UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

IN RE JPMORGAN PRECIOUS METALS SPOOFING LITIGATION	Case No.: 1:18-cv-10356 Hon. Gregory H. Woods
THIS DOCUMENT RELATES TO: ALL ACTIONS	Tron. Gregory II. Woods

AMENDED DISTRIBUTION PLAN

ADMINISTRATIVE PROCEDURES

- 1. Subject to Court approval, the proceeds of the Net Settlement Fund will be paid to Authorized Claimants who or which submit valid Proof of Claim and Release forms ("Claim Forms") by the claims filing deadline set by the Court ("Claims Deadline"). This section discusses the administrative procedures that will apply to determine eligibility.
- 2. Each Settling Class Member that wishes to receive proceeds from the Net Settlement Fund must submit a Claim Form to provide pertinent information that will be used to determine his/her/its eligibility to receive a distribution from the Net Settlement Fund. Settling Class Members will also be asked to provide such data, documents, and other proof as may be required by the Settlement Administrator to verify the Precious Metals Futures and Options on Precious Metals Futures transactions identified on the Claim Form. Each Claim Form is signed under the penalty of perjury.
- 3. Following receipt of each Claim Form, the Settlement Administrator will issue a confirmation receipt to the Claimant.
- 4. The Settlement Administrator will review each Claim Form to determine whether the Claimant is a Settling Class Member. Claims submitted by Claimants who or which are not Settling Class Members will be rejected.
- 5. The Settlement Administrator will review each Claim Form to determine whether the Claim Form is submitted in accordance with the Settlement and Orders of the Court. Claims that are not submitted in accordance with the Settlement and Orders of the Court will be rejected.

CALCULATION OF TRANSACTION CLAIM AMOUNTS

6. The Class eligible under the Settlement to receive a portion of the Net Settlement Fund includes all Persons and entities wherever located that purchased or sold any Precious Metals Futures or Options on Precious Metals Futures on the Commodity Exchange Inc. ("COMEX") or

the New York Mercantile Exchange ("NYMEX") from March 1, 2008 through August 31, 2016 (the "Class Period"). Excluded from the Settlement Class are (i) JPMorgan and any parent, subsidiary, affiliate or agent of JPMorgan, provided, that any Investment Vehicle shall not be excluded from the Settlement Class, but under no circumstances may JPMorgan (or any of its direct or indirect parents, subsidiaries, affiliates, or divisions) receive a distribution for its own account from the Settlement Fund through an Investment Vehicle; and (ii) the United States Government.

- a. "Precious Metals Futures" means (i) COMEX Gold Futures; (ii) COMEX Silver Futures; (iii) NYMEX Platinum Futures; and (iv) NYMEX Palladium Futures.
- b. "Options on Precious Metals Futures" means any option on Precious Metals
 Futures.
- 7. For each Precious Metals Futures transaction, Claimants must provide the following information for each of their individual transactions: (a) the specific contract traded (e.g., GCJ3 or April 2013 Gold Futures); (b) trade date (e.g., February 13, 2013); (c) the volume of contracts traded (e.g., 5); and (d) the price of the futures contract in U.S. dollars per troy ounce (e.g., \$1,647.00).¹
- 8. For each Options on Precious Metals Futures transaction, Claimants must provide the following information for each of their individual transactions: (a) the specific contract traded (e.g., OGJ3 or Option on Gold Futures expiring in April); (b) trade date (e.g., February 13, 2013); (c) the volume of contracts traded (e.g., 1); (d) the price of the futures contract (e.g., \$1,647.00);

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¹ For Class Members whose records do not include the purchase price of the futures contract, the Settlement Administrator will apply the contract price as of the close of business on the trade date. Class Members can leave this field blank.

- (e) option type (*i.e.*, call or put); (f) option expiry type (*e.g.*, American Option); (g) option strike price (*e.g.*, \$1,650.00); (h) option premium (*e.g.*, \$5.80); and (i) option settlement date, also referred to as the option exercise date (*e.g.*, March 26, 2013).
- 9. **Instrument Amount.** Using the transaction data, the Settlement Administrator will calculate an "Instrument Amount" for each transaction by a Class Member. The Instrument Amount is the product of three different factors: a "Volume Multiplier," "Instrument Multiplier," and a "Futures Contract Specification Multiplier."

Instrument Amount

- = Volume Multiplier × Instrument Multiplier × Futures Contract Specification Multiplier
- 10. Lead Counsel determined the "Volume Multiplier," "Instrument Multiplier," and "Futures Contract Specification Multiplier" based on Class Plaintiffs' allegations, current publicly available information concerning Precious Metals Futures and Options on Precious Metals Futures, and in consultation with their consulting experts.
- 11. **Volume Multiplier.** The Volume Multiplier reflects the notional value of the transaction and is determined by first taking the product of (i) the number of futures contracts traded; (ii) the futures contract price, denominated in U.S. dollars per troy ounce (or in the case of options, the option premium); and (iii) the futures contract unit, denominated as troy ounces per futures contract, and, then dividing that product by 1 million.

Volume Multiplier

= (Number of Contracts Traded × Futures Price (or Option Premium) × FuturesContract Unit) / \$1m

12. The Volume Multiplier is a conversion figure, designed to ensure that (1) all relevant futures and options contracts are represented by the same number of units and (2) those

units are not so large to make working with the number difficult. Gold, silver, platinum, and palladium each have a particular futures contract unit (troy ounces per futures contract):

<u>Contract</u>	Size of one (1) contract unit ²
COMEX Gold Futures	100 troy ounces
COMEX Silver Futures	5,000 troy ounces
NYMEX Platinum Futures	50 troy ounces
NYMEX Palladium Futures	100 troy ounces

13. Because the contract units are not identical, the Volume Multiplier conversion is necessary to compare "apples to apples." In this case, the Volume Multiplier measures the notional value of the Precious Metals Futures and Options on Precious Metal Futures using "points" as the common unit, rather than dollars. In the Volume Multiplier equation, one point is equal to \$1 million.

<u>Volume Multiplier</u>

- = [# of contracts traded] x [\$/troy ounce] x [troy ounces/contract] x [point/\$1 million] = points
- 14. **Instrument Multiplier.** The Instrument Multiplier will be as follows:
 - a. Precious Metals Futures Eligible Transactions in Precious Metals Futures
 will receive an Instrument Multiplier of 1.0.
 - Options on Precious Metals Futures Eligible Transactions in Options on
 Precious Metals Futures will receive an Instrument Multiplier of 0.43.
- 15. All Precious Metals Futures have an Instrument Multiplier of 1.0 on the basis that futures contracts will experience the full impact of any spoofing. To measure the impact on Options on Precious Metals Futures in this action, Class Plaintiffs' experts used a representative sample of available trading data for Options on Precious Metals Futures for the beginning and end of the

² The contract specifications, including the contract unit, are available at www.cmegroup.com.

Class Period to calculate the trading volume weighted average delta, which is sum of option deltas multiplied by the number of contracts traded, divided by the sum of the number of contracts traded. Option delta is a ratio that compares the price change of an underlying asset (in this case, Precious Metals Futures) with the change in the price of the option.

Multiplier accounts for the impact of Defendants' spoofing on Precious Metals Futures contracts. Table 1 below is a chart reflecting the Futures Contract Specification Multiplier. Any Precious Metals Futures contract not listed in Table 1 shall have a Futures Contract Specification Multiplier of 1. The Futures Contract Specification Multipliers are only valid for transactions during the Class Period; any transaction outside of the Class Period is ineligible. The application of the Futures Contract Specification Multipliers is intended to facilitate a fair, reasonable, and efficient allocation of the Net Settlement Fund for purposes of this Action, and not intended to be or reflect the total damages that could have been sought had the litigation gone to trial or the appropriate methodology to apply to determine total damages.

Expiry	Metal	Futures Contract Specification Multiplier	Expiry	Metal	Futures Contract Specification Multiplier
Dec. 2008	Gold	129	Mar. 2009	Silver	34
Feb. 2009	Gold	238	May 2009	Silver	41
Apr. 2009	Gold	213	July 2009	Silver	29
June 2009	Gold	145	Sep. 2009	Silver	69
Aug. 2009	Gold	279	Dec. 2009	Silver	240
Dec. 2009	Gold	564	Mar. 2010	Silver	28
Feb. 2010	Gold	294	May 2010	Silver	12
Apr. 2010	Gold	393	July 2010	Silver	45
June 2010	Gold	320	Sep. 2010	Silver	29
Aug. 2010	Gold	405	Dec. 2010	Silver	55
Dec. 2010	Gold	637	Mar. 2011	Silver	64
Feb. 2011	Gold	316	May 2011	Silver	69
Apr. 2011	Gold	408	July 2011	Silver	65
June 2011	Gold	403	Sep. 2011	Silver	33
Aug. 2011	Gold	242	Dec. 2011	Silver	58
Dec. 2011	Gold	618	Mar. 2012	Silver	23
Feb. 2012	Gold	161	May 2012	Silver	9
Apr. 2012	Gold	207	July 2012	Silver	28
June 2012	Gold	218	Sep. 2012	Silver	30
Aug. 2012	Gold	449	Dec. 2012	Silver	40
Dec. 2012	Gold	511	Mar. 2013	Silver	17
Feb. 2013	Gold	108	May 2013	Silver	12
Apr. 2013	Gold	255	July 2013	Silver	13
June 2013	Gold	295	Sep. 2013	Silver	16
Aug. 2013	Gold	262	Dec. 2013	Silver	12
Dec. 2013	Gold	291	Mar. 2014	Silver	4
Feb. 2014	Gold	47	May 2014	Silver	2
Apr. 2014	Gold	52	Dec. 2014	Silver	11
June 2014	Gold	29	Mar. 2015	Silver	4
Aug. 2014	Gold	16	July 2015	Silver	3
Dec. 2014	Gold	122	Apr. 2011	Platinum	2
Feb. 2015	Gold	83	Jan. 2014	Platinum	2
Apr. 2015	Gold	110	Apr. 2014	Platinum	3
June 2015	Gold	35	Apr. 2016	Platinum	2
Aug. 2015	Gold	10	July 2016	Platinum	2

- 17. The Futures Contract Specification Multipliers were calculated based on the results of spoofing detection models designed by Class Plaintiffs' experts and applied to CME and JPMorgan Precious Metals Futures datasets provided to Class Plaintiffs by JPMorgan.
- 18. To determine the number of JPMorgan's alleged spoofs, Class Plaintiffs' experts compiled criteria to identify spoofs based on an analysis of the spoofs described in JPMorgan's settlement with U.S. regulators.

19. Class Plaintiffs' experts screened the Precious Metals Futures datasets for matched order-cancellation pairs. Order-cancellation pairs were identified as potential spoofs where (1) there was a potential genuine trade by the same trader on the opposing side of the market, and (2) for each instrument, the cancellation was larger than the contract size as given below.

Instrument	Minimum Cancellation Size (# of Contracts)
Gold	30
Silver	15
Platinum	20
Palladium	20

- 20. Whenever multiple potential spoofs were detected at the same time, they were grouped as a single spoofing event.
- 21. Once the potential spoofs were identified, the experts applied filters to control for the possibility of false positives.
- 22. To reduce the impact of false positives, the experts also applied discount factors to the spoofs, where applicable.
- 23. To test the suitability of the selected criteria for identifying spoofs for purposes of developing this Distribution Plan, Class Plaintiffs' experts applied their model to the dataset to identify the publicly known spoofs detailed by the JPMorgan's regulatory settlement. The spoofing detection models successfully detected more than 85% known spoofs described in JPMorgan's settlements with U.S. regulators, including 100% of the spoofs for which the regulatory settlements provided sufficient information to match the transactions in the datasets. The identification criteria were then programmatically applied in the spoofing detection models to

detect other spoofs that had not been previously identified to calculate the total number of spoofs per relevant contract and in total.

- 24. For each relevant contract, Class Plaintiffs' experts then calculated the Futures Contract Specification Multipliers as follows:
 - Divide the number of spoofs per contract by the total number of spoofs across all contracts;
 - Multiply everything by 10,000 to attempt to obtain a round number; and
 - The resulting numbers are then rounded to the nearest round number
- 25. To account for the possibility of false negatives, Class Plaintiffs' experts allocated a multiplier of one to all other contracts.
- 26. **Example Calculation of Instrument Amount.** To demonstrate the calculation of the Instrument Amount, assume that a trader purchased eighty (80) Silver Futures expiring in March 2011 at a quoted price of \$23.00 per troy ounce. The Volume Multiplier is 9.2 [(80 contracts * \$23.00 per troy ounce * 5,000 troy ounces per contract)/\$1,000,000]. The Instrument Multiplier is one (1) point because these are futures contracts. The Futures Contract Specification Multiplier is sixty-four (64) points. As a result, the Instrument Amount is 588.8 points [Volume Multiplier of 9.2 * Instrument Multiplier of 1 * Futures Contract Specification Multiplier of 64].
- 27. The Settlement Administrator will calculate an Instrument Amount for each transaction by a Class Member and sum the Instrument Amounts to determine the Class Member's "Transaction Claim Amount." The Transaction Claim Amount is not the Claimant's payment amount.

PRO RATA SHARE DETERMINATIONS

28. The Net Settlement Fund will be distributed to each Class Member based on their *pro rata* fraction of the Class Member's Transaction Claim Amount divided by the total of all Transaction Claim Amounts.

Payment Amount

 $= Net \, Settlement \, Fund \, x \, \frac{Transaction \, Claim \, Amount}{Total \, of \, all \, Transaction \, Claim \, Amounts}$

29. The exception to this will be Class Members whose expected distribution based on their *pro rata* fraction is less than the costs of administering the Claim. These Class Members will receive a Minimum Payment Amount in an amount, to be determined after the Claim Forms are reviewed, calibrated to ensure that a minimal portion of the Net Settlement Fund is reallocated towards Authorized Claimants receiving the Minimum Payment Amount. After determining the portion of the Net Settlement Fund that will be used to make the Minimum Payment Amounts, the remainder of the Net Settlement Fund will be reallocated *pro rata* among the remaining Class Members.

AUDITS

30. By submitting a Claim Form, a Class Member agrees to furnish such additional information as the Settlement Administrator or the Court may require. Further, by submitting a Claim Form, a Class Member is swearing to the truth of the statements contained in it and, if applicable, the genuineness of the data and documents attached thereto, subject to penalty of perjury under the laws of the United States of America. The making of false statements or the submission of forged or fraudulent documentation will result in the rejection of a claim and may subject the filer to civil liability or criminal prosecution.

31. The Settlement Administrator may request any Class Member, as deemed appropriate by the Settlement Administrator, who file claims a Claim Form to provide documentation to support certain transactions or any other aspect of the claim submission. Even if the Class Member provided a letter/affidavit attesting to the truth and accuracy of the data and claim overall, the Settlement Administrator may require specific documentary evidence (statements, confirmations, or the equivalent) to independently verify the details of the transactions and/or other aspects of the claim submission. Failure to comply with such an audit request will result in the rejection of the claim.

COURT REVIEW

32. All proceedings with respect to the administration, processing, and determination of claims, and the determination of all disputes relating thereto, including disputed questions of law and fact with respect to the validity of the claims and information on the Claim Forms, shall be subject to the jurisdiction of the Court. To the extent the Settlement Administrator rejects a Claim Form, either in whole or in part, the Claimant will be advised in writing of the reasons for the rejection and that the Claimant will have the opportunity to seek Court review of the Settlement Administrator's rejection. All Claimants expressly waive trial by jury (to the extent any such right may exist) and any right of appeal or review with respect to the Court's determination.

DISTRIBUTION

33. After the Effective Date of the Settlement, and once the Settlement Administrator has determined the amounts of all Authorized Claimants' distributions under this Distribution Plan, Lead Counsel will apply to the Court for an order to distribute the Net Settlement Fund.