EUROPEAN
COMMISSION

Brussels, 16.5.2019
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COMMISSION DECISION

of 16.5.2019

relating to a proceeding under Article 101 of the Treaty on the Functioning of the European Union and Article 53 of the EEA Agreement

AT.40135-FOREX (Three Way Banana Split)

(Text with EEA relevance)

(Only the English text is authentic)

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THE COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,[1]

Having regard to the Agreement on the European Economic Area,

Having regard to Council Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty,[2] and in particular Articles 7 and 23(2) thereof,

Having regard to Commission Decision of 27 October 2016 to initiate proceedings in this case,

Having given the undertakings concerned the opportunity to make known their views on the objections raised by the Commission pursuant to Article 27(1) of Regulation (EC) No 1/2003 and Article 12 of Commission Regulation (EC) No 773/2004 of 7 April 2004 relating to the conduct of proceedings by the Commission pursuant to Articles 81 and 82 of the Treaty,[3]

After consulting the Advisory Committee on Restrictive Practices and Dominant Positions,

Having regard to the final report of the hearing officer in this case,

Whereas:

1. INTRODUCTION

(1) This Decision concerns a single and continuous infringement of Article 101 of the Treaty on the Functioning of the European Union ("the Treaty") and Article 53 of the

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1 OJ, C 115, 9/5/2008, p.47.

2 OJ L 1, 4.1.2003, p.1.With effect from 1 December 2009, Articles 81 and 82 of the EC Treaty have become Articles 101 and 102, respectively, of the Treaty on the Functioning of the European Union ("the Treaty"). The two sets of provisions are, in substance, identical. For the purposes of this Decision, references to Articles 101 and 102 of the Treaty should be understood as references to Articles 81 and 82, respectively, of the EC Treaty when where appropriate. The the Treaty also introduced certain changes in terminology, such as the replacement of "Community" by "Union" and "common market" by "internal market".

3 OJ L 123, 27.4.2004, p. 18.

Agreement on the European Economic Area ('the EEA Agreement'). The single and continuous infringement, for which the addressees of this Decision are held liable, consisted in an underlying understanding reached among certain individual traders ("the participating traders") and implemented by them to exchange - on mostly multilateral,[4] private chatrooms and on an extensive and recurrent basis - certain current or forward-looking commercially sensitive information about certain of their trading activities and to occasionally coordinate their trading activity with respect to Forex (FX)[5] spot trading of G10 currencies. The G10 FX currencies concerned by this Decision comprise the USD and CAD, JPY, AUD, NZD, GBP, EUR, CHF, SEK, NOK and DKK (in other words 11 currencies altogether, which corresponds to the market convention for currencies covered by the G10 designation).

(2) The infringement lasted from 18 December 2007 to 31 January 2013.

(3) This Decision is addressed to the following legal entities:

(a) UBS AG (hereinafter "UBS");

(b) The Royal Bank of Scotland Group plc and NatWest Markets Plc (collectively "RBS");

(c) Barclays PLC, Barclays Services Limited and Barclays Bank Plc (collectively "Barclays");

(d) Citibank, N.A. and Citigroup Inc. (hereinafter collectively "Citigroup");

(e) J.P. Morgan Europe Limited, J.P. Morgan Limited, JPMorgan Chase Bank, N.A. and JPMorgan Chase & Co. (collectively "JPM").

2. THE INDUSTRY SUBJECT TO THE PROCEEDINGS

2.1. The product

(4) The infringement addressed in this Decision relates to the G10 FX spot trading activity of the undertakings involved. A spot foreign exchange or FX spot transaction is defined as an agreement between two parties to exchange two currencies,that is to buy a certain amount (the "notional amount") of one currency against selling the equivalent notional amount of another currency at the current value at the moment of the agreement (the "exchange rate"), for settlement on the spot date (which is usually T (transaction's day) plus 2 days).[6]

(5) The FX spot trading activity encompasses both:

(a) market making: the execution of customer's orders to exchange a currency amount by its equivalent in another currency; and

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4 For the purpose of this Decision, "mostly multilateral chatrooms" means chatrooms that in limited instances were bilateral as only two participants attended (each of them trading for a different bank), but most frequently were multilateral, with three or more participants attending.

5 The term "foreign exchange" (Forex or FX) refers to the trading of currencies, which happens in a decentralised manner. It includes all aspects of buying, selling and exchanging currencies at current or determined prices. The foreign exchange rate is the rate at which one currency will be exchanged for another. Since currencies are always traded in pairs, in foreign exchange there is not such a thing as a currency's absolute value but a relative value compared with other currencies. The market price of one currency is set in a given currency pair, that is, a value if it is exchanged against another.

6 The case does not concern FX spot e-commerce trading activity within the meaning of FX spot trades that are automatically booked by, or executed by either the relevant bank's proprietary electronic trading platforms or computer algorithms. These transactions take place without the intervention of any trader.

(b) trading on own account: the execution of other currency exchanges in order to manage the exposure resulting from the market making transactions .

(6) In their capacity as market makers, traders stand ready to trade on behalf of customers at the quoted prices. Customers include asset managers, hedge funds, corporations and other banks. In industry terms,[7] a market maker quotes two-way prices in a certain currency pair: the "bid price" which is the price at which the trader is ready to buy a currency against another, and the "ask price" which is the price at which the trader is ready to sell a currency against another currency. The difference between the bid and ask prices is the "bid-ask spread"[8]. A market maker would: (i) set bid prices and ask prices for a certain currency pair; (ii) commit to accepting spot transactions at these prices; and (iii) subsequently take the resulting exposure on to his/her own book.[9] As such, a market maker is a counterparty in a Forex transaction, who, - unlike brokers, - bears the resulting exposure of the transactions he or she enters into.

(7) When trading on their own account, traders may, after having taken a certain currency exposure into their books, choose to subsequently (i) hold it, (ii) close it by entering into an equivalent reverse transaction or (iii) increase the exposure further. Both the magnitude of currency exposure market makers are willing or able to keep in their books and the pace at which they modify currency exposure depends on their market expectations, their risk appetite and regulatory limits.[10] This activity is called trading on own account, because it takes place on behalf of a trader's own undertaking.

(8) The G10 FX spot trading desks of the relevant undertakings stood ready to trade any of those currencies depending on market demand. While the participating traders themselves were primarily responsible for market making in specific currencies or pairs, their mandate authorised them to further engage in trading activity on behalf of their own undertaking with respect to any G10 currency available in their books, which they also did to different extents during the relevant period, with a view to maximising the value of their respective holdings.

(9) The following three types of orders characterising the customer-driven trading activity (market making) of the participating traders are pertinent in the present infringement:

(1) Customer immediate orders, to immediately enter trades for a certain amount of currency based on the prevailing market rate;

(2) Customer conditional orders, which are triggered when a given price level is reached and opens the traders' risk exposure. They only become executable when the market reaches a certain level (for example a stop-loss or take-profit order);

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7 https://admiralmarkets.com/education/articles/forex-basics/how-do-forex-market-makers-work

8 For currency pairs, prices are often referred to as exchange rates, though the terms prices and exchange rates can be used interchangeably in this context.

9 A trader's book is his/her transactions portfolio.

10 In the G10 FX spot trading activity, undertakings generally seek to generate revenues from FX spot trading by buying the relevant currencies at lower prices than the prices at which they sell those currencies.

(3) Customer orders to execute a trade at a specific Forex benchmark rate or "fixing" for particular currency pairs, which in the current case only concerned the WM/Reuters Closing Spot Rates (hereinafter the "WMR fixes") and the European Central Bank foreign exchange reference rates (hereinafter the "ECB fixes").[11]

2.2. Undertakings subject to these proceedings

2.2.1. UBS

(10) UBS is a global financial institution headquartered in Switzerland that has offices in more than 50 countries including all major financial centres, including in the EEA. It offers financial services including wealth management, investment banking and asset management.

(11) This Decision is addressed to the following legal entity:

– UBS AG, with registered offices at Bahnhofstraße 45, 8001 Zürich, Switzerland.

2.2.2. RBS

(12) RBS is a provider of banking and integrated financial services. It is headquartered in the United Kingdom and active in the EEA, United States and Asia Pacific.

(13) This Decision is addressed to the following legal entities:

– The Royal Bank of Scotland Group plc, with registered offices at 36 St Andrew Square, Edinburgh, EH2 2YB, United Kingdom; and

– NatWest Markets Plc,[12] with registered offices at 36 St Andrew Square, Edinburgh, EH2 2YB, United Kingdom.

2.2.3. Barclays

(14) Barclays is a bank headquartered in the United Kingdom, which operates worldwide, including in the EEA.

(15) This Decision is addressed to the following legal entities:

– Barclays PLC, with registered offices at 1 Churchill Place Canary Wharf London, E14 5HP, United Kingdom;

– Barclays Services Limited, with registered offices at 1 Churchill Place Canary Wharf London, E14 5HP, United Kingdom (formerly, "Barclays Capital Services Limited"); and

– Barclays Bank Plc, with registered offices at 1 Churchill Place Canary Wharf London, E14 5HP, United Kingdom.

2.2.4. Citigroup

(16) Citigroup is a global bank with business operations in more than 160 countries and jurisdictions, including in the EEA.

(17) This Decision is addressed to the following legal entities:

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[11] The WMR fix and the ECB fix are based on spot FX trading activity by market participants at or around the times of the respective WMR or ECB fix.

[12] On 30th April 2018, The Royal Bank of Scotland plc changed its name to NatWest Markets plc.

– Citibank, N.A., with registered offices at 388 Greenwich Street, New York, NY 10 013, United States of America; and

– Citigroup Inc., with registered offices at 388 Greenwich Street, New York, NY 10 013, United States of America.

2.2.5. JPM

(18) JPM is a financial institution headquartered in the United States of America. It currently operates in more than 60 countries around the world, including in the EEA.

(19) This Decision is addressed to the following legal entities:

– JPMorgan Chase & Co., with registered offices at 383 Madison Avenue, New York, NY 10179, United States of America;

– JPMorgan Chase Bank, N.A., with registered offices at 1111 Polaris Parkway, Columbus, Ohio 43 240, United States of America;

– J.P. Morgan Europe Limited, with registered offices at 25 Bank Street, Canary Wharf, London, E14 5JP, United Kingdom; and

– J.P. Morgan Limited, with registered offices at 25 Bank Street, Canary Wharf, London, E14 5JP, United Kingdom.

3. PROCEDURE

(20) On 27 September 2013, UBS applied for a marker under points 14 and 15 of the Notice on immunity from fines and reduction of fines in cartel cases (hereinafter "the Leniency Notice").[13] The application was followed by a number of submissions consisting of oral statements and documentary evidence. By Decision of 2 July 2014, the Commission granted UBS conditional immunity pursuant to point 8(a) of the Leniency Notice.

(21) On 11 October 2013, Barclays submitted an application for reduction of fines under the Leniency Notice. The application was followed by a number of supplementary submissions consisting of oral statements and documentary evidence.

(22) On […], RBS submitted an application for reduction of fines under the Leniency Notice. The application […].

(23) On […], Citigroup submitted an application for reduction of fines under the Leniency Notice. The application was followed by a number of supplementary submissions consisting of oral statements and documentary evidence.

(24) On […], JPM submitted an application for reduction of fines under the Leniency Notice. The application […].

(25) On 27 October 2016, the Commission informed the relevant undertakings that it considered that the evidence submitted constituted significant added value with respect to the evidence already in its possession and accordingly notified to them its intention to apply a reduction of fines within the applicable bands, in accordance with point 29 of the Leniency Notice.

(26) On 27 October 2016, the Commission initiated proceedings pursuant to Article 11(6) of Regulation (EC) No 1/2003 against the addressees of this Decision (also referred

[13] OJ C 298, 8.12.2006, p. 17.

to as the "Parties" or individually a "Party") and fixed a deadline pursuant to Article 10a(1) of Regulation (EC) Nº 773/2004 for Parties to manifest their eventual interest in engaging in settlement discussions, which they all confirmed.

(27) Settlement meetings with the Parties took place between […] and […]. At these bilateral meetings, the Commission informed the Parties about the potential objections it envisaged raising against them and disclosed the evidence in the Commission file relied on to establish the facts supporting the potential objections.

(28) The Parties were also given access to […]. The Parties were further provided with an estimation of the range of the likely fines to be imposed by the Commission.

(29) Each Party expressed its view on the potential objections which the Commission envisaged raising against them. The Parties' comments were carefully considered by the Commission and, where appropriate, taken into account in the ensuing settlement discussions.

(30) At the end of the settlement discussions, all the Parties considered that there was a sufficient common understanding between them and the Commission as regards the potential objections as well as the estimation of the range of likely fines in order to continue the settlement process.

(31) Between […] and[…], the Parties submitted to the Commission their formal requests to settle pursuant to Article 10a(2) of Regulation (EC) No 773/2004, solely for the purpose of reaching a settlement with the Commission in the present proceeding and without prejudice to any other proceedings (the "settlement submissions"). The settlement submissions of each Party contained:

- an acknowledgement in clear and unequivocal terms of its liability for the infringement summarily described as regards its object, the main facts, their legal qualification, including the Party's role and the duration of its participation in the infringement in accordance with the results of the settlement discussions;
- an indication of the maximum amount of the fine each Party foresees to be imposed by the Commission and which it would accept in the framework of a settlement procedure;
- the Party's confirmation that it has been sufficiently informed of the objections the Commission envisages raising against it and that it has been given sufficient opportunity to make its views known to the Commission;
- the Party's confirmation that it does not envisage requesting access to the file or requesting to be heard in an oral hearing, unless the Commission does not reflect its settlement submission in the Statement of Objections and the Decision;
- the Party's agreement to receive the Statement of Objections and the final Decision pursuant to Articles 7 and 23 of Regulation (EC) No 1/2003 in English.

(32) Each of the Parties made the above-mentioned settlement submission conditional upon the imposition of a fine by the Commission, which will not exceed the amount as specified in its settlement submission.

(33) On 24 July 2018, the Commission adopted a Statement of Objections addressed to the Parties. All the Parties replied to the Statement of Objections by confirming that it corresponded to the contents of their settlement submissions and that they therefore remained committed to following the settlement procedure.

(34) Having regard to the body of evidence in the Commission's file referred to in this Decision, the clear and unequivocal acknowledgments of the facts and the legal qualification thereof contained in the settlement submissions introduced by the addressees of this Decision, as well as their explicit and unequivocal confirmation that the Statement of Objections reflected the contents of their settlement submissions, the Commission concludes that the addressees of this Decision took part in the cartel as described in Section 4 and should be held liable for the infringement as set out in this Decision.

4. DESCRIPTION OF THE EVENTS

4.1. Nature, scope and functioning

(35) This Decision concerns the conduct herewith described as also documented in communications that took place within three private Bloomberg chatrooms[14] called, consecutively, "Three way banana split" / "Two and a half men" / "Only Marge" (identification numbers 1ebae, cf4b34 and de65d6, respectively) between […] (Barclays and later UBS), […] (RBS and later JPM), […] (Citigroup) and […] (Barclays), (collectively the "Three Way Banana Split chatrooms" or "the chatroom").

(36) The above-mentioned individuals were traders employed by their respective undertakings during the relevant period, and all of them were authorised to trade G10 FX currencies in spot transactions on behalf of their respective employing undertaking at the corresponding dedicated FX spot trading desk..

4.1.1. Evolution and duration of Three Way Banana Split membership

(37) Overall, the chatrooms were consecutively open from 18 December 2007 until 3 June 2013, and were actively used for extensive communications between 18 December 2007 and 31 January 2013. Not all Parties participated for the whole duration of the chatroom.

(38) The Three Way Banana Split chatroom was created by […] (Barclays at the time) on 18 December 2007. […] (Citigroup) and […] (RBS) joined on the same day, i.e. 18 December 2007.

(39) RBS left the chatroom on 19 April 2010, […].

(40) JPM joined the chatroom on 26 July 2010. On that date, […] was hired by JPM and re-joined the chatroom.

(41) Barclays left the chatroom on 7 July 2011, when its trader […]left Barclays. Thus, the chatroom became bilateral until 9 October 2011. Barclays re-entered the chatroom on 20 December 2011, when […] joined. Barclays left the chatroom again on 1 August 2012.

(42) UBS joined the chatroom on 10 October 2011, when […]re-joined it in his new capacity as a UBS FX spot mandated trader.

(43) Citigroup left the chatroom on 31 January 2013, upon withdrawal of[…].

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[14] Bloomberg chatrooms (or Instant Bloomberg) are a messaging /chat tool integrated in the Bloomberg Professional service (https://www.bloomberg.com/professional/). Bloomberg Professional service users can create electronic chatrooms using the Instant Bloomberg tool, and invite other Bloomberg Professional users.

(44) […] (JPM) and […] (UBS) continued communicating in the chatroom after 31 January 2013. However, […] departure from the chatroom on 31 January 2013 served as a warning to the remaining members as to the problematic nature of some of the communications within the chatroom and led to a marked change in their content. As such, 31 January 2013 is considered to be the final day of the period of the infringement.

4.1.2. Arrangements reached within the chatrooms

4.1.2.1. Underlying understanding to participate in the relevant private, mostly multilateral chatrooms

(45) The relevant individual traders of UBS, Barclays, RBS, Citigroup and JPM participated in nearly daily communications. As part of these communications, they engaged in extensive, recurrent and reciprocal[15] exchange of information, in the Three Way Banana Split chatrooms, relating to different aspects of FX spot trading of G10 currencies (although not all 55 combinations of the G10 currencies might necessarily have been discussed or actually implicated in the relevant conduct during the periods set out in section 6).

(46) This Decision does not concern the communications between the participating traders in the Three Way Banana Split chatrooms, in the ordinary course of their business, relating to matters such as the provision of information needed and intended to explore trading opportunities with each other as potential counterparties or as potential customers, or communications about market colour.[16]

(47) In addition to such communications, the participating traders however agreed to exchange - in private,[17] mostly multilateral chatrooms and on an extensive and recurrent basis - certain current or forward-looking commercially sensitive information about their trading activities. This information exchange took place in accordance with a tacit underlying understanding that: (i) such information could be used to the traders' respective benefit and in order to identify occasions to coordinate their trading;[18] (ii) such information would be shared within the private chatrooms;[19] (iii) the traders would not disclose such shared information received from other chatroom participants to Parties outside of the private chatrooms;[20] and (iv) such shared information would not be used against the traders who shared it[21] (hereinafter referred to as the "underlying understanding"). The exchange of information is further detailed in section 4.1.2.2.

(48) Moreover, pursuant to this underlying understanding, the participating traders occasionally coordinated their trading activities with respect to FX spot trading of G10 currencies.

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15 See recital (147)

16 For a definition of "market colour", see the Bank of International Settlements' Report published in May 2016 which defined the term as: "a view shared by market participants on the general state of, and trends in the market", and provides additional context on the subject (http://www.bis.org/mktc/fxwg/gc_may16.pdf).

17 For the purpose of the this Decision, "private chatrooms" means chatrooms reserved to chatrooms members.

18 […].

19 […].

20 […].

21 […].

(49) In particular, the exchange of information pursuant to the underlying understanding facilitated the participating traders, at times, to better predict each other's market conduct and potentially informed their subsequent decisions, allowing for occasional opportunistic coordinated behaviour relating to trading activities. Through their participation in nearly daily exchanges, the participating traders had the expectation of standing a better chance to coordinate behaviour opportunistically. The occasional coordination is further detailed in section 4.1.2.3.

(50) In particular, the participating traders involved in the private chatrooms engaged in the exchanges of information and occasional trading coordination, expecting some degree of reciprocity, without which the strategy would have been generally self-defeating. Such an underlying understanding appears from numerous chats, in which traders (i) expressed gratitude when receiving certain current or forward-looking information,[22] (ii) indicated willingness to coordinate their trading to benefit any of the chatrooms participants,[23] or (iii) apologized to each other when they may have departed from the underlying understanding.[24]

(51) As a result, participating in Three Way Banana Split chatrooms entailed membership of a closed group of traders who trusted each other and tacitly committed to comply with the terms of the underlying understanding.[25] The underlying understanding provided a basis for, and was implemented through, extensive and recurrent exchanges of certain current or forward-looking commercially sensitive information about their trading in mostly multilateral private chatrooms, which in turn enabled the relevant traders to identify, and in some cases, seize opportunities for coordinated trading.

4.1.2.2. Extensive exchange of information amongst competitors pursuant to the underlying understanding

(52) Pursuant to the underlying understanding, the participating traders exchanged in a recurrent and extensive fashion with each other, in mostly multilateral private chatrooms, certain current or forward-looking commercially sensitive information about their trading of either immediate commercial value, or of commercial value lasting for a period of minutes or at most hours after it had been shared, depending on the type of information or until it had been superseded by new updated information that overrode it (a practice hereinafter referred to as 'exchange of information'). The following specific types of exchange of information occurred in the Three Way Banana Split chatrooms:

(a) Exchange of information on open risk positions[26] of the participating traders

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22 See, among others,[…];[…].

23 See, among others,[…].

24 See, among others,[…].

25 See, for instance, chats of ([…]).

26 An “open risk position” in a certain currency is a position that has been recorded by a trader in his/her trading book following a spot transaction. The position remains open until an opposing trade takes place. An open risk position represents market exposure (the risk) for the trader.
Open risk positions can be ‘long’ or ‘short’. In long positions, the trader holds a positive amount of a certain currency in his/her trading book. The trader will gain if the value of this currency increases vs. other currencies. The trader will have to sell this currency in order to close the position. In short positions, the trader holds a negative amount of a certain currency in his/her portfolio. The trader will gain if the value of this currency decreases vs. other currencies. The trader will have to buy this currency in order to close the position.

(53) The exchange of information on open risk positions[27] consisted in the recurrent sharing of certain current or forward-looking commercially sensitive information on open risk positions with competitors (the direction of the position (either "short" or "long") and, at times, the size of the position or an indication of it) pursuant to the underlying understanding. The exchange of such information could provide the traders with an insight into each other's potential hedging conduct. The recurrent knowledge update of such open risk positions of major competitors provided the participating traders with information which could be, for a window of minutes or until new information superseded it, relevant to their subsequent trading decisions and enable the participating traders to identify opportunities for coordination.

(b) Exchange of information on outstanding customers' orders

(54) The exchange of information on outstanding customers' orders concerned stop-loss orders,[28] take-profit orders, orders for the fix[29] and immediate orders.[30]

(55) Pursuant to the underlying understanding, the participating traders of the addressees were expected to share and shared with each other confidential information related to their respective customers' outstanding orders. This applied to:

- **Customers Conditional orders** such as "stop-loss" and "take-profit" orders, which are triggered when a given price level is reached and opens the traders' risk exposure. In this case, the participating traders frequently revealed certain current or forward-looking commercially sensitive information on conditional orders such as the size or the direction of the orders or the type of customer to other participating traders on an extensive basis. This eased the identification of opportunities for coordination among the participating traders. The recurrent update of knowledge of customers' confidential conditional orders placed with participating traders increased the likelihood of the traders successfully coordinating their trading activities for their own benefit.
- **WMR or ECB fix positions**: traders usually engaged in these exchanges in the hour preceding the relevant fix. In contrast to instances of sharing their own fix positions (based on their own customers' orders executable at the fix or their own hedging needs) to explore trading opportunities as potential counterparties or as potential customers, these traders often shared certain commercially sensitive information on their fix positions (such as the size or direction of the orders) to identify occasions to coordinate trading at or around the fix. Shared current or forward-looking information on customers' orders executable at the fix remains relevant information until the relevant fix.

The "size" of a position is the positive or negative amount of a certain currency that a trader holds in his/her trading book.

For example, a trader begins the day with an empty trading book, meaning no position in any currency. If the trader sells EUR 1 million against USD and assuming an EUR/USD exchange rate of 1.15, he or she will create two open risk positions: a 'long' position, the size of which is USD 1 150 000 and a 'short' position of EUR 1 000 000. In order to close this short position, the trader will have to buy back EUR 1 000 000 (not necessarily against USD).

27 Examples of this can be found, for instance, in chats of ([…]).

28 Examples of this can be found, for instance, in chats of ([…]).

29 Examples of this can be found, for instance, in chats of ([…]).

30 Examples of this can be found, for instance, in chats of ([…]).

- **Commercially sensitive information on customers' immediate orders** (such as the size or the direction of the orders, the type of customer).pursuant to the underlying understanding. In this case, the exchange of information results in the same consequences as explained regarding the exchange of certain commercially sensitive information on current or planned trading activity (section (c)).

(c) Exchange of information on other details of current or planned trading activities

(56) Traders are constantly seeking to execute trades and to cover risks for those trades. This requires traders at competing undertakings to communicate with each other and request quotes directly from separate traders of given amounts and currencies. Nevertheless, traders should manage their operations independently from competitors and should not coordinate their trading activities with one another.

(57) The exchange of information on current or planned trading activities[31] covered by this Decision concerns the recurrent disclosure to other traders in mostly multilateral private chatrooms of certain commercially sensitive information on their current and intended trading activity pursuant to the underlying understanding, which made it easier for participating traders to identify occasions to coordinate their trading activities. Such information can remain relevant for competing undertakings during a window of between a few minutes and a few hours, or until new information supersedes it.

(d) Exchange of information on bid-ask spreads

(58) The exchange of information on bid-ask spreads concerned the instances in which the participating traders occasionally discussed existing or intended bid-ask spreads quotes of specific currency pairs for certain trade sizes.[32] The knowledge of existing or intended bid-ask spreads quotes of specific currency pairs for certain trade sizes, where there is a specific live trade, may remain useful for the other traders for a window of up to a few hours depending on the market's volatility at the time, and could enable coordination of spreads to that client.

(59) Bid-ask spreads quoted by traders refer to specific currency pairs for certain trade sizes. They are an essential competition parameter in FX spot trading activity. Spreads affect the overall price paid by customers for trading currencies). The potential revenue earned by a trader is also affected by the spread. When quoting both bid and ask price to a client, the traders would generally apply a spread to a given market mid-point[33] (whether in even amounts from that mid-point or otherwise) as part of this calculation.

4.1.2.3. Occasional instances of coordination facilitated by the exchange of information

(60) When engaging in fixing-related trading, traders should decide independently whether to decrease, offset or increase their open risk positions (see recital (53)) in order to optimize their exposure to risk at the fix. However, in the present case, the

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31 Examples of this can be found, for instance, in chats of ([…]).

32 Examples of this can be found, for instance, in chats of ([…]).

33 For a certain currency pair, the mid-point is equal to the average (in fact, the point in the middle) of the bid price and the ask price. For example, in the EUR/USD currency pair, if the bid price is 1.1560 and the ask price is 1.1580, then the bid-ask spread is 0.0020 and the mid-point is 1.1570. In perfect markets with costless forex transactions, the bid-ask spread would be zero and both the bid price and the ask price (and hence the mid-point) would be the same.

underlying understanding implemented by the participating traders occasionally facilitated specific forms of coordination, which took place with a view to benefiting the participating traders' returns or to avoiding trading against each other's interest (see also recitals (50) to (51) above). In that regard, the following specific types of coordination occurred:

(a) Coordinated trading with a view to affecting a fix

(61) By occasionally coordinating with a view to influencing the WMR or ECB fixes, the Parties sought to gain an advantage over competitors that did not participate in the Three Way Banana Split chatrooms. It concerns certain instances where the participating traders had disclosed that their open risk positions at the fix were of a certain type and spotted the opportunity to potentially benefit from it. Instead of making an independent decision, they would sell or buy along with one of the traders to create a bulk position with the aim of increasing the impact this may have on the outcome of the relevant fix (ECB or WMR).[34]

(b) 'Standing down'

(62) The occasional standing down practice concerned instances in which traders refrained from trading as they otherwise had planned to undertake during a particular time window on account of another trader's announced position or trading activity.[35]

(63) Standing down constituted another form of coordinated trading by which the participating traders showed an implicit understanding not to trade in ways that would damage each other's interest. This entailed some alignment of their trading activities. Having exchanged the requisite current or forward-looking commercially sensitive information regarding their open positions without any intention of exploring trading opportunities as a potential counterparty or as a potential customer, the participating traders were occasionally in a position to align their trading interests by means of 'standing down',in other words one or more of the traders refrained for a limited period of time from trading activity which was perceived to have the potential to negatively affect the trading interests of another participating trader. The suspension of trading activities by some participating traders during this time reduced the risk that a transaction by the participating trader would not achieve the desired outcome and avoided simultaneous trading in opposite directions.

4.2. Participation in the conduct

(64) The following undertakings participated in the conduct described in Section 4.1.2 above: UBS, Barclays, RBS, Citigroup and JPM.

(65) UBS, Barclays, RBS, Citigroup and JPM engaged in the aforementioned conduct in the periods indicated in the following table:

BANK	TRADER	ENTRY	EXIT
CITIGROUP	[…]	18/12/2007	31/01/2013
BARCLAYS	[…]	18/12/2007	7/07/2011
	[…]	20/12/2011	1/08/2012
RBS	[…]	18/12/2007	19/04/2010

[34] Examples of this can be found, for instance, in chats of ([…]).

[35] This can be found in chats of ([…]).

JPM	[…]	26/07/2010	31/01/2013
UBS	[…]	10/10/2011	31/01/2013

5. LEGAL ASSESMENT

(66) Having regard to the body of evidence, the facts as described in Section 4 and the Parties' clear and unequivocal acknowledgement of the facts and the legal qualification thereof contained in their settlement submissions and their replies to the Statement of Objections, the Commission's legal assessment is set out in Section 5.

5.1. Application of Article 101(1) of the Treaty and Article 53(1) of the EEA Agreement

5.1.1. Agreements and/or concerted practices

5.1.1.1. Principles

(67) Article 101(1) of the Treaty and Article 53(1) of the EEA Agreement prohibit anticompetitive agreements between undertakings, decisions by associations of undertakings and concerted practices.

(68) An agreement can be said to exist when the Parties adhere to a common plan which limits or is likely to limit their individual commercial conduct by determining the lines of their mutual action or abstention from action in the market. It does not have to be made in writing; no formalities are necessary, and no contractual sanctions or enforcement measures are required. The agreement may be express or implicit in the behaviour of the Parties. Furthermore, it is not necessary, in order for there to be an infringement of Article 101(1) of the Treaty, for the participants to have agreed in advance upon a comprehensive common plan. The concept of agreement in Article 101(1) of the Treaty applied to the inchoate understandings and partial and conditional agreements in the bargaining process which lead up to the definitive agreement.

(69) In its judgement in PVC II case,[36] the General Court stated that *"it is well established in the case law that for there to be an agreement within the meaning of Article [101(1)] of the Treaty it is sufficient for the undertakings to have expressed their joint intention to behave on the market in a certain way".*[37]

(70) Although Article 101(1) of the the Treaty and Article 53 of the EEA Agreement draw a distinction between the concept of "concerted practices" and "agreements between undertakings", the object is to bring within the prohibition of these Articles a form of co-ordination between undertakings by which, without having reached the stage where an agreement properly so-called has been concluded, they knowingly substitute practical co-operation between them for the risks of competition.[38]

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36 Joined Cases T-305/94 etc. *Limburgse Vinyl Maatschappij N.V. and others v Commission* (PVC II), ECLI:EU:T:1999:80, paragraph 715.

37 The case law of the Court of Justice and the General Court in relation to the interpretation of Article 81 of the EC Treaty [currently Article 101 TFEU] applies equally to Article 53 of the EEA Agreement. See recitals No 4 and 15 as well as Article 6 of the EEA Agreement, Article 3(2) of the EEA Surveillance and Court Agreement, as well as Case E-1/94 of 16.12.1994, recitals 32-35. References in this text to Article 101 of the Treaty therefore apply also to Article 53.

38 Case 48/69, *Imperial Chemical Industries v Commission* ECLI:EU:C:1972:70, paragraph 64.

(71) The criteria of co-ordination and co-operation laid down by the case law of the Court of Justice, far from requiring the elaboration of an actual plan, must be understood in the light of the concept inherent in the provisions of the The Treaty relating to competition, according to which each economic operator must determine independently the commercial policy which it intends to adopt in the common market. Although that requirement of independence does not deprive undertakings of the right to adapt themselves intelligently to the existing or anticipated conduct of their competitors, it strictly precludes any direct or indirect contact between such operators the object or effect whereof is either to influence the conduct on the market of an actual or potential competitor or to disclose to such a competitor the course of conduct which they themselves have decided to adopt or contemplate adopting on the market.[39]

(72) Thus, conduct may fall under Article 101(1) of the Treaty as a concerted practice even where the Parties have not explicitly subscribed to a common plan defining their action in the market but knowingly adopt or adhere to collusive devices, which facilitate the co-ordination of their commercial behaviour.[40]

(73) Furthermore, exchange of information between competitors can be characterised as a concerted practice if it reduces or removes the degree of uncertainty as to the operation of the market in question, with the result that competition between undertakings is restricted[41]

(74) Although in terms of Article 101(1) of the Treaty the concept of a concerted practice requires not only concertation but also conduct on the market resulting from the concertation and having a causal connection with it, it may be presumed, subject to proof to the contrary, that undertakings taking part in such a concertation and remaining active in the market will take account of the information exchanged with competitors in determining their own conduct on the market, all the more so when the concertation occurs on a regular basis and over a long period. Such a concerted practice is caught by Article 101(1) of the Treaty even in the absence of anti-competitive effects on the market.[42]

(75) Moreover, it is established case law that the exchange, between undertakings, in pursuance of a cartel falling under Article 101(1) of the Treaty, of information concerning their respective deliveries, which not only covers deliveries already made but is intended to facilitate constant monitoring of current deliveries in order to ensure that the cartel is sufficiently effective, constitutes a concerted practice within the meaning of that article.[43]

(76) However, in the case of a complex infringement of long duration, it is not necessary for the Commission to characterise the conduct as exclusively one or other of these forms of illegal behaviour. The concepts of agreement and concerted practice are fluid and may overlap. The anti-competitive behaviour may well be varied from time to time, or its mechanisms adapted or strengthened to take account of new

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39 Joined Cases 40-48/73 etc. *Suiker Unie and others v Commission*, ECLI:EU:C:1975:174.

40 Case T-7/89 *Hercules Chemicals v. Commission*, EU:T: 1991:75, paragraphs 255–261 and Case T-279/02 *Degussa AG v. Commission*, ECLI:EU:T:2006:103, paragraph 132

41 Case C-8/08, *T-Mobile Netherlands*, ECLI:EU:C:2009:343, paragraphs 35 and 43.

42 See also Case C-199/92 *P Hüls v Commission*, ECLI:EU:C:1999:358, paragraphs 158-166.

43 See, in this sense, Cases T-147/89, T-148/89 and T-151/89, *Société Métallurgique de Normandie v Commission*, ECLI:EU:T:1995:67; *Trefilunion v Commission*, ECLI:EU:T:1995:68; and *Société des treillis et panneaux soudés v Commission*, ECLI:EU:T:1995:71; respectively, paragraph 72.

developments. Indeed, it may not even be possible to make such a distinction, as an infringement may present simultaneously the characteristics of each form of prohibited conduct, while when considered in isolation some of its manifestations could accurately be described as one rather than the other. It would however be artificial analytically to sub-divide what is clearly a continuing common enterprise having one and the same overall objective into several different forms of infringement. A cartel may therefore be an agreement and a concerted practice at the same time. Article 101 of the Treaty lays down no specific category for a complex infringement of the present type.[44]

(77) For instance, in this regard, according *to paragraph 59 of the Commission's Guidelines on Horizontal Cooperation,*[45] *"communication of information among competitors may constitute an agreement, a concerted practice, or a decision by an association of undertakings with the object of fixing, in particular, prices or quantities. Those types of information exchanges will normally be considered and fined as cartels. Information exchange may also facilitate the implementation of a cartel by enabling companies to monitor whether the participants comply with the agreed terms. Those types of exchanges of information will be assessed as part of the cartel*.".

(78) In its PVC II judgement,[46] the General Court stated that *"[i]n the context of a complex infringement which involves many producers seeking over a number of years to regulate the market between them, the Commission cannot be expected to classify the infringement precisely, for each undertaking and for any given moment, as in any event both those forms of infringement are covered by Article [101] of the Treaty".*

(79) An agreement for the purposes of Article 101(1) of the Treaty does not require the same certainty as would be necessary for the enforcement of a commercial contract at civil law. Moreover, in the case of a complex cartel of long duration, the term "agreement" can properly be applied not only to any overall plan or to the terms expressly agreed but also to the implementation of what has been agreed on the basis of the same mechanisms and in pursuance of the same common purpose. As the Court of Justice has pointed out it follows from the express terms of Article 101(1) of the Treaty that agreement may consist not only in an isolated act but also in a series of acts or a course of conduct.[47]

5.1.1.2. Application to this case

(80) The Commission considers that the complex conduct described in Section 4 can be qualified as constituting agreements and/or concerted practices between competitors, within the meaning of Article 101 of the Treaty and Article 53 of the EEA Agreement, in which the addressees have taken part and thereby they knowingly substituted practical cooperation between them for the risks of competition.

(a) The underlying understanding qualifies as an agreement

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44 See Case T-7/89 *Hercules v Commission*, ECLI:EU:T: 1991:75, paragraph 264.

45 Communication from the Commission Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements, OJ C 11, 14.1.2011, p. 1.

46 See paragraph 696 of *PVC II* judgement referred to in footnote 38 above.

47 See Case C-49/92P *Commission v Anic Partecipazioni SpA*, ECLI:EU:C:1999:356, paragraph 81.

(81) Being a member of the Three Way Banana Split chatrooms came with a set of implied rules (the underlying understanding, as described above in Section 4.1.2.1) which the participating traders accepted and observed through their participation in the chatrooms, and by means of which they knowingly substituted practical cooperation between them for the risks of competition. The participating traders agreed not to use the information against traders who shared it. They tacitly understood that rules were necessary in a situation where the participating traders shared with each other, pursuant to the underlying understanding, certain current or forward-looking commercially sensitive information about their trading and that, in some cases, exposed them to market opportunism from the recipients of this information. As the evidence shows, the participating traders were also expected not to disclose certain information they had obtained in the private chatrooms to traders who did not participate in the chatrooms.[48] To ensure that none of the participating traders could free ride on certain information shared by the others, each of them was expected to disclose certain information of the types described above and traders apologized when they failed to do so.[49] The recurrent and extensive exchange of certain commercially sensitive information facilitated occasional coordination among the participating traders with a view to securing commercial benefit. Moreover, the extensive exchange of information helped in monitoring compliance with the underlying understanding.

(82) All such facts show that the Three Way Banana Split chatrooms were based on the underlying understanding, an implied tacit agreement with rules, commitments and reciprocity, which, while not set out in detail, were understood by the participating traders. This tacit agreement manifested itself through an extensive exchange of certain current or forward-looking commercially sensitive information (as described in section 4.1.2.2), and the occasional coordination of trading activities (as described in section 4.1.2.3).

(83) Based on its assessment of the complex conduct described in Section 4, the Commission considers that the underlying understanding constitutes an agreement in the sense of Article 101 of the Treaty and Article 53 of the EEA Agreement.

(b) Other agreements and/or concerted practices

(84) As described in section 4.1.2.2, the participating traders were recurrently in direct contact, making regularly available to each other in mostly multilateral private chatrooms, the Three Way Banana Split chatrooms, certain current or forward-looking commercially sensitive information on their commercial circumstances and plans pursuant to the underlying understanding, whereby the undertakings knowingly substituted practical co-operation between them for the risks of competition. This exchange of information, with a view to reducing competitive uncertainty, which was pursuant to the underlying understanding, so facilitated occasional coordination among the traders.

(85) Based on its assessment of the complex conduct described in Section 4, the Commission considers that the instances of exchange of information and occasional coordination described in sections 4.1.2.2 and 4.1.2.3 qualify as agreements and/or concerted practices in the sense of Article 101 of the Treaty and Article 53 of the EEA Agreement.

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48 See, for instance, chats of ([…]).

49 See, for instance, chat of ([…]).

5.1.2. Restriction and/or distortion of competition

5.1.2.1. Principles

(86) Article 101 of the Treaty and Article 53 of the EEA Agreement prohibit agreements and concerted practices that have as their object or effect the restriction of competition by directly or indirectly fixing prices or any other trading conditions. It is settled case law that, for the purpose of the application of Article 101 of the Treaty and Article 53 of the EEA Agreement, there is no need to take into account the actual effects of an agreement when it has as its object the prevention, restriction or distortion of competition within the common market.[50] The same applies to concerted practices.[51] Furthermore, the exchange of information between competitors is liable to be incompatible with the competition rules if it reduces or removes the degree of uncertainty as to the operation of the market in question, with the result that competition between undertakings is restricted. In particular, an exchange of information which is capable of removing uncertainty between participants as regards the timing, extent and details of the modifications to be adopted by the undertakings concerned in their conduct on the market must be regarded as pursuing an anticompetitive object.[52]

(87) It is inherent in the Treaty provisions on competition that every economic operator must determine autonomously the policy which it intends to pursue on the common market. Thus, according to that case-law, such a requirement of autonomy precludes any direct or indirect contact between economic operators of such a kind as either to influence the conduct on the market of an actual or potential competitor or to reveal to such a competitor the conduct which an operator has decided to follow itself or contemplates adopting on the market, where the object or effect of those contacts is to give rise to conditions of competition which do not correspond to the normal conditions of the market in question, taking into account the nature of the products or the services provided, the size and number of the undertakings and also the volume of the market.[53]

5.1.2.2. Application to this case

(88) Pursuant to the underlying understanding, the participating traders engaged in recurrent and extensive exchange of information through which they revealed to each other certain current or forward-looking commercially sensitive information about confidential aspects of their market conduct, which enabled participating traders trading on behalf of competing undertakings to engage in occasional coordination of their trading activities by either occasionally suspending the trading activity of some traders in order not to interfere with another participating trader (standing down) or

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50 Case T-62/98 *Volkswagen AG* v *Commission*, ECLI: EU:T:2000:180, paragraph 178 and case-law cited therein.

51 See Case C-49/92 P *Commission* v *Anic Partecipazioni*, ECLI:EU:C:1999:356, paragraph 121; Case C-199/92 P *Hüls* v *Commission*, ECLI:EU:C:1999:358, paragraphs 161 to 163; Case C-8/08 *T-Mobile Netherlands and Others*, ECLI: EU:C:2009:343, paragraph 51; Case C-286/13 P - *Dole Food and Dole Fresh Fruit Europe v Commission*, ECLI:EU:C:2015:184, paragraph 127.

52 Case C-286/13 P *Dole Food and Dole Fresh Fruit Europe v Commission*, ECLI:EU:C:2015:184, paragraph 121 and the case law cited.

53 See Case C-238/05 *Asnef-Equifax*, ECLI:EU:C:2006:734, paragraph 51. See also case C-7/95P *John Deere* v *Commission*, ECLI:EU:C:1998:256, paragraph 90, Case C-194/99 P *Thyssen Stahl* v *Commission*, ECLI:EU:C:2003:527, paragraph 81 and Case C-49/92 *Commission* v *Anic Partecipazioni*, ECLI:EU:C:1999:356, paragraphs 116 and 117, as well as the case-law cited.

by occasionally coordinating trading with a view to influencing the WMR or ECB fixes.

(89) Traders also competed specifically on prices quoted for specified currency pairs for certain trade sizes in relation to FX spot trading. It follows that the information exchanges pursuant to the underlying understanding, whereby the participating traders provided current or forward-looking information to one another on the level of spread quotes or communicated spread strategy for a given client in a specific situation where there was a specific live potential trade, may have facilitated occasional tacit coordination of those traders' spreads behaviour, thereby tightening or widening the spread quote in that specific situation.

(90) Traders generally have differing trading interests triggered by new customer orders, which did not favour constant coordination. However, in this case the participating traders engaged in occasional coordination pursuant to the underlying understanding and facilitated by extensive exchange of certain current or forward-looking commercially sensitive information about their trading, in which their interests could be favoured by occasionally coordinating their actions or by refraining from action in order to help a member of the chatrooms with higher stakes at play (as set out in the following recitals). This resulted in occasional coordinated trading at and around the WMR or ECB fixes and 'standing down' (see recitals (61) and (62) above).

(91) The participating traders occasionally resorted to coordinated trading at and around the relevant WMR and ECB fixes seeking to influence to their own benefit the level of the fixes and to benefit their trading revenues around the fixes. Therefore, the occasional coordinated trading carried out by the participating traders with a view to affecting the relevant fix constituted an implicit agreement and/or concerted practice by the participating undertakings because it sought to influence the fix, which in turn potentially affected the undertakings' revenues. Hence, this conduct aimed at affecting prices to their own benefit.

(92) Standing down constituted another form of coordinated trading by which the participating traders showed an implicit understanding not to trade in ways that would damage each other's interest. This entailed some alignment of their trading activities. Having exchanged the requisite current or forward-looking commercially sensitive information regarding their open positions without any intention of exploring trading opportunities as a potential counterparty or as a potential customer, the participating traders were occasionally in a position to align their trading interests by means of 'standing down', in other words one or more of the traders refrained for a limited period of time from trading activity which was perceived to have the potential to negatively affect the trading interests of another participating trader. The suspension of trading activities by some participating traders during this time reduced the risk that a transaction by the participating trader would not achieve the desired outcome and avoided simultaneous trading in opposite directions.

(93) The Commission considers that the underlying understanding implemented through recurrent and extensive information sharing and occasional coordinated trading considered as a whole had the object of restricting and/or distorting competition.

(94) The extensive exchange of certain current or forward-looking commercially sensitive information among the participating traders about their trading enabled the participating traders (see sections 4.1.2.2 and 4.1.2.3):

- to make market decisions informed by those information exchanges pursuant to the underlying understanding;
- to identify opportunities for coordination in the market amongst the participating traders;
- occasionally, to adjust their behaviour in the market and coordinate their trading activity, consisting in the suspension of trading activity of some traders not to interfere with another member of the chatroom (standing down) or coordination of their trading with a view to influencing the WMR or ECB fixes; and
- to monitor the traders' compliance with the underlying understanding.

(95) It follows that the agreement and the agreements and/or concerted practices referred to in Section 5.1.1.2 were capable of altering the terms in which the participating traders competed on the market compared to how they would have competed in their absence.

(96) The Commission accordingly concludes that the agreement and the agreements and/or concerted practices described in Section 4 were capable of affecting the basic parameters on which the participating undertakings should be competing autonomously and accordingly have the object of distorting and/or restricting competition within the meaning of Article 101 of the Treaty and Article 53 of the EEA Agreement.

5.1.3. Single and continuous infringement

5.1.3.1. Principles

(97) A complex cartel may properly be viewed as a single and continuous infringement for the timeframe in which it existed. The concept of "single agreement" or "single infringement" presupposes a group of practices adopted by various Parties in pursuit of a single anticompetitive economic aim.[54] The cartel may well vary from time to time, or its mechanisms be adapted or strengthened to take account of new developments.

(98) The mere fact that each participant in an infringement may play the role which is appropriate to its own specific circumstances does not exclude its responsibility for the infringement as a whole, including acts committed by other participants but which share the same anticompetitive object or effect. An undertaking which takes part in the common unlawful enterprise by actions which contribute to the realisation of the shared objective is equally responsible, for the whole period of its adherence to the common scheme, for the acts of the other participants pursuant to the same infringement, where it is established that the undertaking in question was aware of the unlawful behaviour of the other participants or could reasonably have foreseen it and was prepared to take the risk.[55]

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54 Joined Cases T-25/95 and others *Cement*, ECLI:EU:T:2000:77, paragraph 369.

55 Case 49/92 P *Commission v Anic Partecipazioni*, ECLI:EU:C:1999:356, paragraph 83: "*an undertaking that had taken part in such an infringement through conduct of its own which formed an agreement or concerted practice having an anti-competitive object for the purposes of Article 85(1) of the Treaty and which was intended to help bring about the infringement as a whole was also responsible, throughout the entire period of its participation in that infringement, for conduct put into effect by other undertakings in the context of the same infringement. That is the case where it is established that the undertaking in question was aware of the offending conduct of the other participants or that it could reasonably have foreseen it and that it was prepared to take the risk.*"

(99) An undertaking may thus have participated directly in all the aspects of anti-competitive conduct comprising a single infringement, in which case the Commission is entitled to attribute liability to it in relation to that conduct as a whole and, therefore, in relation to the infringement as a whole. Equally, the undertaking may have participated directly in only some of the anti-competitive conducts comprising a single infringement, but have been aware of all the other unlawful conducts planned or put into effect by the other participants in the cartel in pursuit of the same objectives, or could reasonably have foreseen that conduct and have been prepared to take the risk. In such a case, the Commission is also entitled to attribute liability to that undertaking in relation to all the anti-competitive conducts comprising such an infringement and, accordingly, in relation to the infringement as a whole.[56]

(100) On the other hand, if an undertaking has participated directly in one or more of the aspects of anti-competitive conduct comprising a single infringement, but it has not been shown that that undertaking intended, through its own conduct, to contribute to all the common objectives pursued by the other participants in the cartel and that it was aware of all the other unlawful conduct planned or put into effect by those other participants in pursuit of the same objectives or that it could reasonably have foreseen all that conduct and was prepared to take the risk, the Commission is entitled to attribute to that undertaking liability only for the conduct in which it participated directly and the conduct planned or put into effect by the other participants in pursuit of the same objectives as those pursued by that undertaking where it has been shown that the undertaking was aware of that conduct or could reasonably have foreseen it and was prepared to take the risk.[57]

5.1.3.2. Application to this case

(101) The cartel arrangements in this case present the characteristics of a single, complex and continuous infringement. The participating traders maintained a consistent pattern of nearly daily communications where they had extensive and recurrent information exchanges pursuant to the underlying understanding and occasionally engaged in coordination of their trading activities including standing down, pursuant to an underlying understanding that being a member of the private chatrooms entailed such behaviour and each member could rely on the fact that the other members would act the same way. They were under the assumption that, by behaving recurrently in such way, they were increasing the knowledge with which they operated on the market and the probabilities to seize opportunities to their benefit. The traders' perception that this recurrent conduct was overall beneficial to them outweighed the fact that on a given transaction a number of traders had to be ready to serve the interests of only one of them, for instance by standing down, to increase the chances of that participating trader to seize an opportunity to obtain a better deal. Therefore, (a) the conduct documented in the chatrooms formed part of a single overall plan pursuing an anticompetitive common objective during the whole duration of the infringement, (b) the Parties intended to contribute to the common objective and were aware of the full scope of the infringement;

(a) Overall plan pursuing an anti-competitive common objective

- The Parties shared the same common anti-competitive objective

[56] Case C-441/11 P *Commission* v *Verhuizingen Coppens*, ECLI:EU:C:2012:778, paragraph 43.

[57] Case C-441/11 P *Commission* v *Verhuizingen Coppens* ECLI:EU:C:2012:778, paragraph 44.

(102) The Commission considers that, taken together, the above-described agreement and the agreements and/or concerted practices, as referred to in Section 5.1.1.2 above, had a common anticompetitive objective. Evidence reveals that the same participating traders were engaged in an interrelated string of actions – in the same framework, using the same means – which were inextricably linked by their common overall objective of restricting and/or distorting competition in the FX spot trading of G10 currencies (although not all 55 combinations of the G10 currencies might necessarily have been discussed or actually implicated in the relevant conduct). The recurrent exchange of information among the closed group of traders pursuant to the underlying understanding allowed them to set the conditions to identify opportunities to coordinate their trading activities if and when they arose.

- Modus operandi

(103) During the whole duration of the chatrooms the participating traders joined it following individual invitations on the basis of personal relationships with other members of the chatrooms. The membership of the chatrooms entailed the acceptance of a set of rules that remained unchanged during the whole duration of the infringement (see section 4.1.2.1).

(104) All throughout the duration of the chatrooms, the participating traders joined in almost daily communications. As part of these communications, they engaged in extensive, recurrent and reciprocal exchanges of information, relating to different aspects of FX spot trading of G10 currencies (although not all 55 combinations of the G10 currencies might necessarily have been discussed or actually implicated in the relevant conduct).

- Continuity of the individuals and undertakings participating in the chatrooms

(105) As the evidence shows and described in Section 4, the frequency and quality of these exchanges remained steady through the duration of the infringement.

(106) The participation of the traders covered parallel or adjacent periods, without there being any interruption of the infringement from its inception to its end.

(107) Therefore the Commission considers that the various arrangements between the undertakings concerned, which the Commission has found have occurred in this case (see Sections 4 and 5.1.1.2), constitute a complex, single and continuous infringement of Article 101 of the Treaty and Article 53 of the EEA Agreement, in relation to FX spot trading of G10 currencies.

(b) Intention to contribute to the common objective and awareness

(108) With their participation in the chatrooms, the participating traders intended to contribute and effectively contributed to their common objective. For the time of their respective participation, each of them was aware of the full scope of the infringement, since the conduct took place via multilateral chatrooms.

(109) In light of the above, the Commission considers that, for their respective periods of participation in the infringement (see section 6), the Parties can be held liable for the entire single and continuous infringement.

5.1.4. Effect upon trade (between Members States and between the EEA contracting parties)

5.1.4.1. Principles

(110) Article 101 of the Treaty is aimed at agreements and concerted practices which might harm the attainment of an internal market between the Member States, whether by partitioning national markets or by affecting the structure of competition within the internal market. Similarly, Article 53 of the EEA Agreement is directed at agreements that undermine the achievement of a homogenous EEA.

(111) The application of Article 101 of the Treaty and Article 53 of the EEA Agreement is not, however, limited to that part of the participants' sales that actually involves the transfer of goods from one Member State to another. Nor is it necessary, in order for these provisions to apply, to show that the individual conduct of each participant, as opposed to the infringement as a whole, affected trade between the Member States[58] and between contracting parties to the EEA Agreement.

(112) The Union Courts have consistently held that: *"in order that an agreement between undertakings may affect trade between Member States, it must be possible to foresee with a sufficient degree of probability on the basis of a set of objective factors of law or fact that it may have an influence, direct or indirect, actual or potential, on the pattern of trade between Member States. Article 101 of the Treaty does not require that agreements have actually affected trade between Member States, but it does require that it be established that the agreements are capable of having that effect."*[59]

5.1.4.2. Application to this case

(113) In this case, the Commission finds that the participating traders' FX spot trading activities in G10 currencies were at least EEA-wide in scope.

(114) FX spot trading services are routinely used by multinational undertakings such as banks, corporations, hedge funds, pension funds and investment banking firms within the EEA. The infringement covered the entire EEA and related to trade within the EEA and was therefore capable of having an appreciable effect upon trade between EU Member States and between contracting parties to the EEA Agreement.

(115) Therefore, for the purposes of the application of Articles 101 of the Treaty and Article 53 of the EEA Agreement, the agreement and the agreements and/or concerted practices referred to in Section 5.1.1.2 covered the entire EEA.

5.1.5. Non-applicability of Article 101(3) of the Treaty and of Article 53(3) of the EEA Agreement

5.1.5.1. Principles

(116) The provisions of Article 101 of the Treaty and Article 53 of the EEA Agreement may be declared inapplicable pursuant to Article 101(3) of the Treaty and Article 53(3) of the EEA Agreement where an agreement or concerted practice contributes to improving the production or distribution of goods or to promoting technical or

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58 Case T-13/89 *Imperial Chemical Industries v Commission*, *ECLI:*EU:T:1992:35, paragraph 304.

59 Case 56/65 *Société Technique Minière*, ECLI:EU:C:1966:38, paragraph 7; Case 42/84 *Remia and Others*, ECLI:EU:C:1985:327, paragraph 22; Joined Cases T-25/95 and others *Cement*, ECLI:EU:T:2000:77; and Joined Cases C-215/96 and C-216/96 *Bagnasco and Others*, ECLI:EU:C:1999:12, paragraph 48.

economic progress, provided that it allows consumers a fair share of the resulting benefit, does not impose restrictions that are not indispensable to the attainment of those objectives and does not afford the undertakings concerned the possibility of eliminating competition in respect of a substantial part of the products in question.

5.1.5.2. Application to this case

(117) There is no indication that the agreements and/or concerted practices, as referred to in section 5.1.1.2 above, entailed any efficiency benefits or otherwise promoted technical or economic progress or benefitted consumers. Complex infringements amounting to secretly organised coordination between competitors, like the one which is the subject of this Decision are, by definition, among the most detrimental restrictions of competition.

(118) Accordingly, the Commission considers that the conditions for exemption provided for in Article 101(3) of the Treaty and Article 53(3) of the EEA Agreement are not met in this case.

5.1.6. Conclusion regarding the application of Article 101 of the Treaty and Article 53 of the EEA Agreement

(119) The Commission concludes that by exchanging sensitive business information and by occasionally coordinating their trading activities pursuant to an underlying understanding (see section 4.1.2), the Parties have engaged in the agreements and/or concerted practices referred to in Section 5.1.1.2 which taken together constitute a single and continuous infringement by object of Article 101 of the Treaty and Article 53 EEA in relation to FX spot trading of G10 currencies.

6. ADDRESSEES

6.1. Principles

(120) Union/EEA competition law refers to the activities of undertakings and the concept of an undertaking covers any entity engaged in an economic activity, irrespective of its legal status and the way in which it is financed.[60]

(121) When such an entity infringes the competition rules, it falls, according to the principle of personal responsibility, to that entity to answer for that infringement. The conduct of the subsidiary can be imputed to the parent where the parent exercises a decisive influence over it, namely where that subsidiary does not decide independently upon its own conduct on the market. In effect, as the controlling company in the undertaking, the parent is deemed to have itself committed the infringement of Article 101 of the Treaty and Article 53 of the EEA Agreement.[61]

(122) The Commission cannot merely find that a legal entity is able to exert decisive influence over another legal entity, without checking whether that influence was

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60 Case C-511/11 P, *Versalis v Commission*, ECLI:EU:C:2013:386, paragraph 51.

61 Case C-97/08 P, *Akzo Nobel and others v Commission*, ECLI:EU:C:2009:536, paragraph 61; Case C-521/09 P, *Elf Aquitaine* v *Commission*, ECLI:EU:C:2011:620, paragraphs 57 and 63; Joined cases C-628/10 P and C-14/11 P, *Alliance One International and Standard Commercial Tobacco* v *Commission* and *Commission* v *Alliance One International and Others*, ECLI:EU:C:2012:479, paragraphs 43 and 46; Case C-508/11 P, *ENI* v *Commission*, ECLI:EU:C:2013:289, paragraph 47; Case C-286/98 P, *Stora Kopparbergs Bergslags v Commission*, ECLI:EU:C:2000:630, paragraph 29; Case T-391/09, *Evonik Degussa et AlzChem v Commission*, ECLI:EU:T:2014:22, paragraph 77; and Case C-440/11 P, *Commission v Stichting Administratiekantoor Portielje*, ECLI:EU:C:2013:514, paragraph 41.

actually exerted. On the contrary, it is, as a rule, for the Commission to demonstrate such decisive influence on the basis of factual evidence, including, in particular, any management power one of the legal entities may have over the other.[62]

(123) However, in particular in those cases, where one parent holds all or almost all of the capital in a subsidiary which has committed an infringement of Union/EEA competition rules, there is a rebuttable presumption that that parent company in fact does exercise a decisive influence over its subsidiary. In such a situation, it is sufficient for the Commission to prove that all or almost all of the capital in the subsidiary is held by the parent company in order to take the view that that presumption applies.[63]

(124) In addition, when an entity which has committed an infringement of the competition rules is subject to a legal or organisational change, this change does not necessarily create a new undertaking free of liability for the conduct of its predecessor which infringed the competition rules, when, from an economic point of view, the two entities are identical. Where two entities constitute one economic entity, the fact that the entity that committed the infringement still exists does not as such preclude imposing a penalty on the entity to which its economic activities were transferred. In particular, applying penalties in this way is permissible where those entities have been under the control of the same person and have therefore, given the close economic and organisational links between them, carried out, in all material respects, the same commercial instructions.[64]

(125) Where several legal entities may be held liable for the participation in an infringement of one and the same undertaking, they must be regarded as jointly and severally liable for that infringement.

6.2. Application to this case

(126) Having regard to the body of evidence and the facts described in Section 4, the clear and unequivocal acknowledgements by the addressees of the facts and the legal qualification thereof, the Commission imputes liability to the following legal entities within the relevant undertakings, as addressees:

6.2.1. UBS

(127) From 10 October 2011 until 31 January 2013, […] participated in the anti-competitive behaviours that took place in the Only Marge chatroom, of which he was a member. At that time, […]was employed by UBS AG and was entrusted with an explicit mandate to execute FX spot transactions on its behalf for at least G10 FX currencies.[65] Hence, UBS AG directly participated in the Three Way Banana Split infringement, through […] participation in the Only Marge chatroom, for the duration indicated in recital (148). UBS AG acknowledged its direct participation as described above.

(128) The Commission therefore holds UBS AG liable for the infringement for the period from 10 October 2011 until 31 January 2013.

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62 Joined Cases T-56/09 and T-73/09 *Saint-Gobain Glass France and others v Commission*, ECLI:EU:T:2014:160, paragraph 311.

63 Case C-97/08 P, *Akzo Nobel and others v Commission*, ECLI:EU:C:2009:536, paragraph 60.

64 Case C-434/13 P, *Commission v Parker Hannifin Manufacturing and Parker-Hannifin*, ECLI:EU:C:2014:2456, paragraphs 40-41.

65 See […]

6.2.2. Barclays

(129) From 18 December 2007 until 7 July 2011, […] participated in the anti-competitive behaviours that took place in the Three Way Banana Split chatrooms, of which he was a member. From 20 December 2011 until 1 August 2012, […] participated in the behaviours that took place in the Only Marge chatroom, of which he was a member. Barclays Services Limited directly participated in the infringement through the behaviour of its employees […] and[…]. Likewise, Barclays Bank Plc directly participated in the infringement through the behaviour of both […] and[…], who were entrusted with an explicit mandate for at least G10 FX currencies to execute FX spot transactions on behalf of Barclays Bank Plc. Both Barclays Services Limited and Barclays Bank Plc acknowledged their direct participation as described above.

(130) In addition, for the duration indicated in recital (148), Barclays PLC, directly or indirectly, owned 100 % or at least 99.99 % of the shareholdings of Barclays Bank Plc and Barclays Services Limited.[66] Therefore, for the reasons explained in recital (123), Barclays PLC is presumed to have had decisive influence over the conduct of its wholly-owned or nearly wholly-owned subsidiaries that are Barclays Bank Plc and Barclays Services Limited. Barclays PLC shall be jointly and severally liable for the conduct of its subsidiaries for the whole duration of their participation in the infringement. Finally, Barclays PLC acknowledged its joint and several liability for the conduct of Barclays Bank Plc and Barclays Services Limited.

(131) The Commission therefore holds Barclays PLC, Barclays Services Limited and Barclays Bank Plc. jointly and severally liable for the infringement for the periods from 18 December 2007 until 7 July 2011, and from 20 December 2011 until 1 August 2012.

6.2.3. RBS

(132) From 18 December 2007 until 19 April 2010, […] participated in the anti-competitive behaviours that took place in the Three Way Banana Split chatroom, of which he was a member. At that time, […] was employed by NatWest Markets Plc and entrusted with an explicit mandate to execute FX spot transactions on its behalf for at least G10 FX currencies.[67] Hence, NatWest Markets Plc directly participated in the infringement through […] participation in the Three Way Banana Split chatroom, for the duration indicated in recital (148). NatWest Markets Plc acknowledged its direct participation in the infringement as described above.

(133) In addition, for the duration indicated in recital (148), The Royal Bank of Scotland Group plc owned 100 % of the shareholding of NatWest Markets Plc.[68] Therefore, for the reasons explained in recital (123), The Royal Bank of Scotland Group plc is presumed to have had decisive influence over the conduct of its wholly-owned NatWest Markets Plc. The Royal Bank of Scotland Group plc shall be jointly and severally liable for the conduct of its subsidiary for the whole duration of the latter's participation. Finally, The Royal Bank of Scotland Group plc acknowledged its joint and several liability for the conduct of its subsidiary NatWest Markets Plc for the whole duration of the latter's participation in the infringement.

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66 See […]

67 […]

68 […];[…].

(134) The Commission therefore holds The Royal Bank of Scotland Group plc and NatWest Markets Plc jointly and severally liable for the infringement for the period from 18 December 2007 until 19 April 2010.

6.2.4. Citigroup

(135) From 18 December 2007 until 31 January 2013, […] participated in the anti-competitive behaviours that took place in the Three Way Banana Split chatrooms, of which he was a member. At that time, […] was employed by Citibank, N.A. and entrusted with an explicit mandate to execute FX spot transactions on its behalf for at least G10 FX currencies.[69] Hence, Citibank, N.A. directly participated in the infringement, through […] participation in the Three Way Banana Split chatrooms, for the duration indicated in recital (148). Citibank, N.A. acknowledged its direct participation in the infringement as described above.

(136) In addition, for the duration indicated in recital (148), Citigroup Inc. indirectly owned 100 % of the shareholding of Citibank, N.A.[70] Therefore, for the reasons explained in recital (123), Citibank Inc. is presumed to have had decisive influence over the conduct of its indirectly wholly-owned subsidiary Citibank, N.A. Consequently, Citigroup Inc. shall be jointly and severally liable for the conduct of its subsidiary Citibank, N.A. for the whole duration of the latter's participation in the infringement. Finally, Citigroup Inc. acknowledged its joint and several liability for the conduct of its subsidiary Citibank, N.A.

(137) The Commission therefore holds Citigroup Inc. and Citibank, N.A. jointly and severally liable for the infringement for the period from 18 December 2007 until 31 January 2013.

6.2.5. JPM

(138) From 26 July 2010 until 31 January 2013, […] participated in the anti-competitive behaviours that took place in the Three Way Banana Split chatrooms, of which […] was a member. At that time, […] was successively employed by J.P. Morgan Europe Limited (from 13 July 2010 until 24 May 2011) and J.P. Morgan Limited (from 25 May 2011 until 1 October 2013, which was beyond the end of the infringement). For the same period, […] was also entrusted with an explicit mandate to execute FX spot transactions on behalf of JPMorgan Chase Bank, N.A. for at least G10 FX currencies.[71] Hence, J.P. Morgan Europe Limited, J.P. Morgan Limited and JPMorgan Chase Bank, N.A. directly participated in the infringement, through […] participation in the Three Way Banana Split chatrooms, for the duration indicated in recital (146). J.P. Morgan Europe Limited, J.P. Morgan Limited and JPMorgan Chase Bank, N.A. acknowledged their direct participation in the infringement as described above.

(139) In addition, for the duration indicated in recital (148), JPMorgan Chase & Co. indirectly owned 100 % of the shareholdings of JPMorgan Chase Bank, N.A., J.P. Morgan Europe Limited and J.P. Morgan Limited (formerly known as J.P. Morgan plc). Therefore, for the reasons explained in recital (123), JPMorgan Chase & Co. is presumed to have had decisive influence over the conduct of its indirectly wholly-owned subsidiaries J.P. Morgan Europe Limited, J.P. Morgan Limited and JPMorgan

69 […].
70 […],[…].
71 […].

Chase Bank, N.A. Consequently, JPMorgan Chase & Co. shall be jointly and severally liable for the conduct of its subsidiaries J.P. Morgan Europe Limited, J.P. Morgan Limited and JPMorgan Chase Bank, N.A. for the whole duration of their participation in the infringement. Finally, JPMorgan Chase & Co. acknowledged its joint and several liability for the conduct of its subsidiaries J.P. Morgan Europe Limited, J.P. Morgan Limited and JPMorgan Chase Bank, N.A.

(140) The Commission therefore holds JPMorgan Chase & Co., and JPMorgan Chase Bank, N.A. jointly and severally liable for the whole duration of […] participation in the infringement. The Commission holds J.P. Morgan Europe Limited jointly and severally liable for the period from 26 July 2010 to 24 May 2011 and J.P. Morgan Limited jointly and severally liable for the period from 25 May 2011 to 31 January 2013.

6.3. Addressees of this Decision

6.3.1. UBS

(141) This Decision is addressed to the following legal entity:

– UBS AG, with registered offices at Bahnhofstraße 45, 8001 Zürich, Switzerland.

6.3.2. RBS

(142) This Decision is addressed to the following legal entities:

– The Royal Bank of Scotland Group plc, with registered offices at 36 St Andrew Square, Edinburgh, EH2 2YB, United Kingdom; and

– NatWest Markets Plc,[72] with registered offices at 36 St Andrew Square, Edinburgh, EH2 2YB, United Kingdom.

6.3.3. Barclays

(143) This Decision is addressed to the following legal entities:

– Barclays PLC, with registered offices at 1 Churchill Place Canary Wharf London, E14 5HP, United Kingdom;

– Barclays Services Limited, with registered offices at 1 Churchill Place Canary Wharf London, E14 5HP, United Kingdom (formerly, "Barclays Capital Services Limited"); and

– Barclays Bank Plc, with registered offices at 1 Churchill Place Canary Wharf London, E14 5HP, United Kingdom.

6.3.4. Citigroup

(144) This Decision is addressed to the following legal entities:

– Citibank, N.A., with registered offices at 388 Greenwich Street, New York, NY 10 013, United States of America; and

– Citigroup Inc., with registered offices at 388 Greenwich Street, New York, NY 10 013, United States of America.

[72] On 30th April 2018, The Royal Bank of Scotland plc changed its name to NatWest Markets plc.

6.3.5. JPM

(145) This Decision is addressed to the following legal entities:

– JPMorgan Chase & Co., with registered offices at 383 Madison Avenue, New York, NY 10179, United States of America;

– JPMorgan Chase Bank, N.A., with registered offices at 1111 Polaris Parkway, Columbus, Ohio 43 240, United States of America;

– J.P. Morgan Europe Limited, with registered offices at 25 Bank Street, Canary Wharf, London, E14 5JP, United Kingdom; and

– J.P. Morgan Limited, with registered offices at 25 Bank Street, Canary Wharf, London, E14 5JP, United Kingdom.

7. DURATION OF THE INFRINGEMENT

(146) The Commission considers that the infringement relating to the Three Way Banana Split chatrooms concerned the period from 18 December 2007 to 31 January 2013 (31 January 2013 is retained as the last day of overall anti-competitive activity for the Three Way Banana Split chatrooms, since it is the last date for which there is evidence of anti-competitive behaviour).

(147) The Commission has established each addressee's participation in the collusive arrangements on the basis of the participation in the chatrooms of one or more of their participating traders during the period in which the anti-competitive arrangements took place. To the effect of proving the participation of the addressees in the conduct, the Commission considers that once their membership to the chatrooms during a period of anticompetitive arrangements is proven, their continued involvement is established, irrespective of whether the relevant trader: (i) was an active participant in a given instance of the anticompetitive discussions, (ii) was simply present in the chatroom as those discussions were taking place between other participating traders or, (iii) had connected to the chatroom after an anticompetitive exchange had taken place, but was able to see its content. In this regard, it is taken into account that none of the participating traders left the chatrooms in reaction to the anti-competitive arrangements that were taking place or have otherwise distanced themselves from them.

(148) In sum, having regard to the periods of involvement of the participating traders established at recital (65), the Commission finds that the Parties have participated in the infringement during the following periods:

- UBS: 10 October 2011[73] – 31 January 2013.[74]
- Barclays: 18 December 2007[75] – 01 August 2012,[76] with a suspension period of 08 July 2011[77] – 19 December 2011.[78]
- RBS: 18 December 2007[79] – 19 April 2010.[80]

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73 […]
74 […].
75 […]
76 […]
77 […]
78 […].

- Citigroup: 18 December 2007[81] – 31 January 2013.[82]
- JPM: 26 July 2010[83] – 31 January 2013.[84]

8. REMEDIES

8.1. Article 7 of Regulation (EC) No 1/2003 – Termination of the infringement

(149) Where the Commission finds that there is an infringement of Article 101 of the Treaty and Article 53 of the EEA Agreement, it may by decision require the undertakings concerned to bring such infringement to an end in accordance with Article 7 of Regulation (EC) No 1/2003.

(150) Although evidence shows that the agreements and concerted practices which are the object of these proceedings have ceased with the closing of the Three Way Banana Split chatrooms, it is not possible to determine with absolute certainty that the addressees of this Decision have ceased all agreements or concerted practices which may have the same or a similar object or effect of those concerned with the Three Way Banana Split chatrooms. The Commission therefore enjoins the addressees of this Decision to refrain from participating in any agreement, concerted practice or decision of an association which may have the same or a similar object or effect.

8.2. Article 23(2) of Regulation (EC) No 1/2003 – Determination of the applicable fines

(151) Under Article 23(2) of Regulation (EC) No 1/2003,[85] the Commission may, by decision, impose on undertakings fines where, either intentionally or negligently, they infringe Article 101 of the Treaty and Article 53 of the EEA Agreement. For each undertaking participating in the infringement, the fine shall not exceed 10% of its total turnover in the preceding business year.

(152) In the present case, the Commission considers that, based on the facts described in this Decision, the infringement has been committed intentionally. The anti-competitive conduct required deliberate actions by the Parties concerned, who actively, privately, extensively and recurrently exchanged certain current or forward looking commercially sensitive information with direct competitors, thereby facilitating the actual coordination of their trading activities when the opportunity arose.

(153) The Commission therefore imposes fines in this case on the undertakings to which this Decision is addressed.

(154) Pursuant to Article 23(3) of Regulation (EC) No 1/2003, in fixing the amount of fine, the Commission shall have regard to all relevant circumstances and particularly the gravity and duration of the infringement, which are the two criteria explicitly referred

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79 […]
80 […]
81 […]
82 […]
83 […]
84 […]
85 Under Article of Council Regulation (EC) No 2894/94 of 28 November 1994 concerning arrangements of implementing the Agreement on the European Economic Area "the Community rules giving effect to the principles set out in Articles 85 and 86 [now Articles 101 and 102] of the EC Treaty [..] shall apply *mutatis mutandis*" (OJ L 305, 30.11.1994, p.6).

to in the Regulation. In doing so, the Commission sets the fines at a level sufficient to ensure deterrence. Moreover, the role played by each undertaking party to an infringement is assessed on an individual basis. The fine imposed must reflect any aggravating and attenuating circumstances pertaining to each undertaking.

(155) In setting the fines to be imposed, the Commission will refer to the principles laid down in its Guidelines on the method of setting fines imposed pursuant to Article 23(2)(a) of Regulation (EC) No 1/2003[86] (hereinafter "the Guidelines on fines"). Finally, the Commission will apply, as appropriate, the provisions of the Leniency Notice and the Commission Notice on the conduct of settlement procedures in view of the adoption of decisions pursuant to Article 7 and Article 23 of Council Regulation (EC) No 1/2003 in cartel cases (hereinafter "the Settlement Notice").[87]

8.2.1. Calculation of the fines

8.2.1.1. The value of sales

(156) In applying the Guidelines on fines, the basic amount for each Party results from the addition of a variable amount and an additional amount. The variable amount results from a percentage of up to 30% of the value of sales of goods or services to which the infringement directly or indirectly relates, in a given year (normally, the last full business year of the infringement) multiplied by the number of years of the undertaking's participation in that infringement. The additional amount is calculated as a percentage of between 15% and 25% of the same value of sales of the last business year. The resulting basic amount can then be increased or reduced for each undertaking if aggravating or mitigating circumstances are retained.

(157) The basic amount of the fine to be imposed on the undertakings concerned is to be set by reference to the value of sales,[88] that is, the value of the undertakings' sales of goods or services to which the infringement directly or indirectly related in the relevant geographic area in the EEA. Normally, in order to calculate the variable amount, the Commission takes the sales made by the undertakings during the last full business year of their participation in the infringement multiplied by the number of years of the undertaking's participation in that infringement.[89] There are circumstances, such as the last year of the infringement not being representative, in which another reference period might be considered to be more appropriate in view of the characteristics of the case or the available data.[90] Moreover, according to the case law, the Commission is not required to apply a precise mathematical formula and has a margin of discretion when determining the amount of each fine.[91]

(158) The Commission considers it appropriate to apply a proxy for the value of sales as a starting point for its determination of the fines because G10 FX spot transactions do not generate any value of sales as described in recital (157) that are directly traceable in the accounts of the Parties.

(159) Normally, in other sectors, the value of sales is traceable in the accounts of the companies or in the publicly available financial reports, because the sales concerned

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86 OJ C 210, 1.9.2006, p. 2.

87 OJ C 167, 2.7.2008, p. 1–6.

88 Point 12 of the Guidelines on fines.

89 Point 13 of the Guidelines on fines.

90 Case T-76/06, *Plásticos Españoles (ASPLA) v Commission*, ECLI:EU:T:2011:672, paragraphs 111-113.

91 Case T-40/06 *Trioplast Industrier AB* v *Commission*, ECLI:EU:T:2012:286, paragraph 141; Case C-289/04 P *Showa Denko* v *Commission* ECLI:EU:C:2006:431, paragraph 36.

typically involve the exchange of goods or services against a certain amount of money, that is to say the selling price. In such cases, the value of sales is determined easily by multiplying the quantity of products sold by the selling price, which is then recorded.

(160) However, in the present case, G10 FX spot transactions involve the exchange of a notional amount of money expressed in a certain currency into the equivalent notional amount expressed in another currency, the price of which is embedded in the bid-ask spread applied by the FX spot dealer. Both factors – the notional amounts exchanged and the applied bid-ask spreads – are therefore considered by the Commission to be essential parameters of the value of sales related to the infringement.[92]

(161) As explained in recitals (164) to (178) the Commission determines the proxy for the relevant values of sales as follows:

– Firstly, the Commission takes as reference the annualised notional amounts traded by the concerned undertaking in the G10 FX spot transactions entered into with a counterparty located in the EEA. To this end, as explained in recital (177), the Commission considers it more appropriate to base the proxy for the value of sales directly on the revenues made by the Parties during the months corresponding to their respective participation in the infringement, which are subsequently annualised.

– Secondly, the Commission multiplies those amounts by an appropriate adjustment factor, uniform for all the Parties, reflecting the applicable bid-ask spreads in G10 FX spot transactions. This factor is the sum of two elements: one related to market making activities and a second related to trading on own account.

- <u>Adjustment factor related to market making activities</u>

(162) As G10 FX spot transactions involve the exchange of a specified notional amount[93] from one currency to another, the revenues made by the traders on such transactions are proportionate to the notional amounts exchanged[94].

(163) Therefore, in the G10 FX spot activities, notional amounts serve as a basis for the calculation of the revenues made by the undertakings concerned when acting as market makers.[95] Normally, market makers simultaneously quote two prices to their counterparties, a bid price and an ask price; these are the prices at which they are ready to respectively buy or sell one particular pair of G10 currencies, one against the other. The difference between the two is called the bid-ask spread.

(164) The revenues made on each transaction depend on the notional amount and the bid-ask spread. When a market maker finds two counterparties that are willing to take the

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92 However, none of these two factors is recorded as such in the publicly available accounts of the dealer's undertaking. The accounts only reflect 'net trading income' or 'net profit from financial operations', but such a metric includes trading profits netted against trading losses. Therefore, this measure comes closer to a measurement of profit, than to a proxy for value of sales under the Fining Guidelines.

93 See also recital (4). The notional amount can be recorded in the dealers' trading book in either of the currencies of the transaction.

94 In the calculation of the proxy for the value of sales, all notional amounts have been converted into euros.

95 Since e-commerce transactions – as defined in footnote 7 –are out of the scope of the infringement, they are excluded from the basis of notional amounts to determine the proxy of the value of sales.

opposite sides of the same G10 FX spot transaction, specifying the same notional amount and currency pair, the market maker can execute the transactions by, at the same time, buying at the bid price and selling at the ask price, the bid price being lower that the ask price. Conceptually, the revenues made by the market maker amount to the full bid-ask spread only when considering the two transactions together. It follows that, when one considers each of the two transactions individually, the revenues from market making activities conceptually amount to the notional amount multiplied by half the bid-ask spread. The Commission therefore considers that the appropriate proxy for the value of sales corresponding to the market making revenues can be calculated by multiplying the applicable notional amount by […] of the applicable bid-ask spread.

(165) The level of bid-ask spreads depend on many factors, including the currency pair (in general the more liquid the currency pair, the tighter the bid-ask spread), the transaction size (in general the larger the transaction size the higher the bid-ask spread) and the type of client.

(166) The bid-ask spread level retained for the proxy for market making revenues was based on evidence on the file. Historical bid-ask spreads retrieved from data providers such as Bloomberg were considered to have limitations making them inappropriate for the purpose of setting fines in this case[96].

(167) The file contains chats involving spread conduct. For each occurrence of an exchange involving spread conduct, the Commission took into account the minimum spread (the minimum quote mentioned by one of the traders), the maximum spread (the maximum quote mentioned by one of the traders) and the average spread (of the minimum and maximum spreads).

(168) Since the bid-ask spreads retrieved from the evidence on the file referred to different currency pairs and represent revenues expressed in different currencies,[97] they were all converted into EUR[98] using the historical FX conversion rates from the ECB, so as to make the spreads comparable between them and applicable to notional amounts expressed in EUR.

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96 The forex spot market is a market with decentralized platforms (including Bloomberg). Each uses proprietary algorithm(s) to determine the market's best bid and ask prices. In all cases, the spread consisting in the market's best bid price and best ask price will always be lower than the actual spread quoted by the banks. In addition, quoted spreads are very dependent on the transactions' sizes, and there is no guarantee that prices from Bloomberg refer to transaction sizes that are representative for this case.

97 The spread corresponds to an income expressed in the 'second' currency of a currency pair, also known as the 'cross-currency' (as opposed to the first currency, which is the 'base currency'). For example, the bid-ask spread on a EURUSD trade will generate an income in USD (the EUR is the base currency, the USD is the cross-currency). If the bid price is 1.1560 and the ask price is 1.1580, then the bid-ask spread is 0.0020. If a dealer simultaneously buys and sells EUR 1 million against USD to two different counterparties, he or she will pay USD 1 156 000 for the first trade and receive USD 1 158 000 for the second one. Hence, his or her revenue will be USD 2 000, a revenue expressed in USD, the cross-currency.

98 Taking the example above, the revenue is USD 2 000. Assuming that on the day of the transaction, the FX conversion rate from the ECB is 1.1578 (note that this rate does not have to be equal to the mid-point of the transaction described above). The revenue expressed in EUR will be (2 000 / 1.1578) = EUR 1 727.41. This revenue relates to a notional amount of EUR 1 000 000. The spread in EUR is therefore equal to (1 727.41 / 1 000 000) = 0.172% or 17.2 basis points. In practice, only the bid-ask spread level and the ECB conversion rate (in the above example: 0.0020 and 1.1578 respectively) are sufficient to calculate the spread expressed in EUR.

(169) The average and the median of the quoted bid-ask spreads were computed and considered avoiding outliers.[99] On this basis, the Commission retains an applicable bid-ask spread of […].[100]

(170) As described in recital (164), the Commission considers that the appropriate adjustment factor related to the market making activities can be estimated at […] of the applicable bid-ask spread, which results in an adjustment factor at […].

- Adjustment factor related to trading on own account

(171) The situation described in recital (164) is a theoretical situation where the market maker does not have any open risk position, as the currency amount bought from a first counterparty has been immediately matched by a sale of that currency amount to a second counterparty and therefore "passed through" to that second counterparty. However, the infringement involved notably the exchange by the Parties of information on their open risk positions (see recital (5). Therefore, the Parties were not only acting as market makers but also trading on their own account, by running open risk positions, that is to say devising certain strategies for seeking to obtain some benefit on their portfolio from the variation of the mid-point price[101] of the currencies traded over time. This activity generates trading revenues in addition to the market making revenues[102].

(172) In determining the proxy for the value of sales, an additional amount is added to reflect the trading on own account obtained through the management of open risks positions over time.

(173) Given the technical challenges involved in the calculation of the proxy for revenues from trading on own account[103], the Commission exercises its margin of discretion and, in order to ensure deterrence, considers that the appropriate adjustment factor related to the trading on own account is set at […] of the applicable bid-ask spread which is set at […] basis point, based on public sources[104]. The adjustment factor for revenues from trading on own account is therefore fixed at […] basis point, which is […] of the applicable bid-ask spread of […] basis point.

- Total adjustment factor

(174) In view of the above, in determining the proxy for the value of sales for the infringement, the Commission applies to the notional amounts of each Party an adjustment factor of […], being the sum of:

  - […]
  - […]

(175) The Commission considers that the concepts of market making revenues and trading revenues are inherently interlinked. If not hedged immediately, a G10 FX spot transaction for which a market maker has earned half of the bid-ask spread generates

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99 Transaction sizes comprised between EUR 20 and 500 million of the most discussed currency pairs were retained.

100 […].

101 The mid-point price or mid-price is the average between the bid price and the ask price.

102 See also recital (7) for a description of trading on own account.

103 None of the Parties has been able to provide the necessary data.

104 See *Understanding FX Liquidity (The Review of Financial Studies*, Volume 28, Issue 11, 1 November 2015, Pages 3073–3108), page 3080.

an open risk position that can further generate additional trading revenues. Conversely, an open risk position generating trading revenues may be hedged by entering into a G10 FX spot transaction generating additional market making revenues.

(176) As indicated in recital (4) and sections 4 and 6.2, the mandate of the participating traders authorised them to further engage in trading activity on behalf of their own undertaking with respect to any G10 currency available in their portfolios, which they did to varying extents during the respective relevant periods. Taking into account that not all 55 combinations of the G10 currencies or currency pairs might necessarily have been discussed or actually implicated in the relevant conduct, but that potentially they could have been, and that it is not possible to precisely distinguish those currency pairs from the others, the Commission considers it appropriate to determine the proxy for the value of sales of the infringement on the basis of the notional amounts corresponding to the top G10 currency pair most discussed and traded in the evidence of the infringement and the notional amounts corresponding to the G10 currency pairs involving any of the EEA currencies.[105] As the former category for this infringement (EUR/USD) already involves a EEA currency and is therefore fully included into the latter category, the Commission determines the value of sales for all Parties to the infringement on the basis of the notional amounts traded of the G10 FX spot transactions involving any of the EEA currencies.

(177) The Commission does not calculate the proxy for value of sales on the basis of revenues made by the Parties during the last full business year of their participation in the infringement. Having regard to the fact that the amounts traded in G10 FX spot activities vary significantly over the period of the infringement and of individual involvement, depending on the specific month and the specific Party, the Commission considers it more appropriate to base the proxy for the value of sales directly on the revenues made by the Parties during the months corresponding to their respective participation in the infringement, which are subsequently annualised.[106]

(178) Moreover, given that the infringement covered the entire EEA, the Commission considers it appropriate that the proxy for the value of sales is based on the G10 FX spot transactions entered into with counterparties located in the EEA.

(179) On that basis, for all Parties, the Commission takes into account as annualised proxy of value of sales the proxy obtained by applying to the notional amounts retained a factor of […], which each of the Parties confirmed in their respective formal settlement submissions for the infringement.

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105 EUR, GBP, NOK, SEK and DKK are the EEA currencies within the G10 currencies.

106 In a first step (to get annualised figures), only full calendar months of participation in the infringement are taken into account in the proxy. For example, if one Party's infringement begins on 12 February 2007 and ends on 21 October 2009, the relevant FX spot business activities of the months of March 2007 to September 2009 are taken into account (31 months) and subsequently annualised by multiplying the result by 12/31. For these purposes, the Commission has considered a period of partial immunity as a period during which the undertaking concerned had not participated in the infringement during such period (see Case T-128/11, *LG Display and LG Display Taiwan v Commission*, paragraph 201).

Table 1: Confirmed proxies of the values of sales

Undertaking	Confirmed proxies of the values of sales (in EUR)
UBS	[…]
Barclays	[…]
RBS	[…]
Citigroup	[…]
JPM	[…]

(180) […].

Table 2: Retained proxies of the values of sales

Undertaking	Retained proxies of the values of sales (in EUR)
UBS	[…]
Barclays	[…]
RBS	[…]
Citigroup	[…]
JPM	[…]

8.2.1.2. Determination of the basic amount

Gravity

(181) In assessing the gravity of the infringement, the Commission has regard to a number of factors, such as the nature of the infringement, the combined market share of all the undertakings concerned, the geographic scope of the infringement and to whether or not the infringement has been implemented.[107]

(182) In its assessment, the Commission takes into account the fact that the infringement is, by its very nature, among the most harmful restrictions of competition. Therefore, the proportion of the value of sales taken into account for the infringement is set at the higher end of the scale.[108]

(183) The Commission also takes into account the fact that the infringement covered the entire EEA.

[107] Points 20-22 of the Guidelines on fines.

[108] Point 23 of the Guidelines on fines.

(184) Accordingly, the Commission considers that the proportion of the value of sales to apply is 16%.

Duration

(185) In determining the fine to impose on each undertaking, the Commission also takes into consideration the duration of the infringement by multiplying for each undertaking, as described in section 6, the applicable proxy of the value of sales by the number of years of participation in the infringement. The multipliers for duration are calculated on the basis of the number days of participation in the infringement, and are expressed in Table 3.

(186) To determine the appropriate multipliers, the Commission took note of the fact that three applicants for reduction of a fine were the undertakings to first submit compelling evidence that the Commission used to establish facts that permitted to increase the duration of the infringement, by one or several periods. Pursuant to Point 26 of the Leniency Notice, the Commission should not take such additional periods into account when determining the fines applicable to those undertakings that provided the compelling evidence to extend the infringement to such additional periods (partial immunity).

(187) To this effect, in order to assess if an applicant did submit compelling evidence to satisfy the conditions of Point 26 of the Leniency Notice, the Commission takes into account the specific nature and functioning of the infringement at stake, as described in this Decision. Most notably that the infringement, is proven by, an extensive, recurrent and reciprocal sharing of information in mostly multilateral private chatrooms relating to G10 currencies FX trading activities. As a consequence, when the concerned applicants have submitted compelling evidence adding periods to the duration of the infringement – by providing several daily-stamped Bloomberg transcripts of electronic communications ("chats") for periods of infringement for which the Commission had previously no evidence - the Commission does not take such additional periods into account when setting any fine to be imposed on such applicants. To fully reflect the extensive and recurrent functioning of the infringement, an added period of infringement should at least last 15 consecutive days and, within this period, include no time gaps superior to two weeks between two consecutive time stamps of the electronic communications. Following the submission of those pieces of evidence by the concerned applicants, the Commission was in a position to increase the duration of the infringement. Those time periods of participation in the infringement should then, pursuant to Point 26 of the Leniency Notice, not be taken into account while calculating the fine of this applicant (see recitals (189) to (191)).

(188) Moreover, the Commission considers that the applicants that have provided compelling evidence which allowed the Commission to identify, at the date of its submission, the start and/or end dates of the infringement at a time when the duration of the infringement was still unknown should also benefit from Point 26 of the Leniency Notice.

(189) As a result of what is described in the preceding recitals, the Commission will not take into account the three following periods for the calculation of RBS's fine:

- […];
- […];

- […].

(190) Likewise, the Commission will not take into account the two following periods for the calculation of Barclays' fine:

- 11 February 2008 – 6 March 2008;
- 27 June 2008 – 18 August 2008.

(191) Finally, the Commission will not take into account the ten following periods for the calculation of Citigroup's fine:

- 18 December 2007 – 7 January 2008;
- 17 March 2008 – 24 June 2008;
- 10 October 2008 – 17 November 2008;
- 1 December 2008 – 13 January 2009;
- 30 April 2009 – 8 June 2009;
- 5 August 2009 – 26 August 2009;
- 10 November 2009 – 18 January 2010;
- 16 February 2010 – 19 March 2010;
- 15 April 2010 – 21 May 2010;
- 13 August 2010 – 3 October 2011.

(192) Based on the criteria explained above, the applicable duration multipliers to be taken into account for the purposes of calculating the fine to be imposed on each Party are set out in the table below:

Table 3: Duration multipliers

Undertaking	**Duration Multiplier**
UBS	1.31
Barclays	3.95
RBS	2.17
Citigroup	2.87
JPM	2.52

Additional amount

(193) The Commission includes in the basic amount a sum of between 15% and 25% of the value of sales to deter the undertakings from entering into such illegal practices on the basis of the criteria listed above with respect to the variable amount.[109]

(194) Taking into account the factors above, the percentage to be applied for the purposes of calculating the additional amount is 16%.

[109] Point 25 of the Guidelines on fines.

Calculations and conclusions on basic amounts

(195) Based on the criteria explained above, the basic amount per undertaking is presented in Table 4.

Table 4: Applicable basic amounts for the infringement

Undertaking	**Basic amount (in EUR)**
UBS	[…]
Barclays	[…]
RBS	[…]
Citigroup	[…]
JPM	[…]

8.2.1.3. Adjustment to the basic amount:

Aggravating or mitigating circumstances

(196) The Commission may consider aggravating or mitigating circumstances resulting in an increase/decrease of the basic amount,[110] as listed in a non-exhaustive way in points 28 and 29 of the Guidelines on fines.

(197) In the present case, the Commission considers that no aggravating or mitigating circumstances apply.

Deterrence multiplier

(198) In determining the amount of the fines, the Commission pays particular attention to the need to ensure that fines have a sufficiently deterrent effect. To that end, the Commission may increase the fines to be imposed on undertakings which have a particularly large turnover beyond the sales of goods or services to which the infringement relates.[111]

(199) In this case, the total worldwide net turnover[112] of Citigroup for the business year 2016 was EUR […] billion, and that of JPM was EUR […] billion. It is therefore appropriate, in order to set the amount of the fines at a level which ensures that it has a sufficient deterrent effect, to apply a multiplication factor to the fines to be imposed on each of the undertakings concerned.

(200) On this basis, the Commission finds it appropriate to apply the following multipliers to the fines determinable for Citigroup and JPM:

- 1.2, Citigroup, and
- 1.3, JPM.

110 Points 28-29 of the Guidelines on fines.

111 Point 30 of the 2006 Guidelines on fines.

112 The sum of the following income items: Interest receivable and similar income, Interest payable and similar charges, Income from securities, Commissions receivable, Commissions payable, Net profit or net loss on financial operations and Other operating income.

Application of the 10% turnover limit

(201) Article 23(2) of Regulation (EC) No 1/2003 provides that the fine imposed on each undertaking for each infringement shall not exceed 10% of its total turnover relating to the business year preceding the date of the Commission Decision.

(202) In this case, none of the fines exceeds 10% of the undertaking's total turnover relating to the business year preceding the date of this Decision.[113]

Application of the 2006 Leniency Notice

(203) On 2 July 2014, UBS was granted conditional immunity from fines in relation to the present infringement pursuant to point 8(a) of the Leniency Notice. There are neither indications that UBS has failed to fulfil its cooperation obligations under point 12 of the Leniency Notice, nor that it has taken steps to coerce other undertakings to join the infringement or to remain in it. Therefore, the Commission considers that UBS should be granted immunity from fines for the present infringement.

(204) The Commission also received applications for reduction of fines from Barclays, RBS, Citigroup and JPM. In accordance with point 29 of the Leniency Notice, the Commission came to the preliminary conclusion on 27 October 2016 that the evidence submitted by Barclays, RBS, Citigroup and JPM constituted significant added value within the meaning of points 24 and 25 of the Leniency Notice and that the undertakings have so far met the conditions of points 12 and 27 of the same Notice.

(205) Barclays was the first undertaking to submit an application for reduction of fines in relation to the Three Way Banana Split infringement and did so at an early stage of the investigation. Barclays provided evidence relating to the infringement that was not previously in the Commission's possession, as well as explanations on both the anticompetitive behaviour in general and on designated evidence, submitted before any other reduction of fines applicant.

(206) For these reasons, Barclays' reduction of fines application adds significant added value to the Commission's investigation in this case. Barclays also met the requirements of points 12 and 27 of the Leniency Notice. As a result, the Commission considers that the fine to be imposed on Barclays should be reduced by 50%.

(207) RBS was the second undertaking to submit an application for reduction of fines in relation to the Three Way Banana Split infringement and did so at an early stage of the investigation. RBS provided evidence relating to the infringement that was not previously in the Commission's possession […].

(208) For these reasons, RBS' reduction of fines application adds significant added value to the Commission's investigation in this case. RBS also met the requirements of points 12 and 27 of the Leniency Notice. As a result, the Commission considers that the fine to be imposed on RBS should be reduced by 30%.

(209) Citigroup was the third undertaking to submit an application for reduction of fines in relation to the Three Way Banana Split infringement and did so at an early stage of the investigation. Citigroup provided a very significant amount of evidence relating

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113 The Commission requested the banks to provide their total turnover on both a gross and a net basis. The fines do not exceed 10% of the total turnover for any of the undertakings concerned irrespective of the total turnover used (gross or net).

to the infringement that was not previously in the Commission's possession as well as explanations on certain instances of anticompetitive behaviours before any other undertakings. In particular, Citigroup provided evidence that contributed to prove the existence of the infringement and its continuity over time.

(210) For these reasons, Citigroup's reduction of fines application adds significant added value to the Commission's investigation in this case. Citigroup also met the requirements of points 12 and 27 of the Leniency Notice. As a result, the Commission considers that the fine to be imposed on Citigroup should be reduced by 20%.

(211) JPM was the fourth undertaking to submit an application for reduction of fines in relation to the Three Way Banana Split infringement. JPM […] especially vis-à-vis that submitted by Citigroup. In particular, JPM […].

(212) For these reasons, JPM's reduction of fines application adds significant added value to the Commission's investigation in this case. JPM also met the requirements of points 12 and 27 of the Leniency Notice. As a result, the fine to be imposed on JPM should be reduced by 10%.

Application of the Settlement Notice

(213) In accordance with point 32 of the Settlement Notice, the reward for settlement is a reduction of 10% of the amount of the fine to be imposed on an undertaking after the 10% turnover cap has been applied having regard to the Guidelines on fines. Pursuant to point 33 of the Settlement Notice, when settled cases involve leniency applicants, the reduction of the fine granted to them for settlement is added to their leniency reward.

(214) Pursuant to the Settlement Notice, the amount of the fines to be imposed on the Parties of the proceedings should be reduced by 10% and that such reductions should be added to any leniency reward granted.

9. CONCLUSION: FINAL AMOUNT OF INDIVIDUAL FINES TO BE IMPOSED IN THIS DECISION

(215) The fines imposed pursuant to Article 23(2) of Regulation (EC) No 1/2003 are as follows:

Table 5: Fines amounts for the infringement

Undertaking	Fines (in EUR)
UBS	0
Barclays	116 107 000
RBS	155 499 000
Citigroup	310 776 000
JPM	228 815 000

HAS ADOPTED THIS DECISION:

Article 1

The following undertakings infringed Article 101 of the Treaty and Article 53 of the EEA Agreement by participating, during the periods indicated, in a single and continuous infringement covering the whole EEA in G10 FX spot trading:

(a) UBS AG, from 10 October 2011 until 31 January 2013.

(b) The Royal Bank of Scotland Group plc and NatWest Markets Plc, from 18 December 2007 until 19 April 2010.

(c) Barclays PLC, Barclays Services Limited and Barclays Bank Plc, from 18 December 2007 until 8 July 2011 and from 19 December 2011 until 1 August 2012.

(d) Citibank, N.A. and Citigroup Inc., from 18 December 2007 until 31 January 2013

(e) JPMorgan Chase & Co., JPMorgan Chase Bank, N.A., J.P. Morgan Europe Limited and J.P. Morgan Limited, from 26 July 2010 until 31 January 2013.

Article 2

For the infringement(s) referred to in Article 1, the following fines are imposed:

(a) UBS AG: EUR 0

(b) The Royal Bank of Scotland Group plc and NatWest Markets Plc, jointly and severally liable: EUR 155 499 000

(c) Barclays PLC, Barclays Services Limited and Barclays Bank Plc, jointly and severally liable: EUR 116 107 000

(d) Citibank, N.A. and Citigroup Inc., jointly and severally liable: EUR 310 776 000

(e) JPMorgan Chase & Co., JPMorgan Chase Bank, N.A., J.P. Morgan Europe Limited and J.P. Morgan Limited, jointly and severally liable: EUR 228 815 000

The fines shall be credited, in euros, within a period of three months from the date of notification of this Decision, to the following bank account held in the name of the European Commission:

BANQUE ET CAISSE D'EPARGNE DE L'ETAT
1-2, Place de Metz
L-1930 Luxembourg

IBAN: LU02 0019 3155 9887 1000
BIC: BCEELULL
Ref.: European Commission – BUFI/AT.40135 – Forex TWBS

After the expiry of this period, interest shall automatically be payable at the interest rate applied by the European Central Bank to its main refinancing operations on the first day of the month in which this Decision is adopted, plus 3.5 percentage points.

Where an undertaking referred to in Article 1 lodges an appeal, that undertaking shall cover the fine by the due date, either by providing an acceptable financial guarantee or by making a

provisional payment of the fine in accordance with Article 108 of Regulation (EU, Euratom) 2018/1046.[114]

Article 3

The undertakings listed in Article 1 shall refrain from repeating any act or conduct described in Article 1, and from any act or conduct having the same or similar object or effect.

Article 4

This Decision is addressed to

- UBS AG with registered offices at Bahnhofstraße 45, 8001 Zürich, Switzerland;
- The Royal Bank of Scotland Group plc with registered offices at 36 St Andrew Square, Edinburgh, EH2 2YB, United Kingdom;
- NatWest Markets Plc[115] with registered offices at 36 St Andrew Square, Edinburgh, EH2 2YB, United Kingdom.
- Barclays PLC, with registered offices at 1 Churchill Place Canary Wharf London, E14 5HP, United Kingdom;
- Barclays Services Limited with registered offices at 1 Churchill Place Canary Wharf London, E14 5HP, United Kingdom (formerly, "Barclays Capital Services Limited");
- Barclays Bank Plc with registered offices at 1 Churchill Place Canary Wharf London, E14 5HP, United Kingdom;
- Citibank, N.A. with registered offices at 388 Greenwich Street, New York, NY 10 013, United States of America;
- Citigroup Inc. with registered offices at 388 Greenwich Street, New York, NY 10 013, United States of America;
- JPMorgan Chase & Co. with registered offices at 383 Madison Avenue, New York, NY 10179, United States of America;
- JPMorgan Chase Bank, N.A. with registered offices at 1111 Polaris Parkway, Columbus, Ohio 43 240, United States of America;
- J.P. Morgan Europe Limited with registered offices at 25 Bank Street, Canary Wharf, London, E14 5JP, United Kingdom; and
- J.P. Morgan Limited with registered offices at 25 Bank Street, Canary Wharf, London, E14 5JP, United Kingdom.

This Decision shall be enforceable pursuant to Article 299 of the Treaty and Article 110 of the EEA Agreement.

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114 Regulation (EU, Euratom) 2018/1046 of the European Parliament and of the Council of 18 July 2018 on the financial rules applicable to the general budget of the Union, amending Regulations (EU) No 1296/2013, (EU) No 1301/2013, (EU) No 1303/2013, (EU) No 1304/2013, (EU) No 1309/2013, (EU) No 1316/2013, (EU) No 223/2014, (EU) No 283/2014, and Decision No 541/2014/EU and repealing Regulation (EU, Euratom) No 966/2012 (OJ L 193, of 30.7.2018, p.1).

115 On 30th April 2018, The Royal Bank of Scotland plc changed its name to NatWest Markets plc.

Done at Brussels,

For the Commission

Margrethe VESTAGER
Member of the Commission

CERTIFIED COPY
For the Secretary-General,

Jordi AYET PUIGARNAU
Director of the Registry
EUROPEAN COMMISSION