AMENDED THIS October 6th 2016 PURSUANT TO
MODIFIÉ CE CONFORMÉMENT À

☐ RULE/LA RÈGLE 26 02 (_____)

☑ THE ORDER OF The Honourable Justice Perell
L'ORDONNANCE DU
DATED / FAIT LE August 16th, 2016

Vanessa Fandli
REGISTRAR GREFFIER
SUPERIOR COURT OF JUSTICE COUR SUPÉRIEURE DE JUSTICE

Court File No.: CV-15-536174CP

ONTARIO
SUPERIOR COURT OF JUSTICE

BETWEEN:

JOSEPH S. MANCINELLI, CARMEN PRINCIPATO, DOUGLAS SERROUL, LUIGI CARROZZI, MANUEL BASTOS, and JACK OLIVEIRA in their capacity as THE TRUSTEES OF THE LABOURERS' PENSION FUND OF CENTRAL AND EASTERN CANADA, and CHRISTOPHER STAINES

Plaintiffs

- and -

ROYAL BANK OF CANADA, RBC CAPITAL MARKETS LLC, BANK OF AMERICA CORPORATION, BANK OF AMERICA, N.A., BANK OF AMERICA CANADA, BANK OF AMERICA NATIONAL ASSOCIATION, THE BANK OF TOKYO MITSUBISHI UFJ LTD., BANK OF TOKYO-MITSUBISHI UFJ (CANADA), BARCLAYS BANK PLC, BARCLAYS CAPITAL INC., BARCLAYS CAPITAL CANADA INC., BNP PARIBAS GROUP, BNP PARIBAS NORTH AMERICA INC., BNP PARIBAS (CANADA), BNP PARIBAS, CITIGROUP, INC., CITIBANK, N.A., CITIBANK CANADA, CITIGROUP GLOBAL MARKETS CANADA INC., CREDIT SUISSE GROUP AG, CREDIT SUISSE SECURITIES (USA) LLC, CREDIT SUISSE AG, CREDIT SUISSE SECURITIES (CANADA), INC., DEUTSCHE BANK AG, THE GOLDMAN SACHS GROUP, INC., GOLDMAN, SACHS & CO., GOLDMAN SACHS CANADA INC., HSBC HOLDINGS PLC, HSBC BANK PLC, HSBC NORTH AMERICA HOLDINGS INC., HSBC BANK USA, N.A., HSBC BANK CANADA, JPMORGAN CHASE & CO., ~~JPMORGAN CHASE BANK, N.A.,~~ J.P. MORGAN BANK CANADA, J.P. MORGAN CANADA, JPMORGAN CHASE BANK NATIONAL ASSOCIATION, MORGAN STANLEY, MORGAN STANLEY CANADA LIMITED, ROYAL BANK OF SCOTLAND GROUP PLC, RBS SECURITIES, INC., ROYAL BANK OF SCOTLAND N.V., ROYAL BANK OF SCOTLAND PLC, SOCIÉTÉ GÉNÉRALE S.A., SOCIÉTÉ GÉNÉRALE (CANADA), SOCIÉTÉ GÉNÉRALE, STANDARD CHARTERED PLC, UBS AG, UBS SECURITIES LLC, and UBS BANK (CANADA)

Defendants

Proceeding under the *Class Proceedings Act, 1992*

AMENDED STATEMENT OF CLAIM

TO THE DEFENDANTS

A LEGAL PROCEEDING HAS BEEN COMMENCED AGAINST YOU by the plaintiff. The claim made against you is set out in the following pages.

IF YOU WISH TO DEFEND THIS PROCEEDING, you or an Ontario lawyer acting for you must prepare a statement of defence in Form 18A prescribed by the *Rules of Civil Procedure*, serve it on the plaintiff's lawyer or, where the plaintiff does not have a lawyer, serve it on the plaintiff, and file it, with proof of service, in this court office, WITHIN TWENTY DAYS after this statement of claim is served on you, if you are served in Ontario.

If you are served in another province or territory of Canada or in the United States of America, the period for serving and filing your statement of defence is forty days. If you are served outside Canada and the United States of America, the period is sixty days.

Instead of serving and filing a statement of defence, you may serve and file a notice of intent to defend in Form 18B prescribed by the *Rules of Civil Procedure*. This will entitle you to ten more days within which to serve and file your statement of defence.

IF YOU FAIL TO DEFEND THIS PROCEEDING, JUDGMENT MAY BE GIVEN AGAINST YOU IN YOUR ABSENCE AND WITHOUT FURTHER NOTICE TO YOU. IF YOU WISH TO DEFEND THIS PROCEEDING BUT ARE UNABLE TO PAY LEGAL FEES, LEGAL AID MAY BE AVAILABLE TO YOU BY CONTACTING A LOCAL LEGAL AID OFFICE.

TAKE NOTICE: THIS ACTION WILL AUTOMATICALLY BE DISMISSED if it has not been set down for trial or terminated by any means within five years after the action was commenced unless otherwise ordered by the court.

~~September 14, 2015~~

Date: ~~September 11, 2015~~ September 11, 2015

Issued by: "Joseph Dana"
Local registrar

Superior Court of Justice

Address of court office: 393 University Avenue
10th Floor
Toronto, ON M5G 1E6

TO: **ROYAL BANK OF CANADA**
200 Bay Street
P.O Box 1, Royal Bank Plaza
Toronto, ON M5J 2J5

AND TO: **RBC CAPITAL MARKETS LLC**
Three World Financial Centre
200 Vesey Street, 5th Floor
New York, New York 10281

AND TO: **BANK OF AMERICA CORPORATION**
100 North Tryon Street
Charlotte, North Carolina 28255

AND TO: **BANK OF AMERICA, N.A.**
101 South Tyron Street
Charlotte, North Carolina 28255

AND TO: **BANK OF AMERICA CANADA**
400-181 Bay Street
Toronto, ON M5J 2V8

AND TO: **BANK OF AMERICA, NATIONAL ASSOCIATION**
400 - 181 BAY ST
Toronto, ON M5J 2V8

AND TO: **THE BANK OF TOKYO MITSUBISHI UFJ LTD.**
2-7-1, Marunouchi, Chiyoda-ku
Tokyo, Japan

AND TO: **BANK OF TOKYO-MITSUBISHI UFJ (CANADA)**
200 Bay Street, Royal Bank Plaza, South Tower
Toronto, ON M5J 2J1

AND TO: **BARCLAYS BANK PLC**
1 Churchill Place
London, England E14 5H

AND TO: **BARCLAYS CAPITAL INC.**
745 7th Avenue
New York, New York 10019

AND TO: **BARCLAYS CAPITAL CANADA INC.**
333 Bay Street, Suite 4910
Toronto, ON M5H 2R2

AND TO: **BNP PARIBAS GROUP**
16 Boulevard des Italiens
Paris, France 75009

AND TO: **BNP PARIBAS NORTH AMERICA INC.**
787 7th Avenue
New York, New York 10019

AND TO: **BNP PARIBAS (CANADA)**
1981 McGill College Avenue
Montreal, QC H3A 2W8

AND TO: **BNP PARIBAS**
1981 McGill College Avenue
Montreal, QC H3A 2W8

AND TO: **CITIGROUP, INC.**
399 Park Avenue
New York, New York 10022

AND TO: **CITIBANK, N.A.**
399 Park Avenue
New York, New York 10022

AND TO: **CITIBANK CANADA**
123 Front Street West, 19th Floor
Toronto, ON M5J 2M3

AND TO: **CITIGROUP GLOBAL MARKETS CANADA INC.**
123 Front Street West, 19th Floor
Toronto, ON M5J 2M3

AND TO: **CREDIT SUISSE GROUP AG**
Paradeplatz 8
8001 Zurich, Switzerland

AND TO: **CREDIT SUISSE SECURITIES (USA) LLC**
11 Madison Avenue
New York, New York 10010

AND TO: **CREDIT SUISSE AG**
2900-1 First Canadian Place
100 King Street West
PO Box 301
Toronto, ON M5X 1C9

AND TO: **CREDIT SUISSE SECURITIES (CANADA), INC.**
2900-1 First Canadian Place
100 King Street West
PO Box 301
Toronto, ON M5X 1C9

AND TO: **DEUTSCHE BANK AG**
Taunusanlage 12
60325 Frankfurt AM Main
Germany

AND TO: **THE GOLDMAN SACHS GROUP, INC.**
200 West Street
New York, New York 10282

AND TO: **GOLDMAN, SACHS & CO.**
200 West Street
New York, New York 10282

AND TO: **GOLDMAN SACHS CANADA INC.**
Royal Trust Tower, Toronto-Dominion Centre
77 King Street West
Suite 3400
Toronto, ON M5K 1B7

AND TO: **HSBC HOLDINGS PLC**
8 Canada Square
London, E14 5HQ
United Kingdom

AND TO: **HSBC BANK PLC**
8 Canada Square
London, E14 5HQ
United Kingdom

AND TO: **HSBC NORTH AMERICA HOLDINGS INC.**
452 5th Avenue
New York, New York 10018

AND TO: **HSBC BANK USA, N.A.**
50-1800 Tysons Boulevard
Virginia, United States 22102

AND TO: **HSBC BANK CANADA**
300-885 West Georgia Street
Vancouver, BC V6C 3E9

AND TO: **JPMORGAN CHASE & CO.**
270 Park Avenue, 38th Floor
New York, New York 10017

~~**AND TO:** **JPMORGAN CHASE BANK, N.A.**~~
~~270 Park Avenue, 38th Floor~~
~~New York, New York 10017~~

AND TO: **J.P. MORGAN BANK CANADA**
1800-200 Bay Street
Royal Bank Plaza, South Tower
Toronto, ON M5J 2J2

AND TO: **J.P. MORGAN CANADA**
1800-200 Bay Street
Royal Bank Plaza, South Tower
Toronto, ON M5J 2J2

AND TO: **JPMORGAN CHASE BANK, NATIONAL ASSOCIATION**
1800-200 Bay Street
Royal Bank Plaza, South Tower
Toronto, ON M5J 2J2

AND TO: **MORGAN STANLEY**
1585 Broadway
New York, New York 10036

AND TO: **MORGAN STANLEY CANADA LIMITED**
181 Bay Street
Suite 3700
P.O. Box 776
Toronto, ON M5J 2T3

AND TO: **ROYAL BANK OF SCOTLAND GROUP PLC**
36 St. Andrew Square
Edinburgh, United Kingdom EH2 2YB

AND TO: **RBS SECURITIES, INC.**
600 Washington Boulevard
Stamford, Connecticut 06901

AND TO: **ROYAL BANK OF SCOTLAND N.V.**
1610-79 Wellington Street West
Toronto, ON M5K 1G8

AND TO: **ROYAL BANK OF SCOTLAND PLC**
1610-79 Wellington Street West
Toronto, ON M5K 1G8

AND TO: **SOCIÉTÉ GÉNÉRALE S.A.**
29 Boulevard Haussmann 75009
Paris, France

AND TO: **SOCIÉTÉ GÉNÉRALE**
29 Boulevard Haussmann 75009
Paris, France

AND TO: **SOCIÉTÉ GÉNÉRALE (CANADA)**
1501 McGill College Avenue, Suite 1800
Montreal, QC H3A 3M8

AND TO: **STANDARD CHARTERED PLC**
1 Basinghall Avenue
London, EC2V 5DD

AND TO: **UBS AG**
Aeschenvorstadt 1
4051 Basel

and

Bahnhofstrasse 45
8001 Zurich

AND TO: **UBS SECURITIES LLC**
677 Washington Blvd.
Stamford, Connecticut 06901

AND TO: **UBS BANK (CANADA)**
800-154 University Avenue
Toronto, ON M5H 3Z4

CLAIM

1. The plaintiffs claims on behalf of himself and other members of the proposed Class (as defined in paragraph 24 below):

(a) A declaration that the defendants conspired, agreed and/or arranged with each other to fix, maintain, increase, control, or unreasonably enhance the price of foreign exchange purchased in the foreign exchange market during the Class Period (as defined in paragraph 24 below);

(b) Damages or compensation in an amount not exceeding $1,000,000,000 for:

(i) loss and damage suffered as a result of conduct contrary to Part VI of the *Competition Act*, RSC 1985, c C-34 ("***Competition Act***");

(ii) civil conspiracy;

(iii) unjust enrichment; and

(iv) waiver of tort;

(c) Punitive, exemplary and aggravated damages in the amount of $50,000,000;

(d) An equitable rate of interest on all sums found due and owing to the plaintiffs and other class members or, in the alternative, pre- and post-judgment interest pursuant to the *Courts of Justice Act*, R.S.O. 1990, c. C.43;

(e) Investigative costs and costs of this proceeding on a full-indemnity basis pursuant to section 36 of the *Competition Act*; and

(f) Such further and other relief as this Honourable Court deems just.

NATURE OF THE ACTION

2. This action arises from a conspiracy among the defendants to fix, raise, maintain, stabilize, control, or enhance unreasonably the prices of currency purchased in the foreign exchange or foreign currency market (the "**FX Market**"), and to fix, maintain, control, prevent, lessen, eliminate, or unduly lessen the supply of foreign currencies on the FX Market.

3. The FX Market is the world's largest and most actively traded financial market. In April 2013, trading in the global FX Market averaged USD$5.3 trillion per day.

4. In April 2015, Canadian domestic market FX trading averaged USD$75.1 billion per day. The defendants are the dominant dealers in the FX Market, having a combined global market share of approximately 90%. The defendants, collectively, represent a substantial portion of the FX Market in Canada.

5. The FX Market revolves around spot transactions. Spot transactions are the simply exchange of one currency for another. More specifically, spot transactions involve the exchange of currencies between the dealer and the customer on a value date that is within two bank business days' time. Spot transactions occur over-the-counter. Spot transactions rely on financial institutions, such as the defendants, to act as "dealers" willing to continuously buy and sell currencies. Dealers are also referred to as "market makers" or "liquidity providers". The dealer will provide spot market quote prices at which the dealer is willing to buy or sell the currency. The dealer quotes its customer a "bid" (the price it will buy currency) and an "ask" (the price it will sell currency). The difference between the bid and the ask is called the "bid/ask spread" or simply the "spread."

6. The defendants dominate spot trading, acting as the dealer in approximately 98% of spot volume in the United States, a major FX trading centre.

7. In Canada, as of April 2013, spot transactions accounted for 23 percent of all FX turnover. The figure is higher in the United States, where approximately half of the daily FX turnover are spot transactions.

8. Spot transactions determine the pricing and affect other FX instruments. In over-the-counter trading, spot prices impact the pricing of outright forwards,[1] FX swaps[2] and FX options.[3] These are instruments that the defendants sell directly to their customers. Collectively, FX spot transactions, outright forwards, FX swaps, FX options, options on FX Futures contracts, and other instruments traded in the FX market in Canada or on a Canadian exchange are referred to herein as "**FX Instruments**."

9. Spot transactions also directly impact the pricing of FX Instruments traded on exchanges, including futures contracts and options on futures contracts.

10. Beginning at least as early as 2003 and continuing through 2013, the defendants conspired with each other to fix, raise, maintain, stabilize, control, or enhance unreasonably prices in the FX market. Through the daily use of multiple chat rooms with revealing names such as "The Cartel," "The Bandits' Club," and "The Mafia," the defendants communicated directly with each other to coordinate their: (i) fixing of spot prices; (ii) controlling or manipulating FX benchmark rates; and (iii) exchanging key confidential customer information in an effort to trigger client stop loss orders[4] and limit orders.[5] The defendants' conspiracy affected dozens of currency pairs, including the U.S. and Canadian dollar (USD/CAD) currency pair, which is one of the world's highest volume trading currency pairs. Due to the importance of spot prices, the defendants'

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[1] An "**outright forward**" is an agreement to exchange sums of currency at an agreed-on exchange rate on a value date that will be in more than two bank business days' time. The exchange rate for a forward transaction is called the forward outright.

[2] An "**FX swap**" is a combination of a spot transaction plus an outright forward done simultaneously, but in the opposite direction.

[3] **Options on FX futures** are standardized contracts trading on an exchange, and upon exercise, calling for the establishment of an FX futures position. A "**FX future**" is a standardized contracts trading on an exchange and calling for delivery of a specified quantity of a specified currency, or a cash settlement, on a specified date.

[4] A "**stop loss order**" is an instrument from the client to the bank to trade a currency if the currency trades at a specified rate. A stop loss order to sell is triggered if the bid price reaches the order rate, and a stop order to buy is executed if the offer price reaches the order rate.

[5] A "**limit order**" is an order placed with a broker to buy or sell an FX Instrument at a specified price or better. Because the limit order is for a specified price, it may not be executed if the price set by the investor cannot be met during the period of time in which the order is left open.

conspiracy impacted all manner of FX Instruments, including those trading both over-the-counter and on exchanges.

11. The spread is one way in which a defendant is compensated as a market maker for spot transactions. The defendants want to buy low and sell high and want wider spreads. Conversely, it is in customers' interest to have narrower spreads. Narrower spreads mean customers pay lower prices when buying currency and receive higher prices when selling currency. Thus, collusively widening the spread directly injures customers by forcing them to pay more or receive less in a given spot transaction.

12. The defendants conspired to fix spot prices, including in respect of USD/CAD, by agreeing to artificially widen spreads quoted to customers. As part of their efforts to coordinate the spreads quoted to customers, defendants engaged in thousands of communications about FX spreads.

13. The defendants also conspired to fix key FX benchmark rates, known generally as "**Fixes**." The most widely used Fixes are the WM/Reuters Closing Spot Rates and the European Central Bank's Fixing Rates. Using electronic chat rooms, the defendants exchanged confidential customer information and coordinated their trading to control or manipulate these key rates, including in respect of USD/CAD.

14. The defendants engaged in additional collusive conduct. The defendants exchanged information about the prices at which their respective customers had stop-loss orders and limit orders for the purpose of coordinating their trading to trigger these pricing thresholds. The defendants exploited these orders by controlling or manipulating prices to swing to the price at which the stop-loss or limit order is triggered.

15. The United States Department of Justice ("**DOJ**") has an active and ongoing criminal investigation into the defendants' conduct. Five defendants: Barclays Bank PLC, Citicorp, JPMorgan Chase & Co., RBS, and UBS have already pled guilty to the conspiracy. The Commodity Futures Trading Commission ("**CFTC**") is investigating the defendants' conduct, resulting in adverse findings of facts and billions of dollars in fines. Other law enforcement and regulatory authorities, including in the United States,

Europe, Asia, Australia, New Zealand, South Africa, and South America, have open and active investigations into the defendants' conduct in the FX Market. As a direct result of these global investigations, the defendants have terminated and suspended numerous personnel with supervisory authority over their FX operations.

16. The defendants' longstanding conspiracy reflected a culture of increasing profits at the expense of the Class and the very integrity of the FX Market. The defendants' conspiracy to fix prices in the FX Market impacted the pricing of all FX Instruments, resulting in loss and damage for the Class.

THE PLAINTIFFS AND THE CLASS

17. The plaintiffs, Joseph S. Mancinelli, Carmen Principato, Douglas Serroul, Luigi Carrozzi, Manuel Bastos, and Jack Oliveira (the **"Labourers Trustees"**) in their capacity as The Trustees of the Labourers' Pension Fund of Central and Eastern Canada, are the trustees of a multi-employer pension plan providing benefits for employees working in the construction industry. The fund is a union-negotiated, collectively-bargained defined benefit pension plan established on February 23, 1972 which currently has approximately $5 billion in assets, over 100,000 members and over 19,000 pensioners and beneficiaries. A board of trustees representing members of the plan governs the fund. The plan is registered under the *Pension Benefits Act*, R.S.O. 1990, c P.8 and the *Income Tax Act*, R.S.C. 1985, 5th Supp, c, 1.

~~17.~~18. In their capacity as trustees for the pension fund, the Labourers Trustees entered into thousands of transactions in the FX Market during the Class Period, as defined below, including spot transactions, forwards, and options. Deutsche Bank AG and Royal Bank of Canada were the counterparty to many of these transactions.

~~18.~~19. The plaintiff, Christopher Staines ("**Staines**"), is an individual residing in Komoka, Ontario. Staines holds numerous investment products through wholly-owned subsidiaries of the RBC defendants, as defined below.

~~19.~~20. During the Class Period, as defined below, Staines purchased and sold units in funds that are either exposed to the risk of currency fluctuations in the FX Market or

which employ investment strategies that attempt to actively mitigate the risk associated therewith. The funds mitigate this risk by frequently entering and exiting positions in FX derivative products such as currency swaps, options, forward contracts and futures contracts.

~~20.~~21. Mr. Staines purchased and sold units in several of the types of funds that engage in the risk mitigation strategies described in paragraph 18 including:

- PH&N Overseas Equity Fund
- RBC US Equity Fund
- PH&N C-Hedged US Equity Fund

~~21.~~22. In the simplified prospectus for the RBC Equity Fund, RBC Global Asset Management notes:

> **"We may use derivatives for hedging purposes to protect against losses or reduce volatility resulting from changes in interest rates, market indices or foreign exchange rates and to reduce the fund's exposure to changes in the value of the U.S. dollar relative to the Canadian dollar. The portfolio manager will determine the level of currency exposure based on its current view of currency markets"**
>
> **AND**
>
> **"may also use derivatives such as options, futures, forward contracts and swaps as a substitute for direct investment."**

~~22.~~23. Similar language with respect to how the fund may hedge against currency risk is included in the simplified prospectus for the PH&N Overseas Equity Fund.

~~23.~~24. In the simplified prospectus for the PH&N C-Hedged US Equity Fund, Phillips, Hager & North Investment Management Ltd. notes:

> **"The Fund will use derivatives to hedge against fluctuations in the value of the U.S. dollar relative to the Canadian dollar. In addition, the Fund may use derivatives, such as swaps, options, futures and forward contracts, as permitted by NI 81-102:**

→ **for hedging purposes, including to protect against losses or reduce volatility resulting from changes in interest rates, market indices or foreign exchange rates including changes in the value of foreign currency relative to the Canadian dollar; and**

→ **for non-hedging purposes, including as a substitute for direct investment or to generate income**"

~~24.~~25. As a result of the defendants' conduct, as alleged herein, because the funds that Staines held implemented the above-noted hedging strategies, the values of the funds were depressed. Specifically, as a result of the defendants' conduct, the funds paid inflated currency exchange rates and/or received deflated currency exchange rates, resulting in a loss in value of the funds. This loss was passed on, in whole or in part, to holders of the funds, including Staines through deflated value of the investment and/or increased management fees.

~~25.~~26. The plaintiffs seeks to represent the following proposed class (the "**Class**" or the "**Class members**"):

> *All persons in Canada who, between January 1, 2003 and December 31, 2013 (the "**Class Period**"), entered into an FX Instrument[1] either directly or indirectly through an intermediary, and/or purchased or otherwise participates in an investment or equity fund, mutual fund, hedge fund, pension fund or any other investment vehicle that entered into an FX Instrument. Excluded from the class are the defendants, their parent companies, subsidiaries, and affiliates.*
>
> > *[1] "**FX Instruments**" includes FX spot transactions, outright forwards, FX swaps, FX options, FX futures contracts, options on FX futures contracts, and other instruments traded in the FX market in Canada or on a Canadian exchange.*

THE DEFENDANTS

~~26.~~27. The defendants are jointly and severally liable for the actions of, and damages allocable to, their co-conspirators, including unnamed co-conspirators.

~~27.~~28. Where a particular entity within a corporate family of the defendants engaged in anti-competitive conduct, it did so on behalf of all entities within that corporate family. The individual participants in the conspiratorial meetings and discussions entered into an

agreement on behalf of, and reported these meetings and discussions to, their respective corporate families.

~~28.~~29. Various persons, partnerships, sole proprietors, firms, corporations, and individuals not named as defendants in this action, the identities of which are presently unknown, have participated as co-conspirators with the defendants in the unlawful behaviour alleged herein, and have performed acts and made statements in furtherance of the conspiracy or in furtherance of the anti-competitive conduct.

~~29.~~30. The terms "defendant" or "defendants" as used herein includes, in addition to those named specifically below, all of the named defendants' predecessors, including those merged with or acquired by the named defendants and each named defendant's wholly owned or controlled subsidiaries or affiliates that played a material role in the unlawful acts alleged herein.

RBC

~~30.~~31. The defendant **Royal Bank of Canada** is regulated in Canada under the *Bank Act* as a Schedule I bank and has its head office in Toronto, Ontario.

~~31.~~32. The defendant **RBC Capital Markets LLC** is a Minnesota limited liability company with its principal place of business and headquarters in New York, New York. RBC Capital Markets LLC is also a wholly-owned subsidiary of the Royal Bank of Canada.

~~32.~~33. The defendants Royal Bank of Canada and RBC Capital Markets LLC are collectively referred to as "RBC."

Bank of America

~~33.~~34. The defendant **Bank of America Corporation** is a Delaware corporation headquartered in Charlotte, North Carolina. Bank of America Corporation is a multinational banking and financial services corporation with its investment banking division located in New York, New York.

~~34.~~35. The defendant **Bank of America, N.A.** is a United States federally-charted national banking association headquartered in Charlotte, North Carolina, and is an indirect, wholly owned subsidiary of Bank of America Corporation.

~~35.~~36. The defendant **Bank of America Canada** is regulated under the *Bank Act*, S.C. 1991, c. 46 (the "*Bank Act*") as a Schedule II bank and has its head office in Toronto, Ontario.

37. The defendant **Bank of America, National Association** is regulated under the *Bank Act* as a Schedule III bank.

~~36.~~38. The defendants Bank of America Corporation, Bank of America, N.A., Bank of America Canada, and Bank of America, National Association are collectively referred to as "Bank of America."

Bank of Tokyo Mitsubishi

~~37.~~39. The defendant **The Bank of Tokyo Mitsubishi UFJ Ltd.** is a Japanese company headquartered in Tokyo, Japan, with a branch in New York, New York.

~~38.~~40. The defendant **Bank of Tokyo-Mitsubishi UFJ (Canada)** is regulated under the *Bank Act* as a Schedule II bank and has its head office in Toronto, Ontario.

~~39.~~41. The defendants The Bank of Tokyo Mitsubishi UFJ Ltd. and Bank of Tokyo-Mitsubishi UFJ (Canada) are collectively referred to as the "Bank of Tokyo Mitsubishi."

Barclays

~~40.~~42. The defendant **Barclays Bank PLC** is a British public limited company headquartered in London, England. In Canada, Barclays Bank PLC is regulated under the *Bank Act* as a Schedule III bank.

~~41.~~43. The defendant **Barclays Capital Inc.** is a wholly owned subsidiary of Barclays Bank PLC headquartered in New York, New York and engages in investment banking, wealth management and investment management services.

~~42.~~44. The defendant **Barclays Capital Canada Inc.** is a wholly owned subsidiary of Barclays Bank PLC headquartered in Toronto, Ontario and incorporated under the laws of Canada.

~~43.~~45. The defendants Barclays Bank PLC, Barclays Capital Inc. and Barclays Capital Canada Inc. are collectively referred to as "Barclays."

BNP

~~44.~~46. The defendant **BNP Paribas Group** is a French bank and financial services company headquartered in Paris, France.

~~45.~~47. The defendant **BNP Paribas North America Inc.** is a Delaware corporation headquartered in New York, New York. BNP Paribas North America Inc. provides corporate, investment banking, and securities brokerage activities and is an affiliate of BNP Paribas.

~~46.~~48. The defendant **BNP Paribas (Canada)** is regulated under the *Bank Act* as a Schedule II bank and has its head office in Montreal, Quebec.

~~47.~~49. The defendant **BNP Paribas** is regulated under the *Bank Act* as a Schedule III bank.

~~48.~~50. The defendants BNP Paribas Group, BNP Paribas North America Inc., BNP Paribas (Canada), and BNP Paribas are collectively referred to as "BNP."

Citigroup

~~49.~~51. The defendant **Citigroup, Inc.** is a Delaware corporation headquartered in New York, New York.

~~50.~~52. The defendant **Citibank, N.A.** is a United States federally-chartered national banking association headquartered in New York, New York and is a wholly owned subsidiary of defendant Citigroup, Inc. Citibank, N.A. is regulated in Canada under the *Bank Act* as a Schedule III bank.

~~51.~~53. The defendant **Citibank Canada** is regulated under the Bank Act as a Schedule II bank and has its head office in Toronto, Ontario.

~~52.~~54. The defendant **Citigroup Global Markets Canada Inc.** is a wholly owned subsidiary of Citigroup, Inc. headquartered in Toronto, Ontario and incorporated under the laws of the Province of Ontario.

~~53.~~55. The defendants Citigroup, Inc., Citibank, N.A., Citibank Canada and Citigroup Global Markets Canada Inc. are collectively referred to as "Citigroup."

Credit Suisse

~~54.~~56. The defendant **Credit Suisse Group AG** is a Swiss company headquartered in Zurich, Switzerland.

~~55.~~57. The defendant **Credit Suisse Securities (USA) LLC** is a Delaware limited liability company headquartered in New York, New York, and is a wholly owned subsidiary of Credit Suisse Group AG.

~~56.~~58. The defendant **Credit Suisse AG** is regulated in Canada under the *Bank Act* as a Schedule III bank.

~~57.~~59. The defendant **Credit Suisse Securities (Canada), Inc.** is a wholly owned subsidiary of Credit Suisse Group AG headquartered in Toronto, Ontario and incorporated under the laws of the Province of Ontario.

~~58.~~60. The defendants Credit Suisse Group AG, Credit Suisse Securities (USA) LLC, Credit Suisse AG and Credit Suisse Securities (Canada), Inc. are collectively referred to as "Credit Suisse."

Deutsche Bank

~~59.~~61. The defendant Deutsche Bank AG ("Deutsche Bank") is a German financial services company headquartered in Frankfurt, Germany. Deutsche Bank is regulated in Canada under the *Bank Act* as a Schedule III bank.

Goldman Sachs

~~60.~~62. The defendant **The Goldman Sachs Group, Inc.** is a Delaware corporation headquartered in New York, New York 10282. The Goldman Sachs Group Inc. is a bank holding company and a financial holding company.

~~61.~~63. The defendant **Goldman, Sachs & Co.** is a wholly owned subsidiary of the United States financial services corporation The Goldman Sachs Group, Inc. and is its principal operating subsidiary in the United States. Goldman, Sachs & Co. is located in New York, New York.

~~62.~~64. The defendant **Goldman Sachs Canada Inc.** is incorporated under the laws of the Province of Ontario with a registered office address in Toronto, Ontario.

~~63.~~65. The defendants The Goldman Sachs Group, Inc., Goldman, Sachs & Co. and Goldman Sachs Canada Inc. are collectively referred to as "Goldman Sachs."

HSBC

~~64.~~66. The defendant **HSBC Holdings PLC** is a United Kingdom public limited company headquartered in London, England.

~~65.~~67. The defendant **HSBC Bank PLC** is a United Kingdom public limited company headquartered in London, England and is a wholly owned subsidiary of HSBC Holdings PLC.

~~66.~~68. The defendant **HSBC North America Holdings Inc.** is a Delaware corporation headquartered in New York, and is a wholly owned subsidiary of HSBC Holdings PLC. defendant HSBC North America Holdings, Inc. is the holding company for HSBC Holding PLC's operations in the United States.

~~67.~~69. The defendant **HSBC Bank USA, N.A.** is a national banking association with its principal place of business in New York, New York, and is an indirect wholly owned subsidiary of HSBC North America Holdings Inc.

~~68.~~70. The defendant **HSBC Bank Canada** is regulated in Canada under the *Bank Act* as a Schedule II bank and has its head office in Vancouver, British Columbia.

~~69.~~71. The defendants HSBC Holdings PLC, HSBC Bank PLC, HSBC North America Holdings Inc., HSBC Bank USA, N.A., and HSBC Bank Canada are collectively referred to as "HSBC."

JPMorgan

~~70.~~72. The defendant **JPMorgan Chase & Co.** is a Delaware corporation headquartered in New York, New York.

~~71.73. The defendant **JPMorgan Chase Bank, N.A.** is a United States federally-chartered national banking association headquartered in New York, New York, and is a wholly-owned subsidiary of defendant JP Morgan Chase & Co.~~

~~72.~~74. The defendant **J.P. Morgan Bank Canada** is regulated in Canada under the *Bank Act* as a Schedule II bank and has its head office in Toronto, Ontario.

~~73.~~75. The defendant **J.P. Morgan Canada** is regulated in Canada under the *Bank Act* as a Schedule II bank and has its head office in Toronto, Ontario.

~~74.~~76. The defendant **JPMorgan Chase Bank, National Association** is regulated in Canada under the *Bank Act* as a Schedule III bank.

~~75.~~77. The defendants JPMorgan Chase & Co., ~~JPMorgan Chase Bank, N.A.,~~ J.P. Morgan Bank Canada, J.P. Morgan Canada, and JPMorgan Chase Bank, National Association are collectively referred to as "JPMorgan."

Morgan Stanley

~~76.~~78. The defendant **Morgan Stanley** is a Delaware corporation headquartered in New York, New York.

~~77.~~79. The defendant **Morgan Stanley Canada Limited** is incorporated under the laws of Canada with a registered office address in Toronto, Ontario.

~~78.~~80. The defendants Morgan Stanley and Morgan Stanley Canada Limited are collectively referred to as "Morgan Stanley."

RBS

~~79.~~81. The defendant **Royal Bank of Scotland Group PLC** is a United Kingdom public limited company headquartered in Edinburgh, Scotland. Royal Bank of Scotland Group PLC has a registered address in New York, New York.

~~80.~~82. The defendant **RBS Securities, Inc.** is a Delaware corporation headquartered in Stamford, Connecticut.

~~81.~~83. The defendant **Royal Bank of Scotland N.V.** is regulated in Canada under the *Bank Act* as a Schedule III bank.

~~82.~~84. The defendant **Royal Bank of Scotland plc** is regulated in Canada under the *Bank Act* as a Schedule III bank.

~~83.~~85. The defendants Royal Bank of Scotland Group PLC, RBS Securities, Inc., Royal Bank of Scotland N.V., and Royal Bank of Scotland plc are collectively referred to as "RBS."

SoGen

~~84.~~86. The defendant **Société Générale S.A.** is a financial services company headquartered in Paris, France, with a branch in New York, New York.

~~85.~~87. The defendant **Société Générale (Canada)** is regulated in Canada under the *Bank Act* as a Schedule II bank and has its headquarters in Montreal, Quebec.

~~86.~~88. The defendant **Société Générale** is regulated in Canada under the *Bank Act* as a Schedule III bank.

~~87.~~89. The defendants Société Générale S.A., Société Générale (Canada) and Société Générale are collectively referred to as "SoGen."

Standard Chartered

~~88.~~90. The defendant **Standard Chartered plc** ("Standard Chartered") is a United Kingdom public limited company with headquarters in London.

~~89.~~91.

UBS

~~90.~~92. The defendant **UBS AG** is a Swiss company based in Basel and Zurich, Switzerland. UBS AG is regulated in Canada under the *Bank Act* as a Schedule III bank.

~~91.~~93. The defendant **UBS Securities LLC** is a Delaware limited liability company headquartered in Stamford, Connecticut, and is a wholly owned subsidiary of UBS AG.

~~92.~~94. The defendant **UBS Bank (Canada)** is regulated in Canada under the *Bank Act* as a Schedule II bank and has its head office in Toronto, Ontario.

~~93.~~95. The defendants UBS AG, UBS Securities LLC and UBS Bank (Canada) are collectively referred to as "UBS."

FACTUAL BACKGROUND

The Foreign Exchange Market

~~94.~~96. Foreign exchange is the buying and selling of currency, or the exchanging one country's currency for another. The FX Market is the largest in the financial system, with an estimated daily turnover of USD$5.3 trillion. The FX Market operates 24-hours a day in various markets around the world. With the advent of electronic trading, it is possible to trade foreign currency during the weekends.

~~95.~~97. Trading in the FX Market is done either over-the-counter directly with a counterparty, such as a defendant, or on a centralized exchange. During the Class Period, approximately 98% of FX trading occurred over-the-counter. The remaining trades are executed on exchanges, including the TMX Montreal Exchange.

~~96.~~98. There are three types of FX instruments that account for the majority of FX transactions:

(a) **Spot:** An agreement to exchange sums of currency at an agreed-on exchange rate on a value date that is within two bank business days' time.

(b) **Outright Forward:** An agreement to exchange sums of currency at an agreed-on exchange rate on a value date that will be in more than two bank business days' time. The exchange rate for a forward transaction is called the forward outright.

(c) **FX Swap:** A combination of a spot transaction plus an outright forward done simultaneously, but in the opposite direction.

~~97.~~99. Collectively, spot transactions, outright forwards and FX swaps will be included in the definition of "**FX Instruments**."

~~98.~~100. Two types of transactions are entered into through exchanges:

(a) **FX Futures:** Standardized contracts trading on an exchange and calling for delivery of a specified quantity of a specified currency, or a cash settlement, on a specified date.

(b) **Options on FX Futures:** Standardized contracts trading on an exchange, and upon exercise, calling for the establishment of an FX futures position.

~~99.~~101. The FX Market revolves around spot transactions as both outright forwards and FX swaps are derived from the underlying spot price. As a result, every time the spot price moves, the prices for the outright forward and FX swap move.

~~100.~~102. An outright forward is the spot price plus the interest differential or "cost of carry." The cost of carry is determined mathematically from the overall cost involved when lending one currency and borrowing another during the time period stretching from the spot date until the forward date. Outright rates are quoted in swap points, also

called forward points. By adding (premium) or subtracting (discount) these swap points from the spot rate, the full outright forward rate is calculated.

~~101.~~103. Similarly, an FX swap is determined by the spot price because it is a simultaneous spot transaction and a reverse outright forward – a spot-forward swap. An FX swap is a contract to buy an amount of the base currency at an agreed rate (spot), and simultaneously resell the same amount of the base currency for a later value date to the same counterparty (outright forward), also at an agreed rate (or vice versa).

~~102.~~104. The FX Spot Market is an over-the-counter market and, as such, is decentralized and requires financial institutions to act as dealers willing to buy or sell a currency. The defendants are dealers and make up the vast majority of trading volume. Dealers, also known throughout the FX Spot Market as "market makers" or "liquidity providers", therefore play a critical role in ensuring the continued functioning of the market.

~~103.~~105. A dealer in the FX Spot Market quotes prices at which the dealer stands ready to buy or sell the currency. These price quotes are expressed as units of a given currency, known as the "counter" currency, which would be required to purchase one unit of a "base" currency, which is often the U.S. dollar and so reflects an "exchange rate" between the currencies. Dealers generally provide price quotes to four decimal points, with the final digit known as a "percentage in point" or "pip." A dealer may provide price quotes to potential customers in the form of a "bid/ask spread," which represents the difference between the price at which the dealer is willing to buy the currency from the customer (the "bid") and the price at which the dealer is willing to sell the currency to the customer (the "ask"). A dealer may quote a spread, or may provide just the bid to a potential customer inquiring about selling currency or just the ask to a potential customer inquiring about buying currency.

~~104.~~106. A customer wishing to trade currency may transact with a dealer by placing an order through the dealer's internal, proprietary electronic trading platform or by contacting the dealer's salesperson to obtain a quote. When a customer accepts a dealer's quote, that dealer now bears the risk for any change in the currency's price that

may occur before the dealer is able to trade with other dealers in the "interdealer market" to fill the order by buying the currency the dealer has agreed to sell to the customer, or by selling the currency the dealer has agreed to buy from the customer.

~~105.~~107. A dealer may also take and execute orders from customers such as "fix orders," which are orders to trade at a subsequently determined "fix rate." When a dealer accepts a fix order from a customer, the dealer agrees to fill the order at a rate to be determined at a subsequent fix time based on trading in the interdealer market. Two such "fixes" used to determine a fix rate are the European Central Bank fix, which occurs each trading day at 2:15 PM (CET) and the World Markets/Reuters fix, which occurs each trading day at 4:00 PM (GMT).

~~106.~~108. The Canadian Foreign Exchange Committee ("**CFEC**") is an industry group composed of senior representatives from financial institutions actively involved in the FX Market in Canada and the U.S. dollar/Canadian dollar market globally. The CFEC conducts a semi-annual (in April and October) survey of foreign exchange volumes in Canada. The stated purpose of the survey "is to provide information on the size and structure of the foreign exchange and foreign exchange derivatives in Canada."

~~107.~~109. The CFEC reported that for the month of April 2015, the monthly turnover of traditional foreign exchange products (defined as spot transactions, outright forwards and FX swaps) totaled approximately USD$1.6 trillion. On an average daily basis, the total turnover rose by 24.3% to USD$75.1 billion in April 2015 from USD$60.4 billion in October 2014.

~~108.~~110. The April 2015 breakdown of average daily turnover is as follows:

(a) Spot Transactions: USD$17.1 billion

(b) Outright Forward Transactions: USD$16.1 billion

(c) FX Swaps: USD$41.9 billion

~~109.~~111. The CFEC also reported that monthly turnover in April 2015 of foreign exchange derivatives (defined as FX swaps and options) totaled USD$98.2 billion. On

an average daily basis, derivatives turnover decreased by 25.4% to USD$4.7 billion in April 2015 from USD$6.3 billion in October 2014.

WM/Reuters Rates, Including Spot & Forward Rates

~~110.~~112. The World Markets Company plc ("**WM**") provides an exchange rate service that publishes Spot, Forward and Non Deliverable Forward benchmark rates at fixed times throughout the global trading day.

~~111.~~113. Since its inception in 1994, WM has been committed to publishing independent and transparent benchmark rates which, based on its methodology, it believes are reasonably designed to be reflective of the market at the time of each fix.

~~112.~~114. The WM/Reuters Closing Spot Rates service was introduced in 1994 to provide a standard set of currency benchmark rates so that portfolio valuations could be compared with each other and their performance measured against benchmarks without having any differences caused by exchange rates. These rates were adopted by index compilers, the Financial Times and other users and became the de facto standard for Closing Spot Rates on a global basis.

~~113.~~115. In 1997, the WM/Reuters Closing Forward Rates service was launched to complement the Closing Spot Rates service.

~~114.~~116. In 2001, the WM/Reuters Intraday Spot Rate service was launched to extend the Spot rates product and meet customers' growing requirements. This service has since expanded to provide hourly spot rates from Monday 06:00 in Hong Kong/Singapore until Friday 22:00 in the UK.

~~115.~~117. In 2004, the WM/Reuters Intraday Forwards were launched at 08:00, 10:00, 12:00 and 14:00 UK time. Further enhancements have since seen this extended to an hourly service from 06:00 – 21:00 UK time with additional rates provided at 17:00 New York time, 10:00 and 16:00 Sydney time, 14:00 New Zealand time, 11:00 Singapore time and 11:00 Bangkok time.

~~116.~~118. In 2009, the WM/Reuters Non Deliverable Forwards ("**NDF**") Rates were launched covering 12 currencies. The NDF service provides both Closing and Intraday Rates.

~~117.~~119. In 2012, the WM/Reuters Intraday Spot Rates service was further enhanced by the introduction of half-hourly fixes for the trade currencies only.

~~118.~~120. In 2014, the WM/Reuters Spot Rates service was enhanced to include the WM/Reuters Tokyo Fix covering 24 currencies against JPY, USD, GBP and EUR.

~~119.~~121. A WM/Reuters rate is used by buyers and sellers of currencies to avoid reconciliation differences that might result from making changes to a portfolio benchmarked against an index. In other words, buyers and sellers of currencies often decide to tie a spot or forward transaction to a WM/Reuters rate in order to avoid poor or untimely execution of currency trades.

~~120.~~122. The defendants play no part in the calculation of WM/Reuters rates. Rather, unlike some other financial benchmarks, WM/Reuters rates are merely median prices of all trades in a fixed period for currency pairs, determined on a half-hourly, hourly, or end-of-day basis.

~~121.~~123. A WM/Reuters rate is calculated using data from bids and offers and actual foreign exchange trades executed over a one-minute period (or two minutes for some currencies), lasting 30 seconds before to 30 seconds after the time of the rate calculation. The process for capturing this information and calculating the spot fixings is automated and anonymous. Using that data, a median bid and offer rate are calculated, and then a mid-rate is calculated from these median bid and offer rates – that rate is the WM/Reuters rate for that hour. Because these rates are based on the median value of the transaction, the WM/Reuters rates do not take the notional size of the quotes and transactions in account; all quotes and transactions are weighted equally regardless of size.

~~122.~~124. The most widely used WM/Reuters rate is the WM/Reuters closing spot rate (the "**WM/Reuters Closing Rate**"), which is calculated at 4 p.m. in London. There

is a WM/Reuters Closing Rate for every currency pair traded. Trading volume at the WM/Reuters Closing Rate is especially high at the end of the month because many funds use that rate to rebalance their portfolios.

~~123.~~125. The WM/Reuters forward rates are published as premiums or discounts to the WM/Reuters spot rates. Any manipulation of the WM/Reuters spot rate has a direct impact on the WM/Reuters forward rates.

~~124.~~126. There has been widespread acceptance and reliance on the WM/Reuters rates as a pricing mechanism and as the primary benchmark for currency trading globally. As a result, the WM/Reuters rates occupy a crucial role in the operation of financial markets.

~~125.~~127. The normal calculation times for the WM/Reuters Spot Rates are hourly from Monday 06:00 Hong Kong/Singapore to Friday 22:00 in the UK, with half-hourly rates provided only for the "trade currencies," which are defined to include the following 21 currencies: AUD, CAD, CHF, CZK, DKK, EUR, GBP, HKD, HUF, ILS, JPY, MXN, NOK, NZD, PLN, RON, RUB, SEK, SGD, TRY and ZAR.

~~126.~~128. To calculate WM/Spot Rates, the FX Market is constantly monitored and rates are captured every 15 seconds. WM/Reuters performs continuous and interactive validation. The captured market data is subject to currency specific systematic tolerance checks which will identify outlying data. Validation is performed on the outlying data by WM Operations Specialists, who will seek corroboration, or rely upon their own judgment to determine the market level. The benchmark fix is then subject to further currency specific tolerance checks prior to publication.

~~127.~~129. The WM/Reuters Forward Rates are intended to be intraday and closing rates. The normal calculation times are hourly from 06:00 to 21:00 UK time Monday to Friday. In addition, WM publishes at 17:00 hours New York time, 10:00 hours Sydney time, 14:00 hours New Zealand time, 11:00 hours Singapore time, 11:00 Bangkok time and 16:00 hours Sydney time.

~~128.~~130. The rates fixed at 4 p.m. UK time are the "Closing Forward Rates."

~~129.~~131. The WM/Reuters Forward Rates are calculating by constantly monitoring the FX Forward market and capturing rates every 2 minutes and performing continuous and interactive validation. The captured market data is subject to currency specific systematic tolerance checks which identify outlying data. Validation is performed on the outlying data by WM Operations Specialists, who will seek corroboration, or rely upon their own judgment to determine the market level. On the hour, a snapshot of quoted rates is taken for each currency, and considered the benchmark fix, subject to further currency specific tolerance checks prior to publication.

The ECB Rates

~~130.~~132. Like the WM/Reuters rates, the ECB reference rate provides spot FX rates throughout the day for euro-denominated currency pairs. The European Central Bank owns and administers euro foreign exchange reference rates for 32 different currencies on a daily basis. The rates are published for currency pairs that are actively traded against the euro. The ECB reference rate is the second most frequently used global FX benchmark.

~~131.~~133. The ECB fix is the exchange rate for various spot FX currency pairs as determined by the European Central Bank at 1:15pm GMT, or 2:15pm CET. For G10 currency pairs, the ECB fix is based upon spot FX trading activity by market participants at or around the times of the 1:15pm ECB fix. Only one reference exchange rate (the mid-rate) is published for each currency. This rate is based on the regular daily concertation procedure between central banks within and outside the European System of Central Banks. This process is referred to as the "ECB fix" and reflects the rate at that particular moment in time.

~~132.~~134. The ECB reference exchange rates are published both by electronic market information providers and on the ECB's website shortly after the concertation procedure has been completed.

~~133.~~135. The ECB fix is used in global financial markets by various market participants, including banks, asset managers, pension funds, and corporations. Like the

WM/Reuters Closing Spot Rates, the ECB fix rates are used to value foreign currency-denominated assets and liabilities, and in the valuation and performance management of investment portfolios held by pension funds and asset managers. The rates established at the ECB fix are also used as a reference rate in financial derivatives.

Other Benchmark Rates

~~134.~~136. Other FX benchmark rates are price through actual market transactions or through the use of indicative rates.

~~135.~~137. The Chicago Mercantile Exchange ("**CME**")/Emerging Markets Traders Association benchmark rates are based on indicative rates submitted by market participates to the CME are a component of the final settlement rate of the CME's future contracts.

~~136.~~138. The Association of Banks in Singapore publishes a range of daily spot rate fixings for deliverable and non-deliverable currency markets. Those rates stem from 11:00 a.m. submissions by a panel of banks selected by the Association of Banks in Singapore to represent each panel bank's current bid and offer spot rates for Indonesian rupiah, Indian rupee, Singapore dollar, and Thai baht against the U.S. dollar, among others.

~~137.~~139. Also, major banks in Tokyo publish their own fixing rates at 9:55 a.m. Japan Standard Time for a variety of Japanese yen currency pairs. The Bank of Tokyo Mitsubishi UFJ Ltd.'s rates are often considered the most significant rate, and are used for approximately 90% of fixing orders across Tokyo.

~~138.~~140. The Treasury Markets Association in Hong Kong publishes FX rates, which consist of spot fixings for the USD/Hong Kong dollar (HKD) and USD/Chinese yuan (CNY) currency pairs. These fixing rates are calculated by averaging the middle quotes after excluding a number of the highest and lowest quotes from the contributing banks appointed by the Treasury Markets Association.

~~139.~~141. The above-noted benchmarks and fixes will be collectively referred to as the "Fixes."

Changes in the FX Market Caused Increased Concentration Among Dealers

~~140.~~142. Beginning in the late 1990s, the foreign exchange market has seen changes that tightened bid-ask spreads and increased concentration as well as market power among the FX dealers, including the defendants.

~~141.~~143. In the late 1990s and continuing to the early 2000s, electronic trading platforms emerged as a way to process foreign exchange transactions. In response to their customers' demands for increased electronic trading, dealers – including a majority of the defendants – launched proprietary electronic trading platforms in the early 2000s, including UBS's FX Trader, Barclays' BARX, Deutsche Bank's Autobahn, and Citi's Velocity.

~~142.~~144. The effect of these trading platforms was to narrow bid-ask spreads by lowering dealers' operating costs and reducing execution times. While in the 1980s the bid-ask spreads in the over-the-counter market were roughly 20 times those in the inter-dealer market, they have since compressed and are roughly equal. These bid-ask spreads have only reduced further since the financial crisis.

~~143.~~145. Since the spreads are the only source of client-driven income for banks in the FX Market, this reduction in spreads has encouraged traders to seek less transparent ways to reduce their risks.

~~144.~~146. The introduction of electronic trading also resulted in increased market concentration among foreign exchange dealers. Because dealers have been forced to invest heavily in electronic trading technology while at the same time quoting tighter bid-ask spreads, smaller dealers have largely exited the market. Also, the expensive electronic trading platforms represent a barrier to trade that prevents new competitors from entering the FX Market. This increased concentration facilitated the collusion at issue in this action.

~~145.~~147. In recent years, the defendants have maintained an aggregate market share of the global FX Market of nearly 90 percent. Collectively, they maintain a substantial portion of the Canadian FX Market, as a result of either direct transactions or brokered transactions.

~~146.~~148. As the market has become more concentrated, the community of foreign exchange traders at dealer banks has also shrunk. These traders receive bonuses tied to their individual profits and the profits of the entire trading floor. Since the financial crisis, there have been staff reductions and the spot foreign exchange trading desks, even at the largest banks such as the defendants, are typically staffed with only eight to ten traders, many of whom have worked previously with their counterparts in other banks. Many traders had strong professional and social relationships.

Concentration Among the Defendants Allowed Them to Capitalize On Their Customers' Transactions

~~147.~~149. The vast majority of the FX Market is unregulated. This absence of regulation and reporting requirements, coupled with high market concentration, has resulted in a highly opaque market.

~~148.~~150. As a result of this market opacity, the defendants enjoy informational advantages. Knowledge of a customer's identity, trading patterns, and orders allows a dealer to predict the direction of market movements. Aggregated together, this knowledge of customer order flow is highly informative of future FX rate movement and carries substantial economic value for the dealers observing these flows.

~~149.~~151. Generally, the larger a dealer's size, the more it knows of the likely movement of exchange rates. As the largest dealers, the defendants have the most information about the likely movement of the FX Market.

~~150.~~152. Customers executed foreign exchange trades either by telephone call to a salesperson at a dealer bank or through an electronic communications network. An electronic communications network is a computer system that customers can use to place orders with dealer banks over a network. Electronic communications network platforms

include single-bank proprietary platforms and multibank dealer systems. Multibank dealer systems include platforms such as Reuters, Bloomberg, EBS, KCG Hotspot, and Currenex. In addition, customers can execute foreign exchange transactions via licensed brokers.

~~151.~~153. There is no centralized exchange or institution that collects and posts real-time trade information, such as order flows and volume. While defendants' proprietary electronic communications network allow them to match buyers with sellers, defendants' real-time order flow and volume data is not available to the market, such as it would be on an exchange,, where the entire market knows who is buying and selling at a given moment.

~~152.~~154. The defendants closely guard their real-time order flow and volume data and do not make it commercially available for purchase. What goes on inside these proprietary platforms is known only to the defendants. Absent an agreement to collude, each bank would not share this information with one another; however, as explained below, the defendants did share this information with one another.

THE CONSPIRACY

Defendants Conspired to Control and Fix Prices and Supply of FX Instruments

~~153.~~155. The acts alleged in the following paragraphs are collectively referred to as the "**Conspiratorial Acts.**"

~~154.~~156. Beginning at least as early as January 1, 2003 and continuing until at least December 31, 2013, the defendants conspired, combined, agreed and arranged to fix, maintain, increase, control, and enhance unreasonably prices of FX Instruments on a daily or nearly daily basis. The defendants conspired, combined, agreed and arranged to limit unduly the supply or dealing of FX Instruments, and to fix, maintain, control, and lessen the supply of FX Instruments. The defendants also conspired, combined, agreed and arranged to prevent or lessen, unduly, competition in the purchase, sale, or supply of FX Instruments, and to otherwise restrain or injure competition unduly of FX Instruments.

~~155.~~157. The defendants' conspiracy targeted the pricing and supply of over two dozen currencies, including the most heavily traded currency pairs, throughout each trading day. This included USD/CAD, which during the relevant time was the sixth or seventh most heavily traded currency pair in the world.

~~156.~~158. The defendants' conspiracy encompassed: (1) price fixing of bid/ask spreads; (2) price fixing various benchmark rates, including, but not limited to, WM/Reuters benchmark rates and the ECB reference rate; (3) controlling or unduly limiting the supply of FX Instruments; and (4) other collusive conduct, such as control or manipulate the FX spot price in order to trigger client stop-loss orders and limit orders.

~~157.~~159. The defendants' conduct in furtherance of their conspiracy included: (1) creating and participating in exclusive interbank chat rooms; (2) improperly sharing confidential client and proprietary trading information; (3) coordinating trading to influence the FX rates; (4) monitoring the conduct of co-conspirators to ensure secrecy and compliance with the conspiracy; (5) using code names and misspelled words in interbank communications to evade detection; and (6) agreeing to "stand down" by holding off buying or selling currency to benefit co-conspirators.

~~158.~~160. As a result of the defendants' conspiracy, the plaintiffs and other members of the Classes suffered loss and damage.

The Conspiratorial Communications

~~159.~~161. Various electronic communication platforms were employed by the defendants' senior level traders to give effect to the conspiracy and to provide a means by which confidential information concerning customer orders could be improperly shared between the defendants. These electronic communication platforms include chat rooms, instant messages, and emails.

~~160.~~162. The chat rooms were given revealing names such as "The Cartel," "The Bandits' Club," "The Mafia," "One Team, One Dream," "The Players," "The 3 Musketeers," "A Co-operative," "The A-team," and the "Sterling Lads."

~~161.~~163. Being a member of certain chat rooms was by invitation only, indicating the secret nature of this conduct. Membership to these chat rooms was tightly controlled by its users and was coveted among FX traders because of the influence its members exerted in the FX Market.

~~162.~~164. The defendants' top-level traders ran the chat rooms. For example, Richard Usher ran The Cartel while he was JPMorgan's chief currency dealer in London and head of spot trading for G-10 currencies from 2010-2013 and as a trader at RBS before that time.

~~163.~~165. The Cartel's membership numbered a half-dozen or more of the defendants' top traders. Other members of The Cartel included at various times:

(a) Rohan Ramchandani, Citigroup's head of spot trading in London;

(b) Matt Gardiner, Barclays' director of spot trading for EUR/USD from 2007 to 2011;

(c) Chris Ashton, former head of Barclays voice spot trading globally; and,

(d) Niall O'Riordan, UBS's co-global head of G-10 and emerging market spot trading.

~~164.~~166. As outlined below, each of Usher, Ramchandani, Gardiner, Ashton, and O'Riordan each have been suspended or fired from their respective institutions.

~~165.~~167. The defendants operated other private chat rooms in addition to "The Cartel," allowing them to simultaneously communicate with numerous other defendants on a global basis. Some of the defendants' traders were members of as many as fifty chat rooms when the WM/Reuters rates, including the London closing, were being set. The members of other chat rooms included:

(a) Chris Ashton, head of spot trading at Barclays, and Jack Murray, Mark Clark, Russell Katz, and Jerry Urwin, also of Barclays;

(b) Andrew Amantia and Anthony John of Citi;

(c) Diego Moraiz, head of emerging markets trading, and Robert Wallden, Christopher Fahy, and Ezequiel Starobinsky, also of Deutsche Bank;

(d) Serge Sarramenga, chief trader for G-10 currencies, and Edward Pinto at HSBC;

(e) Paul Nash and Julian Munson at RBS; and,

(f) Roger Boehler, global head of trading at UBS.

~~166.~~168. The defendants used code words to avoid detection from authorities. One such code used by the defendants were the use of the words "pick" and "pickun" as code for the WM/Reuters London Fix. The defendants also used code names to identify customers to each other.

~~167.~~169. The defendants formed these chat rooms with the specific intent to collude with each other to control or manipulate particular currency pairs. Using these chat rooms, the defendants' traders exchanged information on customer orders and agreed to trading strategies with the goal and effect of controlling or manipulating the FX Market.

~~168.~~170. As a direct result of the numerous government investigations, the defendants Barclays, Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, JPMorgan, Morgan Stanley, RBS, and UBS have now banned traders from using multibank chat rooms.

The Defendants Conspired to Fix Bid/Ask Spreads Quoted in the Spot Market

~~169.~~171. Beginning at least as early as January 1, 2003 and continuing until at least December 31, 2013, as part of their conspiracy to fix, maintain, increase, control, and unreasonably enhance prices in the FX Market, the defendants conspired to fix, maintain, increase, control, and unreasonably enhance the bid/ask spreads paid by customers for various currency pairs.

~~170.~~172. The defendants used interbank chat rooms to coordinate and exchange information about spreads or customer orders. The conspiracy to fix prices in the FX Market affected dozens of currency pairs, including the seven pairs with the highest market volume.

~~171.~~173. Spreads are the most visible and immediate way in which banks compete against each other for customers. In the FX market, spreads are indicative of price. The bid/ask spread represents the price a dealer is willing to buy or sell a given volume of currency. FX traders use the terms "spread" and "price" interchangeably.

~~172.~~174. Because currency is fungible (there is no difference between one dollar and another), spreads are a key competitive issue for securing customers. Customers want narrower spreads, *i.e.*, they want to buy currency for less and sell it for more. The width of a spread will impact a defendant's competiveness in the FX Market.

~~173.~~175. By quoting narrower spreads than their competitors, the defendants can gain customers and market share. On the other hand, a decision to widen spreads (or decline to tighten spreads) would result in loss of customers and market share. Only through collusion could a dealer quote wider spreads without losing market share and still reap supra-competitive profits.

~~174.~~176. The defendants quote bid/ask spreads to their customers in several ways. For example, the defendants provide spread matrices to certain customers on a periodic (usually quarterly) basis. These matrices list the bid/ask spreads for various volumes and currencies. These matrices are like a price list, and represent the price that the bank anticipates offering in competition with other banks. The banks with the tightest spreads are most likely to secure customer business. Beyond being a list provided to customers, the spread matrices tended to inform the defendants' views as to what current pricing was in the market.

~~175.~~177. The defendants also simply quoted bid/ask spreads to customers throughout the trading day.

~~176.~~178. The defendants used interbank chat rooms to facilitate communications between FX trades so that agreement could be reach as to the spreads they quoted to clients in the FX spot market. When the FX trades discussed their spreads with each other, they had an explicit understanding that the spreads discussed would be the spreads quoted to customers. An FX trader would artificially adjust his or her spread based on the information gleaned from other FX traders in the chat room. The spreads quoted by the defendants in the FX spot market were wider than they would have been absent collusion.

~~177.~~179. The defendants continue their conspiracy on a regular basis, colluding to fix daily spreads quoted to customers in the FX spot market.

~~178.~~180. As a result of the defendants' conduct, Class Members who purchased currency on the FX spot market paid *supra*-competitive prices or spreads. Where the Class Member purchased currency on the FX spot market on behalf of another Class Member (including as part of managing the risks in an equity fund, mutual fund, pension plan or other investment vehicle), at least part of the *supra*-competitive prices or spreads were passed-on to the holder of the investment vehicle either as a result of deflated value of the investment vehicle or through increased management fees.

The Defendants Conspired to Fix the Benchmark Rates

~~179.~~181. Beginning at least as early as January 1, 2003 and continuing until at least December 31, 2013, the defendants conspired to fix, maintain, increase, control, and unreasonably enhance prices of the Fixes. The defendants communicated with one another, including in chat rooms, via instant messages, and by email, to carry out their conspiracy. Through these communications, the defendants regularly exchanged their customers' confidential order flow information before the Fixes. By exploiting shared confidential information, the defendants executed collusive trading strategies designed to control or manipulate, and which did actually control or manipulate, the Fixes.

~~180.~~182. The defendants' collusive actions allowed them to substantially reduce their risk in FX trading and to reap *supra*-competitive profits at the expense of the plaintiffs and the Class Members. The defendants faced less risk in their market making

activity recorded in the defendants' front book. Additionally, the defendants' traders could reap even greater profits for their proprietary trades made on behalf of their bank and recorded in their individual back books.

Defendants Shared Confidential Customer Order Information to Control Benchmark Rates, Including the WM/Reuters Closing Spot Rates

~~181.~~183. Through electronic means, the defendants shared their confidential customer order information with one another. Each defendant aggregated its customers' order to determine what its individual net position in a specific currency was going to be at the Fix. The defendants then shared this information with one another to determine their aggregate net position in a specific currency at the Fix. By sharing and aggregating their confidential customer order flows, the defendants had access to substantial information that was not otherwise available to the investing public. As a result, the defendants could more precisely predict the movement of the FX Market more accurately than would have been possible absent the collusion.

Methods of Controlling the Fixes

~~182.~~184. To execute their coordinated trading strategies, the defendants employed a number of tactics to control or manipulate the Fixes. These controlling or manipulative tactics include what is known as "front running," "banging the close," "painting the screen," "netting off," "building," "giving the ammo," "taking the ammo," "taking out the filth," and "clearing the decks." The defendants undertook these trading strategies together in order to minimize their risks and maximize the impact of their scheme.

~~183.~~185. Each of these controlling or manipulative strategies was accomplished through the sharing of confidential customer information and trading positions. By sharing their individual trading positions, the defendants gained an understanding of the overall order flows across the FX Market.

Front Running/Trading Ahead

~~184.~~186. The defendants' traders "front run" on customer information when they receive customer orders that could move the market and then trade their own firm's

proprietary positions prior to executing their customers' market-moving trades. Such orders give traders information about the direction in which the market will move. The traders use this information to take positions that benefit the defendants to the detriment of the Class.

~~185.~~187. Absent collusion, a defendant "front running" the FX Market would still face the risk that another defendant with a larger position could trade in the opposite direction at the same time. If this were to happen, the defendant's strategy would backfire, and the defendant would, in industry jargon, get "run over."

~~186.~~188. To avoid the risk of getting run over, the defendants agreed to "front run" together by sharing aggregate customer orders and agreeing to coordinate the sequencing of their own trades to their advantage.

Banging the Close

~~187.~~189. Another manipulative trading strategy employed by the defendants is known as "banging the close," which occurs when traders break up large customer orders into small trades and concentrate the trades in the moments before and during the fixing window for the various WM/Reuters rates in order to push the published rates up or down.

~~188.~~190. For example, because the WM/Reuters Closing Spot Rates are based on the median of trades during the calculation window and not weighted for the average notional amount of a transaction, the rates are susceptible to control or manipulation by banging the close. That is, 100 trades of $1 will impact the WM/Reuters Closing Spot Rates to a greater degree than a single trade of $100.

~~189.~~191. To maximize profits, the defendants would buy or sell client orders in installments during the fixing window to exert the most pressure possible on the WM/Reuters rates. Because the benchmark is based on the median of transactions during the fixing window, placing a number of smaller trades could have a greater impact on the benchmark than placing one large transaction.

Painting the Screen and Other Tactics

~~190.~~192. A further controlling or manipulative trading strategy employed by the defendants is known as "painting the screen," which occurs when the defendants place phony orders with one another to create the illusion of trading activity in a given direction in order to move the rates prior to the fixing window. After the WM/Reuters rates are calculated, the defendants would reverse those trades.

Other Controlling or Manipulation Tactics

~~191.~~193. The following additional trading strategies were employed by the defendants to control or manipulate the Fixes in the desired direction:

(a) FX traders in the chat room with net orders in the ***opposite*** direction to the desired movement at the fix would seek before the fix to transact or "*net off*" their orders with third parties outside the chat room, rather than with other FX traders in the chat room. This maintained the volume of orders in the desired direction held by traders in the chat room and avoided orders being transacted in the opposite direction at the fix. Traders within the market have referred to this process as "*leaving you with the ammo*" or such similar vernacular.

(b) FX traders in a chat room with net orders in the ***same*** direction as the desired rate movement at the fix sought before the fix to do one or more of the following:

(i) net off these orders with third parties outside the chat room, thereby reducing the volume of orders held by third parties that might otherwise be transacted at the fix in the opposite direction. FX traders within the market have referred to this process as "*taking out the filth*" or "*clearing the decks*" or similar vernacular;

(ii) transfer these orders to a single trader in the chat room, thereby consolidating these orders in the hands of one trader. This

potentially increased the likelihood of successfully controlling or manipulating the fix rate since that trader could exercise greater control over his trading strategy during the fix than a number of traders acting separately. FX traders within the market have referred to this as "*giving you the ammo*" or similar vernacular; and

(iii) transact with third parties outside the chat room in order to increase the volume of orders held by them in the desired direction. This potentially increased the influence of the trader(s) at the fix by allowing them to control a larger proportion of the overall volume trades at the fix than they would otherwise have and/or to adopt particular trading strategies, such as trading a large volume of a currency pair aggressively. This process was known as "*building.*"

(c) FX traders increased the volume traded by them at the fix in the desired direction in excess of the volume necessary to manage the risk associated with the firms' net buy or sell orders at the fix. FX traders within the market have referred to this process as "*overbuying*" or "*overselling.*"

~~192.~~194. By agreeing in chat rooms and instant messages (and other electronic communication platforms) to "front run" the execution of customer orders, "bang the close," "paint the screen," and the other methods described above, the defendants controlled or manipulated the Fixes with the result of thereby fixing, maintaining, increasing, controlling, and unreasonably enhancing the prices of FX Instruments.

Other Collusive Conduct Demonstrates the Defendants' Conscious Commitment to Fix FX Prices

~~193.~~195. In addition to fixing bid/ask spreads, the WM/Reuters rates, ECB rates, and other benchmark rates, the defendants engaged in other collusive conduct in conduct FX spot market transactions by: (1) intentionally "working" customers' limit orders; and (2) triggering stop loss orders.

~~194.~~196. The defendants would, without informing clients, "work" limited orders at levels (i.e. prices) better than the limit order prices so that the defendants would earn a spread or markup in connection with the execution of the orders. This practice harms and damages the Class in the following ways:

(a) Class Members' limit orders would be filled at a time later than when the defendant could have obtained currency in the market at the limit orders' price; and

(b) Class Members' limit orders would not be filled at all, even though the defendant had or could have obtained the currency in the market at the limit orders' price.

~~195.~~197. The defendants also colluded to trigger customer's stop-loss orders. A stop-loss order is an instruction from the customer to the bank to trade a currency if the currency trades at a specified rate. In the case of stop-losses, a stop-loss order to sell is triggered if the bid price reaches the order rate, and a stop order to buy is executed if the offer price reaches the order rate.

~~196.~~198. When a customer's stop-loss order is to buy, the bank will profit if it purchases a quantity of the currency pair in the market at a lower average rate than that at which it subsequently sells that quantity of the currency pair to its client when the stop-loss order is executed.

~~197.~~199. When a customer's stop-loss order is to sell, the bank will profit if it sells a quantity of the currency pair in the market at a higher average rate than that at which it subsequently buys that quantity of the currency pair from its client when the stop-loss order is executed.

~~198.~~200. The defendants colluded daily or almost daily throughout the Class Period to control or manipulate the FX spot price to trigger client stop-loss orders. These attempts involved inappropriate disclosures to traders at other firms concerning details of the size, direction, and level of client stop-loss orders. The traders involved would trade

in a manner aimed at controlling or manipulating the spot FX rate, such that the stop-loss order was triggered.

The Defendants' Conspiracy Resulted in Artificial Prices for FX Exchange-Traded Instruments

The FX Futures and Options Market

~~199.~~201. FX spot market prices, including benchmark rates, directly impact the prices of exchange-traded FX futures and options contracts. An FX futures contract is an agreement, similar to an outright forward, in which parties agree to buy or sell a certain amount of currency on a specified future date. FX spot market prices, including the WM/Reuters Closing Spot Rates, impact the value of FX futures contracts by determining the price of the currency pair to be exchanged, *i.e.*, the "commodity underlying" each FX futures contract.

~~200.~~202. FX futures contracts can be traded on several public exchanges, including the CME and the New York Stock Exchange's Intercontinental Exchange, and, in Canada on the TMX Montreal Exchange.

~~201.~~203. A substantial number of persons who trade FX futures and options on futures on exchanges also trade FX Instruments in the over-the-counter market. Proprietary trading groups, such as hedge funds and quantitative trading groups, are responsible for approximately half the daily notional volume of trades on the CME. A large number of these entities trade both on exchanges and over-the-counter as part of their business and investment strategies. Additionally, other traders, such as commercial hedgers, portfolio managers, and non-defendant banks, trade both on exchanges and over-the-counter.

~~202.~~204. The exchanges offer standardized terms for trading FX futures contracts and options, including the trading units, price quotation, trading hours, trading months, minimum and maximum price fluctuations, and margin requirements.

~~203.~~205. These "standardized" terms facilitate exchange-based trading and distinguish an FX futures contract from an outright forward transaction, which is

conducted over-the-counter between private parties and can be customized to a certain extent based on their needs.

~~204.~~206. FX futures contracts generally expire, *i.e.*, stop trading, on the second business day immediately preceding the third Wednesday of the contract month unless that day is a holiday.

~~205.~~207. The value of each FX futures contract is determined by multiplying the quoted contract price by the underlying notional amount of currency.

~~206.~~208. The pricing relationship between an FX futures contract and the underlying currency pair is a product of how futures contracts are structured. A futures contract represents a bilateral agreement between two parties, a buyer and a seller, who are commonly referred to as a "long" and a "short."

~~207.~~209. A long position, or simply a long, refers to a market position in which one has bought a futures contract. In currency futures, it refers to having bought a currency pair specified for the contract, meaning one bought the base currency and sold the counter currency.

~~208.~~210. As an FX futures contract nears "expiration," *i.e.*, the last trading day, the long and short halves of each contract become binding obligations to exchange the underlying currency.

~~209.~~211. This obligation to exchange the underlying currency at some point in the future directly ties the value of an FX futures contract to the spot market price for the underlying currency pair. Prices for FX futures contracts track spot market prices adjusted for the forward differential. As FX futures contracts near expiration, their prices actually "converge" with those in the spot market, becoming equal to the current value of the underlying currency pair. The convergence between spot and futures prices only further demonstrates that the spot market value of the underlying currency pair (and the WM/Reuters spot rates) drives futures prices.

~~210.~~212. When FX futures contracts expire, the process of exchanging currency between buyer and seller at expiration is called "settlement."

~~211.~~213. All FX futures contracts are settled following their expiration, however, in most cases, this does not result in an exchange of the physical currency. Market participants have the option to offset or "financially settle" their FX futures positions. In financial settlement, instead of taking or making delivery of euro, or whatever currency is underlying a particular FX futures contract, investors in either the long or short position can offset their obligations with contracts for an equal but opposite position.

~~212.~~214. The difference between the two contract prices, meaning the difference between the price at which the initial contract was purchased and the price at which the later offsetting contract was sold, is the profit or loss on that transaction. Given this offsetting process, investors with long positions will generally benefit as the value of the currency they are purchasing rises, because they are able to sell an offsetting short contract at a higher price, while those with short positions will generally benefit as the value of the currency they are selling decreases because they are able to buy an offsetting long contract at a lower price.

~~213.~~215. Just as there are long and short futures contracts, there are two types of options on exchange-traded FX futures contracts, commonly known as "calls" and "puts." A call option gives the holder the right, but not the obligation, to buy a certain FX futures contract at a specified price, known as the "strike price," prior to some date in the future, at which point the option to purchase that contract "expires." One may either buy a call option, paying a negotiated price or premium to the seller, writer, or grantor of the call, or sell, write, or grant a call, thereby receiving that premium.

~~214.~~216. Conversely, a put option gives the holder the right, but not the obligation, to sell an FX futures contract at the strike price prior to expiration. Similarly, one may buy or sell a put option, either paying or receiving a negotiated premium or price.

~~215.~~217. Because the FX futures contracts underlying these options are priced based on certain underlying currency pairs, the prices of options on these futures

contracts are also directly impacted by spot market prices of currency pairs underlying FX futures contracts.

Prices of FX Futures Contracts are Impacted by the WM/Reuters Closing Spot Rates and Prices of the Underlying Currency Pairs

~~216.~~218. Every FX futures contract represents an obligation to exchange an underlying notional amount of currency in the future. Thus, there is a direct relationship between currency prices in the spot market and the value of each FX futures contract, which naturally flows from the value of the underlying currency pair.

~~217.~~219. The relationship between the prices of FX futures contracts and the spot market prices of the underlying currency pairs is demonstrated by the fact that FX futures prices closely track spot market currency prices. Indeed, futures prices are based on and derived arithmetically from spot prices.

~~218.~~220. In FX futures and options exchange trading, 2:00 p.m. CT is a critical time (even though Globex continues trading seamlessly through this time until its close at 4:00 p.m. CT) for the following reasons: (1) daily settlement occurs at 2:00 p.m. CT; (2) required margin is benchmarked to the 2:00 p.m. CT daily settlement, therefore the settlement price becomes a determinant for traders to keep or exit positions based on the margin needed; and (3) on Fridays, the 2:00 p.m. CT daily settlement is also the final settlement price for weekly or serial month and quarterly options on futures.

~~219.~~221. Daily settlement at 2:00 p.m. CT is generally calculated as a volume-weighted average price of all trades occurring between 13:59:30 and 14:00:00 CT. Volume-weighted average price is calculated by adding up the total dollar amount traded for every futures transaction the period between 13:59:30 and 14:00:00 CT and then dividing by the total futures contracts traded during that same period.

~~220.~~222. FX futures rates track FX spot rates, therefore, the calculation of the settlement rate on exchanges is tied to the spot rate prevailing in the market at the time of calculation.

~~221.~~223. Positive price correlation means two or more instruments move in relation to one another in the same direction, such as when the price goes up for one it goes up for the other. Since currency futures are a derivative of the spot cash currency market and are deliverable in the physical currency, their prices move in virtual lockstep to the spot price. This is known as high positive correlation. In addition, there is a positive correlation between currency pairs that share a common currency.

~~222.~~224. The relationship between FX futures prices and FX spot market prices is also confirmed by examining the mathematical nature of how FX futures contracts are priced. The price of each FX futures contract is quoted as the future cost of buying one currency, specifically the first currency in the underlying currency pair, "in terms of," *i.e.*, in exchange for, the other.

~~223.~~225. The future cost of buying or selling currency, and thus the price of an FX futures contract, is a product of the costs and benefits associated with purchasing and carrying the underlying currency pair over the duration of that futures contract, *i.e.*, the time until expiration. For all FX futures contracts, this cost benefit relationship is determined by adjusting the spot price of the underlying currency pair to account for the difference in interest paid or received on deposits of each currency.

~~224.~~226. Given the structure of this pricing formula, prices of FX futures contracts should track rates in the foreign exchange markets at near parity, increasing and decreasing with changes in the price of the underlying currency pair.

~~225.~~227. The defendants are significant participants in both over-the-counter and exchange transactions as dealers. They understood the interrelatedness of these various instruments. Given the direct relationship between FX futures prices and spot market prices for the underlying currency pairs, the defendants knew their manipulative and/or collusive activities in spot transactions would result in artificial price movements for exchange transactions.

~~226.~~228. The defendants' manipulative conduct caused FX futures contracts prices to be artificial throughout the Class Period. Further, the defendants' collusive and

manipulative conduct caused exchanged-traded FX futures and options contracts to be artificial during at least the following times: WM/Reuters fix at 4:00 p.m. London; ECB fix at 2:15 p.m. Frankfurt; the 2:00 p.m. CT CME daily settlement; and at any time they collude with respect to bid/ask spreads.

~~227.~~229. As a result of the defendants' conduct, Class Members who engaged in transactions for FX futures contracts paid artificially enhanced prices and therefore suffered damages and loss. Where the Class Member engaged in transactions for FX futures on behalf of another Class Member (including as part of managing the risks in an equity fund, mutual fund, pension plan or other investment vehicle), at least part of the artificially enhanced prices were passed-on to the holder of the investment vehicle either as a result of deflated value of the investment vehicle or through increased management fees.

Concealment of the Conspiracy

~~228.~~230. During the Class Period, the defendants and/or their employees and agents, took active steps to, and did, conceal the unlawful conspiracy from Class Members.

~~229.~~231. The unlawful activity alleged herein was concealed by the defendants. The defendants conspired to fix, maintain, increase, control, and unreasonably enhance the Fixes and other benchmark rates to the benefit of the defendants and to the detriment of the Class, and they conspired to keep their collusive conduct secret. As a result, the plaintiffs could not, and did not, discover that they~~he~~ suffered loss or damage.

~~230.~~232. The defendants fraudulently concealed their anticompetitive activities by, among other things, engaging in secret communications in furtherance of their conspiracy, agreement or arrangement. These communications occurred within non-public chat rooms, instant messages, "snapchat" (a mobile-phone application that sends messages that automatically disappear) and through email, none of which was reasonably available to the plaintiffs or other Class Members. The defendants did not communicate by telephone in order to avoid detection.

~~231.~~233. The chat rooms in question were operated by the highest-ranking traders within the defendants' operations. The defendants strictly limited access to the chat rooms. The substance of the conversations occurring within these chat rooms was unknown to the plaintiffs and other Class Members.

~~232.~~234. The defendants actively and jointly concealed their collusive conduct. The defendants agreed among themselves not to publicly discuss or otherwise reveal the nature and substance of the acts and communications in furtherance of the agreements alleged herein. The defendants also used code words and deliberately misspelled words to evade detection.

~~233.~~235. FX trades occur primarily in the private, over-the-counter market, and the defendants' trades and trading strategies are not public information. The defendants do not publish information concerning particular trading entities, including trading between dealer entities. The defendants, acting as executing dealers, also discouraged brokers from revealing or otherwise identifying them as counterparties on the brokers' customers' transactions, in order to conceal the counterparties on those transactions.

Summary

~~234.~~236. During the Class Period, the defendants and unnamed co-conspirators conspired, combined, agreed, and/or arranged with each other to fix, maintain, increase, control, and unreasonably enhance the price of FX Instruments. The defendants and their unnamed co-conspirators also conspired, combined, agreed and arranged to limit unduly the supply or dealing of FX Instruments, and to fix, maintain, control, and lessen the supply of FX Instruments.

~~235.~~237. In furtherance of such conspiracy, arrangement or agreement, during the Class Period senior executives, traders, and employees of the defendants, acting in their capacities as agents for the defendants, engaged in communications, conversations, and attended meetings with each other at times and places, some of which are unknown to the plaintiffs. As a result of the communications and meetings, the defendants and unnamed co-conspirators unlawfully conspired, agreed and/or arranged to:

(a) fix, maintain, increase, control, and unreasonably enhance the price of FX Instruments; and

(b) monitor and enforce adherence to agreed-upon trading strategies to effect the conspiracy.

~~236.~~238. In furtherance of the conspiracy, agreement or arrangement, during the Class Period the defendants and/or their employees and agents:

(a) fixed, maintained, increased, controlled, and unreasonably enhanced the price of foreign exchange purchased in the FX Market on exchanges;

(b) communicated secretly using chat rooms, emails, telephone and other means share confidential customer information and to coordinate trading strategies to control or manipulate the price of foreign exchange; and

(c) disciplined any conspirator which failed to comply with the conspiracy.

CRIMINAL INVESTIGATIONS AND EMPLOYEE SANCTIONS

Various Regulatory and Enforcement Authorities Commence Investigations

~~237.~~239. Law enforcement and regulatory authorities in the United States, United Kingdom, European Union, Switzerland, Germany, Asia, Australia, New Zealand, Brazil and the international Financial Stability Board are actively investigating the defendants' conduct in the FX Market.

~~238.~~240. These law enforcement and regulatory authorities include:

(a) United States:

(i) the DOJ;

(ii) the U.S. Commodities Futures Trading Commission;

(iii) The Federal Reserve Bank and Office of Comptroller of the Currency;

(iv) The New York Department of Financial Services; and,

(v) the U.S. Securities and Exchange Commission;

(b) United Kingdom: The United Kingdom Financial Conduct Authority (the "**UK-FCA**");

(c) The Bank of England Oversight Committee;

(d) European Commission: Competition Commissioner;

(e) Switzerland: the Swiss Competition Commission;

(f) Germany: the Federal Financial Supervisory Authority;

(g) Hong Kong: the Hong Kong Monetary Authority;

(h) Singapore: the Monetary Authority of Singapore;

(i) Australia: the Australia Securities and Investment Commission;

(j) New Zealand: the Commerce Commission; and,

(k) International/G20: the Financial Stability Board.

~~239.~~241. Following the announcement of government investigations into potential collusion, anomalous price movements for most currency pairs around closing time markedly decreased. With respect to the USD/CAD currency pair, spikes disappeared entirely.

~~240.~~242. Bank of America confirmed on February 25, 2014, in its Form 10-K Annual Report that "[g]overnment authorities in North America, Europe and Asia are conducting investigations and making inquiries of a significant number of FX market participants, including the Corporation, regarding conduct and practices in certain FX markets over multiple years. The Corporation is cooperating with these investigations and inquiries."

~~241.~~243. Barclays confirmed on September 30, 2013, in its third quarterly Interim Management Statement that "various regulatory and enforcement authorities have indicated that they are investigating foreign exchange trading, including possible attempts to manipulate certain benchmark currency exchange rates," that the "investigations appear to involve multiple market participants," and that "Barclays Bank has received enquiries from certain of these authorities related to their particular investigations, is reviewing its foreign exchange trading covering a several year period through August 2013 and is cooperating with the relevant authorities in their investigations."

~~242.~~244. Barclays disclosed in its full-year 2013 financial results that "[v]arious regulatory and enforcement authorities, including the FCA in the UK, the CFTC and the DOJ in the US and the Hong Kong Monetary Authority have indicated that they are investigating foreign exchange trading, including possible attempts to manipulate certain benchmark currency exchange rates or engage in other activities that would benefit their trading positions. . . . BBPLC has received enquiries from certain of these authorities related to their particular investigations, and from other regulators interested in foreign exchange issues. The Group is reviewing its foreign exchange trading covering a several year period through October 2013 and is cooperating with the relevant authorities in their investigations."

~~243.~~245. Citigroup confirmed on November 1, 2013, in its third quarterly Form 10-Q Report that "[g]overnment agencies in the U.S. and other jurisdictions are conducting investigations or making inquiries regarding trading on the foreign exchange markets" and that it "has received requests for information and is cooperating with the investigations and inquiries and responding to the requests." Citigroup suspended and then terminated its head of European spot trading, and has also placed two other traders on leave.

~~244.~~246. Deutsche Bank confirmed on September 30, 2013, in its third quarterly Interim Report that it "has received requests for information from certain regulatory

authorities who are investigating trading in the foreign exchange market" and it is "cooperating with those investigations."

~~245.~~247. Goldman Sachs' Form 10-Q Quarterly Report dated November 7, 2013 disclosed that "[Goldman Sachs] Group Inc. and certain of its affiliates are subject to a number of other investigations and reviews by, and in some cases have received subpoenas and requests for documents and information from, various governmental and regulatory bodies and self-regulatory organizations and litigation relating to various matters relating to the firm's businesses and operations, including: . . . trading activities and communications in connection with the establishment of benchmark rates."

~~246.~~248. HSBC confirmed on November 4, 2013, in its third quarterly Interim Management Statement that several governmental agencies are conducting investigations into HSBC "relating to trading on the foreign exchange market" and that HSBC is "cooperating with the investigations".

~~247.~~249. JP Morgan confirmed on November 1, 2013, in its third quarterly Form 10-Q Report that it "has received information requests from various government authorities regarding the Firm's foreign exchange trading business" and that it "is cooperating with the relevant authorities."

~~248.~~250. Similarly, JP Morgan's Form 10-K Annual Report for 2013 disclosed, under the heading "Foreign Exchange Investigations and Litigation" that "[t]he Firm has received information requests, document production notices and related inquiries from various U.S. and non-U.S. government authorities regarding the Firm's foreign exchange trading business. These investigations are in the early stages and the Firm is cooperating with the relevant authorities.

~~249.~~251. RBS confirmed on November 1, 2013, in its third quarterly Interim Management Statement that "various governmental and regulatory authorities have commenced investigations into foreign exchange trading activities apparently involving multiple financial institutions, that it "has received enquiries from certain of these authorities," and is "reviewing communications and procedures relating to certain

currency exchange benchmark rates as well as foreign exchange trading activity and is cooperating with these investigations."

~~250.~~252. UBS confirmed on October 29, 2013, in its Third Quarter 2013 Report that "[f]ollowing an initial media report in June 2013 of widespread irregularities in the foreign exchange markets, [UBS] immediately commenced an internal review of [its] foreign exchange business," that "[s]ince then, various authorities reportedly have commenced investigations concerning possible manipulation of foreign exchange markets," and that UBS has "received requests from various authorities relating to [its] foreign exchange businesses, and UBS is cooperating with the authorities."

Financial Conduct Authority Imposes Fines of £1.1 Billion

~~251.~~253. On November 12, 2014, following a 13 month investigation involving 70 enforcement staff, the Financial Conduct Authority ("**FCA**") in the United Kingdom imposed fines totalling £1,114,918,000 on five of the defendants for failing to control business practices in their G10 spot foreign exchange trading operations:

(a) Citibank N.A. – £225,575,000;

(b) HSBC Bank Plc – £216,363,000;

(c) JPMorgan Chase Bank N.A. – £222,166,000;

(d) The Royal Bank of Scotland Plc – £217,000,000; and,

(e) UBS AG – £233,814,000.

~~252.~~254. The FCA found that between January 1, 2008 and October 15, 2013, the above-noted defendants had ineffective controls in place which allowed their FX traders to put their banks' interests ahead of those of their clients, other market participants and the wider financial system.

~~253.~~255. The FCA found that these above-noted defendants colluded by sharing information about clients' activities which they had been trusted to keep confidential and

manipulated the FX rates through the use of chat rooms and co-ordination of trading strategies.

Some Defendants Plead Guilty to Manipulating the Foreign Exchange Market

~~254.~~256. On May 20, 2015, following an investigation by the DOJ, the following defendants plead guilty to felony charges: Citicorp, JPMorgan Chase & Co., Barclays PLC, The Royal Bank of Scotland plc, and UBS AG.

~~255.~~257. Citicorp, JPMorgan Chase & Co., Barclays PLC, and The Royal Bank of Scotland plc plead guilty to conspiring to manipulate the price of U.S. dollars and euros exchanged in the foreign currency exchange spot market and the banks have agreed to pay criminal fines totaling more than $2.5 billion.

~~256.~~258. According to plea agreements, between December 2007 and January 2013, euro-dollar traders at Citicorp, JPMorgan, Barclays and RBS – self-described members of "The Cartel" – used an exclusive electronic chat room and coded language to manipulate benchmark exchange rates. Those rates are set through, among other ways, two major daily "fixes," the 1:15 p.m. European Central Bank fix and the 4:00 p.m. World Markets/Reuters fix. Third parties collect trading data at these times to calculate and publish a daily "fix rate," which in turn is used to price orders for many large customers. "The Cartel" traders coordinated their trading of U.S. dollars and euros to manipulate the benchmark rates set at the 1:15 p.m. and 4:00 p.m. fixes in an effort to increase their profits.

~~257.~~259. As detailed in the plea agreements, these traders also used their exclusive electronic chats to manipulate the euro-dollar exchange rate in other ways. Members of "The Cartel" manipulated the euro-dollar exchange rate by agreeing to withhold bids or offers for euros or dollars to avoid moving the exchange rate in a direction adverse to open positions held by co-conspirators. By agreeing not to buy or sell at certain times, the traders protected each other's trading positions by withholding supply of or demand for currency and suppressing competition in the FX Market.

~~258.~~260. Citicorp, Barclays, JPMorgan and RBS each have agreed to plead guilty to a one-count felony charge of conspiring to fix prices and rig bids for U.S. dollars and euros exchanged in the FX spot market in the United States and elsewhere. Each bank has agreed to pay a criminal fine proportional to its involvement in the conspiracy:

(a) Citicorp, which was involved from as early as December 2007 until at least January 2013, has agreed to pay a fine of $925 million;

(b) Barclays, which was involved from as early as December 2007 until July 2011, and then from December 2011 until August 2012, has agreed to pay a fine of $650 million;

(c) JPMorgan, which was involved from at least as early as July 2010 until January 2013, has agreed to pay a fine of $550 million;

(d) RBS, which was involved from at least as early as December 2007 until at least April 2010, has agreed to pay a fine of $395 million; and

(e) UBS, which was involved from at least as early as October 2011 until at least January 2013, has agreed to pay a fine of $203 million.

~~259.~~261. As part of the plea agreement, Barclays, Citicorp JPMorgan, and RBS admitted that they manipulated the FX Market. Under the terms of the Barclays plea agreement, these defendants admitted to the following conspiratorial acts:

> During the Relevant Period, the defendant and its corporate co-conspirators, which were also financial services firms acting as dealers in the FX Spot Market, entered into and engaged in a conspiracy to fix, stabilize, maintain, increase or decrease the price of, and rig bids and offers for, the EUR/USD currency pair exchanged in the FX Spot Market by agreeing to eliminate competition in the purchase and sale of the EUR/USD currency pair in the United States and elsewhere. The defendant, through two of its EUR/USD traders, participated in the conspiracy from at least as early as December 2007 and continuing until at least August 2012. ...

~~260.~~262. The plea agreements with Citicorp, JPMorgan, and RBS contain similar provisions.

~~261.~~263. Under its plea agreement, UBS admitted to the following conspiratorial acts:

> ... UBS, through one of its FX traders, conspired with other financial services firms acting as dealers in an FX spot market by agreeing to restrain competition in the purchase and sale of the EUR/USD currency pair in the United States and elsewhere. This was achieved by, among other things: (i) coordinating the trading of the EUR/USD currency pair in connection with ECB and WMR benchmark currency "fixes" which occurred at 2:15 PM (CET) and 4:00 PM (GMT) each trading day, and (ii) refraining from certain trading behavior, by withholding bids and offers, when one conspirator held an open risk position, so that the price of the currency traded would not move in a direction adverse to the conspirator with an open risk position. UBS participated in this collusive conduct from in or about October 2011 and continued until at least January 2013.

U.S. Federal Reserve Fines Some of the Defendants USD$1.8 Billion

~~262.~~264. Also on May 20, 2015, the U.S. Federal Reserve announced that it imposed fines totalling more than USD$1.8 billion against the following six defendants:

(a) Bank of America Corporation – USD$205 million

(b) Barclays Bank PLC – USD$ 342 million;

(c) Citigroup Inc. – USD$ 342 million;

(d) JPMorgan Chase & Co. – USD$ 342 million;

(e) Royal Bank of Scotland PLC – USD$274 million; and,

(f) UBS AG – USD$ 342 million.

~~263.~~265. The U.S. Federal Reserve found that these above-noted defendants failed to prevent "improper actions" being taken by the FX traders. These "improper actions" included the disclosure in electronic chat rooms of confidential customer information to traders at other organizations and the coordination of trading strategies to manipulate the prices in the FX Market.

Termination, Suspension and Departures of Employees

~~264.~~266. The defendants have terminated, suspended, or put on leave over 30 employees with responsibility for their FX operations. More than 50 employees with trading or supervisory authority have been terminated or otherwise departed their employment.

~~265.~~267. At least two Bank of America FX employees have departed the bank since the investigations. Bank of America has also suspended an employee.

~~266.~~268. To date, Barclays has suspended or terminated at least ten employees. Chris Ashton was among the employees suspended. Ashton participated in The Cartel chat room.

~~267.~~269. BNP Paribas has suspended or terminated at least one employee.

~~268.~~270. At least 12 FX employees have left Citi, including as a result of termination. Citigroup has suspended foreign exchange trader, Andrew Amantia, who was a Canadian dollar trader for Citigroup in New York and a member of a chat room.

~~269.~~271. At least seven employees have left Credit Suisse.

~~270.~~272. At least seven employees have left Deutsche Bank. Deutsche Bank has fired three foreign exchange traders in its New York office and one based in Buenos Aires, Argentina.

~~271.~~273. At least seven employees have left Goldman Sachs, including as a result of being terminated.

~~272.~~274. JP Morgan has suspended Richard Usher, its head of G-10 spot trading.

~~273.~~275. At least one employee departed from Morgan Stanley.

~~274.~~276. HSBC has suspended or terminated at least four foreign exchange traders including the head of its G-10 spot foreign exchange desk.

~~275.~~277. RBS has suspended or terminated at least five foreign exchange traders including Paul Nash and Julian Munson. On January 29, 2014, RBS notified clients that it plans to stop accepting orders from clients that will be executed on certain currency benchmark rates.

~~276.~~278. At least two employees have left Standard Chartered.

~~277.~~279. UBS has restructured its foreign currency trading unit, and its global head has stepped down. UBS has suspended or dismissed at least 16 employees.

~~278.~~280. The co-head of RBC Capital Markets foreign exchange spot trading abruptly left his position in February 2014.

CAUSES OF ACTION

Breach of the *Competition Act*

~~279.~~281. The Conspiratorial Acts constitute offences under Part VI of the *Competition Act*, in particular, sections 45(1) and 46(1) of the *Competition Act*. The plaintiffs claim~~s~~ on behalf of himself and other Class Members loss and damage under section 36(1) of the *Competition Act* in respect of such unlawful conduct.

Breach of Foreign Law

~~280.~~282. The defendants and their unnamed co-conspirators' conduct, particularized in this statement of claim, took place in, among other places, the United States, various countries in Asia and various countries in Europe where it was illegal and contrary to the competition laws of those jurisdictions.

Civil Conspiracy

~~281.~~283. The defendants and their co-conspirators voluntarily entered into agreements with each other to use unlawful means which resulted in loss and damage to Class Members. The unlawful means included the following:

(a) entering into the Conspiratorial Acts in contravention of section 45(1) of the *Competition Act*;

(b) the Canadian-based defendants giving effect to a foreign directive in contravention of section 46(1) of the *Competition Act*; and

(c) aiding, abetting and counselling the commission of the above offences, contrary to sections 21 and 22 of the *Criminal Code*, RSC 1985, c C-46.

~~282.~~284. In furtherance of the conspiracy, the defendants, their employees, agents and co-conspirators, carried out the Conspiratorial Acts described above.

~~283.~~285. The defendants and their co-conspirators were motivated to conspire. Their predominant purposes and concerns were to harm the Class.

~~284.~~286. The defendants and their co-conspirators intended to cause economic loss to the Class. In the alternative, the defendants and their co-conspirators knew in the circumstances that their unlawful acts would likely cause injury to the Class.

Unjust Enrichment

~~285.~~287. The defendants have been unjustly enriched as a result of the conduct alleged above. The Class Members have suffered a corresponding deprivation in the amount of the difference between the prices actually paid by or on behalf of Class Members for foreign currency transactions and the prices which would have been paid in the absence of the Conspiratorial Acts.

~~286.~~288. Since the difference in price was received by the defendants from the Class Members resulted from the defendants' wrongful and unlawful acts, there is and can be no juridical reason justifying the defendants retaining any part of it.

Waiver of Tort

~~287.~~289. In the alternative to damages, the plaintiffs pleads an entitlement to "waive the tort" of civil conspiracy and claim an accounting, or other such restitutionary

remedy, for disgorgement of the revenues generated by the defendants and their co-conspirators from their unlawful conspiracy.

~~288.~~290. It would be unconscionable for the defendants to retain the unlawful overcharge obtained as a result of the Conspiratorial Acts.

Discovery of Losses

~~289.~~291. The plaintiffs did not discover, and could not have discovered through the exercise of reasonable diligence, the existence of the claims which are the basis of this action until recently.

~~290.~~292. The defendants and their co-conspirators actively, intentionally and fraudulently concealed the existence of the combination and conspiracy from the public, including the Class Members. The affirmative acts of the defendants alleged herein, including acts in furtherance of the conspiracy, were fraudulently concealed and carried out in a manner that precluded detection.

~~291.~~293. The defendants' and their co-conspirators' anti-competitive conspiracy was self-concealing. As detailed in paragraphs ~~227~~ 230 to ~~232~~ 235 above, the defendants took active, deliberate and wrongful steps to conceal their participation in the alleged conspiracy.

~~292.~~294. Because the defendants' agreements, understandings and conspiracies were kept secret, the Class Members were unaware of the defendants' unlawful conduct during the Class Period, and did not know that the FX rates they were paying (or were being paid on their behalf) had been unlawfully fixed, maintained, increased, controlled, and unreasonably enhanced.

REMEDIES

Damages

~~293.~~295. The defendants carry considerably more inventory of currency than any other banks or other financial institutions and are therefore able to act as currency

dealers, facilitating trading in various currencies. The defendants are competitors in the FX Market, competing for customers by supplying exchange rate quotations and FX Instruments. The relationship between the defendants and their customers is the same as the relationship between any merchant selling goods or services to consumers in a marketplace. In FX trading, the "goods" are money or currency. When a defendant's customer accepts a quote, the defendant sells currency from its own inventory or seeks an off-setting order at the bargained-for price. Pricing of currency, like goods, is based on fundamental market forces of supply and demand.

~~294.~~296. The defendants' conspiracy limits competition between dealers in the FX Market. Where customers would, absent the defendants' collusion, have received competitive quotes and reaped the benefits of competition, here, the defendants have repeatedly agreed in chat rooms to conform quoted customer spreads and spread matrices to each other's market views, "double team" transactions with the intent of controlling or manipulating the market, and colluded to trigger customer limit orders through short-term trades. These actions, individually and collectively, have the effect of imposing overcharges on FX customers by artificially increasing the cost of buying currency and artificially decreasing the price received by currency sellers. These actions deprive FX customers of a competitive marketplace and expose them to artificial volatility.

~~295.~~297. Absent collusion, the defendants, who are competitors in the FX Market, would have possessed independent incentives to quote tighter spreads to customers to win more business in the FX Market. Every purchase of a quantity of currency represents demand relative to supply – forces that would, in a market free of collusion, determine the price. Through collusion, the Class Members were deprived of this active price competition.

~~296.~~298. Absent collusion, the defendants would have had incentives to avoid abusive trading practices, like front-running, that could cause customers to find they receive better execution and trade pricing from other FX dealers. Through collusion, FX customers were deprived of this competitive marketplace.

~~297.~~299. The collusion necessarily injures participants in the FX Market. All market participants transacting in the FX spot market would be receiving artificially low prices for their currency sales and paying artificially high prices as a result of the defendants' collusion with respect to bid/ask spreads. This would only be compounded through the defendants' use of tactics like "front-running," "banging the close," or "painting the screen" to cause further injury through manipulation. Furthermore, because the pricing of other FX Instruments is driven by the pricing of FX spot transactions, this injury affected all members of the Class.

~~298.~~300. Furthermore, the defendants' collusive trading practices in FX spot transactions at or around the time of the Fixes directly impacted the prices of FX spot transactions entered into during that time period. As competitors in the FX Market, the defendants would, absent collusion, compete with respect to the bids and asks that ultimately determine the Fixes. As such, they engage in price competition with respect to the Fixes themselves.

~~299.~~301. The defendants' collusion with respect to FX spot transactions directly impacted the pricing of outright forwards because their prices are mathematically derived from the prices of spot transactions. The defendants' collusion in the FX spot market directly impacted the pricing of FX swaps because FX swaps are simultaneous spot and outright forward transaction.

~~300.~~302. Indeed, this injury was not even limited to the over-the-counter market. Prices in the futures market closely track the prices available on the spot market, such that any disconnect between the two is almost immediately eliminated through trader arbitrage. Accordingly, the manipulative pricing on the spot market translated into artificial prices for FX exchange-traded instruments.

~~301.~~303. The Class suffered loss and damage as a result of the defendants' conduct. Where the Class Member purchased an FX Instrument, the Class Member was injured as a result of pay artificially enhanced prices (or where the Class Member was selling currency, receiving artificially deflated prices). Where the Class Member purchased or otherwise participates in an investment or mutual fund, hedge fund,

pension fund or any other investment vehicle that entered into an FX Instrument, at least part of the damages were passed through to such Class Members as a result of the depressed value of the investment vehicle. Specifically, as a result of the defendants' conduct, the investment vehicle bore inflated currency exchange rates and/or received deflated currency exchange rates, resulting in a loss in value of the funds. This loss was passed on, in whole or in part, to holders of the investment vehicle through the deflated value of the investment vehicle and/or higher management fees. The defendants knew or ought to have known that such pass-through would occur.

~~302.~~304. The defendants' anticompetitive conduct had severe adverse consequences on competition in that the defendants artificially ensured advantageous market movements in the WM/Reuters Closing Spot Rates by exchanging confidential customer information and agreeing to collusive traded strategies, such as "front running," "banging the close," and "painting the screen," based on aggregate customer order flow information. Under the facts alleged herein, the Class Members could not escape such conduct because of the dominate position occupied by the defendants in the FX Market.

~~303.~~305. No one defendant could accomplish systematic and continuing control or manipulation of the WM/Reuters Closing Spot Rates without coordinating with its rivals. Absent the defendants' knowledge of one another's confidential customer information, the conduct alleged herein would be a risky strategy. The defendants benefited from coordinating their market activities.

~~304.~~306. As a direct, foreseeable and proximate result of the defendants' conduct alleged above, the plaintiffs and the Class have suffered damages.

~~305.~~307. The damage is capable of being quantified on an aggregate basis as the difference between the prices actually paid by (or on behalf of) Class Members for foreign currency transactions and the prices which would have been paid in the absence of the unlawful conspiracy.

~~306.~~308. All amounts payable to the class on account of damages and disgorgement should be calculated on an aggregate basis pursuant to section 24 of the *Class Proceedings Act*, or otherwise.

~~307.~~309. In addition, the defendants are jointly and severally liable to pay costs of investigation and prosecution of this action pursuant to section 36 of the *Competition Act*.

Punitive, Aggravated and Exemplary Damages

~~308.~~310. The defendants used their market dominance, illegality and deception in furtherance of a conspiracy to illegally profit from foreign exchange transactions. They were, at all times, aware that their actions would have a significant adverse impact on Class Members. The conduct of the defendants and their co-conspirators was high-handed, reckless, without care, deliberate, and in disregard of the Class members' rights.

~~309.~~311. Accordingly, the plaintiffs requests substantial punitive, exemplary and aggravated damages.

SERVICE OUTSIDE OF ONTARIO

~~310.~~312. The plaintiffs ~~is~~ are entitled to serve this statement of claim outside Ontario without a court order pursuant to the following rules of the *Rules of Civil Procedure*, R.R.O. 1990, Reg. 194 because the claim:

(a) is in respect of a tort committed in Ontario (Rule 17.02(g)); and

(b) is against a person carrying on business in Ontario (Rule 17.02(p)).

RELEVANT LEGISLATION

~~311.~~313. The plaintiffs ~~pleads~~ and ~~rely~~relies on the *Bank Act*, S.C. 1991, c. 46, as amended, *Criminal Code*, R.S.C. 1985, c C-46, and the *Competition Act*, R.S.C. 1985, c.34, as amended.

September 11, 2015
Date: ~~September 14, 2015~~
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~~As Amended August , 2016~~
As Amended August 16th, 2016

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ONTARIO
SUPERIOR COURT OF JUSTICE

Proceeding commenced at Toronto

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