks: '*what we bidding*' *'overbidding for Italy?*' to which the UBS trader replies: *'fuk knows today' 'lets sey our mids' 'set'* and discloses his pricing: *'83.02' '96.81' 'I had 54/55*'. The RBS trader also discloses

[122] *Id.*, ¶215.

> his prices: '*83*' '*96.84*' '*so close enough*'. At 09:25, the UBS trader reveals: '*offerd at*' '*my mids now*' to which the RBS trader replies: '*i don't think im really bidding to get 37s*'. The UBS trader then discloses that: '*iam bidding to get 20mm of those* (that is 37s)' '*and 57mm*' '*39s*' and asks: '*what u thing +12*' '*or is that 2 low*'. The RBS trader ironically replies: '[…] *off the desk but we are buying them all again please delete*' '*joe king*'. Just before the auction closes, the Natixis trader is happy with the result, and after the auction, when they compare what each of them got, they all seem to be content with the positive outcome. At 09:59, the Natixis trader comments: '*this is the perfect auction*' '*mkt trades lower, curve steepens, btps cheapen*' '*being an Italina PD is easy eh?*' and the RBS trader replies: '*mofos still offering Italy tho!*' '*and ive done my cods again today!*'. The Natixis trader adds: '*all gone bid now*'. Shortly after the cut-off time, the traders disclosed to each other what they bid in the auction, although results are only communicated thirty to forty five minutes after the closing. At 10:21, the UBS trader discloses to the Natixis trader: '*96.40*' '*39s*' and that he got his allocation of Italian bonds maturing in 2037. The UBS trader shares: '*1.5 yrds*' '*1.4 odd*' '*so given full amount*'. At 10:47 the Natixis trader comments: '*perfect auction*' '*mkt higher, curve flatter, btps tighter*' '*easy*'. The UBS trader asks: '*how many u buy*' and the RBS trader replies: '*70m 39s*'.[123]

370. On June 8, 2009, in the DBAC chatroom, traders from Natixis, NatWest Markets, and UBS Europe SE shared mid-prices ahead of upcoming Spanish and Portuguese bond auctions:

> At 06:33, the UBS trader asks the other traders what mid-price they have for Spain 37s and the Natixis trader replies he has 89.54 for 37s and 97.70 for 39s. Later that day, at 15:59, the Natixis trader asks a RBS trader ([...]) where he is bidding Portuguese bonds to which the RBS trader responds: '*i am bidding port 18 now*' '*101.10*'. The Natixis trader, then, shares: '*i got 100.42 mid on my system*' and the UBS trader indicates: '*100.50 mid, we got those*'. That RBS trader adjusts his price to 100.38 ('*38*').[124]

371. On October 16, 2009, traders from NatWest Markets and UBS Europe SE in the DBAC chatroom, which was renamed Cods & Chips, discussed specific prices for French OATS, or Obligations Assimilables du Tresor, maturing in 2021 and Dutch European Government Bonds maturing in 2040 and 2041, including coordinating pricing to protect another co-conspirator, sharing their mid-prices and spreads, and aligning their bidding strategies. After a request from

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123 *Id.*, ¶218.

124 *Id.*, ¶249.

the NatWest Markets trader, the UBS Europe SE trader agrees not to put any bids on the French bonds. Absent an agreement to fix prices, the traders would have no incentive to refrain from bidding because doing so would have placed them at a competitive disadvantage relative to their competitors.

> [A]t 08:17, the RBS trader tells the UBS trader to refrain from hitting French OAT21s on screens: '*keep to urself' 'dont touch yet' 'but just bid 300m oat21s.*' The UBS trader says '[o]*k*' and asks what the RBS trader bid, to which the RBS trader replies: '*21 with 10/1'* but someone else bought them at a higher price: '*now they seem bid' 'guy that git hot* [got hit] *prob bidding them up*.' About 30 minutes later, the RBS trader complains that he never managed to buy back the 21s which he is short of: '*sold fuking 12s and 10s against those 21s' 'never got em back*.' The UBS trader asks if he wants him to destroy the 21s: '*u want me to smash them : -)'*. A few minutes later, the RBS trader tells the UBS trader he can now start trading the 21s on screen (the bond he told the UBS trader '*not to touch'* at 08:17): '*you can hit 21s now if you like i think its been long enough*.' They also exchange their mid-prices: at 13:09 for EGB maturing in 2041 and half an hour later again for EGB maturing in 2040.[125]

372. On October 20, 2009, traders from NatWest Markets and UBS Europe SE in the DBAC chatroom, which was renamed Cods & Chips, agreed to specific prices for German "bunds" in the secondary market. "[T]he trader of UBS discloses at 11:27 that he is offering 30mm 37 bunds at a price of 93, the RBS trader replies that he is doing the same but at a price of 94."[126] By exchanging this type of information, the traders at NatWest Markets and UBS Europe SE were able to align their positions and prices in the secondary market for European Government Bonds to the detriment of their customers in the market, including Plaintiffs and the Class.

373. On November 2, 2010, traders from NatWest Markets, UBS Europe SE, and a co-conspirator in the DBAC chatroom discussed trading German bonds in the secondary market, with

[125] *Id.*, ¶271.

[126] *Id.*, ¶272.

the trader at NatWest Markets agreeing to withdraw an offer for a German bond to help the UBS Europe SE conspirator:

> At 10:09, the UBS trader says: *'bund' 'not much else going through.'* The RBS trader ([...]) adds: *'going to be bidding some longs' 'in belly' '31s' 'my offer.'* The UBS trader says: *'FUK iam long those' 'many.'* The RBS trader offers: *'oh shit' 'sotty I will pull my offer' '50m.'* The UBS trader says: *'bid em afterwards.'*[127]

Absent an agreement to fix prices, the traders would have no incentive to pull their offer because doing so would have placed them at a competitive disadvantage relative to their competitors.

374. On October 12, 2011, traders from NatWest Markets, UBS Europe SE, Nomura International, and UniCredit Bank AG in the Cods & Chips chatroom aligned and shared their bids before and during a German bond auction:

> [A]t 08:57, the Nomura trader inquires: *'what overpaying?'*. The traders of UBS and UniCredit disclose they are bidding small at an average price: *'im just bidding small at avg' 'same here I think'*. The Nomura trader discloses his overbid: *'plus 25 then'* and the RBS trader indicates that he has placed staggered bids: *'I am paying +25 for part and + 15' 'think it comes cheaper'*. As a reaction, the UniCredit trader aligns and discloses: *'ive put a few low bids in in case it clears lows'*. The Nomura trader still asks: *'whats plus 25 from mid?'* and wishes them: *'good luck'*. After the auction, the UniCredit trader discloses: *'mid 108.58 I had'*. The UBS trader discloses: *'we had 65' '50 low 70 avg' 'poo'*. The RBS trader admits: *'I overpaid big' 'I don't give a shit I wasn't going to miss'*. The Nomura trader congratulates him: *'well done'*.[128]

F. Chats Contained in the Commission Decision Prove that Defendants' Traders Were Obligated to Conceal and Contribute to Their Agreement to Fix Prices and Share Information in the European Bond Market

375. In order to stay in the chatroom and receive valuable pricing information from their competitors, traders in the DBAC and Cods & Chips chatrooms were expected to continue to share such information regularly. On September 9, 2010, a trader from NatWest Markets added a

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127 *Id.*, ¶301

128 *Id.*, ¶345.

colleague to the DBAC/Cods & Chips chatroom. The NatWest Markets trader stressed the importance of adding value to the chatroom and the exclusive nature of the chatroom.

> At 14:39, [the RBS trader] asks the other members in the chatroom: *'you guys mind if I put* [...] *on this chat?'*. The UBS trader ([...]) reacts: *'course not'* '[...] *who.?'*. The RBS trader explains: *'he's a very honest guy'* '[...]' *'he's the guy working w me on longs'*. The UBS trader agrees*: 'yea add him on'*. The new trader is added and the RBS trader explains to him: '[...] *these are a couple guys in the market that work on 30yrs' 'we just try to help each other when we can'*. The new member says: '*hi, chrs for the invite'*. At the request of the UBS trader, the name of the chatroom is changed at 15:02: '*we need a new header' 'really guys' 'don't we cods and chips for ages' 'gotta think of an idea first' 'yup' 'dbac' 'there you go*'.[129]

376. On June 1, 2011, traders from NatWest Markets, UBS Europe SE, Nomura International, and a co-conspirator in the Cods & Chips chatroom discussed the importance of monitoring the chatroom and maintaining secrecy among the co-conspirators. When another trader from Nomura International was added to the chatroom, he stated that "'*anything said on this chat stays with me*.'"

> At 10:39, the RBS trader ([...]) asks: *'who is administrator can you add* [...] *to the chat?'*. Another trader of Nomura ([...]) replies: *'its like adding [...]'*. The RBS trader responds: *'ok he asking me to be on just to chat but up to you'*. A trader of UBS ([...]) explains: '[...] *you created the chat' 'button is by the title' 'oh you worried about poacher/gamekeeper'*. The RBS trader asks: *'my edit room button seem to have disappeared' 'but its up to* [...] *anyways' 'if he has an issue we cant add'*. The UBS trader agrees: *'Tru'*. The Nomura trader has no objection to adding his colleague: *'iam joking u nob'* and at 11:35, the new trader of Nomura ([...]) is added to the chatroom and comments: *'NOW MY LIFE IN COMPLETE AGAIN'* and promises that: *'anything said on this chat stays with me'*.[130]

377. On November 6, 2009, traders from NatWest Markets, UBS Europe SE, and a co-conspirator in the DBAC chatroom discussed the importance of keeping their chatroom communications private, especially from a trader at a French bank. Specifically, "at 08:22, the UBS trader says: '*he know bout us chats' 'so we keep it a bit qui*[e]*t*.'"[131] By keeping the

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[129] *Id.*, ¶294.

[130] *Id.*, ¶331.

[131] *Id.*, ¶276.

conspiracy a secret, the traders were able to continue to exchange non-public information for their collective benefit and the detriment of those outside of the conspiracy.

378. As early as January 29, 2007, traders from NatWest Markets, UBS Europe SE, and a co-conspirator bank in the Cods & Chips chatroom were concerned about the chatroom's secrecy after admitting the BANA trader, joking they would "*cut his balls . . . if things get out*":

> At 08:27 a trader of ABN-AMRO ([...]) asks the other participants in the chatroom at that time: '[…] [BANA trader] *wants to know if everyone is cool if he's on the chat*' One trader of RBS ([...]) agrees on the condition that '*as long as* [...] [Bank of America], *doesn't see it thats a must*'. The other trader of ABN-AMRO ([...]) confirms: '*i agree'*. The UBS Europe SE trader ([...]) is a bit reluctant: '*yea it nerves me a bit*'. The RBS trader ([...]) intervenes by quoting: '*sounds like a no then to me*'. The ABN-AMRO trader summarises: '*i'm quite happy as long as* [...] *isnt getting anything*'. The RBS trader ([...]) maintains that: '*the problem with that is we cant control when* [...] *is off the desk*', to which the ABN-AMRO trader ([...]) replies: '*i guess* [...] *needs to provide the answers to that*'. The RBS trader ([...]) informs the others that he already: '*told* [...] *i dont mind as long as* [...] *does not see it and even. we shud ask him to log out when he off desk*'. The ABN-AMRO trader ([...]) approves: '*sounds good to me*'. The UBS Europe SE trader ([...]) provisionally agrees to: '*go with it if things get out we ll sooon know*'. A few minutes later the ABN-AMRO trader and administrator of the chatroom ([...]) seeks confirmation: '*so i am putting* [...] *on or no' '? he is asking*'. The UBS Europe SE trader ([...]) confirms: '*sure but we ll cut his balls' 'if things get out" ':-)*'. The RBS trader ([...]) also confirms and concludes: '*fine as long as* [...] *doesn't see it and when hes away from desk he logs out thats fair and no chance if* [...] *tries to fuk us*'. The Bank of America trader is admitted to the chatroom and he says: '*Don't worry will close the chat if I am off the desk, nothing goes out*' to which the RBS trader responds '*we are watching u*' and the UBS trader adds '*big brother*'.[132]

G. The Commission Found that Bank of America's European Bond Trading Was Primarily Conducted Through Subsidiary Merrill Lynch International

379. Finally, the Decision also found a link between the European Government Bond trading activities of affiliated Defendants Bank of America and MLI, explaining that, "[f]ollowing the merger between Bank of America and Merrill Lynch in 2008, EGB trading was primarily

132 *Id.*, ¶104.

conducted within the EGB desk of Merrill Lynch International, a subsidiary of the merged bank."[133] This finding established that the Bank of America conduct charged by the Commission was undertaken by the same desk whose European Government Bond bid-ask spreads narrowed by 39.27% between 2012 and 2013. *See* Figure 12, *supra*.

380. The Commission's specification that "EGB trading was ***primarily*** conducted within the EGB desk of Merrill Lynch International" further clarified that the business was not housed exclusively within MLI from 2008 on. Rather, these affiliates carried on the European Government Bond business together as part of Bank of America Corporation's Global Banking and Markets business segment, with MLI serving as a primary dealer, and both transacted European Government Bonds directly with Plaintiffs.

VII. ECONOMIC ANALYSES ARE CONSISTENT WITH THE EUROPEAN COMMISSION'S FINDINGS THAT DEFENDANTS CONSPIRED TO FIX EUROPEAN GOVERNMENT BOND PRICES

381. Consistent with the European Commission's findings, Plaintiffs have uncovered statistically significant evidence of collusion among Defendants and their co-conspirators in both the primary and secondary markets for European Government Bonds.

A. Defendants and Their Co-Conspirators Rigged European Government Bond Auctions in Their Favor

382. Plaintiffs uncovered anomalous pricing in the European Government Bond market around auctions during the Class Period by analyzing the price of French and Italian 10-year bonds. This analysis showed that primary dealers abused their market share to control the supply (and thus the price) of newly issued European Government Bonds in the secondary market by coordinating their bidding in government-run auctions.

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133 *Id.*, ¶54 n.46.

383. French and Italian 10-year bonds are among the largest Eurozone government debt offerings by size of outstanding debt. In 2012, France and Italy had 23% and 24% of the total outstanding debt in the Eurozone, respectively. Together, France and Italy constitute nearly half of the 10-year maturity sector in the European Government Bond market.

Figure 6 – Outstanding Government Debt Percentage in the Eurozone

Country	Government debt in percentage
Germany	25%
Italy	24%
France	23%
Spain	9%
Belgium	5%
Netherlands	5%
Other	9%
Total	**100%**

384. The 10-year maturity is used as the benchmark in the Eurozone and is also the most liquid in the European government debt market. As the most liquid maturity of European Government Bonds, the 10-year bond market is the most difficult to manipulate.

385. Plaintiffs' allegations and claims are not limited to collusion in France and Italy, but include all Eurozone countries during the Class Period. The allegations relating specifically to France and Italy are merely illustrative. The other Eurozone countries hold similar auction processes organized by a central debt management office, in which only a small and select group of primary dealers participate. The incentives and privileges offered by other Eurozone countries to primary dealers for achieving a high ranking are the same or similar to the incentives offered by France and Italy, as discussed above. And the bonds of other Eurozone countries are traded by the same trading desks of Defendants to the same customers using the same platforms.

386. Plaintiffs' analysis started by converting the price of each bond traded in the "when-issued" market – where Defendants and other dealers can trade bonds in advance of their issuance

– from percentage price terms (*e.g.*, 101.05%) to reflect its Yield-To-Maturity (or "YTM"). A bond's YTM reflects the total return on that bond if it is held to maturity as an annual percentage (*e.g.*, 4.73%) and allows bonds to be compared on an apples-to-apples basis with each other.

387. Next, Plaintiffs examined the market behavior for each of the more than 150 Italian and French 10-year bond auctions during the Class Period around the specific auction time.

388. Figure 7 below is an example showing the evolution of the YTM before, during, and after an auction for one of the 10-year Italian bonds in the sample. On the plot, the series (1) represents the market yield of the bond with ISIN IT0004164775, coupon of 4%, which was auctioned on June 11, 2010. The timescale is two days: the day preceding the auction (5) and the day of the auction (6). The plot shows the yield at which the bond was auctioned as the horizontal line (2), and the vertical line (3) marks the exact time of the auction. Additionally, (4) denotes the market yield of the bond at the time it is being auctioned, which is referred to as "Market Yield" on the graph (3.391), and subtracting this from (2), the "Auction Yield" (3.32), results in the difference between the two (-0.071).

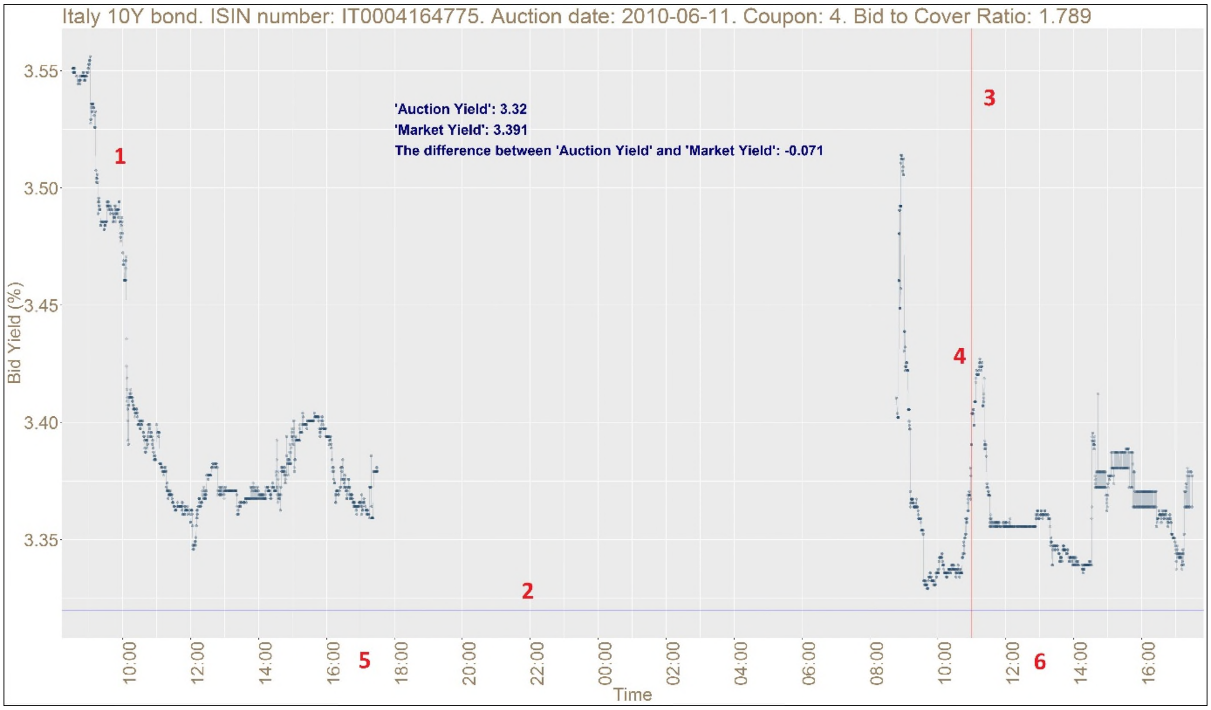


Figure 7: Evolution of yield for an Italian 10-year bond

389. As Figure 7 shows, when trading begins at 8:00 a.m. on the auction day, the YTM for this bond is significantly higher (meaning the price is lower) than the day before. The YTM then suddenly begins to drop and prices rise until around 10:00 a.m. when there is a sudden change in direction in the hour prior to the start of the auction. Despite this reversal, the Auction Yield is significantly below (meaning the price is higher than) the fair market value for that bond in the when-issued market.

390. Identical, anomalous market behavior was also observed around auctions for 10-year French government bonds, as illustrated by Figure 8 below.

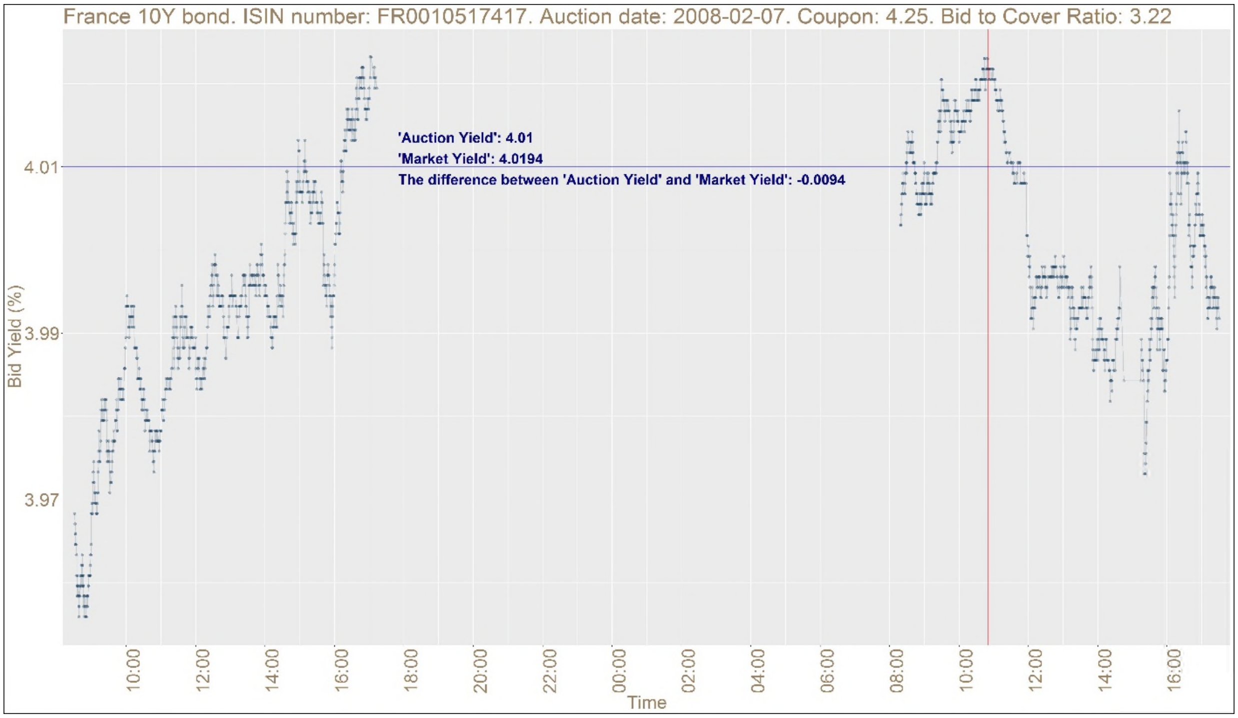


Figure 8: Evolution of yield for a French 10-year bond

391. The observations in the examples above were not the product of any change in macroeconomic conditions affecting European Government Bond markets generally. These movements were specific to these bonds.

392. This pattern in which primary dealers act against their short-term economic self-interest by overbidding for European Government Bonds occurred in the vast majority of the more than 150 Italian and French 10-year bonds auctions during the Class Period and is consistent with a conspiracy to rig the auction process so that Defendants and their co-conspirators can control supply to the secondary market by receiving a dominant share of the newly issued bonds.

393. Defendants profit from this conspiracy in at least two ways. First, as Figures 7 and 8 show, following the auction, bond prices increase considerably (and yields decrease), as the YTM moves past the Auction Yield and prices remain higher throughout the trading day. Significantly, this price increase is highly correlated with the amount Defendants and their co-conspirators overbid during the auction. Thus, by coordinating bids during the auction to

guarantee they receive a high allocation of these newly issued bonds, Defendants and their co-conspirators profit by selling those bonds at artificially inflated prices reflecting the amount they overbid during the auction to investors in the secondary market.

394. Second, as explained above, Defendants and their co-conspirators generate additional illicit profits by working together to maintain or increase their performance rankings, which in turn, determine their eligibility for additional business from the issuers. This presents a win-win situation for Defendants and their co-conspirators, notwithstanding the high cost of submitting inflated bids at the auctions: profits immediately following the auction and long-term gains from additional business awarded as a result of their ranking.

395. While the charts above present individual examples, this same pattern is observed in aggregate across the different 10-year French and Italian bonds auctioned during the Class Period. For this analysis, Plaintiffs compared the prevailing market YTM for each bond at the time of the auction to the prevailing market YTM at seven different points during the day of the auction and previous trading day.

396. Figure 9 below displays these results for all 10-year Italian bonds issued during the Class Period.

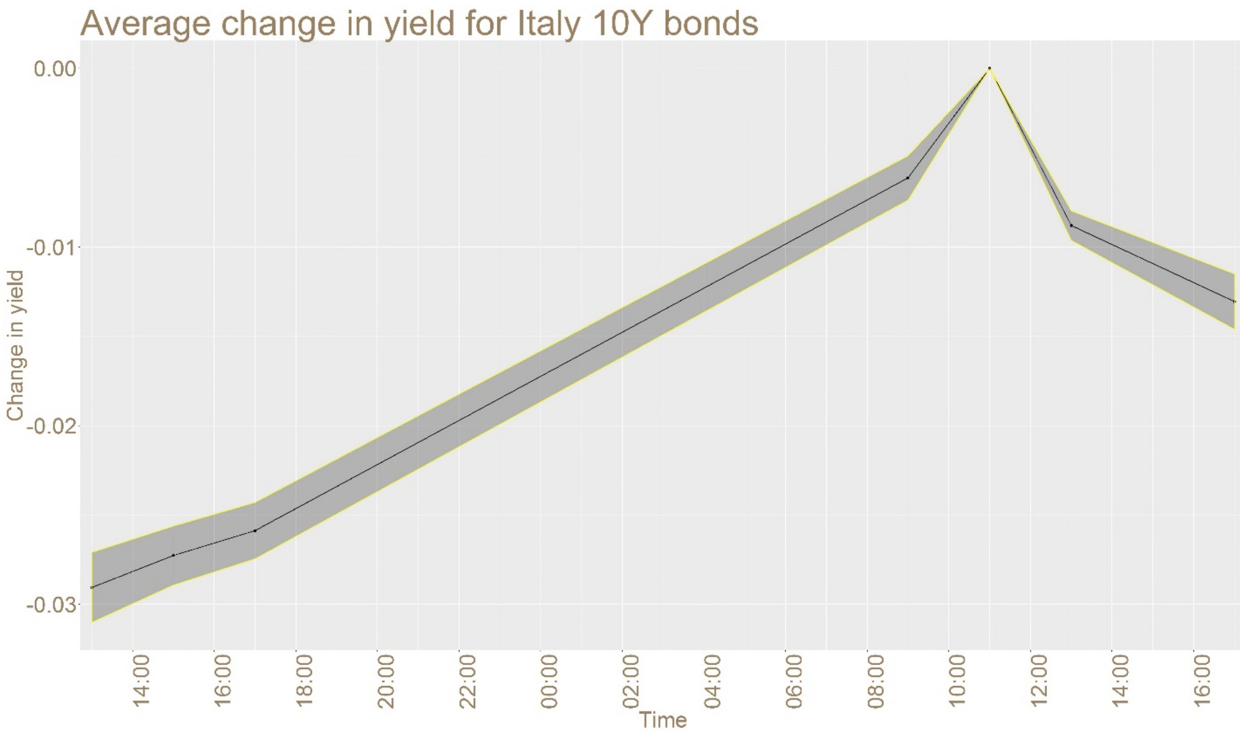


Figure 9: Evolution of X_t for Italian 10-year bonds

397. As Figure 9 above shows, there is a sharp reversion following the auction in which the average YTM for 10-year Italian bonds retraces back to where it was before the auction. This is indicative of collusion because, if the price established by the auction truly reflected the fair market value of that bond, then the sharp inverted "V" pattern would not be observed.

398. Figure 10 below, which depicts the French bond market, shows the same reversion pattern seen in the 10-year Italian bonds.

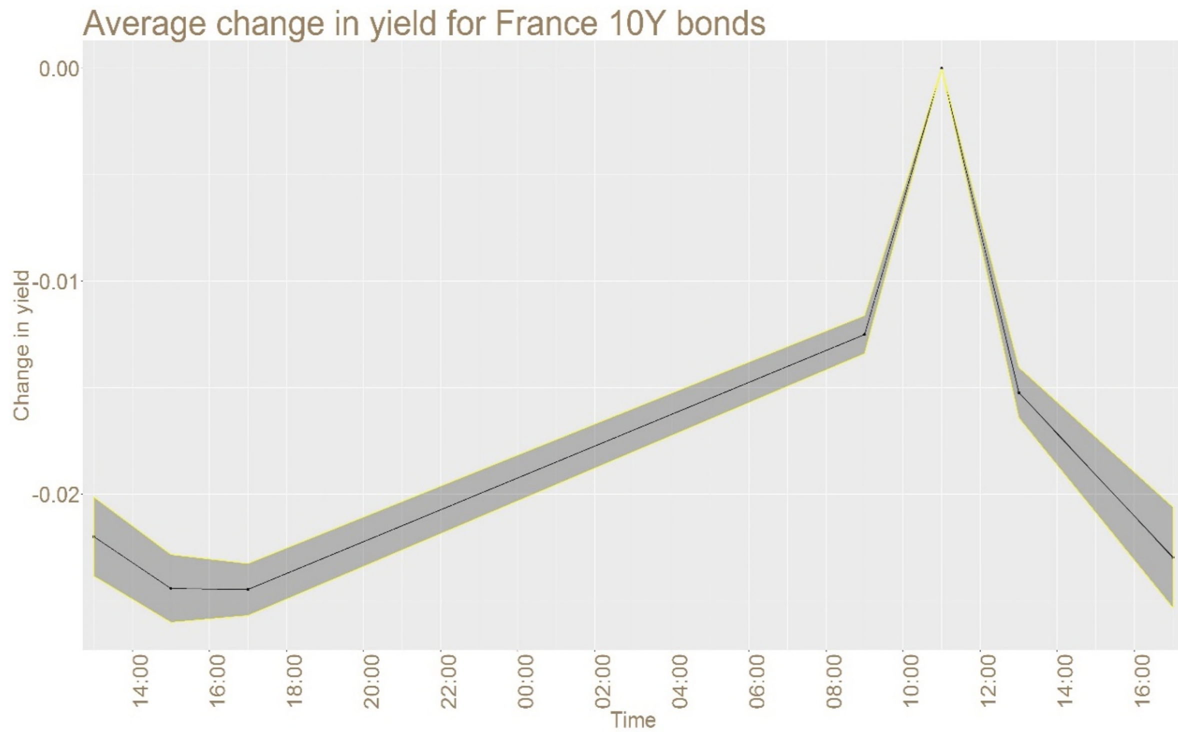


Figure 10: Evolution of X_t for French 10-year bonds

399. As explained above, this reversion pattern is not what is expected in a competitive market and indicative of collusion because, if the price of 10-year French bonds at the time of the auction were the fair value, then a mean-reversion in yield/price immediately after the auctions would not be observed.

400. Defendants' manipulation of European Government Bond auctions artificially raised the auction-clearing prices. The auction-clearing price sets the benchmark price for the newly issued ("on-the-run") European Government Bond trading in the secondary market after the auctions. Accordingly, as a direct result of Defendants' manipulation of the European Government Bond auctions, investors, including Plaintiffs and Class members, purchasing European Government Bonds post-auction paid supracompetitive prices for their European Government Bonds.

B. Defendants Conspired to Fix Bid-Ask Spreads in the Secondary Market

401. Defendants' conspiracy was not limited to restraining the European Government Bond market in and around auctions. As noted above, the European Commission's Statement of Objections found that Defendants' conspiracy involved ***both*** acquiring ***and*** trading European Government Bonds. Plaintiffs identified statistical evidence consistent with Defendants' conspiracy to fix prices in the secondary market.

402. Defendants' collusion in and around auctions depended on their ability to also restrain the secondary market because primary dealers, including MLI, Natixis, NatWest Markets, Nomura International, UBS Europe SE, UniCredit Bank AG, State Street, Citigroup Global Markets Limited, JP Morgan Securities, and Jefferies International, are also responsible for generating profits from their primary dealerships by collecting trading revenues from customers in the secondary market. For their European Government Bond business to be profitable, each Defendant needed to, and did, recoup the costs of colluding in the European Government Bonds auctions by charging collusively set and artificially inflated prices to investors in the secondary market.

403. Offsetting the costs of participating in auctions by charging fixed prices in the secondary markets was especially important for the Primary Dealer Defendants' traders because their compensation and advancement was based in substantial part on trading revenues. Moreover, charging supracompetitive prices to customers in the secondary market became increasingly important to Defendants during the middle of the Class Period, when European governments began issuing record amounts of bonds that Defendants were required to absorb in inventory to fulfill their obligations as primary dealers. *See* Part VIII, below.

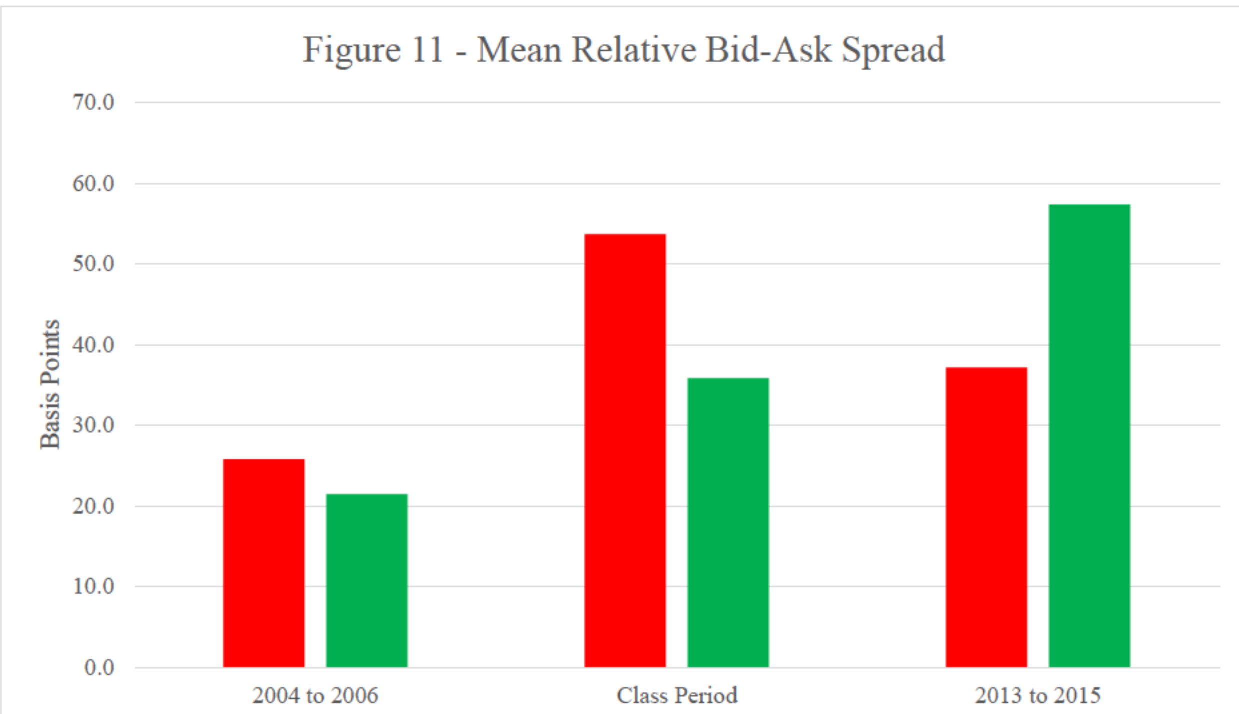
404. Plaintiffs analyzed all available price quotes for European Government Bonds issued by Italy during the Class Period for which it was possible to identify the dealer who supplied the quote. Plaintiffs selected European Government Bonds issued by Italy for several reasons.

405. ***First***, the data for European Government Bonds issued by Italy was especially robust, containing more than one billion individually identifiable price quotes. This is likely due to the Italian Treasury's implementation of certain transparency measures over Defendants' concerted objections, namely a mandatory post-trade reporting system that collected information about secondary market bond transactions. As discussed below, Defendants' joint lobbying efforts successfully defeated numerous other similar pro-transparency measures proposed by other countries and the European Union during the Class Period. As a result, publicly available data for European Government Bonds issued by other Eurozone members is much more limited, and in most cases, anonymous.

406. ***Second***, seven Defendants are primary dealers of Italian government bonds. The remaining Defendants also actively quoted prices to investors for European Government Bonds issued by Italy during the Class Period from their respective European Government Bond trading desks, along with European Government Bonds issued by other Eurozone countries. Accordingly, the data included millions of price quotes specifically attributable to each Defendant (except for State Street) during the period covered by the analysis, *i.e.*, January 1, 2004 through December 31, 2015. This made it possible to reliably compare Defendants' pricing behavior to that of other dealers for European Government Bonds issued by Italy, providing a sound basis for measuring the impact of Defendants' conduct on prices paid by European Government Bond investors during the Class Period.

407. Plaintiffs began their analysis by adjusting the bid-ask quotes in the sample to account for the different amounts of bonds (*e.g.*, €100,000 vs. €10,000,000) reflected in each quote. Using this "relative bid-ask spread" ensures that differences in the value of bonds quoted do not affect the analysis. Next, Plaintiffs compared the relative bid-ask spread in Defendants' price quotes to those of non-Defendant dealers before, during, and after the Class Period.

408. Figure 11 displays these results, with the red bars representing the average relative bid-ask spread quoted by Defendants and the green bars representing the average relative bid-ask spread for quotes by non-Defendant dealers on Italian government bonds.

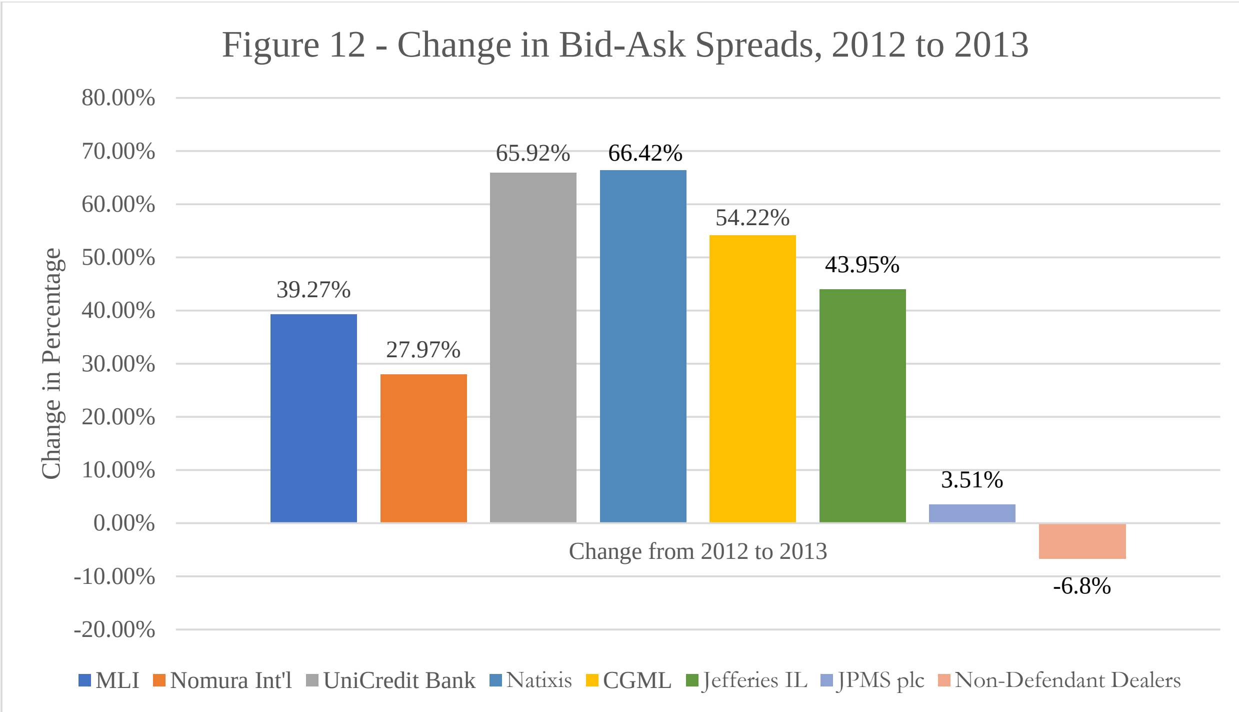


409. Figure 11 shows that the average relative bid-ask spread quoted by Defendants during the Class Period was 17.9 basis points – or ***50%*** – ***wider*** than the average relative bid-ask spread quoted by non-Defendant dealers during the Class Period, when the European Commission reported that it found evidence of collusion among dealers in the secondary market for European Government Bonds.

410. The significance of Defendants' pricing behavior during the Class Period is only highlighted by the stark contrast between their conduct during the pre- and post-Class Period. After the end of the Class Period, the average relative bid-ask spread quoted by Defendants for Italian government bonds was 20.2 basis points – or ***more than 44% – narrower*** than the average relative bid-ask spread quoted by non-Defendant dealers.

411. A similar pattern is observed prior to the start of the Class Period when the average relative bid-ask spread quoted by Defendants for Italian government bonds was 25.8 basis points – only 4.31 basis points wider than the average relative bid-ask spread quoted by non-Defendant dealers. The average relative bid-ask spread of Defendants' quotes then widens substantially during the Class Period, when the bid-ask spread quoted by Defendants more than doubles to 53.7 basis points – significantly more than the 35.8 basis point bid-ask spread observed in quotes by non-Defendant dealers. The relatively narrow bid-ask spreads observed in Defendants' quotes during the post- and pre-Class Period are consistent with competition in the European Government Bond market as Defendants and other primary dealers offered better prices to investors to win their business.

412. Plaintiffs also analyzed the changes in bid-ask spreads reflected in individual Defendant's quotes between 2012 and 2013. Next, Plaintiffs calculated the change in the average relative bid-ask spread in quotes by non-Defendant dealers of European Government Bonds issued by Italy. Plaintiffs then compared the change in the average bid-ask spread in Defendants' quotes with the change in the bid-ask spreads in non-Defendants' quotes. These results are displayed in Figure 12, below.



413. This analysis showed that each Defendant for which quotes were available between 2012 and 2013 quoted substantially ***narrower*** bid-ask spreads in 2013 than in 2012.[134] Figure 12, above, shows these differences for MLI (the blue bar), Nomura (the orange bar), UniCredit (the grey bar), Natixis (the teal bar), Citigroup Global Markets Limited (the yellow bar), Jefferies International (the green bar), and J.P. Morgan Securities plc (the light blue bar). This observation is inconsistent with the quoting behavior of non-Defendant European Government Bond dealers, which actually quoted ***wider*** bid-ask spreads in 2013 compared to 2012, as reflected by the pink bar. *See* Figure 12, above.

414. The analysis also shows that the significant change in bid-ask spreads in Defendants' quotes was highly abnormal. The bid-ask spread changes reflected in Defendants'

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134 Quote data was available for Nomura International, UniCredit Bank, Natixis, MLI, Citigroup Global Markets Limited, J.P. Morgan Securities plc, and Jefferies International during 2012 and 2013. Quote data was not available for NatWest, UBS, RBC Europe, or State Street during this time period. In Figure 12, Citigroup Global Markets Limited is referred to as "CGML," Jefferies International is referred to as "Jefferies IL," and J.P. Morgan Securities plc is referred to as "JPMS plc."

quotes cannot be explained by any structural changes that occurred between 2012 and 2013. As the pink bar in Figure 12 illustrates, the average change in bid-ask spreads in quotes from 2012 to 2013 from non-Defendant dealers of European Government Bonds issued by Italy was negative 6.8%.[135]

415. Accordingly, this analysis shows that at the end of the Class Period, MLI, Nomura, UniCredit, Natixis, Citigroup Global Markets Limited, Jefferies International, and J.P. Morgan Securities plc each substantially and collectively narrowed its pricing for European Government Bonds.

416. This parallel change in quoting behavior by each of these Defendants after the end of the Class Period suggests that Defendants conspired to maintain artificially wide bid-ask spreads during the Class Period, the time during which the European Commission found that the conspiracy was in effect.

417. These Defendants' quoting behavior is consistent with the example chats alleged in Part V, above. The European Government Bond market is characterized by large market-moving block purchases, in which institutional investors tend to break up their orders among multiple dealers. *See* Part VIII, below (explaining that the market is "dominated by large players executing large transactions" with an average customer order of 18 million euros). Therefore, when one European Government Bond dealer informs a group of other dealers that a customer is willing to pay (or receive, if a customer is selling) a given price for European Government Bonds, the other dealers know not to quote an ask price any lower (or bid price any higher) when the same customer calls them to request a price. The result is Defendants' routine sharing of price and order

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[135] Prior versions of Figure 12 inadvertently omitted two additional non-Defendants from the Non-Defendant Dealer data. The inclusion of this data increases the Non-Defendant Dealer spread in Figure 12 from -10.4% to -6.8%, but does not change the overall pattern between Defendant and Non-Defendants Dealer spreads.

information caused inflation of ask prices and suppression of bid prices during the Class Period, reflected as wider bid-ask spreads.

418. Accordingly, Defendants' conspiracy caused Plaintiffs and the Class to pay artificially higher prices when purchasing European Government Bonds (represented by the "ask" price quoted by Defendants) and receive artificially lower prices when selling European Government Bonds (represented by the "bid" price quoted by Defendants) during the Class Period.

VIII. THE EUROPEAN GOVERNMENT BOND MARKET STRUCTURE SUPPORTS THE EXISTENCE OF A EUROPEAN GOVERNMENT BOND CARTEL

419. Notwithstanding Plaintiffs' allegations showing Defendants' actual conspiratorial communications – which themselves are sufficient to show the existence of Defendants' conspiracy to fix, raise, maintain, or stabilize the prices of European Government Bonds – additional features of the European Government Bond market support the inference of concerted action by Defendants to fix, raise, maintain, stabilize, or otherwise manipulate the prices of European Government Bonds.

420. ***First***, Defendants, as primary dealers for European Government Bonds, wield enormous power in the European Government Bond market because "most bonds of the auctions are bought by a relatively small number of primary dealers."[136] European central governments and other market participants rely on Defendants to make markets and provide liquidity for European Government Bonds – *i.e.*, to stand ready to trade European Government Bonds with anyone, at any time.

[136] Roel Beetsma, Massimo Giuliodori, Frank de Jong & Daniel Widijanto, *Price Effects of Sovereign Debt Auctions in the Euro-Zone: The Role of the Crisis*, at 6, Working Paper Series (No. 1595) (Sept. 2013), https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp1595.pdf.

421. With power concentrated in the hands of a relatively small number of dealers and significant financial incentives for conspiring, the conspiring banks were able to form and maintain their cartel.

422. ***Second***, the European Government Bond market has high barriers to entry. Other entities cannot easily enter the primary dealer market because serving as a primary dealer is capital-intensive – requiring dealers to bid at auctions and hold European Government Bonds until they are sold to investors and to conduct market-making activities in the secondary market. A dealer must have a large balance sheet and sufficient capital reserves to absorb new European Government Bond inventory as it becomes available for purchase by investors. This is significant because banks are required to maintain minimum capital ratios to ensure solvency in case any of the bank's assets devalue, and therefore are selective about where they deploy capital.

423. The Bank for International Settlements, a policy and research organization owned by 60 of the world's leading central banks, explained that barriers to entry for prospective dealers in OTC markets like the European Government Bond market include:

> a sufficiently large client base to get a good view of the flow of orders; the capacity to take on large principal positions; continuous access to multiple markets, including funding and hedging markets; the ability to manage risk, especially the risk of holding assets in inventory; and market expertise in providing competitive quotes for a range of securities.[137]

424. ***Third***, the structure of the primary and secondary markets for European Government Bonds was susceptible to collusion. As the largest players among the exclusive group of entities qualified to bid at auctions for European Government Bonds, Defendants and their co-conspirators possessed significant power over the supply of bonds to the market and the prices

[137] *International banking and financial market developments*, BIS QUARTERLY REVIEW, at 99 (March 2015), https://www.bis.org/publ/qtrpdf/r_qt1503.pdf.

they were sold at. Defendants and their co-conspirators knew that there would be a new supply of bonds in the market and that together they would own the entire supply of these bonds. They also knew that investors, like Plaintiffs and the Class, would be forced to buy European Government Bonds from them in the secondary market because investors do not have direct access to the interbank market. By virtue of their positions as market makers in the secondary market as well, Defendants and their co-conspirators controlled the pricing of European Government Bonds before, during, and after the auctions.

425. The European Government Bond market is also characterized by very large, relatively infrequent customer transactions. For example, the average size of a customer transaction during the Class Period reached a record high of 18 million euros (up from 10 million euros in 2006). This is significantly larger than the typical transaction size in other fixed-income markets. Researchers reported that European Government Bond trading was "dominated by large players executing large transactions" during the Class Period.[138] Further, the relatively lower volume of transactions, as compared to other fixed income products, allowed Defendants to monitor more easily and to police the quoting behavior of their co-conspirators.

426. Additionally, investor participation in the European Government Bond market is marked by fairly routine, predictable trading schedules. Certain U.S. pension and investment funds holding European Government Bonds have investment mandates that require periodic rebalancing of fixed income portfolios to address fluctuations in the credit and interest rate risk of their investments. This rebalancing can include, among other things, the purchase of newer (*i.e.*, on-the-run) European Government Bond issues and the sale of older (*i.e.*, off-the-run) European

[138] Hassen Chtourou, *Analysis of the European Government Bonds and Debt after the European Financial Crisis*, 8:2 J. OF CENTRUM CATHEDRA: THE BUS. AND ECON. RES. J., at 148 (2015).

Government Bond issues. Rebalancing generally occurs at regular monthly or quarterly intervals. These predictable trading patterns by investors facilitated Defendants' coordination of prices to investors seeking to buy and sell European Government Bonds.

427. By virtue of their positions as market makers in the secondary market as well, Defendants and their co-conspirators controlled the pricing of European Government Bonds before, during, and after the auctions.

428. ***Fourth***, pre-trade price discovery for non-dealers in the European Government Bond market is difficult. There is no central, all-to-all, exchange where dealers and non-dealers alike can see bid and ask quotes in real-time, as there is for other asset classes. Customers do not have access to the real-time price feeds available to dealers on interdealer broker platforms, like MTS or BrokerTec. Rather, customers need to request quotes from individual dealers (including Defendants) – either electronically or through phone communication.

429. During the Class Period, Defendants also successfully defeated transparency measures in the European Government Bond market through their trade association, the EPDA. For example, in 2007, Defendants and their co-conspirators successfully opposed new transparency measures proposed by the European Commission that would have disclosed pricing to European Government Bond customers. Later, in 2008, the EPDA rallied against a proposal by the Italian Treasury that would have made trading prices between Defendants and their customers for Italian European Government Bonds accessible to investors. Acting through the EPDA, Defendants and their co-conspirators argued that "imposing more transparency could be harmful." Defendants recommended that regulators should "leave further transparency initiatives to the industry" and argued that information asymmetries (such as the inability of investors to see pricing

and trading information) with respect to European Government Bond trading were a sign of an efficient European Government Bond market.

430. Defendants claimed that an opaque European Government Bond market was necessary to incentivize them to continue operating as European Government Bond primary dealers. Thus, Defendants raised the implicit threat that transparency in the European Government Bond market would cause them to retreat from their market-making obligations and withhold liquidity. But this threat masked Defendants' true motive – to protect their information asymmetry, and when advantageous, collude on prices to customers.

431. Without access to reliable pricing information, investors like Plaintiffs were forced to turn to Defendants when transacting in European Government Bonds and to rely on Defendants to provide competitive European Government Bond pricing. The EPDA noted during the Class Period that, in trades between European Government Bond primary dealers and customers, trade information is "only available to direct counterparties to the trade."

432. Transparency enables investors to identify dealers that offer superior prices, allowing them to seek out those dealers. Thus, transparency helps the most competitive dealers attract market share. However, price transparency was a risk to Defendants' and their co-conspirators' cartel because it would have allowed investors to see prices charged by European Government Bond dealers not participating in the cartel. Keeping the status quo enabled Defendants and their co-conspirators to continue dictating anti-competitive prices to uninformed investors handicapped by an inability to observe prices for European Government Bond transactions. Had Plaintiffs and the Class been able to observe market-wide pricing, it would have been readily apparent that Defendants and their co-conspirators were charging uniform, supra-competitive prices.

433. ***Fifth***, Defendants' conduct was contrary to their individual economic interests. For example, if a Defendant unilaterally widened its bid-ask spread prices to customers on a consistent basis, while others failed to do similarly, few would trade with that conspiring bank. Moreover, consistently failing to keep competitive spreads or make markets for customers would jeopardize a conspiring bank's privileged status as a primary dealer with European Government Bond issuers, potentially leading to its removal as a primary dealer. If a conspiring bank lost its primary dealer status, it would no longer have privileged access to information from Eurozone central banks. This would, in turn, make that conspiring bank's services less attractive to European Government Bond customers. Further, as explained above, it was also against an individual Defendant's individual economic self-interest to manipulate the outcome of European Government Bond auctions.

434. ***Sixth***, Defendants had strong incentives to collusively bid-up the prices at European Government Bond auctions, even if the cost of doing so was high. Strong performances at the auction – as determined by the amount a dealer is ultimately able to secure at an auction – improve a dealer's ranking. Rankings are then used as the basis for selecting a primary dealer to participate in more lucrative transactions, such as lead-managing a syndicate deal, interest rate swap transactions, and investment banking advisory projects. The better a dealer's ranking, the better its chances of securing these more lucrative deals. Conspiring to bid up the auctions placed Defendants in a better position to secure these prized deals for themselves.

435. Avoiding competition also enabled Defendants to artificially widen bid-ask spreads and retain supra-competitive profits on their European Government Bond trades with Plaintiffs and members of the Class. Defendants, by virtue of their privileged position as primary dealers of European Government Bonds, had a wealth of knowledge about the offerings themselves, as well as customer identities, demand, trading habits, and order flow in both the primary and secondary

markets. Sharing this information enabled the conspiring banks to coordinate on bid and ask prices to the detriment of Plaintiffs and members of the Class.

436. In addition, upwards of 50% of total compensation for sales and trading staff within Defendants' and their co-conspirators' European Government Bond trading and sales businesses was determined according to the amount of profits/losses generated, both collectively (*i.e.*, based on the profitability of the European Government Bond trading and sales business as a whole) and individually (*i.e.*, based on the profit derived from the European Government Bond transactions entered into by the individual). Job promotions were similarly determined according to the amount of profits/losses derived from European Government Bond transactions.

437. ***Seventh***, in the absence of a conspiracy, sharing proprietary trading information was contrary to Defendants' individual economic interests. Sharing trading and pricing information would have been dangerous in the hands of true competitors during the Class Period because it would allow rival dealers to "trade ahead" of the dealer's disclosed trade in the dealer-to-dealer market. Trading ahead occurs where a dealer learns ahead of time that another market participant intends to execute a trade, and then establishes a position that will benefit from the move in the market caused by the anticipated trade. This causes the market price to move against the other market participant, benefitting the dealer who engaged in "trading ahead." Accordingly, no one Defendant would share confidential order information because an opportunistic trader at a rival dealer could capitalize on the information to the detriment of the sharing Defendant.

438. Defendants themselves acknowledged that sharing proprietary information about planned trades and customer orders is against the economic self-interest of any rational, non-conspiring dealer and harms customers by causing inferior prices. In a position paper on price transparency that the EPDA submitted to a European regulator during the Class Period, the EPDA

wrote that "the dealer (and indeed its customer) will be very concerned about other market participants being able to react ahead of the dealer trying to liquidate its position which it may have obtained in a transaction with a customer."

439. ***Eighth,*** the same traders are involved in both the primary and secondary market for European Government Bonds, and these traders operate in a tightly knit community. Many traders have worked at multiple dealer banks during their careers and have had repetitive dealings with each other, as European Government Bond auctions were held frequently. These traders built friendships and networks with other primary dealer traders that extended beyond the office and into their respective personal lives and led them to view each other as collaborators instead of competitors.

440. Not only did this group of competitor traders meet every day virtually to discuss business in chatrooms like the "Cods & Chips" chatroom, they spent evenings together in person. The close-knit friendship developed between traders at competitor banks lead to the culture of sharing propriety information and collaborating to fix bond prices.

441. It was not uncommon for rival European Government Bond traders to go out for dinners or drinks arranged either among themselves or by interdealer brokers. Familiarity with each other and the friendships built over time facilitated each conspiring trader's willingness to exchange confidential, business-sensitive information and collaborate, rather than compete.

442. For example, in an October 28, 2010 chat that included traders from State Street Bank and Trust, UBS Europe SE, and another co-conspirator, the traders planned to get a drink together:

October 28, 2010

Co-Conspirator Trader 1: im in ldn next wk . . . . got fri off so might b up for a lunch drink if anyone fancies it

UBS Europe Trader 2: sounds like another plan

State Street Bank and Trust Trader 1: yep count me in . . . important to strengthen old relationships before i get going!!!!

443. Defendants' traders also met in person at events arranged by brokers. For example, on October 27, 2010, a broker from ICAP invited State Street Bank and Trust Trader 1 to the Rock Lawrence Dallaglio charity dinner in London to sit at ICAP's table together with other European Government Bonds traders. The broker informed State Street Bank and Trust Trader 1 that several high-ranking traders from other Defendants would also be attending, including Nomura's Managing Director of European Government Bond trading (who previously traded bonds at MLI), another Nomura European Government Bond trader, a European Government Bond trader from UBS, and the European Government Bond trader from Citi responsible for determining prices.

444. In another example on November 2, 2010, Co-Conspirator Trader 1 and NatWest Markets Trader 1 planned to get lunch together:

November 2, 2010

Co-Conspirator Trader 1: we r flying thrus nigth [Thursday night] so i got fri [Friday] pretty free tho so thought id try and get out for a lunch

NatWest Markets Trader 1: nice

Co-Conspirator Trader 1: u in on fri [Friday]?

NatWest Markets Trader 1: yessir

445. In a December 7, 2011 chat that included traders from JP Morgan Securities, RBC Europe, UBS Europe SE, and State Street Bank and Trust, the traders discussed dinner plans that evening:

December 7, 2011

JP Morgan Securities Trader 1: I've confirmed for 6 people, this evening, Semplice, 7:00 pm

> RBC Europe Trader 1: [JP Morgan Securities Trader 1] multitasks… bids on the auctions, manages the exchange, swears at the market, and confirms the restaurant . . . all at the same time

446. ***Ninth,*** there was a high level of communications among Defendants and their co-conspirators. As the Commission investigation found, during the Class Period, Defendants' traders routinely discussed sensitive trading and order information directly with each other in electronic platforms and through communications with interdealer brokers. As previously discussed, traders' exchange of confidential customer order information in online chatrooms is unnecessary for the purposes of making markets and is contrary to their individual self-interest. There are significant concerns associated with direct communications between competitors of the sort identified above and in Part V and VI. Indeed, in response to the scandals involving anticompetitive conduct in the LIBOR and foreign exchange markets (among others), many financial institutions have prohibited their employees and traders from participating in multi-dealer chatrooms like the Cods & Chips chatroom here where Defendants coordinated and implemented their conspiracy.

447. Defendants also failed to monitor these trader communications though they had the means to do so. These oversight failures allowed employees in Defendants' European Government Bond trading and sales businesses to fix prices, share sensitive customer information, and coordinate trading strategies throughout the Class Period.

448. ***Tenth***, Defendants and their co-conspirators had the opportunity to collude through their involvement in industry trade associations, such as the AFME and EPDA.

449. Within the AFME is the primary dealers board (the "Board"), which "addresses developments affecting the European government market specifically and aims to build consensus within the industry and acts as a bridge between financial market participants and policymakers." One of the Board's priorities is to "[a]ctively participate in industry events which focus on rates

issues."[139] Through participation on the Board, Defendants and their co-conspirators had ample opportunity to discuss issues affecting the European Government Bond market, including matters affecting the primary and secondary markets for these products. During the Class Period, several of the largest European Government Bond primary dealers had representatives on the Board, as shown in Figure 13 below:

Figure 13 – AFME Board Members

Primary Dealer	**AFME Board Member**
Bank of America	William Scott
Citi	Jim Cowles
J.P.Morgan	Daniel Pinto
Natixis	Wouter Bod
Nomura	Paul Spurin
RBS	Renos Dimitriou
UBS	Sven Gerhardt
UniCredit	Karl-Heinz Riehm

450. Before the creation of the AFME in 2009, Defendants and their co-conspirators were members of the EPDA. European Government Bond primary dealers founded the EPDA to "advocate[] on behalf of eurozone government bond [p]rimary [d]ealers with relevant government and regulatory bodies through dialogue and market best-practices recommendations."[140] During

[139] *Primary Dealers*, AFME, https://www.afme.eu/en/divisions-and-committees/primary-deals-rates/.

[140] *European Primary Dealers Handbook*, AFME (2015), at i, https://www.afme.eu/globalassets/downloads/publications/afme-primary-dealers-handbook-q4-2015.pdf at i.

the Class Period, the EPDA set industry standards applicable to Defendants' European Government Bond trading and sales businesses.

451. Defendants' high-ranking European Government Bond sales and trading personnel regularly met in person at conferences, meetings, and other events hosted by the AFME and the EPDA. These meetings provided another forum for Defendants' European Government Bond trading and sales personnel to establish closer relationships while discussing sensitive subjects such as European Government Bond pricing. For example, the EPDA held annual conferences beginning in 2006 at locations throughout Europe. Defendants' European Government Bond trading and sales personnel attended these conferences.

452. The AFME/EPDA held an Annual European Government Bond Conference in each year of the Class Period. Defendants' European Government Bond trading and sales personnel attended these conferences and afforded Defendants an opportunity to meet in person behind closed doors in bars, restaurants, hospitality suites, and hotel rooms adjoining the conference space.

453. Promotional materials for the Annual European Government Bond Conference state that it as the "ONLY event of its kind!," where attendees could "[j]oin 200 senior representatives from debt management offices (DMOs), government bond investors, central banks, regulators, primary dealers, trading platforms and brokers."[141] Each conference included speeches, roundtable and moderated panel discussions, presentations, break-out sessions, lunches, dinners, and networking sessions.

[141] *Hedge Funds*, EFT EXPRESS, https://www.etfexpress.com/event/hedge-funds/afme-6th-annual-european-government-bond-conference (last visited Nov. 4, 2022).

454. Promotional materials for the AFME's 7th Annual European Government Bond Conference, held on November 8-9, 2012 in Brussels, Belgium, illustrates the nature and extent of Defendants' participation in AFME events during the Class Period. Confirmed speakers at that year's conference included representatives from the following Defendant banks:[142]

> **Bank of America Merrill Lynch:** Yunho Song, identified as Managing Director and Head of Europe, Middle East, and Africa ("EMEA") Global Rates & Currencies ("GRC") at Bank of America Merrill Lynch. In that role Song was "responsible for managing the EMEA foreign exchange, government bonds, interest rate swaps, interest rate options, structured products, repo-financing, and financial futures and options businesses." Earlier in the Class Period, Song worked for Merrill Lynch, Pierce, Fenner & Smith Incorporated in New York.
>
> **Nomura:** Paul Spurin, Managing Director of EMEA Flow Rates Trading for Nomura International PLC. In that role Spurin "r[an] the European Primary Dealership business and business strategy for EMEA flow rates Trading." At the conference, Spurin served as a "discussion leader" for a breakout session concerning the profitability of primary dealerships, the "impact of overbidding" at European Government Bond auctions, and the importance of "dealer rankings."
>
> **UBS:** Paolo Crocé, Head of Interest Rates Trading EMEA for UBS.[143] Earlier in the Class Period, Crocé had served as Vice Chairman of the EPDA.

455. Bank of America Merrill Lynch was also a named general sponsor of the 7th Annual European Government Bond Conference and the sole sponsor of the conference's main "Networking Lunch" event, held on November 9, 2012.[144]

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[142] *Keynote Speakers*, AFME https://web.archive.org/web/20150115212949/http:/afme.eu/Events/2012/Government-Bonds/Speakers (last visited Nov. 7, 2022).

[143] "Interest Rates Trading EMEA" was UBS's European Government Bond trading business during the Class Period.

IX. SIMILAR WRONGDOING IN OTHER MARKETS SUPPORTS THE PLAUSIBILITY OF DEFENDANTS' MANIPULATION OF EUROPEAN GOVERNMENT BONDS

456. The Commission's Decision involving European Government Bonds marks the fifth time that Defendants, their co-conspirators, and affiliated entities within the same bond trading and sales divisions have been investigated for engaging in anticompetitive conduct in bond markets in recent years. The European Government Bond market has key features in common with these other bond markets in which Defendants and their co-conspirators have engaged in similar anticompetitive conduct. These features include a lack of price transparency and a high degree of concentration by the largest dealers. In 2017, the United Kingdom's Financial Conduct Authority ("FCA") opened an investigation of several large dealers for manipulating Sovereign, Supranational and Agency ("SSA") bonds. Also in 2017, Mexico's competition regulator announced a probe into seven of the largest dealers in the Mexican government bond market. The U.S. Department of Justice ("DOJ") is presently investigating price-fixing and other unlawful conduct by dealers in both the U.S. Treasuries market and market for bonds issued by Fannie Mae and Freddie Mac.

457. Defendants and their co-conspirators engaged in multiple similar price-fixing conspiracies in various financial markets during the Class Period, which led government investigators to find parallel deficiencies in oversight and control within Defendants' and their co-conspirators' trading and sales businesses. These ongoing investigations have resulted in criminal trials and convictions, billions of dollars in fines, and successful litigation by injured investors.

458. These findings further support the conspiracy alleged in this Complaint because they demonstrate that Defendants and their co-conspirators had deficient compliance and oversight systems in their sales and trading businesses during the Class Period.

459. **FX**: Multiple banks, including Defendants NatWest, UBS, Citigroup, and JPMorgan, failed to control or detect rampant misconduct amongst their trading staff in the foreign exchange ("FX") market. These failures allowed traders to fix bid-ask spreads, coordinate trading strategies with competitors to manipulate benchmark prices, and share confidential customer order information and proprietary information on trading positions with competitors in group chatrooms with names like "The Cartel." Defendants' deficient oversight and controls allowed this anticompetitive conduct to persist undetected for years during the Class Period.

460. The DOJ's Antitrust Division has obtained a guilty plea from NatWest for failing to adequately monitor anticompetitive conduct in its subsidiaries' trading businesses and operating inadequate oversight measures that allowed trading and sales staff to engage in a years'-long conspiracy to fix FX prices during the Class Period. NatWest's parent company paid fines related to its FX trading to the Board of Governors of the Federal Reserve System (the "Federal Reserve"), FCA, U.S. Commodity Futures Trading Commission ("CFTC"), the European Commission, and, most recently, the Swiss competition authority, WEKO. Bank of America's parent company paid fines related to its FX trading to the Federal Reserve and the OCC.

461. UBS similarly paid fines to the CFTC, FCA, Federal Reserve, and the Swiss Financial Market Supervisory Authority (FINMA). UBS was exempted from paying fines to the European Commission and WEKO only because it revealed the cartel's existence to these regulators. The DOJ also granted UBS conditional immunity from criminal antitrust charges for its unlawful conduct in the FX market, but the DOJ found UBS in violation of its non-prosecution agreement due to UBS's submissions in connection with Yen LIBOR and other benchmark interest rates.

462. Citigroup's parent company paid fines to the CFTC, FCA, OCC, Federal Reserve, and Brazil's competition authority, the Council for Economic Defense ("CADE"), and South Africa's Competition Commission. The DOJ's Antitrust Division has also obtained a guilty plea from Citigroup for failing to adequately monitor anticompetitive conduct in its subsidiaries' trading businesses and operating inadequate oversight measures that allowed trading and sales staff to engage in a years'-long conspiracy to fix FX prices during the Class Period.

463. JPMorgan's parent company similarly paid fines to the CFTC, FCA, OCC, Federal Reserve, and CADE. The DOJ's Antitrust Division has obtained a guilty plea from JPMorgan for failing to adequately monitor anticompetitive conduct in its subsidiaries' trading businesses and operating inadequate oversight measures that allowed trading and sales staff to engage in a years'-long conspiracy to fix FX prices during the Class Period.

464. **<u>LIBOR/Euribor/Yen LIBOR/Swiss franc LIBOR</u>**: Government investigations and civil lawsuits revealed widespread collusion among banks to manipulate benchmark interest rates for multiple currencies (U.S. dollar LIBOR, Euribor, Yen LIBOR, and Swiss franc LIBOR) during the Class Period. These investigations have led to dozens of fines and settlements for price-fixing by Bank of America Corporation, the corporate parent of NatWest, UBS, Citibank, N.A. (the parent of Defendants Citigroup Global Markets Limited and Citigroup Global Markets Inc.), JPMorgan Chase & Co. (the parent of Defendant JPMorgan Chase Bank, N.A.). Regulators found that trading staff within these banks engaged in widespread misconduct during the Class Period, including coordinating false submissions by panelists to the benchmark-setting panel, sharing customer and order information, and manipulating market prices by submitting false orders (*i.e.*, "spoofing").

465. **ISDAfix**: The CFTC issued Orders Instituting Proceedings Pursuant to §§6(c) and 6(d) of the Commodity Exchange Act, Making Findings, and Imposition Remedial Sanctions with Bank of America, N.A., and The Royal Bank of Scotland plc (renamed "NatWest Markets plc") for operating deficient compliance and oversight functions that allowed traders to systematically manipulate the U.S. dollar ISDAfix benchmark during the Class Period to boost trading profits. In a private civil suit, Bank of America, N.A., The Royal Bank of Scotland plc (renamed "NatWest Markets plc"), and UBS AG settled claims that they conspired to manipulate ISDAfix for a total of $114 million.

466. **USD-denominated SSA Bonds**: A DOJ investigation into price-fixing in the U.S. dollar-denominated SSA bond market became public in December 2015. It quickly prompted simultaneous cartel investigations by the FCA and the European Commission, and the filing of private lawsuits. The private civil action, originally filed in May 2016, was amended in April 2017 to include 10 banks and hundreds of redacted chats and transcripts that demonstrated that these banks failed to detect and deter collusive communications by trading and sales staff in their bond businesses. In August 2017, Bank of America Corporation agreed to settle for a total of $17 million.

467. **Mexican Government Bonds**: In October 2019, the Mexican antitrust regulator, the Comisión Federal de Competencia Económica ("COFECE"), filed charges against seven dealers in the Mexican government bond market, including a subsidiary of Bank of America Corporation that engages in bond trading under its Global Banking and Markets business segment, as well as Citigroup Inc.'s (the ultimate parent of Defendants Citigroup Global Markets Limited and Citigroup Global Markets Inc.) local unit Citibanamex, and JPMorgan Chase & Co. (the parent of Defendant JPMorgan Chase Bank, N.A.), for colluding to fix the prices of Mexican government

bonds. At least one additional bank has escaped charges by cooperating with COFECE's cartel leniency program.

468. **Swiss Franc Interest Rate Derivatives**: The Commission fined four banks – including UBS and JPMorgan – a total of €32.4 million, and NatWest's parent company received leniency for its fine of around €5 million, for conspiring to fix bid-ask spreads in the market for interest rate derivatives denominated in Swiss francs. The Swiss franc interest rate derivatives conspiracy operated similarly to the conspiracy alleged in this Complaint and involved an agreement among horizontal competitors in the OTC market for derivatives to charge inflated bid-ask spreads to customers. RBS failed to detect and deter collusive communications among traders at these banks.

X. CLASS ACTION ALLEGATIONS

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

> All persons or entities who purchased or sold European Government Bonds in the United States directly from Defendants from at least as early as January 1, 2007 through at least December 31, 2012 (the "Class Period").
>
> Excluded from the Class are Defendants and their employees, affiliates, parents, subsidiaries, and co-conspirators, whether or not named in this Complaint, and the United States Government.

470. Plaintiffs believe that there are thousands of Class members, making the Class so numerous and geographically dispersed that joinder of all Class Members is impracticable.

471. 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 engaged in a combination or conspiracy to fix, raise, maintain, stabilize, or otherwise manipulate the prices for European Government Bonds 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 in furtherance of the conspiracy;

(e) whether Defendants' conduct, as alleged in this Complaint, caused injury to the business or property of Plaintiffs and the Class;

(f) whether Defendants fraudulently concealed the conspiracy's existence from Plaintiffs and the Class; and

(g) the appropriate measure of damages sustained by Plaintiffs and the Class.

472. Plaintiffs' claims are typical of the claims of the other Class members. Plaintiffs and Class members sustained damages arising out of Defendants' common course of conduct in violation of the law as described in this Complaint. The injuries and damages of each Class member were directly caused by Defendants' wrongful conduct.

473. Plaintiffs will fairly and adequately protect the interests of Class members. Plaintiffs are adequate representatives of the Class and have no interests adverse to the interests of absent Class members. Plaintiffs have retained counsel competent and experienced in class action litigation, including antitrust class action litigation.

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

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

476. A class action is superior to other available methods for the fair and efficient adjudication of this controversy. Treatment as a class action will permit a large number of similarly situated persons to adjudicate their common claims in a single forum simultaneously, efficiently, and without duplication of effort and expense that numerous, separate individual actions, or repetitive litigation would entail. The Class is readily definable and is one for which records should exist in the files of Defendants, Class members, or the public record. Class treatment will also permit the adjudication of relatively small claims by many Class members who otherwise could not afford to litigate the claims alleged herein, including those for antitrust. This class action presents no difficulties of management that would preclude its maintenance as a class action.

XI. DEFENDANTS FRAUDULENTLY CONCEALED THEIR MISCONDUCT

477. Defendants concealed their wrongdoing in manipulating the prices of European Government Bonds sold to investors. Thus, the statutes of limitations relating to the claim for relief alleged below were tolled due both to Defendants' affirmative acts of concealment and the inherently self-concealing nature of their private unregulated conduct.

478. Defendants' success in concealing their collusion was facilitated by their tremendous control over the market for European Government Bonds.

479. Neither Plaintiffs nor Class members knew of Defendants' unlawful and self-concealing manipulative acts and could not have discovered them by the exercise of reasonable due diligence, if at all, at least prior to public reports disclosing the Commission's Statement of Objections concerning the European Government Bond market. Plaintiffs and the Class also

lacked any basis for identifying the wrongdoers or calculating damages before that date. In fact, Defendants' collusive activities were so well-hidden that regulators in Europe and elsewhere were unaware of such conduct for years.

480. Only after the Commission publicly announced its preliminary findings of price collusion in the European Government Bond market on January 31, 2019, did Plaintiffs have a sufficient basis to investigate Defendants' possible collusion. Most details of the Commission's proceedings remained confidential and undisclosed until October 2021 when the Decision was made publicly available, albeit with numerous redactions.

481. Reasonable due diligence could not have uncovered the conspiracy because: (i) Defendants' trading positions and trading strategies in the European Government Bond market are not publicly available; (ii) the bilateral, non-exchange traded nature of European Government Bond transactions make observing anticompetitive behavior in that market exceedingly difficult; (iii) the highly specialized and esoteric nature of the different aspects of the European Government Bond market makes it exceedingly difficult for an ordinary person to assess improprieties; (iv) neither Defendants nor their co-conspirators told Plaintiffs or other Class members that they were conspiring to fix, stabilize, maintain, and/or otherwise manipulate the prices of European Government Bonds; and (v) Plaintiffs and members of the Class were not parties to Defendants' and their co-conspirators' communications in private chatrooms in which they agreed to fix the prices of European Government Bonds.

482. Defendants also took active steps to conceal evidence of their misconduct from Plaintiffs, the Class, government regulators, and the public by holding out their activities in the European Government Bond market as good-faith market-making conduct. Indeed, each

Defendant's codes of conduct represented that their operations were above board, providing a false sense of security to unwitting investors:

(a) ***Bank of America***. Bank of America's Code of Ethics stated that it "is more than just words on a page. It is a living and breathing document that provides us with basic guidelines of business practice and how we, as Bank of America associates, are expected to act both personally and professionally."[145] Bank of America expected its employees to "deal fairly with [its] customers, competitors, vendors and teammates" and refrain from taking "unfair advantage of anyone through manipulation, concealment, abuse of privileged information, misrepresentation of facts or any other unfair-dealing practice."[146]

(b) ***Merrill Lynch***. Merrill Lynch's Code of Conduct stated that "[e]very Merrill Lynch person must deal fairly with Merrill Lynch's clients, vendors, competitors and fellow employees. No Merrill Lynch person may take advantage of anyone through unethical or illegal measures, such as manipulation, concealment, abuse of privileged information, misrepresentation of material facts or any other unfair dealing practices." In addition, the Code of Conduct stated that:

> All Merrill Lynch persons must guard against unfair competitive practices and exercise extreme caution to avoid conduct that might violate antitrust laws or other rules prohibiting anti-competitive activities. . . . Employees must avoid any discussion with competitors of proprietary or confidential information, business plans or topics such as pricing or sales policies – the discussion of which could be viewed as an attempt to make joint rather than independent business decisions.[147]

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[145] Bank of America Corporation, Code of Ethics, at 3 (2010), http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9MjU0Mzh8Q2hpbGRJRD0tMXxUeXBlPTM=&t=1.

[146] Bank of America Corporation, Code of Ethics, at 2, https://www.banktrack.org/download/code_of_ethics_20/190318code_of_ethics_dec2013.pdf.

[147] Merrill Lynch Guidelines for Business Conduct, at 7, https://www.sec.gov/Archives/edgar/data/65100/000095012306002318/x16704exv14w1 htm.

(c) ***Natixis***. Natixis's 2011 Registration and Annual Financial Report stated that its employees were bound by the rules of conduct provided in the General Regulation of the Autorité des marchés financiers ("AMF") "when providing investment services," which includes EGB trading.[148] The AMF's General Regulation prohibited transactions that "secure, by a person, or persons acting in collaboration, the price of one or several financial instruments at an abnormal or artificial level."[149]

(d) ***NatWest***. NatWest's Code of Conduct was designed to promote, among other things "honest and ethical conduct" and "compliance with applicable laws, rules and regulations."[150] The Code of Conduct stated that RBS was "strongly committed to conducting [its] business affairs with honesty and integrity and in full compliance with all applicable laws, rules and regulations. No Group employee shall commit an illegal or unethical act, or instruct others to do so for any reason."[151]

(e) ***Nomura***. Nomura's Code of Ethics stated that "Nomura People must respect fair business practices in jurisdictions where they operate and endeavor to deal fairly with Nomura Group's customers, suppliers, competitors and employees. Nomura People should not take unfair advantage of anyone through manipulation, concealment, abuse of confidential information, misrepresentation of material facts, or any other unfair-dealing

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148 *2011 Registration and Annual Financial Report*, at 113, NATIXIS, https://www natixis.com/natixis/upload/docs/application/pdf/2012-04/ddr_natixis_2011_-_vgb_-_vdef_-_13_04_2012_2012-04-13_17-47-19_848.pdf (last visited Nov. 7, 2022).

149 General Regulation of the Autorité des marchés financiers, Art. 631-1(b), https://www.amf-france.org/sites/default/files/private/2021-03/RG_EN_20111203_20111224.pdf (last visited Nov. 7, 2022).

150 *RBS Code of Conduct*, at 14, RBS, http://www rbsworldwide.com/downloads/pdf/about_rbs/RBS_Group_Code_Conduct.pdf (last visited Nov. 7, 2022).

151 *Id*.

practice."[152] Moreover, under the Code of Ethics, all Nomura financial professionals must comply "with the letter and spirit of all applicable laws, rules and regulations."[153]

(f) ***UBS***. UBS's Code of Conduct and Ethics stated that its employees "obey[] the laws, rules and regulations of the areas where we live, work and do business" and that they "act in the interest of fair and effective competition and respect all the laws, rules and regulations that are designed to create a level playing field for all – including antitrust and competition laws."[154]

(g) ***UniCredit***. UniCredit's Code of Ethics stated that its employees "are required to comply with the rules applicable in all countries in which the Bank operates and/or in which they (for example in the case of third parties) provide their work on behalf and/or in the interest of the Bank." Likewise, all employees "are required to conduct their business in full compliance with any applicable competition laws and regulations."[155]

(h) ***State Street***. State Street's Standard of Conduct states that employees should "[n]ever solicit friends or colleagues who work at competitors for confidential information about the competitor." Instead, employees are directed to "[o]nly acquire competitive information and market data form public sources or through lawful means."[156]

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152 *For Future Generations: CSR Report 2010*, NOMURA (2010), http://www.nomuraholdings.com/investor/library/ar/csr/data/2010.pdf.

153 *Id.*

154 UBS, Code of Conduct and Ethics, at 6 (2019), https://www.ubs.com/global/en/our-firm/our-culture/code-of-conduct.html. *See also* UBS, Code of Conduct and Ethics, at 4 (2010), http://web.archive.org/web/20101206042207/http://www.ubs.com/1/ShowMedia/about/code_of_conduct?contentId=152516&name=Code%20of%20Business%20Conduct%20and%20Ethics%20of%20UBS.pdf ("We are committed to the principle of the market economy and to complying with relevant laws, rules, and regulations, including applicable anti-trust and competition laws.").

155 UniCredit S.p.A., Code of Ethics (2018), at 3, https://www.unicreditgroup.eu/content/dam/ unicreditgroup-eu/documents/en/governance/supervisory-body/Code-of-Ethics-231.pdf.

156 State Street, Standard of Conduct (2020), at 45, https://s26.q4cdn.com/446391466/files/doc_downloads/irw/employee-conduct.pdf.

(i) ***Citigroup***. Citigroup's Code of Conduct states that "Citi is subject to complex laws designed to preserve competition among enterprises and to protect consumers from unfair business arrangements and practices." Employees "are expected to be aware of and comply with these laws at all times." Among the "unlawful anticompetitive activities" that Citigroup employees should avoid, include: (1) "Proposals from competitors to share price or other competitive marketing information or to allocate markets or clients," (2) "Attempts by clients or potential clients to preclude Citi from doing business with, or contracting with, another client," and (3) "Discussions at industry trade association meetings on competitively sensitive topics, such as prices, pricing policies, costs and marketing strategies."[157]

(j) ***Jefferies***. Jefferies's Code of Ethics states that employees must "deal fairly with our clients, service providers, suppliers, competitors and each other. Taking unfair advantage of anyone through manipulation, concealment, abuse of privileged information, misrepresentation of material facts, or any other unfair dealing practice is a violation of the Code."[158]

(k) ***JPMorgan***. JPMorgan's Code of Conduct states all employees "are expected to conduct the firm's business ethically and in full compliance with both the letter and the spirit of laws and regulations, the Code, and any other policies and procedures that may be applicable to you."[159] Employees "are all expected to conduct the firm's business in accordance with the highest ethical standards, respecting the firm's customers, suppliers, and

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[157] Citigroup, Code of Conduct (2011), at 8, https://web.archive.org/web/20121021071221/https://www.citigroup.com/citi/investor/data/codeconduct_en.pdf.

[158] Jefferies Group LLC, Code of Ethics (2017), at 2, https://www.jefferies.com/CMSFiles/Jefferies.com/files/Policies/Code_of_Ethics.pdf. *See also* Jefferies Group LLC, Code of Ethics (Nov. 29, 2011), at http://web.archive.org/web/20120308124743/http://www.jefferies.com/pdfs/charters/ CodeOfEthics.pdf (same).

[159] JPMorgan Chase & Co., Code of Conduct (2011), at 1, http://web.archive.org/web/20110626104759/http://www.jpmorganchase.com:80/corporate/About-JPMC/document/2011CodeofConduct.pdf.

other business counterparties, dealing responsibly with the firm's assets, and complying with applicable legal and regulatory requirements."[160] Moreover, "[i]n addition to strict compliance with applicable laws, rules, and regulations, JPMorgan Chase expects its employees and directors to conduct themselves with general standards of ethical behavior," including the obligation "to deal fairly and in good faith with the firm's customers, suppliers, competitors, business partners, regulators, and employees. It is our policy not to take unfair advantage of others through manipulation, concealment, abuse of privileged information, misrepresentation of material facts, or any other unfair dealing practice."[161] JPMorgan's Code of Conduct also explains that "U.S. antitrust laws and the laws of other jurisdictions prohibit certain conduct that is deemed collusive or anti-competitive – for example, agreements among competitors to affect prices of goods or services (price fixing), reduce competition in a bidding process (bid rigging), divide up customers or markets, limit availability of products or services, or refuse to deal with a specific business counterparty." If any employee interacts "with a competitor of JPMorgan Chase," he or she "should be familiar with relevant firm policies and consult with your Code Specialist."[162]

483. Defendants failed to implement the proper internal controls to detect misconduct concerning price-fixing of European Government Bonds. Such internal failures made it more difficult for Plaintiffs, the Class, government regulators, and the public to discover Defendants' misconduct.

484. As a result of Defendants' affirmative steps to conceal their improper conduct; their willful decision not to implement proper controls to detect improper conduct; the self-concealing

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160 *Id.* at 10.

161 *Id.* at 12.

162 *Id.* at 13.

nature of the price-fixing conspiracy; and the resulting lack of public information about the entities and the material aspects of the conspiracy, collusion, and trading based on nonpublic information, the statutes of limitations were tolled for Plaintiffs' and the Class's claims.

FIRST CLAIM FOR RELIEF

VIOLATION OF 15 U.S.C. §1
CONTRACT, COMBINATION, OR CONSPIRACY IN RESTRAINT OF TRADE

485. Plaintiffs incorporate the preceding paragraphs by reference.

486. Defendants entered into and engaged in a combination and conspiracy that was an unreasonable and unlawful restraint of trade in violation of §1 of the Sherman Act, 15 U.S.C. §§1, *et seq*.

487. During the Class Period, Defendants entered into an agreement to reduce competition among themselves by fixing and manipulating the prices of European Government Bonds sold in the United States.

488. This conspiracy to manipulate European Government Bond prices caused injury to both Plaintiffs and the Class by depriving them of the benefit of competitive European Government Bond prices reflecting true market fundamentals for some period during and following Defendants' unlawful conduct, and thus, Plaintiffs and the Class received, upon execution of their trades, less in value than they would have received absent Defendants' wrongful conduct.

489. The conspiracy is a *per se* violation of §1 of the Sherman Act. Alternatively, the conspiracy resulted in substantial anticompetitive effects in the European Government Bond market. There is no legitimate business justification for, nor pro-competitive benefits from, Defendants' conduct. Furthermore, any business justification is outweighed by the anticompetitive effects of their illegal conduct.

490. As a direct and proximate result of Defendants' violation of §1 of the Sherman Act, Plaintiffs and the Class have been injured in their business and property throughout the Class Period.

491. Plaintiffs and the Class are entitled to treble damages for the violations of the Sherman Act alleged in this Complaint.

XII. RELIEF REQUESTED

Accordingly, Plaintiffs demand relief as follows:

(A) That the Court certifies this lawsuit as a class action under Federal Rule of Civil Procedure 23(a) and (b)(3), that Plaintiffs be designated as Class Representatives, that Plaintiffs' counsel be appointed as counsel for the Class, and that the Court directs that reasonable notice of this action, as provided by Federal Rule of Civil Procedure 23(c)(2), be given to each and every member of the Class;

(B) That the unlawful conduct alleged in the Complaint be adjudged and decreed to violate §1 of the Sherman Act;

(C) That the Court award Plaintiffs and the Class damages against Defendants for their violations of federal antitrust laws, in an amount to be trebled in accordance with such laws, plus interest at the highest legal rate;

(D) That the Court award Plaintiffs and the Class their costs of suit, including reasonable attorneys' fees and expenses, as provided by law; and

(E) That the Court directs such further relief as it may deem just and proper.

XIII. DEMAND FOR JURY TRIAL

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

Dated: October 16, 2023

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CERTIFICATE OF SERVICE

I hereby certify that on October 16, 2023, I caused the foregoing to be electronically filed with the Clerk of the Court using the CM/ECF system, which will send notification of such filing to the email addresses denoted on the Electronic Mail Notice List.

s/ Kristen M. Anderson
KRISTEN M. ANDERSON