

Declaration of S. Ilan Guedj

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

IN RE: LIBOR-BASED FINANCIAL INSTRUMENTS ANTITRUST LITIGATION	MDL No. 2262 (NRB) Honorable Naomi Reice Buchwald
THIS DOCUMENT RELATES TO:	
MAYOR AND CITY COUNCIL OF BALTIMORE, et al., Plaintiffs, v. CREDIT SUISSE AG, et al., Defendants.	No. 11-cv-5450 (NRB)

**DECLARATION OF S. ILAN GUEDJ IN SUPPORT OF OTC PLAINTIFFS'
MOTION TO AUTHORIZE DISTRIBUTION OF THE BARCLAYS, CITIBANK,
DEUTSCHE BANK, AND HSBC NET SETTLEMENT FUNDS TO CLAIMANTS AND
REIMBURSEMENT OF CLAIMS ADMINISTRATION EXPENSES**

July 6, 2021

Declaration of S. Ilan Guedj

I, S. ILAN GUEDJ, PhD, declare and state as follows:

1. I am a Partner and Chair of the Finance practice at Bates White, LLC, an economic consulting firm based in Washington, DC, that specializes in advanced financial, economic, and data analysis, among other things. Prior to working in consulting, I was a faculty member in the finance department at the McCombs School of Business at the University of Texas at Austin. I hold a PhD in Financial Economics from the Massachusetts Institute of Technology.
2. The following statements are based on the results of my research, my review and analysis of the materials and data provided to me, my education and training, and my experience as a professional in the financial services industry. In addition to my own time, I directed other Bates White professionals who performed supporting work in connection with the analysis that is the subject of this declaration.
3. Unless otherwise defined herein, all capitalized terms have the meanings ascribed to them in the Settlement Agreement between Over-The-Counter (“OTC”) Plaintiffs and Barclays Bank PLC (“Barclays”); the Settlement Agreement between OTC Plaintiffs, Citibank, N.A. and Citigroup Inc. (“Citi”); the Settlement Agreement between OTC Plaintiffs and HSBC Bank PLC (“HSBC”); and the Settlement Agreement between OTC Plaintiffs and Deutsche Bank Aktiengesellschaft (“Deutsche Bank”). The foregoing Agreements are collectively referred to as the “Settlements” or the “Settlement Agreements,” and the foregoing defendants are collectively referred to as the “Settling Defendants.” I also incorporate capitalized terms as defined in the Barclays Amended Plan of Distribution, the Citi Plan of Distribution, and the Deutsche Bank/HSBC Plan of Distribution (collectively, the “Distribution Plans”).¹

¹ The Settlement Agreements, Distribution Plans, and other relevant documents are available on the Settlement website at <https://www.usdollarliborsettlement.com>

Declaration of S. Ilan Guedj

4. Class Counsel retained Bates White to assist the Claims Administrator, Rust Consulting Inc. (“Rust”), with the processing and the validation of transaction data submitted by claimants to the Settlements. Bates White was also asked to calculate the overall notional stake for each Authorized Claimant to each Settlement, and perform the allocation of each Net Settlement Fund, as defined in the Settlement Agreements, to Authorized Claimants in accordance with the Distribution Plans.²
5. I evaluated the claims data provided to me by the Claims Administrator and determined whether the transactions described therein were valid U.S. Dollar LIBOR-Based Instruments.³ In addition, I performed a thorough quality assurance review of the vast majority of the claims data, during which my team and I identified a set of claims to be reviewed, manually reviewed each identified claim, and, where necessary, corrected the associated data, to ensure the submitted transactions were correctly captured.
6. My quality assurance review focused on complex claims, as well as data from claimants who responded to notifications from the Claims Administrator to contest or otherwise raise issues with their claims data. My review covered data representing 99.8% of all transactional records and 99.9% of total notional value submitted to all Settlements.⁴ I performed the review and, where necessary, correction of the data using well-established procedures for the processing of complex data developed over decades at Bates White that include a robust system of quality control. Following the quality assurance review, claimants whose data was substantively corrected

² The Distribution Plans, ¶ 5, define the “notional stake” of a qualifying LIBOR Instrument to be equal to “the sum of the ‘suppressed daily underpayments’ for that instrument. An Authorized Claimant’s overall notional stake equals the sum of the notional stakes for each of the qualifying LIBOR Instruments.” Further explanation of notional stake is provided in Section V.

³ Hereinafter, any reference to LIBOR refers to U.S. Dollar LIBOR.

⁴ The notional value is the total underlying amount of a derivatives trade.

Declaration of S. Ilan Guedj

received an additional opportunity to review their data, engage with Class Counsel and the Claims Administrator, and cure deficiencies in their claims.

7. This quality assurance process reviewed the overwhelming majority of notional value submitted to the Settlements, corrected any substantive issues identified that were associated with reviewed claimants, and allowed all claimants whose claims amounts were adjusted as part of the quality assurance process an additional opportunity to cure their claim if needed. For these reasons, I find that the validation of claimant transaction data, the calculation of overall notional stakes, and the allocation of Net Settlement Funds are reliable in my professional judgment.

I. Background

8. In its role as Claims Administrator, Rust was the contact point for all claimants to the Settlements, as described in the Declaration of Amy Lake in Support of OTC Plaintiffs' Motion to Authorize Distribution of the Barclays, Citibank, Deutsche Bank, and HSBC Net Settlement Funds to Claimants and Reimbursement of Claims Administration Expenses ("Lake Declaration"). All Proofs of Claim, along with the accompanying transaction data and documentation provided by claimants, were submitted to Rust. Rust then provided these data and documents to Bates White, either in the form of data sets prepared by Rust, or by directly transmitting claimant-submitted files. Rust also handled all notifications sent to claimants, including initial notice of the Settlements and intermediate and final notifications of claim-level and transaction-level eligibility as determined by Bates White.

Declaration of S. Ilan Guedj

II. Validation of the claims data

9. The transaction data submitted by claimants to the Settlements were voluminous and complex. This was in large part because the Settlements covered a diverse array of bespoke financial instruments above and beyond the swaps and bonds that are covered by the certified litigation class. Working under my direction to identify the set of Authorized Claimants for each Settlement, Bates White performed extensive analyses to systematically determine if the submitted claims were eligible for the Settlements. This systematic analysis will be referred to as the “Validation Process” hereinafter.

10. Bates White initially categorized each transaction submitted by claimants into one of three groups:
 - i. Invalid transactions—Transactions that failed to meet one or more criteria for inclusion in the Settlements;
 - ii. Deficient transactions—Transactions that lacked sufficient information to either determine eligibility or calculate the transaction’s notional stake; and
 - iii. Valid transactions—Transactions that met all criteria for inclusion in the Settlements and provided sufficient information to calculate the transaction’s notional stake.

11. All claimants who submitted transactions determined to be invalid or deficient were provided detailed notifications by Rust describing which transactions were determined to be invalid or deficient and for what reasons. These claimants were also given an opportunity to contest or cure these determinations by providing additional explanations or by submitting new data. Any transaction marked as deficient or invalid and not cured by claimants via the submission of additional data or explanation was ultimately rejected.

Declaration of S. Ilan Guedj

12. Throughout the Validation Process, Bates White made both claim-level and transaction-level validation determinations. The claim-level validation determined whether the claimant was eligible to submit claims to the Settlements. The claim-level validation criteria were as follows:

- i. The claiming entity must not be an Excluded Party and must not have opted out of the relevant Settlement.
- ii. Claims submitted by third-party filers must include documentation of the third-party filer's authority to act on behalf of the Beneficial Account Owner for whom the claim was filed.

13. The transaction-level validation determined whether transactions submitted by claimants were eligible U.S. Dollar LIBOR-Based Instruments and if sufficient information was provided to calculate the transactions' notional stake. The transaction-level validation criteria were as follows:

- i. The transaction must have occurred over the counter, as opposed to being traded on an exchange.
- ii. The transaction must have been entered into with a Defendant, or a subsidiary or an affiliate of a Defendant.⁵ For securities transactions, both the issuer of the security and the entity from whom the claimant purchased the security must be Defendant entities.
- iii. The transaction must involve the claimant receiving interest payments based upon one of the published tenors of US Dollar LIBOR.

⁵ Defendant entities include the Settling Defendants and their subsidiaries and affiliates, as well as Bank of America, Bank of Tokyo-Mitsubishi, Credit Suisse, HBOS, JPMorgan Chase, Lloyds, Norinchukin, Rabobank, Royal Bank of Canada, Royal Bank of Scotland, Société Générale, UBS, WestLB, and the subsidiaries and affiliates of these entities.

Declaration of S. Ilan Guedj

- iv. The transaction must have occurred in the United States, as demonstrated by either the claimant or the counterparty (Defendant entity) being domiciled in the United States or entering into the transaction via a US-based trading desk, affiliate, or subsidiary.
14. Claims and/or transactions that did not meet all of these criteria were determined to be invalid. Claims and/or transactions that did not include sufficient information to assess these criteria were determined to be deficient. In addition, transactions in which any of the following pieces of information needed to calculate notional stake were missing or specified incorrectly were also determined to be deficient:
- i. Type of instrument/transaction
 - ii. Effective and maturity dates
 - iii. Notional amount, including amortization information, if relevant
 - iv. Transaction ID or other information to distinguish between identical transactions
15. For certain complex instrument types, Bates White required additional pieces of information necessary either to determine transaction eligibility or to calculate the notional stake of the transaction.⁶ For example, exercised swaptions may involve LIBOR-based interest payments and therefore may be valid transactions, while swaptions that were not exercised do not involve interest payments and are thus invalid. Thus, claimants were required to indicate whether their swaptions were exercised, to determine eligibility, and the date on which they were exercised, to calculate the magnitude of underpayments received due to the alleged suppression of LIBOR.

⁶ These instrument types include options, swaptions, basis swaps, range accruals, credit default swaps, contracts for difference, and interest rate caps.

Declaration of S. Ilan Guedj

16. To perform the Validation Process in a systematic and equitable manner on millions of transactions submitted in a wide variety of data formats, Bates White carefully reviewed, processed, and standardized the data. During this process, I relied on my expertise as a financial economist, discussions with Class Counsel and the Claims Administrator, and, where necessary, clarification from specific claimants with respect to the correct interpretation of certain details contained in those claimants' transaction data.

17. Bates White performed the Validation Process on the transaction data in several stages as claimants submitted batches of data to Rust via mail and electronic submissions. For each batch, Bates White returned the validated data to Rust, who then notified claimants of any valid, invalid, or deficient transactions, as described above. In some cases, claimants responded to these notifications by providing additional data or contextual explanations. For these claimants, Rust and Bates White worked together to incorporate the updated information into the data. Bates White then performed the Validation Process again based upon the updated data and revised the transaction-level validation results as needed. For example, claimants may have provided additional pieces of information that were previously missing or incomplete, resulting in some or all of their transactions being re-categorized from invalid or deficient to valid.

III. Quality assurance review of the claims data

18. The Settlements cover a wide range of financial instruments and involve a diverse set of claimants with vastly different data storage practices and data reporting formats.

19. To address the unique challenges of the non-standardized, and often voluminous, Settlement data sets, my team and I performed an extensive manual review of all data, documents, and communications for a set of claimants that represent the vast majority of all transactions

Declaration of S. Ilan Guedj

submitted to the Settlements (“the QA Review”). The objective of the QA Review was to confirm that the claims administration process properly accounted for the data, documentation, or communications provided by claimants for validating their data. The QA Review focused on (1) claimants that filed claims on behalf of multiple different end-clients (*e.g.*, third-party filers, financial institutions filing on behalf of managed funds, etc.); (2) claimants who had contested prior validation determinations; (3) claimants who had submitted responses to prior deficiency and/or invalidity notifications; (4) claimants whose transaction data contained amortization schedules or were submitted in non-standard format; and (5) claimants whose transaction data included \$1 billion or more total notional amount and had at least one transaction determined to be deficient or invalid. Overall, the QA review covered thousands of claimants who submitted claims containing millions of transactions representing trillions of dollars in notional value and resulted in the review of 99.9% of the total notional value of all claims submitted.

20. The exact nature of the QA Review varied for each claimant, depending on what type of data they submitted and what communications Rust received from them. Some claimant submissions, particularly submissions from third-party filers like Managed Care Advisory Group, involved more than 3,700 documents and data files. Across all claimants, Bates White reviewed upwards of 29,000 documents. At a high level, the process for each claimant was as follows:

- i. Rust transmitted to Bates White all documents associated with a particular claimant. This included paper and electronic claim forms, electronically submitted data sets, email and letter communications, notifications sent by Rust to the claimant, and any responses to these notifications.
- ii. Bates White carefully reviewed the documents, checking all transaction data submitted by the claimant against the inputs to the validation process and ensuring that any relevant context provided in communications was incorporated into the data.

Declaration of S. Ilan Guedj

- iii. Bates White systematically recorded the findings from the QA Review of each claimant, including any identified discrepancies or updates that needed to be made to the claimant's data.
 - iv. Bates White raised any complex issues encountered for discussion with Class Counsel and Rust. Where necessary, Rust reached out to claimants directly for clarification.
 - v. Bates White made any needed updates identified in the QA Review to the inputs for the validation process to ensure that the claimant's data would be validated correctly.
21. Examples of issues identified and corrected during the manual QA Review include claimants making multiple duplicative data submissions, earlier data submissions being partially or fully overwritten by subsequent submissions, and revised processing procedures for transaction data submitted in non-standard formats.
22. In addition to this manual QA Review of claimant data, as standard practice, Bates White performed extensive quality control of the computer code used to perform the validation process on the transactional data, as well as the code used to calculate notional stakes and allocate the Net Settlement Funds. Bates White also carefully reviewed the validation results to ensure consistency with transaction data inputs.

Declaration of S. Ilan Guedj

IV. Final validation results

23. Figure 1 and Figure 2 display Bates White's tabulation of validation results for each of the four Settlements after all claimant data (both initial submissions and supplemental data, as well as responses to notifications) were received, processed, standardized, and validated.⁷

Figure 1: Transaction-level final validation results⁸

Settlement	Valid transactions	Rejected transactions	Total transactions	Valid transaction %	Rejected transaction %
Barclays	1,227,535	5,642,257	6,869,792	17.9%	82.1%
Citi	967,017	5,088,401	6,055,418	16.0%	84.0%
Deutsche Bank	867,497	4,937,414	5,804,911	14.9%	85.1%
HSBC	868,200	4,937,407	5,805,607	15.0%	85.0%

Figure 2: Claim-level final validation results⁹

Settlement	Valid claim count ¹⁰	Rejected claim count ¹¹	Total claim count	Valid claim %	Rejected claim %
Barclays	7,437	7,580	15,017	49.5%	50.5%
Citi	6,715	4,899	11,614	57.8%	42.2%
Deutsche Bank	6,127	3,222	9,349	65.5%	34.5%
HSBC	6,129	3,218	9,347	65.6%	34.4%

24. Rejected transactions fell into two broad categories:

⁷ Some claimants did not file a claim with all Settlements, so the claimant, claim, and transaction counts differ between Settlements.

⁸ The sum of the number of transactions submitted to each Settlement, as displayed in Figure 1, is different than the total number of transactions that were submitted to the Settlements as reported in the Lake Declaration. This is because some claimants filed individual transactions to a Settlement or Settlements and some filed transactions to all Settlements.

⁹ The sum of the number of claims submitted to each Settlement, as displayed in Figure 2, is different than the total number of claims submitted to the Settlements as reported in the Lake Declaration. This is also because some claimants filed individual claims to a Settlement or Settlements and some filed claims to all Settlements. Additionally, the total number of valid claims per settlement reported here will differ slightly from the total number of valid claim numbers per Settlement reported in Exhibit 1 which accompanies my declaration. This is primarily due to the incorporation of claimant requests to be excluded from certain Settlements and because claimants who recovered from the Deutsche Bank State Attorneys General Settlement are ineligible to recover from the Deutsche Bank Settlement.

¹⁰ A valid claim as reported in Figure 2 is one that consists of at least one valid transaction, but may also contain one or more rejected transactions.

¹¹ A rejected claim as reported in Figure 2 is one that consists of all rejected transactions.

Declaration of S. Ilan Guedj

- i. Invalid transaction—Transactions that did not meet all criteria for inclusion in the Settlements. Figure 3 describes the most common reasons that transactions failed to meet the Settlement criteria. A transaction may be rejected for one or more reasons.

Figure 3: Most common invalid conditions

Reason for invalid transactions	Transaction count	% of rejected transactions
The transaction is not a qualifying U.S. Dollar LIBOR-Based Instrument (e.g., the claimant did not receive U.S. Dollar LIBOR-based payments)	4,473,969	76.8%
The transaction was not entered into directly with a Defendant or a Defendant's subsidiary or affiliate	639,554	11.0%
The claimant did not provide sufficient documentation of their authority to act for the Beneficial Account Owner on whose behalf they submitted the Claim	255,162	4.4%
The transaction was not shown to have occurred in the United States	214,610	3.7%

- ii. Uncured deficient transactions—Transactions that lacked sufficient information either to make a validation determination or to calculate notional stakes. Some transactions that lacked sufficient information were not cured, either because claimants did not respond to the notices sent by Rust describing the deficiencies or because their responses were not sufficient to cure all deficient conditions. Figure 4 describes the most common remaining deficiencies.

Figure 4: Most common deficient conditions

Reason for deficient transactions	Transaction count	% of rejected transactions
The LIBOR tenor is not specified or is insufficiently specified	1,043,129	17.9%
The interest rate index is not specified or is insufficiently specified	989,914	17.0%
The seller is not specified or is insufficiently specified	708,297	12.2%
The counterparty is not specified	657,299	11.3%

V. Notional stake calculations

25. In addition to validating transaction data, Bates White also calculated the notional stake for each valid transaction and the overall notional stake for each Authorized Claimant. As described in the

Declaration of S. Ilan Guedj

Distribution Plans, the notional stake for each transaction is equal to the sum of all suppressed underpayments for that transaction, and the overall notional stake for each Authorized Claimant is equal to the sum of notional stakes for each of that claimant's valid transactions.¹²

26. Bates White calculated each suppressed underpayment by multiplying the dollar amount of the interest payment that the claimant actually received during a particular interest accrual period by the suppression ratio (the magnitude of suppression applicable to that payment divided by the actual historical LIBOR applicable to that payment).¹³ In other words, each suppressed underpayment is equal to the difference between the amount of interest the claimant actually received and the amount of interest the claimant should have received absent suppression.¹⁴ All interest payments for which the applicable LIBOR was set during the Settlement Class Period of August 1, 2007 through May 31, 2010, are included in notional stake calculations. If suppression is zero for a particular interest payment, its suppressed underpayment amount will also be zero.

27. For example, consider an interest rate swap with a notional amount of \$1 million and a quarterly payment frequency where the claimant receives interest payments based on three-month LIBOR. If the historical three-month LIBOR applicable to a particular payment period was 5%, the claimant would have received \$12,500 in interest ($\$1,000,000 * 5\% * 90/360 = \$12,500$). If the applicable magnitude of suppression for this period was 1%, the claimant should have received \$15,000 ($\$1,000,000 * 6\% * 90/360 = \$15,000$), and the suppressed underpayment would be \$2,500 ($\$12,500 * 1\%/5\% = \$2,500$ or $\$15,000 - \$12,500 = \$2,500$).

¹² See ¶ 5 in each of the Distribution Plans.

¹³ Charts showing the magnitudes of suppression for each LIBOR tenor used in my calculations are available on the Settlement website at <https://www.usdollarliborsettlement.com>

¹⁴ For interest rate caps, suppressed underpayment calculations work slightly differently due to the presence of a cutoff value below which interest payments are not made (the strike rate of the interest rate cap).

Declaration of S. Ilan Guedj

28. For transactions in which a claimant both pays and receives LIBOR payments, such as a LIBOR/LIBOR basis swap, suppressed underpayments are calculated in both directions and netted to determine the claimant's notional stake for that transaction.¹⁵

29. Figure 5 displays the total combined notional stakes calculated for all Authorized Claimants to each of the four Settlements.

Figure 5: Total combined notional stakes

Settlement	Total combined notional stake
Barclays	\$38,386,727,101
Citi	\$37,872,979,765
Deutsche Bank	\$37,818,518,802
HSBC	\$38,027,648,460

VI. Allocation of Net Settlement Funds

30. Bates White's final task was to allocate the Net Settlement Funds from each Settlement to each Authorized Claimant based on that claimant's overall notional stake. As described in the Distribution Plans, the allocation was performed on a pro rata basis for each of the four Settlements. First, each Authorized Claimant's pro rata share was calculated by dividing that claimant's overall notional stake by the total combined notional stake for all claimants to that Settlement. Second, Bates White calculated each Authorized Claimant's Pro Rata Claim by multiplying the amount in the Net Settlement Fund by that Authorized Claimant's pro rata share.

31. For example, if an Authorized Claimant to the Barclays Settlement had an overall notional stake of \$5 million, and the total combined notional stake for all Authorized Claimants to the Barclays Settlement was \$5 billion, that Authorized Claimant's pro rata share would be 0.1% (\$5

¹⁵ A basis swap is an agreement in which two parties agree to swap variable interest rates. For example, a basis swap could involve swapping a three-month LIBOR payment with a one-month LIBOR payment + 0.1%.

Declaration of S. Ilan Guedj

million/\$5 billion). If the Barclays Settlement had a Net Settlement Fund amount of \$100 million, the Authorized Claimant's Pro Rata Claim would be \$100,000 ($\$100 \text{ million} * 0.1\% = \$100,000$).

32. The De Minimis Amount clause of the Distribution Plans states that any Authorized Claimant with a total distribution of \$10 or less will not receive a distribution from the Net Settlement Funds. An Authorized Claimant's total distribution is the sum of the Authorized Claimant's Pro Rata Claims in each Settlement. Authorized Claimants with total distributions of \$10 or less across all Settlements were thus determined to be De Minimis Amounts whereby their Pro Rata Claims in each Settlement were zeroed out and returned to each Net Settlement Fund.
33. For example, if an Authorized Claimant to the Barclays and Citi Settlements had a Pro Rata Claim of \$4 in the Barclays Settlement and \$6 in the Citi Settlement then the total distribution across all Settlements would be \$10. The total distribution for this Authorized Claimant is thus defined as a De Minimis Amount and would not receive a distribution. As a result, their Pro Rata Claims in the Barclays and Citi Settlements would be zeroed out and would revert back to the relevant Net Settlement Funds.
34. Figure 6 displays the Net Settlement Fund amounts and total Pro Rata Claims.¹⁶ A detailed breakdown of the Pro Rata Claim calculated for each Authorized Claimant to each Settlement is available in Exhibit 1 to this declaration. Exhibit 1 lists each Authorized Claimant by master claimant ID(s) and claim number(s),¹⁷ alongside their Pro Rata Claim for each Settlement to which they submitted a claim and total Pro Rata Claim. Exhibit 1 also indicates whether an Authorized Claimant's total Pro Rata Claim is \$0 because its combined Pro Rata Claims to all Settlements total \$10 or less.

¹⁶ The total allocated amount for each Settlement is slightly less than the Net Settlement Fund amount due to the rounding of each Authorized Claimant's Pro Rata Claim to the nearest dollar as specified in the Distribution Plans.

¹⁷ These are identification numbers assigned by Rust and previously communicated to the claimants.

Declaration of S. Ilan Guedj

Figure 6: Allocations by Settlement

Settlement	Net Settlement Fund amount	Total Pro Rata Claims
Barclays	\$96,890,208	\$96,890,201
Citi	\$94,698,569	\$94,698,043
Deutsche Bank	\$197,061,269	\$197,060,576
HSBC	\$80,921,684	\$80,921,678

Declaration of S. Ilan Guedj

VII. Claims administration cost summary

35. Together with my team it took a considerable amount of time to perform the Validation Process on, and subsequent QA Review of, the millions of financial transactions submitted to the Settlements in order to determine the Pro Rata Claims to be distributed in accordance with the Distribution Plans. Bates White's total costs related to the claims administration of the Settlements for which I understand Class Counsel is seeking reimbursement, including estimated costs through the end of the distribution process, are \$2,967,979.50, or \$741,994.88 per Settlement.

I declare under penalty of perjury, under the laws of the United States of America, that the foregoing is true and correct.

Executed in Washington, DC, on July 6, 2021.



A handwritten signature in blue ink, appearing to read "Guedj", is written above a horizontal line.

July 6, 2021
