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FILED PROVISIONALLY UNDER SEAL WITH REDACTIONS PURSUANT TO STIPULATED PROTECTIVE ORDER

UNITED STATES DISTRICT COURT

SOUTHERN DISTRICT OF CALIFORNIA

SAN DIEGO DIVISION

IN RE: BANK OF AMERICA CALIFORNIA UNEMPLOYMENT BENEFITS LITIGATION	Case No. 1-MD-02992-GPC-MSB

EXPERT REPORT OF VICTOR STANGO

April 4, 2025

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I. Qualifications

1. I am a Professor of Management at the University of California, Davis. I am also a Visiting Scholar at the Federal Reserve Bank of Philadelphia Consumer Finance Institute. Since receiving my Ph.D. in Economics from the University of California, Davis, in 1996, I have taught at the Tuck School of Business at Dartmouth College, the Graduate School of Business at the University of Chicago, the Haas School of Business at the University of California, Berkeley, and the University of Tennessee. I have also been an Economist and Senior Economist at the Federal Reserve Bank of Chicago, and a Visiting Senior Economist at the Federal Reserve Bank of New York.

2. My research focus and area of expertise is consumer behavior in financial services markets. I have published more than 20 articles in leading academic finance and economics journals, including the *American Economic Review*, the *Journal of Finance*, and the *Review of Financial Studies*. My articles have covered topics such as consumer deposit account and credit card usage, consumers' costs of credit card borrowing, the incidence of credit card and deposit account fees, and topics related to consumer saving and borrowing behavior.

3. I have received grants from the National Science Foundation, Russell Sage Foundation, Networks, Electronic Commerce, and Telecommunications ("NET") Institute, Filene Institute, and the FDIC in support of my research. I have presented my research at the Consumer Financial Protection Bureau (CFPB), the National Bureau of Economic Research, the American Economic Association, and other venues.

4. **Appendix A** contains my curriculum vitae. A list of materials I relied upon in forming my opinion in the current matter is included as **Appendix B**. A list of my prior testimony for the past four years is included as **Appendix C.**

5. I am being compensated at $1,200 per hour. I have been assisted in this matter by staff of Cornerstone Research, who worked under my direction. I receive compensation from Cornerstone Research based on its collected billings for work its employees perform supporting me in this matter. Neither my compensation in this matter nor my compensation from Cornerstone Research is in any way contingent or based on the content of my opinion, the results of my analysis, or the outcome of this or any other matter.

II. Assignment

6. I have been retained in this matter by Goodwin Procter LLP, counsel for Bank of America, N.A. ("BANA"). I have been asked to review and respond to certain opinions expressed by Greg J. Regan in his report submitted on March 4, 2025 (the "Regan Report").[1] Specifically, I have been asked to respond to Mr. Regan's damages methodologies and the calculations he performs to measure alleged damages for all five proposed classes.

7. This report does not respond to all of the opinions in the Regan Report or any opinions in other reports. It only responds to those specific opinions or assumptions to which counsel has asked me to respond. I reserve the right to respond to additional opinions or assumptions in the Regan Report or other plaintiff expert reports if asked to do so by counsel in the future. I also reserve the right to supplement or amend my report should new data or information become available.

III. Summary of Opinions

8. Mr. Regan proposes a damages methodology for each of five proposed classes. I discuss each of the proposed classes in detail below. Before doing so, I offer a summary of the principal methodological flaws in the Regan Report.

9. To start, Mr. Regan's methodology to calculate the "principal amount of damages" mischaracterizes denied claims, rescinded credits, and frozen account balances as damages for the proposed Claim Denial, Credit Rescission, Account Freeze, and EMV Chip classes. Mr. Regan treats proposed class members who have lost access to funds as though they have lost the funds and provides no economic argument for why a dollar amount lost that was temporarily lost and then returned represents economic harm in the amount of the dollars to which the individual regained complete access. See Sections VI.A, VII.A, VIII.A, and X.

10. Second, Mr. Regan's proposed "consequential damages" methodology for the proposed Claim Denial, Credit Rescission, Account Freeze, and EMV Chip classes is flawed and cannot

[1] Expert Report of Greg J. Regan, CPA/CFF, CFE, March 4, 2025, Backup Materials, and Materials listed in Appendix B ("Regan Report"), ¶ 5.

estimate economic harm on a class-wide basis. Mr. Regan's methodology erroneously applies assumptions about proposed class members' economic circumstances and behaviors that are not derived from class data and may be non-representative of proposed class members' economic circumstances and behaviors, both individually and on average. Because Mr. Regan's broad-brush assumptions obscure important heterogeneity in alleged damages across proposed class members and overstate economic harm for many proposed class members, his proposed methodology cannot identify economic harm class-wide. See Sections VI.B, VII.B, VIII.B, and X.

11. Third, correcting these two errors in Mr. Regan's damages methodology substantially decreases his "actual damages" estimates for the proposed Claim Denial, Credit Rescission, Account Freeze, and EMV Chip classes. I do not opine on the legal question of whether any damages in this matter should be trebled, but even if Mr. Regan's damages estimates for the Claim Denial and Credit Rescission classes could be trebled, the trebled amount would be substantially lower than Mr. Regan's estimates after correcting for the errors in his "actual damages" methodology. See Sections VI.C, VII.C, and VIII.C.

12. Fourth, Mr. Regan's methodology to identify members of the proposed Claim Denial, Credit Rescission, and EMV Chip classes does not explain how to fully [redacted]. In addition, for the proposed Claim Denial and EMV Chip classes, Mr. Regan fails to demonstrate that all claims denied by the Bank based solely on Indicator 1 would have been approved absent the use of Indicator 1. Further, to the extent Mr. Regan's proposed EMV Chip class includes cardholders whose card was "lost, stolen, or never received" but did not report it as such or who would not have been protected from fraud by the presence of an EMV chip, it improperly includes individuals who should be excluded from the proposed class. See Sections VI.D, VII.D, and X.

13. Fifth, Mr. Regan's proposed "actual damages" methodology for the proposed Customer Service class fails to reliably measure economic harm on a class-wide basis because I understand that Mr. Minnucci has not shown either that the industry benchmark he proposes to determine the average excess hold time is appropriate or that the data needed to identify how many times each proposed class member called BANA actually exist. See Section IX.

14. Sixth, Mr. Regan's proposed "incremental Float Revenue" calculations for the proposed Claim Denial, Credit Rescission and Account Freeze classes erroneously assume that consumers would have immediately withdrawn the full claim amount or frozen account balance if not for the claim denial, credit rescission, or account freeze. For the proposed Account Freeze class, Mr. Regan also fails to account for any decrease in BANA's float revenue that resulted from freezing proposed class members' accounts. In my opinion, it would require individual inquiry to determine what the account balance of each proposed class member would have been absent BANA's use of Indicator 1 of the Claims Fraud Filter. Therefore, Mr. Regan's methodology cannot be applied on a class-wide basis. See Sections VI.E, VII.E, and VIII.C.

IV. Background

A. Fraud and the Claims Fraud Filter

15. BANA launched the Claims Fraud Filter ("CFF") on September 28, 2020 "[redacted][2] [redacted].[3] [redacted]."[4] As of June 9, 2021, BANA discontinued using the CFF to close error claims.[5]

B. Plaintiff's Allegations and Proposed Classes

16. Plaintiffs allege "a series of unlawful policies and practices that Defendant Bank of America, N.A. (the 'Bank') implemented at the height of the Covid pandemic in 2020-2021"

[2] Bank of America's Responses and Objections to Plaintiff Yick's Fourth Set of Interrogatories, *In Re Bank of America California Unemployment Benefits Litigation*, January 2, 2024, with Exhibits ("Bank of America's Responses and Objections to Plaintiff Yick's Fourth Set of Interrogatories"), p. 8:2–3.

[3] Bank of America's Responses and Objections to Plaintiff Yick's Fourth Set of Interrogatories, p. 8:2–9.

[4] Bank of America's Responses and Objections to Plaintiff Yick's Fourth Set of Interrogatories, p. 8:14–15.

[5] Bank of America's Responses and Objections to Plaintiff Yick's Fourth Set of Interrogatories, p. 8:6–9.

related to Indicator 1 of the CFF.[6] According to Plaintiffs, "[t]hose policies and practices deprived more than [redacted] Californians of access to critical unemployment insurance ('UI') and other public benefits for which they had been approved by California's Employment Development Department ('EDD'), and which the Bank had been entrusted to distribute through Bank-issued prepaid debit cards."[7]

17. Plaintiffs "seek to represent five related classes":[8]

a. Claim Denial Class: This class consists of "[a]ll Bank of America EDD cardholders who notified the Bank that an unauthorized transaction had occurred on their Bank of America EDD debit card account ('Claim') at an automated teller machine ('ATM'), and whose Claim the Bank denied or closed at any time from September 28, 2020 through June 8, 2021, based solely on Indicator 1 of the Bank's CFF."[9]

b. Credit Rescission Class: This class consists of "[a]ll Bank of America EDD cardholders who received permanent credit from the Bank in connection with their Claim, which credit the Bank rescinded at any time from September 28, 2020 through June 8, 2021, based solely on Indicator 1 of the Bank's CFF."[10]

c. Account Freeze Class: This class consists of "[a]ll Bank of America EDD cardholders whose EDD debit card account ('Account') the Bank froze at any time from September 28, 2020 through March 18, 2021, based solely on Indicator 1 of the Bank's CFF, and whose Account the Bank (i) subsequently unfroze, or (ii) subsequently converted from frozen to blocked status on or after March 18, 2021, and then unblocked."[11]

d. Customer Service Class: This class consists of "[a]ll members of the Claim Denial Class and/or the Credit Rescission Class who telephoned the Bank's customer

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[6] Memorandum of Points and Authorities in Support of Motion for Class Certification, *In Re Bank of America California Unemployment Benefits Litigation*, August 29, 2024 ("Motion for Class Certification"), p. 1:3–5. *See also* Motion for Class Certification, p. 2:8–14.

[7] Motion for Class Certification, p. 1:6–10.

[8] Motion for Class Certification, p. 3:27.

[9] Regan Report, ¶¶ 4, 32. *See also* Motion for Class Certification, pp. 9:25–10:3.

[10] Regan Report, ¶¶ 4, 63. *See also* Motion for Class Certification, p. 10:6–18.

[11] Regan Report, ¶¶ 4, 73. *See also* Motion for Class Certification, pp. 10:21–11:20.

service phone number for Bank of America EDD cardholders at any time between September 13, 2020 and November 21, 2020, inclusive, and whose telephone call was routed to the Bank's Claims Call Center."[12]

e. EMV Chip Class: This class consists of "[a]ll members of the Claim Denial Class and/or the Credit Rescission Class whose EDD debit card did not include an EMV chip prior to June 9, 2021."[13]

C. The Remediation Plan and Associated Repayments

18. In October 2022, BANA submitted a Remediation Plan to the Consumer Financial Production Bureau and Office of the Comptroller of the Currency "[redacted]"[14] Under the Remediation Plan, BANA committed to provide "[redacted]"[15]

19. BANA noted that the [redacted]," and that the Remediation Plan was intended to "[redacted]"[16] BANA clarified that [redacted]," as it was "[redacted]"[17] Jennifer Lennon, a BANA Senior Vice President and Product Management and State Liaison, described the Remediation Plan as "[redacted]."[18]

20. To develop the Remediation Plan, BANA [redacted]

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[12] Regan Report, ¶¶ 4, 88. *See also* Motion for Class Certification, p. 12:2–26.

[13] Regan Report, ¶¶ 4, 97.

[14] Bank of America, "Unemployment Insurance Prepaid Card Program Remediation Plan," Submitted October 6, 2022 to the Office of the Comptroller of the Currency and October 12, 2022 to the Consumer Financial Protection Bureau, BANA_EDD_MDL-00102554–577 ("Remediation Plan"), p. 1.

[15] Remediation Plan, p. 2.

[16] Remediation Plan, fn 16, p. 15.

[17] Remediation Plan, p. 12.

[18] Declaration of Jennifer Lennon in Support of Defendant's Memorandum in Opposition to Plaintiffs' Motion for Class Certification, *In Re: Bank of America California Unemployment Benefits Litigation*, October 23, 2024, Appendix of Exhibits to the Declaration of Laura Brys in Support of Defendant's Opposition to Plaintiffs' Motion for Class Certification, *In Re: Bank of America California Unemployment Benefits Litigation*, October 24, 2024, Ex. ("DX") 8 ("Lennon Declaration"), ¶¶ 1, 11.

[redacted]."[19] According to the Remediation Plan, "[redacted]."[20] Nevertheless, the plan "[redacted]."[21]

21. In the Remediation Plan, [redacted]."[22] The Remediation Plan also [redacted]"[23] I understand that [redacted][24] I[redacted].[25]

V. Summary of Mr. Regan's Opinions and Damages Methodologies

22. Mr. Regan was asked to "evaluate appropriate methodologies to measure the impact on each Class of the Bank's policies and practices, as alleged by Plaintiffs."[26] Mr. Regan specifically was retained to "provide a methodology to calculate classwide damages available to

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[19] Remediation Plan, p. 5.
[20] Remediation Plan, p. 6.
[21] Remediation Plan, p. 6.
[22] Remediation Plan, p. 2.
[23] Remediation Plan, p. 2.
[24] Remediation Plan, pp. 11–12.
[25] Mr. Regan's analysis includes [redacted]. Regan Report, ¶ 35. *See* Regan Report, Schedule 1; Bank of America's Revised Second Supplemental Responses and Objections to Plaintiff Yick's First Set of Interrogatories (Interrogatories 2-6, 14-15), *In Re Bank of America California Unemployment Benefits Litigation,* December 1, 2023 ("Bank of America's Revised Second Supplemental Responses and Objections to Plaintiff Yick's First Set of Interrogatories"), p. 8:18–21; Bank of America's Revised Second Supplemental Responses and Objections to Plaintiff Yick's First Set of Interrogatories, p. 9:5–6.
[26] Regan Report, ¶ 5.

each of the… five Classes" described above in Section IV. Mr. Regan proposes damages methodologies to measure a combination of (1) "actual damages," (2) statutory damages, (3) treble damages, and (4) disgorgement. Mr. Regan opines that these damage categories can be calculated on a class-wide basis.[27]

23. For the proposed Claim Denial, Credit Rescission, Account Freeze, and EMV Chip classes, Mr. Regan defines "actual damages" as the sum of "[t]he principal amount of damages" and "consequential damages."[28]

24. Mr. Regan asserts that "the principal amount of actual damages" for the proposed Claim Denial, Credit Rescission and Account Freeze classes equals the total dollar amounts of denied claims, rescinded credit, and frozen balances respectively, thereby classifying as damages funds that were later repaid or released to proposed class members.[29] For the proposed EMV Chip class, Mr. Regan asserts that principal damages equal the sum of denied claims and rescinded credit in the proposed Claim Denial and Credit Rescission classes.[30]

25. Mr. Regan also proposes a methodology to estimate alleged "consequential damages" for the proposed Claim Denial, Credit Rescission, Account Freeze, and EMV Chip classes. The methodology is similar for all four proposed classes. Mr. Regan opines that his methodology "reflects the time value of money for impacted cardholders, or comparable measure of the economic loss to class members resulting from their inability to access their UI benefits," estimated by assessing compound interest on the principal amounts of the claims or account balances.[31] In choosing an interest rate, Mr. Regan asserts that "the benefit of having available funds, such as the balance otherwise available in an EDD Cardholder account, was that the consumer could avoid 'costly borrowing or missed payments.' "[32] Mr. Regan then defines the

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[27] Regan Report, ¶ 5.

[28] Regan Report, ¶¶ 9, 13, 17, 21.

[29] Regan Report, ¶¶ 38, 66, 78.

[30] Regan Report, ¶ 99. Mr. Regan clarifies he is not opining that these principal damages should be awarded twice: "an impacted Cardholder may have more than one claim or may belong to more than one class. This does not mean, however, that I propose the same damages multiple times for Cardholders who have more than one claim or are members of more than one proposed class. If an award is made, and depending on the nature of the award, it may be appropriate to disaggregate the damage amounts. This disaggregation is easily undertaken using the existing data in my analysis." *See* Regan Report, ¶ 6.

[31] Regan Report, ¶¶ 46, 49. Mr. Regan also describes his methodology as measuring "economic harm" in addition to "financial harm." *See* Regan Report, ¶¶ 44, 51.

[32] Regan Report, ¶ 43.

cost of borrowing as "the foundation for [his] methodology to calculate consequential damages."[33] He performs this calculation with two interest rates, each applied identically to every proposed class member: (1) 10%, which he states "is consistent with the interest rate applied to judgments in California,"[34] and (2) 20%, which is "based on [his] review of the types of credit accessed by typical consumers."[35]

26. Mr. Regan's methodology further attempts to estimate the cost of delayed benefit payments for the proposed Account Freeze class.[36] Mr. Regan performs this calculation by assuming that cardholders whose accounts were frozen for longer than 15 days would have been unable to receive deposits of additional EDD funds into their accounts and would have needed to wait until 30 days after their account was frozen to receive their next two benefit payments, without establishing that any of those cardholders continued to be eligible for benefits at all during that time. Mr. Regan assumes that proposed class members would have needed to "access alternative funds" at a cost of 20% interest, again without considering whether each class member needed to access alternative funds at all.[37] Mr. Regan applies these assumptions identically to all proposed Account Freeze class members.

27. For the proposed Claim Denial and Credit Rescission classes, Mr. Regan also estimates "treble damages." He claims that "[t]reble damages under EFTA, 15 U.S.C. §1693f(e), can be calculated on a classwide basis by simply multiplying each class member's actual damages by three."[38]

28. Mr. Regan's methodology to calculate actual damages for the proposed Customer Service class is to provide "compensation for the value of Plaintiffs' and class members' lost time spent

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[33] Regan Report, ¶ 43.

[34] Regan Report, ¶ 46.

[35] Regan Report, ¶¶ 47, 49. Mr. Regan also claims that "[t]his 20% rate is consistent with my prior experience studying unsecured consumer debt such as credit cards, and lower than APRs associated with alternative lending sources."

[36] Regan Report, ¶¶ 83–84. Mr. Regan's attempt to estimate the cost of delayed benefit payments for the proposed Account Freeze class comprised one component of his estimate of consequential damages under "Methodology 2" in his class certification report, which attempted to estimate "actual damages incurred by the Account Freeze class." Expert Class Certification Report of Greg J. Regan, CPA/CFF, CFE, August 29, 2024, Backup Materials, and Materials listed in Appendix B ("Regan Class Certification Report"), ¶ 101. "Methodology 2" was distinct from "Methodology 1," which only applied a compound interest rate to frozen balances, "reflect[ing] the time value of money for this population of cardholders." Regan Class Certification Report, ¶ 100.

[37] Regan Report, ¶¶ 83–84.

[38] Regan Report, ¶¶ 10, 14, 58, 70.

on hold with the Bank's Claims call center… that was greater than the reasonable wait-on-hold time by industry standards."[39] Mr. Regan proposes to calculate this "compensation" by multiplying an "average excess hold time" by "the applicable minimum wage"—which he assumes to be the "then-current California minimum wage"—for all proposed Customer Service class members.[40]

29. Mr. Regan claims that disgorgement of profits for the proposed Claim Denial, Credit Rescission, and Account Freeze classes equals the "incremental Float Revenue on the amounts withheld from members of the class."[41] Mr. Regan estimates those values by applying the applicable BANA Float Revenue rate to the total dollar amounts of denied claims, rescinded credit, and frozen balances respectively for the period before these amounts were reimbursed.[42] For the proposed Customer Service class, Mr. Regan claims that disgorgement of profits equals the Bank's avoided costs from "understaffing [BANA's] Claims call center."[43] For the proposed EMV Chip class, Mr. Regan claims that disgorgement of profits equals the Bank's avoided costs from "not including EMV chips in its EDD debit cards."[44]

30. Mr. Regan proposes methodologies to calculate alleged statutory damages for certain proposed classes but does not perform any calculations to estimate the alleged statutory damages. As I note in Section II, I have not been assigned to respond to these opinions.

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[39] Regan Report, ¶ 19.
[40] Regan Report, ¶¶ 91–93.
[41] Regan Report, ¶ 61. *See also* Regan Report, ¶¶ 72, 87.
[42] Regan Report, ¶¶ 61–62. *See also* Regan Report, ¶¶ 72, 87.
[43] Regan Report, ¶ 94.
[44] Regan Report, ¶ 101.

VI. Mr. Regan's Proposed Claim Denial Class Damages Methodology Is Flawed, Overstates "Actual Damages," Cannot Be Applied Class-wide, Would Award Damages to Unharmed Consumers, and Does Not Reliably Estimate BANA's Profits

A. Mr. Regan's "Principal Amount of Actual Damages" Calculation Mischaracterizes Claim Denial Amounts as Damages And Therefore Substantially Overstates Plaintiffs' Alleged Damages

31. One can calculate economic damages as the difference between actual consumer outcomes and consumer outcomes in a "but-for" hypothetical world absent the at-issue conduct.[45] As an example, a consumer who had $100 taken from them in the actual world and never received it back and would not have had the $100 taken from them in the but-for world has *lost funds* and could be said to have suffered $100 in economic damages.

32. A conceptually distinct economic damages issue arises when a consumer has not lost funds, but has rather *lost access to funds* for some period of time. For example, imagine a consumer who, in the actual world, had $100 taken from them and then returned some weeks or months later and, in the but-for world, had $100 taken and returned immediately. Such a consumer has *lost access to funds* for a period of time and could only have suffered damages relating to the lost access of the funds over that period of time.[46] The distinction is clear: the consumer who has *lost funds* does not have $100 in the actual world but does have $100 in the but-for world, and the consumer who has *lost access to funds* has $100 in both the actual and but-for worlds but received it later in the actual world than in the but-for world. To treat customers in the two situations as similarly situated is economically illogical.

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[45] Dunbar, Michael K., Elizabeth A. Evans, and Roman L. Weil, "*Ex Ante* Versus *Ex Post* Damages Calculations" in *Litigation Services Handbook, The Role of the Financial Expert*, Fifth Edition, ed. Roman L. Weil et al. (Hoboken, NJ: John Wiley & Sons, 2012), pp. 5.1–23, p. 5.1. *See, e.g.,* Buffo, Stephen L., David P. Hoffman, and Roman L. Weil, "Serving as a Financial Expert in Litigation" in *Litigation Services Handbook, The Role of the Financial Expert*, Fifth Edition, ed. Roman L. Weil et al. (Hoboken, NJ: John Wiley & Sons, 2012), pp. 2.1–16, p. 2.5. *See also, e.g.,* Evans, Elizabeth A., Joseph J. Galanti, and Daniel G. Lentz, "Developing Damages Theories and Models" in *Litigation Services Handbook, The Role of the Financial Expert*, Fifth Edition, ed. Roman L. Weil et al. (Hoboken, NJ: John Wiley & Sons, 2012), pp. 4.1–35, p. 4.29.

[46] As described in Section V above, Mr. Regan refers to these as "consequential damages." *See* Regan Report, ¶ 9. I discuss issues with Mr. Regan's "consequential damages" methodology for the proposed Claim Denial class in more detail in Section VI.B below.

Figure 1: Lost Funds vs. Lost Access to Funds in the Actual and But-For Worlds

	Actual World	But-For World	Difference
Lost Funds	-\$100	-\$100 + \$100 = \$0	-\$100
Lost Access to Funds	-\$100 + \$100 = \$0	-\$100 + \$100 = \$0	\$0

Note: In the context of both "Lost Funds" and "Lost Access to Funds," the consumer may suffer damages associated with the time value of money. I address Mr. Regan's methodology with respect to the time value of money for the proposed Claim Denial class below in Section VI.B.2.

33. Despite the clarity of that distinction, Mr. Regan treats proposed class members who have lost access to funds as though they have permanently lost the funds. In other words, his damages methodology acts as if the value of their claims were *never* returned to them. Mr. Regan defines the "principal amount of actual damages" for the proposed Claim Denial class as "the amount of each class member's claim(s) that the Bank denied based solely on Indicator 1 of its Claim Fraud Filter."[47] Those claims total [redacted].[48] While Mr. Regan acknowledges that his estimated damages "may require an offset for amounts that [redacted]" he does not explain or acknowledge that [redacted], a fact shown in Mr. Regan's Schedule 1.[49] Therefore, in actuality, proposed class members only lost access to their funds for a period of time, and Mr. Regan's characterization of these principal amounts as damages makes no economic sense. Mr. Regan provides no economic argument for why a dollar amount that was temporarily lost and then returned later represents economic harm in the amount of the dollars to which the individual regained complete access.

34. Elsewhere in his report, Mr. Regan employs the economically appropriate logic in distinguishing lost funds and lost access to funds. For the proposed Account Freeze class, Mr.

[47] Regan Report, ¶ 38.

[48] Regan Report, ¶ 39.

[49] Bank of America's Revised Second Supplemental Responses and Objections to Plaintiff Yick's First Set of Interrogatories, Revised Exhibit 1 - BANA Response to Interrogs. 2 and 6. *See also* Regan Report, Schedule 1.

Regan purports to estimate harm from the "Cost of Delayed Benefit Payments."[50] His damages calculation does not include delayed benefit payments as "principal amount[s] of actual damages" for the proposed Account Freeze class.[51] Excluding delayed benefits from principal damages is consistent with the view of damages in **Figure 1** above, recognizing that each proposed Account Freeze class member later received those benefits.[52] Mr. Regan fails to explain the inconsistency that delayed benefit payments are properly excluded from his "principal amount of actual damages" while frozen account balances (and denied claim amounts) are erroneously included.

35. In my opinion, Mr. Regan's "principal amount of actual damages" is a misnomer because there are no economic damages arising from the principal amounts of the denied claims that later were fully returned. Given that claim denial amounts have been returned, the only potential damages from any delay in paying those claims would be damages associated with the loss of access to those funds, which I address in the next section.

B. Mr. Regan's Consequential Damages Interest Rate Calculations Are Methodologically Flawed, Cannot Be Applied Class-wide, and Overstate Economic Damages

36. In his "consequential damages" calculations, Mr. Regan attempts to approximate the economic harm from lost access to funds.[53] Mr. Regan opines that the appropriate methodology reflects "the time value of money for impacted cardholders, or comparable measure of the economic loss to class members resulting from their inability to access their UI benefits."[54] He

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[50] Regan Report, Section IV.B.2.b. As described above in Section V, Mr. Regan analyzes the "cost of Delayed Benefits" as a component of "consequential damages," which is distinct from his calculation of "the principal amount of actual damages."

[51] Mr. Regan's calculation does attempt to value damages from lost access to funds. I discuss his methodology below in Section VIII.B.

[52] Regan Report, ¶¶ 83–84.

[53] Regan Report, ¶ 9.

[54] Regan Report, ¶ 46. In his class certification report, Mr. Regan also opined that "consequential damages" should include certain fees he claims proposed class members would likely have incurred. *See* Regan Class Certification Report, ¶ 8. In his March 4th report, Mr. Regan merely claims that "[t]his methodology to calculate consequential damages is conservative because it excludes other obvious financial harms experienced by EDD Cardholders attributable to the Bank's denial of their claims. For instance, due to the unexpected unavailability of their funds, EDD cardholders would likely have incurred late or overdraft fees." Regan Report, ¶ 9. I reserve the right to supplement my opinions with respect to additional forms of "consequential damages" if asserted by Mr. Regan or Plaintiffs.

estimates consequential damages by assessing compound interest on the principal amounts of the claims over time.[55]

37. Mr. Regan proffers two interest rates for those calculations. One is a 10% rate, which he claims "is consistent with the interest rate applied to judgments in California."[56] I offer no legal opinion on whether 10% or any other statutory rate is appropriate in this matter, although I do employ that rate for illustrative purposes in some calculations below.

38. Mr. Regan also proffers a second interest rate of 20% that, he suggests, "include[s] the cost of increased borrowing, reduced consumption, or the inability to pay down existing debt such as credit card debt. This is because impacted cardholders would have needed to mitigate the unexpected inability to access their funds otherwise available in their Bank-controlled EDD accounts."[57] Mr. Regan opines that he "determined the second interest rate based on [his] review of the types of credit accessed by typical consumers."[58]

39. As a methodological matter, Mr. Regan does not explain why he equates the "time value of money" with a borrowing cost, in this case a hypothetical credit card interest rate that he assumes proposed class members might face regardless of whether they held a credit card and without evidence that they would borrow 100% of the denied claim amount.[59] The time value of money is a well-established concept in economics and finance, capturing the financial concept that "a dollar in hand today is worth more than a dollar promised at some time in the future."[60] Studies note that a risk-free interest rate can be an appropriate benchmark for the time value of money.[61]

40. The time value of money would apply to consumers whether or not they held credit cards, whether they faced credit card interest rates of 0% or 20%, whether or not they might fund

[55] Regan Report, ¶ 44.

[56] Regan Report, ¶ 46.

[57] Regan Report, ¶ 46.

[58] Regan Report, ¶ 47.

[59] Regan Report, ¶¶ 46, 49.

[60] Ross, Stephen A., Randolph W. Westerfield, and Bradford D. Jordan, *Fundamentals of Corporate Finance,* Sixth Edition (New York, NY: McGraw-Hill/Irwin, 2003), p. 129.

[61] Espinoza, R. David, "Separating Project Risk From the Time Value of Money: A Step Toward Integration of Risk Management and Valuation of Infrastructure Investments," *International Journal of Project Management* 32, no. 6, 2014, pp. 1056–1072, p. 1056 ("The time value of money is represented by the risk-free rate and compensates investors for parking their money in a secure investment that yields a known amount over a period of time.").

unanticipated expenses from savings, whether or not they would reduce consumption facing a financial shortfall, and so on. Market credit card interest rates such as the ones employed by Mr. Regan would, on the other hand, reflect lenders' time value of money, as well as possible premia for default risk, inflation, and other factors unrelated to the time value of money for proposed class members.[62]

41. Mr. Regan's methodology includes additional flaws beyond the conceptual problem of equating any single borrowing cost to the time value of money. In justifying the 20% interest rate that he applies to all proposed class members, Mr. Regan fails to analyze the types of credit accessed specifically by the proposed class or any individual proposed class member during the proposed class period. Rather, his methodology erroneously applies assumptions about proposed class members' economic circumstances and behaviors that are not derived from class data and may be non-representative of proposed class members' economic circumstances and behaviors, both individually and on average.[63]

42. As I describe below, proposed class members' individual circumstances would generate diversity in whether or not proposed class members accessed substitute funds by borrowing on credit cards due to the Bank's alleged misconduct, and Mr. Regan's methodology would overstate economic harm for proposed class members who could have accessed substitute funds without borrowing. Further, Mr. Regan's assumed 20% interest rate also obscures heterogeneity in economic harm and overstates economic harm for many proposed class members because many consumers who did borrow could have faced lower interest rates than those assumed in Mr. Regan's methodology.

[62] DeFusco, Richard A., et al., "The Time Value of Money" in *Quantitative Investment Analysis*, Fourth Edition (Hoboken, NJ: John Wiley & Sons, 2020), pp. 1–43, p. 38 ("An interest rate can be viewed as the sum of the real risk-free interest rate and a set of premiums that compensate lenders for risk: an inflation premium, a default risk premium, a liquidity premium, and a maturity premium.").

[63] Regan attempts to justify his use of average values for various inputs by claiming that [redacted] *See* Regan Report, ¶ 57. [redacted]." *See* Remediation Plan, p. 12.

43. Because Mr. Regan's broad-brush assumptions obscure important heterogeneity in alleged damages across proposed class members and overstate economic harm for many proposed class members, his proposed methodology cannot identify economic harm class-wide.

1. The Economic Circumstances of Proposed Class Members and Any Potential Economic Impact of Claim Denials Would be Highly Individualized

44. Mr. Regan's assertions regarding proposed class members' likely economic circumstances, which frame his economic assumptions underlying his "consequential damages" methodology, obscure what would be considerable heterogeneity in the proposed class on each dimension he discusses. That heterogeneity would exist in terms of consumer wages, available savings consumers could have accessed during their claim denial, and claim denial amounts relative to those figures.

45. First, in discussing proposed class members' likely economic circumstances, Mr. Regan opines that "consumers who lost their jobs during the pandemic and received unemployment insurance tended to earn less than the median wage."[64] Mr. Regan does not document that the characteristics of proposed Claim Denial class members would match the characteristics of consumers more broadly who "lost their jobs during the pandemic and received unemployment insurance," in terms of whether they would have "tended to earn less than the median wage."[65]

46. To the contrary, proposed class members who received EDD benefits in California likely would have come from different places in the wage distribution and included both unemployed and underemployed consumers.[66] For example, proposed class member [redacted] had [redacted] payroll deposits [redacted] into his EDD account through the end of the class period.[67]

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[64] Regan Report, ¶ 42.

[65] Regan Report, ¶ 42.

[66] Sarah Bohn, Marisol Cuellar Mejia, and Julien Lafortune, "Unemployment Benefits in the COVID-19 Pandemic," *Public Policy Institute of California*, April 9, 2020, https://www.ppic.org/blog/unemployment-benefits-in-the-covid-19-pandemic/. *See also* "Eligibility Requirements," *State of California Employment Development Department,* https://edd.ca.gov/ui_eligibility/, accessed October 21, 2024 ("When applying for unemployment benefits, you must … [b]e totally or partially unemployed."). BANA's expert Justin McCrary opines that "increased unemployment, and the introduction of PUA, led to greater UI coverage amongst unemployed and underemployed workers. … As a result of these programs, the UI recipient population incorporated new types of individuals (such as business owners) who could have increased financial resources compared to the typical benefit recipients." *See* Expert Report of Professor Justin McCrary, Ph.D., April 4, 2025 ("McCrary Report"), ¶¶ 28–29.

[67] BANA_EDD_MDL-00694814; Regan Report, Schedule 1.

By contrast, proposed class member [redacted] largely had [redacted] payroll deposits of [redacted] into his EDD account through the end of the class period.[68] Beyond that class-specific evidence, people who submitted unemployment claims to the EDD during the proposed class period spanned 20 distinct industry sectors, ranging from construction to finance and insurance.[69] Evidence from the Federal Reserve of New York's Consumer Expectations Survey ("SCE") indicates that 42% of respondents who indicated that they were "[n]ot working, but would like to work" or "[t]emporarily laid off" during September 2020–June 2021 were categorized as earning household incomes of greater than $50,000 a year at the time.[70] Some millionaires collected unemployment benefits in 2020.[71]

47. Evidence from the class illustrates this heterogeneity. Some proposed class members were full-time students working part-time, while others were business owners. For example, prior to receiving unemployment benefits, Azuri Moon was "[redacted]"[72] By contrast, Stephanie Moore [redacted].[73] Still

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[68] BANA_EDD_MDL-00694814; Regan Report, Schedule 1. Luis Perez had an initial payroll deposit of [redacted] on [redacted] and a payroll deposit of [redacted] BANA_EDD_MDL-00694814.

[69] *See* "California Unemployment Industry & Demographics Data Dashboard," *State of California Employment Development Department*, September 2024, https://edd.ca.gov/siteassets/files/newsroom/facts-and-stats/excel/ada-county-and-statewide-demographics--industry-data-9-21-24.xlsx.

[70] *See* "Center for Microeconomic Data: Survey of Consumer Expectations," *Federal Reserve Bank of New York*, 2020–2023, https://www.newyorkfed.org/microeconomics/sce#/. Of the 281 respondents to the survey during this period who indicated they were "[n]ot working, but would like to work" or "[t]emporarily laid off," 119 respondents reported household incomes of greater than $50,000 at some point in the period. Responses are weighted by the Federal Reserve to reflect differences between the survey sample and the general population.

[71] Brian Faler, "Unemployment Assistance to Millionaires Soared During Pandemic," *Politico*, November 22, 2022, https://www.politico.com/news/2022/11/22/unemployment-assistance-millionaires-covid-pandemic-2020-00070446.

[72] Plaintiff Azuri Moon's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories, *In Re Bank of America California Unemployment Benefits Litigation,* January 29, 2024 ("Plaintiff Azuri Moon's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories"), p. 6:24–26.

[73] Plaintiff Stephanie Moore's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories, *In Re Bank of America California Unemployment Benefits Litigation,* January 29, 2024, p. 6:24–27.

other class members were [redacted], while others were [redacted].[74]

48. Second, proposed class members would not uniformly have been "less likely to have available savings,"[75] as asserted by Mr. Regan. Rather, each would have had varying levels of savings based on their individual circumstances. One study by the Federal Reserve finds considerable variation across households in the amount they have saved in "liquid savings," or readily accessible cash to use for unanticipated expenses: roughly 60% of households have one month of recurring expenses saved, 40% have three months, and other households have nine or twelve months' worth of savings.[76] The Federal Reserve study notes that "quasi-liquid" savings balances may be greater.[77] Another study observes that households' median weekly checking account balance varies substantially.[78] Based on his analysis of data from the Survey of Income and Program Participation ("SIPP"), Dr. McCrary finds that "over half of the sample (56%) had positive net liquid household wealth prior to receiving UI, meaning most households who received UI had some form of savings they could use to fund, or partially fund, a temporary delay of UI funds."[79]

49. Beyond this heterogeneity, studies find that during the proposed class period many consumers' liquid assets increased substantively: "Household asset holdings and overall wealth

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[74] Alex Yuan worked as a [redacted] before he began receiving unemployment benefits. *See* Plaintiff Alex Yuan's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories, *In Re Bank of America California Unemployment Benefits Litigation,* January 29, 2024 ("Plaintiff Alex Yuan's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories"), p. 6:24–28. Candace Koole was [redacted]y. *See* Plaintiff Candace Koole's Objections and *Supplemental* Responses to Bank of America, N.A.'s First Set of Interrogatories, *In Re Bank of America California Unemployment Benefits Litigation,* January 29, 2024 ("Plaintiff Candace Koole's Objections and Supplemental Responses to Bank of America, N.A.'s First Set of Interrogatories"), pp. 6:25–26, 20:16–17. Vanessa Rivera worked as a [redacted]. *See* Plaintiff Vanessa Rivera Objections and Supplemental Responses to Bank of America, N.A.'s First Set of Interrogatories, *In Re Bank of America California Unemployment Benefits Litigation,* January 29, 2024 ("Plaintiff Vanessa Rivera's Objections and Supplemental Responses to Bank of America, N.A.'s First Set of Interrogatories"), p. 9:3–6.

[75] Regan Report, ¶ 42.

[76] Neil Bhutta, and Lisa Dettling, "Money in the Bank? Assessing Families' Liquid Savings using the Survey of Consumer Finances," *FEDS Notes*, November 19, 2018, https://www.federalreserve.gov/econres/notes/feds-notes/assessing-families-liquid-savings-using-the-survey-of-consumer-finances-20181119.html ("Bhutta and Dettling (2018)").

[77] Bhutta and Dettling (2018). "Quasi-liquid" savings are savings that "can be accessed if needed, but there may be limitations, penalties, or taxes that have to be paid." Examples of "quasi-liquid" accounts include "account-type retirement plans (401k or IRA), certificates of deposit or savings bonds, or cash-value life insurance accounts." Bhutta and Dettling (2018).

[78] Fiona Greig, Erica Deadman, and Tanya Sonthalia, "Household Cash Balance Pulse: Family Edition," *JPMorgan Chase Institute*, November 2021, https://www.jpmorganchase.com/institute/all-topics/financial-health-wealth-creation/household-cash-balance-pulse-families ("Greig, Deadman, and Sonthalia (2021)").

[79] McCrary Report, ¶ 102.

expanded rapidly in the two years following the onset of the pandemic recession."[80] Overall, household savings rates increased substantially during the class period.[81] Other household expenses fell for many households as mortgage, credit card, auto, and student loan lenders engaged in forbearance—temporarily delaying some monthly expenses.[82] Data from the U.S. Census Bureau's Household Pulse Survey indicate that many respondent households at the end of January 2021 who received Unemployment Insurance benefits used their COVID-19 stimulus payment to primarily pay off debt (61%) or primarily increase their savings (16%), consistent with the idea that these households were covering their living expenses with other sources of income.[83] Dr. McCrary explains that Federal government supplements to UI benefits represented an increase of between 67% and 1,500% and that proposed class members may have received thousands of additional dollars in the form of other Federal stimulus payments.[84] For lower-income consumers, these pandemic-era unemployment benefits and other stimulus payments may have increased unemployed consumers' income relative to their pre-unemployment wages,

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[80] Hamza Abdelrahman, Luiz E. Oliveira, and Adam Hale Shapiro, "The Rise and Fall of Pandemic Excess Wealth," *FRBSF Economic Letter 2024-06,* February 26, 2024, https://www.frbsf.org/wp-content/uploads/el2024-06.pdf.

[81] "Personal Saving Rate," *Federal Reserve Bank of St. Louis, FRED Economic Data*, https://fred.stlouisfed.org/graph/?g=FhxV#, accessed September 27, 2024.

[82] Rajashri Chakrabarti, et al., "Who Received Forbearance Relief?" *Federal Reserve Bank of New York Liberty Street Economics*, August 2, 2021, https://libertystreeteconomics.newyorkfed.org/2021/08/who-received-forbearance-relief ("Forbearance on debt repayment was a key provision of the CARES Act, legislation intended to combat the widespread economic losses stemming from the COVID-19 pandemic. This pause on required payments for federally guaranteed mortgages and student loans has provided temporary relief to those affected by the COVID-19 pandemic, and servicers of nonfederal loans often provided forbearances or other relief on request as well. … Across all markets, households that lost income and thus faced financial hardship were more likely to receive forbearance relief than other households."); Daniel Sexton, "An In-Depth Look at Mortgage Forbearance Data," *Federal Reserve Bank of Atlanta*, February 22, 2021, https://www.atlantafed.org/blogs/macroblog/2021/02/22/in-depth-look-at-mortgage-forbearance-data ("Looking at the ZIP code-level map makes it plain that lower-income areas of most major cities have estimated [mortgage] forbearance rates substantially greater than rates in higher-income areas."); "The Consumer Credit Card Market," *Bureau of Consumer Financial Protection,* September 2021, https://files.consumerfinance.gov/f/documents/cfpb_consumer-credit-card-market-report_2021.pdf ("CFPB (2021)") ("Large numbers of consumers benefitted from issuers' relief programs in 2020. Bureau data indicate that approximately 25 million consumer credit card accounts entered relief programs in 2020… Payment-deferral programs were the major driver of the robust increase in relief, though fee reversals and waivers or interest rate reductions were also more common in 2020… The scale of this relief and the speed with which it was deployed therefore likely represented substantial benefits to the consumers who received it, allowing them to redeploy their limited and, likely in many cases, interrupted or diminished flow of income and other incoming funds towards other urgent needs… accounts held by consumers with lower scores received payment deferrals at the highest rates of any credit score tier – nearly one-in-six subprime and deep subprime accounts received a payment deferral, compared to roughly one in-ten among near-prime, one-in-twenty among prime, and just one-in-one-hundred among superprime accounts.").

[83] *See* "Household Pulse Survey Public Use File: January 20 – February 1, 2021," *U.S. Census Bureau*, https://www2.census.gov/programs-surveys/demo/datasets/hhp/2021/wk23/HPS_Week23_PUF_CSV.zip, accessed October 7, 2024. Of the 26,025,891 respondents to the Census Bureau who indicated they received Unemployment Insurance benefits, 15,791,884 respondents mostly used their payment to pay down debt, and 4,211,705 respondents mostly used their payment to increase savings. Responses are weighted by the Census Bureau to reflect differences between the survey sample and the general population.

[84] McCrary Report, ¶¶ 28–34.

potentially leading to increased savings among this population.[85] All of these factors suggest that savings would have varied for individuals in the proposed class.

50. Evidence of this is found in literature cited by Mr. Regan. For example, he claims that "the Federal Reserve's data indicat[e] that lower income consumers increased credit card spending following the onset of the pandemic."[86] However, that study clarifies that this effect did not begin until "the second quarter of 2021," and excess savings continued to increase until August 2021.[87] Prior to March 2021, the Federal Reserve study states that savings increased:

> During the COVID-19 pandemic, consumers reduced their spending due to mobility restrictions, while at the same time their income increased with the help of government stimulus checks and debt forgiveness on obligations such as rent and student loans.
>
> As a result, consumers in all income cohorts accumulated excess savings in their bank accounts relative to their pre-pandemic levels.[88]

51. In fact, Plaintiffs themselves exhibit varying levels of access to liquid funds based on their own personal and household savings. For example, around the time he submitted a claim, Azuri Moon had "[redacted]."[89] Other plaintiffs had more liquid funds available.[90] For example, Roland Oosthuizen had [redacted]

[85] Sarah Bohn, Marisol Cuellar Mejia, and Julien Lafortune, "Unemployment Benefits in the COVID-19 Pandemic," *Public Policy Institute of California*, April 9, 2020, https://www.ppic.org/blog/unemployment-benefits-in-the-covid-19-pandemic/.

[86] Regan Report, ¶ 47.

[87] Joanna Stavins, "Credit Card Spending and Borrowing Since the Start of the Covid-19 Pandemic," *Federal Reserve Bank of Boston*, October 19, 2023, https://www.bostonfed.org/publications/current-policy-perspectives/2023/credit-card-spending-and-borrowing-since-the-start-of-the-covid-19-pandemic.aspx ("Stavins (2023)"), pp. 2–3.

[88] Stavins (2023), p. 3.

[89] Plaintiff Azuri Moon's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories, p. 30:4–6.

[90] I understand that, outside of plaintiff discovery responses, BANA does not have access to data on checking accounts, savings accounts, or other forms of liquid funds held outside of BANA, such as those held at other financial institutions or outside of any financial institution.

[redacted].[91] Michael Willrich and Alex Yuan [redacted].[92] Similar variation would apply to the consumers in the proposed Claim Denial class more broadly based on different levels of savings and need. The amount of liquid funds available to each proposed class member at the time of the claim denial would be highly individualized and would affect the likelihood of borrowing on a credit card. As a result, Mr. Regan's claim that the "the applicable APR for impacted cardholders would have exceeded 20%" is flawed and unsupported.[93]

52. Mr. Regan also fails to compare, or provide a methodology for comparing, liquid funds to claim denial amounts, which also would have varied among the proposed class members. Consumers' varying levels of savings and claim amounts would generate heterogeneity in how claims affected their borrowing. As an example, one consumer with a $500 claim denial and $5,000 in their checking account could spend out of their available funds without borrowing on a credit card. Another with a similar $500 claim and $300 in savings might have to borrow and could risk missing a payment—but a third with the same $300 in savings and a $200 claim would not. These three consumers could have different economic harms associated with the denial of their claims, but one would need to know not just how their individualized claims varied, but how those claims compared to their individualized available liquid funds and other economic circumstances. Mr. Regan's methodology neither measures such heterogeneity nor provides a methodology for measuring such heterogeneity, but rather assumes that *all* proposed class members needed to borrow their full claim denial amount. This applies even for a claim denial amount as small as $50.00 or less, which could be covered by the majority of savings levels documented in the literature I discuss above.[94]

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[91] Plaintiff Roland Oosthuizen's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories, *In Re Bank of America California Unemployment Benefits Litigation,* January 29, 2024 ("Plaintiff Roland Oosthuizen's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories"), p. 26:1–6.

[92] Plaintiff J. Michael Willrich's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories, *In Re Bank of America California Unemployment Benefits Litigation,* January 29, 2024 ("Plaintiff J. Michael Willrich's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories"), p. 33:15–16; Plaintiff Alex Yuan's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories, p. 29:24–25.

[93] Regan Report, ¶ 49.

[94] *See* Bhutta and Dettling (2018); Greig, Deadman, and Sonthalia (2021). Mr. Regan includes claim denial amounts as small as $2 and over 500 denied claims with amounts of $50 or less in his analysis. *See* Regan Report, Schedule 1.

53. All of this heterogeneity in economic circumstances is crucial to understand, as it would generate similar diversity in whether or not proposed class members accessed substitute funds by borrowing on credit cards due to the Bank's alleged misconduct. As I show in the next section, diversity in how proposed class members accessed substitute funds would be substantial and require individual inquiry to understand. I also discuss how Mr. Regan's assumptions would overstate the cost of obtaining substitute funds.

2. Proposed Class Members' "Cost of the Inability to Access Funds" Would be Highly Individualized and are Overstated for Many Consumers Under Mr. Regan's Methodology

54. Mr. Regan estimates consequential damages for the proposed Claim Denial class as the "cost of the inability to access funds."[95] For a given consumer, the "cost of the inability to access funds" depends on two factors: the source(s) of funds, and the associated interest cost of each source. As I describe above in Section V, Mr. Regan's approach generalizes on both counts: it considers one specific source of funds (credit cards) for all proposed class members, and it assumes a uniform interest cost for that source of funds for all consumers. Both generalizations are inappropriate, and Mr. Regan fails to explain how such an approach could measure economic harm on a class-wide basis.

55. It is well-established in the academic literature in household finance that costs of obtaining substitute funds are highly individualized—both because consumers borrow using different sources of funds and because consumers face varying interest rates for borrowing, even within the same broad "source" of funds such as credit cards.[96] That finding also applies to costs associated with unanticipated expenses or liquidity, in particular.[97] Mr. Regan's assumptions fail to capture that heterogeneity and do not represent an applicable class-wide methodology for calculating "consequential damages" associated with obtaining substitute funds.

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[95] Regan Report, Section II.B.2.a.

[96] Zinman, Jonathan, "Household Debt: Facts, Puzzles, Theories, and Policies," *Annual Review of Economics* 7, no. 2, 2015, pp. 251–276, p. 260. *See* "Economic Well-Being of U.S. Households in 2021," *Board of Governors of the Federal Reserve System*, May 2022, https://www.federalreserve.gov/publications/files/2021-report-economic-well-being-us-households-202205.pdf ("Federal Reserve (2021)"); Stavins, Joanna, "Unprepared for Financial Shocks: Emergency Savings and Credit Card Debt," *Contemporary Economic Policy* 39, no. 1, 2021, pp. 59–82 ("Stavins (2021)"), pp. 59–60.

[97] Stavins (2021), p. 75.

56. As a starting point, consumers can fund unanticipated expenses (or analogously, fund expected expenses following an unanticipated drop in income) from a variety of sources other than credit cards. They can use available cash or other liquid assets such as money market account funds and personal or household savings, as discussed above. They can also borrow from friends/family, cut back on spending, use a bank loan or line of credit, or turn to other sources of short-term borrowing.[98] Each of these specific sources of funds can have a different interest rate, and even within a category (such as loans), interest rates differ across consumers. A given customer may even have multiple credit cards, each with a different applicable interest rate.[99] Mr. Regan concedes in his report that credit card rates vary across consumers.[100]

57. Notably, the most liquid funds—checking, cash and the like—will have lower or zero account interest rates.[101] A consumer who funds unanticipated expenses out of zero-interest funds would incur zero "consequential damages" associated with interest costs.

58. Accepted research finds considerable diversity in how consumers would fund such expenses.[102] Some consumers indicate they could fund unanticipated expenses entirely from zero-interest sources, even amounting to three or six months' worth of total household expenses, meaning that their "consequential damages" would be zero.[103] A 2022 survey noted that more than half of consumers (57%) could fund an unanticipated expense of $1,000 or more out of savings.[104] Other consumers indicate they would use different sources of funds, or multiple sources in varying combinations. One study shows that in 2021, 68% of consumers state that

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98 Federal Reserve (2021); Stavins (2021), p. 62.

99 Gathergood, John, et al., "How Do Individuals Repay Their Debt? The Balance-Matching Heuristic," *American Economic Review* 109, no. 3, 2019, pp. 844–875, pp. 844–845.

100 Regan Report, ¶ 49. One study finds that "many individuals actually hold cards with very different APRs." Stango, Victor, and Jonathan Zinman, "Borrowing High vs. Borrowing Higher: Sources and Consequences of Dispersion in Individual Borrowing Costs," *National Bureau of Economic Research Working Paper*, no. 19069, 2013, pp. 1–53, p. 21.

101 Stango, Victor, and Jonathan Zinman, "What Do Consumers Really Pay on Their Checking and Credit Card Accounts? Explicit, Implicit, and Avoidable Costs," *American Economic Review: Papers & Proceedings* 99, no. 2, 2009, pp. 424–429, p. 424 ("Many consumers pay checking account fees per month that are zero or close to zero and forgo little interest by holding bank account balances.").

102 This research is consistent with Dr. McCrary's analysis of data for UI recipient respondents to the Federal Reserve Survey of Household Economics and Decisionmaking ("SHED"), which finds that "over 60% of respondents indicate they would rely on only checking/savings accounts or cash, borrowing from friends and family, credit card borrowing paid off in full at the next statement, or some combination thereof." *See* McCrary Report, Section VI.B.1., ¶ 90.

103 Bhutta and Dettling (2018).

104 "Economic Well-Being of U.S. Households in 2022," *Board of Governors of the Federal Reserve System*, May 2023, https://www.federalreserve.gov/publications/files/2022-report-economic-well-being-us-households-202305.pdf ("Federal Reserve (2022)").

they would meet an unanticipated $400 expense by using "cash or its equivalent"—which has a zero interest cost.[105] Of the remainder, 14% of consumers would use credit cards.[106] Another 2017 study found that for an unanticipated $2,000 expense, consumers reported using funds from cash (19%), checking (38%), or savings (34%) more than reported using a credit card (18%) to meet those expenses.[107]

59. Another study expands the scope beyond focusing on cash as the only ready source of liquidity, observing "considering cash savings alone as a source of financial resiliency leads to an unnecessarily pessimistic view of financial resilience and how many households are living paycheck-to-paycheck. For example, households that contribute to a retirement plan and have an established rainy-day fund may comfortably spend most of their income every month and still be very resilient to emergency expenses."[108] Using that framework, that study finds that 92% of households can cover a $400 expense, with the significant majority of those funds (87%) coming from cash and disposable income. The study also finds significant heterogeneity, with those shares varying by the amount of the expense and income level.[109] In the lowest income quartile, approximately 72% of households can weather a $400 expense and approximately 29% can weather a $1,600 expense using a combination of cash, disposable income, and credit cards they pay off before incurring interest.[110]

60. To give an example illustrating how this would affect the "cost of the inability to access funds," suppose two proposed class members each required $900 in substitute funds, and that each similarly would borrow at a 21% credit card rate. A consumer who could cover the $900 out of savings would pay a 0% interest rate. A consumer who could cover $600 would pay interest on only one third of the amount, for an "effective interest rate" of 7% on the expenses

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[105] Federal Reserve (2021).

[106] Mr. Regan opines that consumers "may have turned to other alternative sources such as… payday lenders," with "APRs substantially in excess of 20%," but in a study by the Federal Reserve 1% of consumers reported turning to such options for an unanticipated expense. Regan Report, fn 59; Federal Reserve (2022). Those data contradict Mr. Regan's claim that such sources of funds are "alternative lending sources." Regan Report, ¶ 49.

[107] Stavins (2021), p. 62.

[108] Chris Wheat, Erica Deadman, and Daniel M. Sullivan, "How Vulnerable Are Americans to Unexpected Expenses?" *JPMorgan Chase Institute,* July 30, 2024, https://www.jpmorganchase.com/institute/all-topics/financial-health-wealth-creation/how-vulnerable-are-americans-to-unexpected-expenses ("Wheat, Deadman, and Sullivan (2024)").

[109] Wheat, Deadman, and Sullivan (2024).

[110] Wheat, Deadman, and Sullivan (2024).

covered. Other values would of course generate different effective interest rates—even among consumers who carried credit cards with identical contract APRs. Heterogeneity in those contract APRs would further individualize proposed class members' "cost of the inability to access funds." Mr. Regan does not account for any of these factors and instead applies a blanket 20% cost of funds for every individual in the proposed class.[111]

61. Evidence from the class is consistent with such heterogeneity in costs associated with obtaining substitute funds. Some class members obtained funds from [redacted] For example, Lindsay McClure [redacted].[112] Similarly, Vanessa Rivera [redacted].[113] Azuri Moon [redacted][114] Other class members [redacted]. For example, Roland Oosthuizen [redacted].[115] Michael Willrich and Alex Yuan [redacted].[116] Candace Koole [redacted].[117]

62. Alternatively, some proposed class members [redacted] For example, Michael Willrich [redacted]

[111] Regan Report, ¶ 49.

[112] Plaintiff Lindsay McClure's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories, *In Re Bank of America California Unemployment Benefits Litigation,* January 29, 2024 ("Plaintiff Lindsay McClure's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories"), p. 29:12–16.

[113] Plaintiff Vanessa Rivera's Objections and Supplemental Responses to Bank of America, N.A.'s First Set of Interrogatories, p. 37:2–4.

[114] Plaintiff Azuri Moon's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories, p. 30:25.

[115] Plaintiff Roland Oosthuizen's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories, p. 26:2–6.

[116] Plaintiff J. Michael Willrich's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories, p. 33:15–16; Plaintiff Alex Yuan's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories, p. 29:24–25.

[117] Plaintiff Candace Koole's Objections and Supplemental Responses to Bank of America, N.A.'s First Set of Interrogatories, p. 32:18–22.

[redacted].[118] Mr. Regan's methodology does not measure the impact of cutting back on such expenses.

63. Even for households that do use credit cards to fund expenses, one study notes credit card interest costs could be below the 20% figure assumed by Mr. Regan, because consumers can repay their debt quickly enough to avoid interest charges before falling out of the card's "grace period" for repayment: "households can access a portion of their future disposable income by tapping any available credit on their open and current credit cards. If the household has enough disposable income to pay the amount back within one month, then this short-term use of credit does not incur any interest charges."[119] Research shows that during the proposed class period, fewer than half of credit card accounts "revolved" or incurred interest charges, while the remainder did not incur interest charges.[120] One study notes that in the two lowest income brackets it surveyed in 2021, fewer than half of households had credit card balances that incurred interest charges.[121]

64. Evidence from the proposed class indicates that many proposed class members could have been situated similarly to consumers in such studies. If a claim was denied and subsequently paid within a single credit card billing period, the cardholder may not have incurred any interest on the claim denial amount. A review of claim data shows that [redacted] claims in the proposed Claim Denial class, [redacted] of the total, had a claim denial period of less than [redacted].[122] Mr. Regan does not consider this, as his methodology assumes prospective class members would have incurred credit card interest on some portion of their denied claims even when there was only a *single day* between when the claim was denied and paid out to the consumer. This is not a hypothetical, as several claims in his analysis have a 1-day delay over which Mr. Regan assesses damages. For example:

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[118] Plaintiff J. Michael Willrich's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories, p. 33:13–15.

[119] Wheat, Deadman, and Sullivan (2024).

[120] "Credit Cards: Pandemic Assistance Likely Helped Reduce Balances, and Credit Terms Varied among Demographic Groups," *United States Government Accountability Office, Report to Congressional Committees*, September 2023, https://www.gao.gov/assets/d23105269.pdf.

[121] Federal Reserve (2022).

[122] See Regan Report, Schedule 1.

a. [redacted]

65. Mr. Regan assumes the above cardholders incurred "consequential damages" on their claims.[123] Based on my review, [redacted].[124] Mr. Regan's assumptions about "consequential damages" experienced by proposed class members are inconsistent with the stated experiences of their representatives.

66. All of this diversity in available savings, claim amounts, and access to credit cards and other sources of funds would generate considerable variation in costs "resulting from [proposed class members'] inability to access their UI benefits."[125] A consumer who funded unanticipated claim denial expenses out of their own checking account or household savings would have zero

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[123] Regan Report, Schedule 1.

[124] *See,* e.g., Plaintiff Kuang Ting Chong's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories, *In Re Bank of America California Unemployment Benefits Litigation*, January 29, 2024; Plaintiff Candace Koole's Objections and Supplemental Responses to Bank of America, N.A.'s First Set of Interrogatories; Plaintiff Lindsay McClure's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories; Plaintiff Roland Oosthuizen's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories; Plaintiff Vanessa Rivera's Objections and Supplemental Responses to Bank of America, N.A.'s First Set of Interrogatories; Plaintiff J. Michael Willrich's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories; Plaintiff Alex Yuan's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories; Plaintiff Azuri Moon's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories.

[125] Regan Report, ¶ 9.

costs "resulting from their inability to access their UI benefits." A consumer who funded 70% of expenses out of zero-interest funds and borrowed the remainder from a family member might have higher costs, albeit lower than in Mr. Regan's methodology. A consumer whose income was supplemented by other forms of public assistance could have lower or zero costs. Some consumers may have obtained alternative funds using credit cards but not incurred interest charges to do so because they paid their bills in full or they were still in their grace periods when they regained access to their funds (i.e., before their credit card payments became due). Understanding which consumers actually incurred interest, and at the 20% rate assumed by Mr. Regan, would require individual inquiry given all of the variation that would exist in available savings, other liquid assets, claim amounts, and costs of debt from various sources.

67. Mr. Regan opines that his methodology is "similar" to "[redacted]."[126] However, his assertion does not bear on the issues I discuss here. BANA's Remediation Plan was [redacted].[127] As described in the plan, the "[redacted]."[128] The plan also acknowledges that [redacted]"[129] The plan recognizes that [redacted]"[130] And the plan specifically allows [redacted]

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126 Regan Report, ¶ 57.

127 Remediation Plan, p. 12; Lennon Declaration, ¶ 11.

128 Remediation Plan, p. 12. [redacted] *See* Remediation Plan, p. 5.

129 Remediation Plan, p. 7.

130 Remediation Plan, pp. 7–8.

[redacted]"[131] Mr. Regan's methodology does not capture these individualized components of each cardholder's experience. To measure economic harm to members of the proposed class, individualized inquiry is necessary.

68. Furthermore, Mr. Regan's methodology does not just obscure variation in costs "to class members resulting from their inability to access their UI benefits," it also overstates such costs (if any) for many proposed class members.[132] It will necessarily overstate costs for consumers who do not borrow at all or who do not borrow at rates as high as those assumed by Mr. Regan. It will overstate costs for proposed class members who cover substitute expenses out of zero-interest funds such as personal or household savings. It will overstate costs for consumers who cut back on certain non-essential expenses. It will overstate costs for proposed class members who can obtain funds from friends and family. It will overstate costs for consumers who can repay credit card debt before incurring an interest charge. And so on.

69. Additionally, data from the remediation process indicate that few affected consumers claimed additional harm beyond their direct compensation payments.[133] The Remediation Plan [redacted]"[134] As of October 21, 2024, [redacted].[135] [redacted],

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[131] Remediation Plan, p. 8.

[132] Regan Report, ¶¶ 9, 46.

[133] Regan Report, ¶ 57 [redacted].

[134] Remediation Plan, p. 8.

[135] Lennon Declaration, ¶¶ 14–15.

[redacted][136]

70. Mr. Regan acknowledges aspects of this heterogeneity in his report, then fails to incorporate it into his calculations.[137] For example, he acknowledges that credit card APRs differ across consumers yet applies a 20% APR identically to all proposed class members.[138] As such, Mr. Regan, by his own admission, does not capture the "costs of the inability to access funds" for proposed class members. In my opinion, individualized inquiry would be necessary to measure actual economic harms to consumers, given the demonstrated heterogeneity discussed in this section.

C. Correcting Errors in Mr. Regan's Methodology Substantially Reduces Estimated Damages

71. In Sections VI.A–B, I describe a number of errors in Mr. Regan's damages methodology related to his inclusion of refunded claim denial amounts as "damages," and his use of a 20% interest rate to measure the "economic loss to class members resulting from their inability to access their UI benefits."[139] In this section, I demonstrate that correcting these errors in Mr. Regan's damages methodology substantially reduces estimated damages.

72. As I described in Section VI.A, Mr. Regan's damages methodology fails to accurately define actual damages as the difference between what happened in the actual world and what happened in the but-for world. As a result, Mr. Regan's damages methodology mischaracterizes completely refunded claim denial amounts as damages. I correct for this error by excluding claim denial amounts, what Mr. Regan terms the "principal amount of actual damages," from his damages estimation.[140] As I described in Section VI.B, Mr. Regan has not shown that the 20%

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[136] Lennon Declaration, ¶ 16. I understand this process is ongoing and reserve the right to update my analysis if new data become available.

[137] *See*, e.g., Regan Report, fn 59. Regan lists alternatives to credit card borrowing, though he only discusses more expensive alternatives to credit card borrowing. He does not acknowledge the less expensive alternatives described in the literature and the documentary record of this matter I discuss herein.

[138] Regan Report, ¶¶ 48–50.

[139] Regan Report, ¶¶ 9, 46, 47, 49.

[140] Regan Report, ¶ 38.

interest rate based on increased credit card utilization used in his "consequential damages" analysis applies to all or even most of the proposed class members.

73. **Figure 2** below shows that correcting these two errors substantially decreases Mr. Regan's "actual damages" estimates for the proposed Claim Denial class relative to the $[redacted] he calculates using a 20% interest rate.[141] For illustrative purposes, I recalculate Mr. Regan's damages estimates using both the 10% rate he claims "is consistent with the interest rate applied to judgments in California" [142] and a risk-free rate representing the time value of money.[143] As I mention in Section VI.B, I offer no legal opinion on whether 10% or any other statutory rate is appropriate in this matter. Excluding Mr. Regan's "principal amount of actual damages" results in recalculated class-wide damages of $8.1 million using a 10% California statutory rate and $0.7 million using the risk-free rate. Even if alleged damages for the proposed Claim Denial class were to be trebled, recalculated aggregate damages would be $24.3 million using a 10% rate and $2.0 million using the risk-free rate, substantially lower than Mr. Regan's estimates.

74. **Figure 2** also recalculates total damages across the Claim Denial, Credit Rescission, and Account Freeze classes after netting out direct compensation payments that BANA made pursuant to the Remediation Plan.[144] Mr. Regan acknowledges that his damages estimates "require an offset for amounts that [BANA] has paid or presently expects to pay pursuant to the Remediation Plan."[145] I compute these figures by first recalculating damages across the Claim Denial, Credit Rescission, and Account Freeze classes and aggregating these damages at the cardholder level. See Sections VII and VIII for details on the recalculated estimated damages for the proposed Credit Rescission and Account Freeze classes. I then subtract Remediation Plan payments for corresponding cardholders, with the restriction that if the payments received by a

[141] Regan Report, ¶ 50.

[142] Regan Report, ¶ 46.

[143] I measure the risk-free rate as the market yield on U.S. Treasury securities at 3-month constant maturity. This is an accepted choice for the risk-free rate. *See* Sarno, Lucio, and Daniel L. Thornton, "The Dynamic Relationship between the Federal Funds Rate and the Treasury Bill Rate: An Empirical Investigation," *Journal of Banking and Finance* 27, no. 6, 2003, pp. 1079–1110, pp. 1079–1080.

[144] Remediation Plan payments reflected in Bank of America's Revised Second Supplemental Responses and Objections to Plaintiff Yick's First Set of Interrogatories, Revised Exhibit 4 - BANA Response to Interrogs. 14 and 15 (Direct Comp) [redacted]

[145] Regan Report, fn 60.

cardholder under the Remediation Plan are greater than that cardholder's consequential damages, damages are set to [redacted] (i.e., damages cannot be negative). Netting out Remediation Plan payments results in recalculated aggregate damages of [redacted] using a 10% rate and [redacted] using the risk-free rate. For over [redacted] of proposed class members, there are no remaining damages after accounting for Remediation Plan payments. Even if Claim Denial and Credit Rescission damages were to be trebled first, recalculated aggregate damages would be [redacted], respectively, after netting out Remediation Plan payments.

Figure 2: Recalculated Regan Report Damages ($ million) by Proposed Class with Offsetting Remediation Plan Payments

	10%		Risk-Free Rate	
Proposed Class	**Damages**	**Treble Damages**	**Damages**	**Treble Damages**
Claim Denial	[redacted]	[redacted]	[redacted]	[redacted]
Credit Rescission	[redacted]	[redacted]	[redacted]	[redacted]
Account Freeze	[redacted]	[redacted]	[redacted]	[redacted]
Total Damages	[redacted]	[redacted]	[redacted]	[redacted]
Offsetting Remediation Plan Payments	[redacted]	[redacted]	[redacted]	[redacted]
Total Damages with Offsetting Remediation Plan Payments	[redacted]	[redacted]	[redacted]	[redacted]
Percentage of Cardholders Where Remediation Plan Payments Completely Offset Damages	[redacted]	[redacted]	[redacted]	[redacted]

Source: Regan Report, Schedule 1; Bank of America's Revised Second Supplemental Responses and Objections to Plaintiff Yick's First Set of Interrogatories, Revised Exhibit 4 - BANA Response to Interrogs. 14 and 15 (Direct Comp); *FRED*

Note: The risk-free rate is determined by the market yield on U.S. Treasury securities at 3-month constant maturity, quoted at a daily frequency. If a rate is not available for a given day, the previous rate is used. Remediation Plan payments are calculated by summing the "[redacted]" variables in Revised Exhibit 4. Offsetting Remediation Plan Payments are calculated as the minimum of Remediation Plan payments and total Claim Denial, Credit Rescission, and Account Freeze damages for each cardholder. I understand that trebling may also be performed after netting out Remediation Plan payments instead of before. I am not able to identify which Remediation Plan payments correspond to Mr. Regan's alleged damages in each proposed class, but I can calculate a range based on different assumptions. If Remediation Plan payments were netted out before trebling, aggregate treble damages for all three proposed classes would be [redacted] using 10% and [redacted] using the risk-free rate. According to Regan Report Schedule 1, there are [redacted] in the proposed Credit Rescission class that may not have been paid. These claims have a total principal amount of [redacted]. I reserve the right to update my analysis if new data become available reflecting that all or some of those [redacted] have been paid.

D. The Proposed Claim Denial Class Methodology Does Not Distinguish Between Harmed and Unharmed Consumers

75. Mr. Regan describes the proposed Claim Denial class as consisting of all EDD cardholders who made a fraud claim which BANA "closed or denied at any time between September 28, 2020 and June 8, 2021" based on its use of Indicator 1 of the fraud filter.[146] He acknowledges that certain individuals ("Excluded Cardholders") are excluded from the proposed class, [redacted].[147] However, Mr. Regan's methodology to identify members of the proposed Claim Denial class does not explain how to fully [redacted]

76. For example, according to the Remediation Plan, [redacted][148] and BANA's responses to Plaintiff's interrogatories [redacted].[149] BANA's Remediation Plan explains that [redacted] and to [redacted],

[146] Regan Report, ¶ 32. Plaintiffs cite this definition to define the proposed Claim Denial class in their motion for class certification. *See* Motion for Class Certification, p. 9:25–28.

[147] Regan Report, ¶ 32 ("Excluded from the class is any person whom the Bank has determined, pursuant to its Remediation Plan under the CFPB Consent Order, '(i) has been disqualified by the state from Program eligibility; (ii) has previously engaged in fraudulent Program conduct, such as submission of fraudulent claims or other abuses of the claims process; or (iii) has had their card frozen due to legal order processes, as a result of Internal/Vendor fraud investigations, or by Global Financial Crimes Compliance' (collectively, 'Excluded Cardholders').")

[148] Remediation Plan, p. 4.

[149] Bank of America's Second Set of Responses and Objections to Plaintiff Yick's Seventh Set of Interrogatories (Interrogs. 39 & 42), *In Re Bank of America California Unemployment Benefits Litigation*, April 23, 2024, 8:18–10:18.

[redacted][150] Identifying any [redacted] would require individual inquiry, and Mr. Regan cannot assume that each of these auto-paid claims would have been paid in a but-for world in which they were reviewed in the manner proposed by Plaintiffs' other experts.[151]

77. Based on the opinions of BANA's expert Carl Pry and testimony from BANA's witness William Martin, I understand [redacted]. Mr. Pry states that [redacted]er."[152] William Martin, BANA's Senior Vice President of Fraud Operations and a Prepaid Fraud Operations Executive, testified that, [redacted].[153] However, Mr. Martin noted that [redacted]."[154] As with the proposed class member claims that were [redacted], Mr. Regan cannot assume that each of these claims paid after a manual review would have been paid in a but-for world in which they were reviewed in the manner proposed by Plaintiffs' other experts.

78. Furthermore, Mr. Regan fails to demonstrate that all claims denied by the Bank based solely on Indicator 1 would have been approved absent the use of Indicator 1, meaning that the Bank's use of Indicator 1 may not have represented a change in how those claims were treated.

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150 Remediation Plan, fn 16.

151 I understand that BANA's expert Carl Pry has opined that "[redacted] *See* Expert Rebuttal Report of Carl Pry, April 4, 2025 ("Pry Report"), ¶ 50.

152 Pry Report, ¶ 51.

153 Declaration of William Martin in Support of Defendant's Memorandum in Opposition to Plaintiffs' Motion for Class Certification, *In Re: Bank of America California Unemployment Benefits Litigation*, October 23, 2024 (DX 7, "Martin Declaration"), ¶ 12. I understand this process is ongoing and reserve the right to update my analysis if new data become available.

154 Martin Declaration, ¶ 14.

As with the fraudsters described above, these proposed class members would have had their claims denied in both the actual and the but-for worlds. For example, plaintiff Jennifer Meza [redacted].[155] If transactions such as Plaintiff Meza's would also have not been paid under an alternative investigation process, their treatment under Indicator 1 would not represent economic harm as a result of the Bank's alleged misconduct. Identifying how any denied claim would have been treated under a different investigation process would require individual inquiry, and Mr. Regan does not address this issue.

79. By ignoring these factors, Mr. Regan's methodology for identifying proposed class members does not clearly distinguish individuals who were harmed by the Bank's alleged misconduct from those who were unharmed, rendering it an unreliable methodology for isolating the harm from the alleged misconduct on a class-wide basis.

E. The Claim Denial Disgorgement Methodology Does Not Reliably Estimate BANA's Profits

80. Mr. Regan defines [redacted]" and opines that "[redacted][156] He uses "the Bank's records to [redacted]."[157]

81. Mr. Regan's proposed "incremental Float Revenue" calculation erroneously assumes that [redacted] At most, [redacted]

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155 Deposition of Jennifer Meza, April 30, 2024, p. 294:20–25.

156 Regan Report, ¶ 61 ("The Bank referred to [redacted]. The Bank generated [redacted]

157 Regan Report, ¶ 62.

[redacted].[158] However, as shown by data in Schedule 1 of the Regan Report, [redacted].[159] In my opinion, it would require individual inquiry to determine what the account balance of each proposed class member would have been absent BANA's use of Indicator 1 of the Claims Fraud Filter. Therefore, Mr. Regan's methodology cannot be applied on a class-wide basis. Even on an individual level, Mr. Regan's methodology would require some basis for making assumptions about each individual's likely behavior that could only be obtained from those individuals, not from any information available to BANA.

VII. Mr. Regan's Proposed Credit Rescission Class Methodology Is Flawed, Cannot Be Applied Class-wide, Overstates "Actual Damages," Would Award Damages to Unharmed Consumers, and Does Not Reliably Estimate BANA's Profits

A. Mr. Regan's "Principal Amount of Actual Damages" Calculation Mischaracterizes Rescinded Credit Amounts as Damages and Therefore Substantially Overstates Plaintiffs' Alleged Damages

82. As with the proposed Claim Denial class, Mr. Regan treats proposed Credit Rescission class members who have lost access to funds as though they have lost the funds. The critiques of his methodology for calculating the alleged "principal amount of actual damages" for the proposed Claim Denial class described in Section VI.A apply equally here.

83. Mr. Regan defines the "principal amount of actual damages" for the proposed Credit Rescission class as "the amount of the class members' claim credit that the Bank rescinded based solely on Indicator 1 of its Claim Fraud Filter."[160] That credit totals [redacted][161] While Mr. Regan acknowledges that his estimated damages [redacted]," he does not explain that

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[158] According to the cardholder agreement, funds were credited back on to the cardholder's EDD account if BANA determined that a transaction was unauthorized. *See* "California Employment Development Department Debit Card Account Agreement," *Bank of America*, March 1, 2018, p. 9 ("We will determine whether an error occurred within 10 business days after we hear from you—and will correct any error promptly. If we need more time, however, we may take up to 45 days to investigate your complaint or question. If we decide to do this, we will credit your Account within 10 business days for the amount you think is in error, so that you will have the money during the time it takes us to complete our investigation.").

[159] *See* Regan Report, Schedule 1.

[160] Regan Report, ¶ 66.

[161] Regan Report, ¶ 67.

BANA has already paid almost [redacted] back to consumers.[162] Therefore, in actuality, [redacted]. Mr. Regan's characterization of these principal amounts as damages makes no economic sense, and Mr. Regan provides no economic argument for why a dollar amount that was temporarily lost and then returned later represents economic harm in the amount of the dollars to which the individual regained complete access.

B. Mr. Regan's Consequential Damages Interest Rate Calculations Are Methodologically Flawed, Cannot Be Applied Class-wide, and Overstate Economic Damages

84. For the proposed Credit Rescission class, Mr. Regan applies a "consequential damages" methodology similar to that for the proposed Claim Denial class.[163] Accordingly, the critiques of his methodology for calculating alleged "consequential damages" for the proposed Claim Denial class described in Section VI.B apply equally here. First, proposed class members' individual circumstances would generate diversity in whether or not proposed class members accessed substitute funds by borrowing on credit cards due to the Bank's alleged misconduct, and Mr. Regan's methodology would overstate economic harm for proposed class members who could have accessed substitute funds without borrowing. Second, Mr. Regan's assumed 20% interest rate also obscures heterogeneity in economic harm and overstates economic harm for many proposed class members because many consumers who did borrow could have faced lower interest rates than those assumed in Mr. Regan's methodology. Mr. Regan does not engage with any of these issues and fails to provide a methodology that can reliably measure damages on a class-wide basis.

[162] Regan Report, fn 60. Bank of America's Revised Second Supplemental Responses and Objections to Plaintiff Yick's First Set of Interrogatories, Revised Exhibit 1 - BANA Response to Interrogs. 2 and 6. *See also* Regan Report, Schedule 1. According to Regan Report Schedule 1, there are 126 claims in the proposed Credit Rescission class that may not have been paid. These claims have a total principal amount of $0.2 million.

[163] Regan Report, ¶ 69 ("For the same reasons as the Claim Denial class members, the members of the Credit Rescission class would have incurred additional damages beyond the principal amounts themselves resulting from the inability to access their UI funds. Accordingly, I have applied the same methodology as described in § II.B.2.a) to calculate the cost of the inability to access impacted funds for the Credit Rescission class.").

C. Correcting for the Errors in Mr. Regan's Methodology Substantially Reduces Estimated Damages

85. In Sections VII.A–B, I explain that the errors in Mr. Regan's damages methodology for the proposed Claim Denial class described in Sections VI.A–B also extend to his damages methodology for the proposed Credit Rescission class. These errors are related to his inclusion of refunded rescinded credit amounts as "damages," and his use of a 20% interest rate to measure the "economic loss to class members resulting from their inability to access their UI benefits."[164] In this section, I demonstrate that correcting these errors in Mr. Regan's damages methodology substantially reduces estimated damages.

86. As shown in **Figure 2** above, applying these two corrections substantially decreases Mr. Regan's "actual damages" estimates for the proposed Credit Rescission class relative to the [redacted] he calculates using a 20% interest rate.[165] Excluding Mr. Regan's "principal amount of actual damages" results in recalculated class-wide damages of [redacted] using a 10% California statutory rate and [redacted] using the risk-free rate. Even if damages for the proposed Claim Denial class were to be trebled, recalculated aggregate damages would be [redacted] using a 10% rate and [redacted] using the risk-free rate, substantially lower than Mr. Regan's estimates.

D. The Proposed Credit Rescission Class Damages Methodology Does Not Distinguish Between Harmed and Unharmed Consumers

87. Mr. Regan describes the proposed Credit Rescission class as consisting of "[a]ll Bank of America EDD cardholders who received permanent credit from the Bank in connection with their Claim, which credit the Bank rescinded at any time from September 28, 2020 through June 8, 2021, based solely on Indicator 1 of the Bank's CFF."[166] As with the proposed Claims Denial class, Mr. Regan's methodology to identify members of the proposed Credit Rescission class

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164 Regan Report, ¶¶ 9, 13, 46, 47, 49, 69.
165 Regan Report, ¶ 69.
166 Regan Report, ¶ 4. *See also* Motion for Class Certification, p. 10:6–18.

does not explain how to exclude [redacted] that were paid under BANA's Remediation Plan. See Section VI.D.

E. The Credit Rescission Disgorgement Methodology Does Not Reliably Estimate BANA's Profits

88. Mr. Regan applies the same methodology for calculating alleged "disgorgement of profits" for the proposed Claim Denial class to the proposed Credit Rescission class.[167] Accordingly, the critiques of his methodology for calculating alleged "disgorgement" for the proposed Claim Denial class described in Section VI.E apply equally here.

VIII. Mr. Regan's Proposed Account Freeze Class Methodology Is Flawed, Cannot Be Applied Class-wide, Overstates "Actual Damages," Would Award Damages to Unharmed Consumers, and Does Not Reliably Estimate BANA's Profits

A. Mr. Regan's "Principal Amount of Actual Damages" Calculation Mischaracterizes Frozen Account Balances as Damages and Therefore Substantially Overstates Plaintiffs' Alleged Damages

89. As with the proposed Claim Denial class, Mr. Regan treats proposed Account Freeze class members who have lost access to funds as though they have lost the funds. The critiques of his methodology for calculating the alleged "principal amount of actual damages" for the proposed Claim Denial class described in Section VI.A apply equally here.

90. [redacted][168] [redacted].[169] Mr. Regan does not explain that proposed class members have already [redacted][170] Therefore, in actuality, proposed class members only lost access to their funds for a period of time. Mr. Regan's characterization

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[167] Regan Report, ¶ 72.

[168] Regan Report, ¶ 78.

[169] Regan Report, ¶ 79.

[170] Bank of America's Revised Second Supplemental Responses and Objections to Plaintiff Yick's First Set of Interrogatories, Revised Exhibit 1 - BANA Response to Interrogs. 2 and 6. *See also* Regan Report, Schedule 1.

of these principal amounts as damages makes no economic sense, and Mr. Regan provides no economic argument for why a dollar amount that was temporarily lost and then returned later represents economic harm in the amount of the dollars to which the individual regained complete access.

B. Mr. Regan's Consequential Damages Interest Rate Calculations Are Methodologically Flawed, Cannot Be Applied Class-wide, and Overstate Economic Damages

91. For the proposed Account Freeze class, Mr. Regan applies a "consequential damages" methodology similar to that for the proposed Claim Denial class.[171] Accordingly, the critiques of his methodology for calculating alleged "consequential damages" for the proposed Claim Denial class described in Section VI.B apply equally here. First, proposed class members' individual circumstances would generate diversity in whether or not proposed class members accessed substitute funds by borrowing on credit cards due to the Bank's alleged misconduct, and Mr. Regan's methodology would overstate economic harm for proposed class members who could have accessed substitute funds without borrowing. Second, Mr. Regan's assumed 20% interest rate also obscures heterogeneity in economic harm and overstates economic harm for many proposed class members because many consumers who did borrow could have faced lower interest rates than those assumed in Mr. Regan's methodology. Mr. Regan does not engage with any of these issues and fails to provide a methodology that can reliably measure damages on a class-wide basis.

92. Beyond those issues, for the proposed Account Freeze class, Mr. Regan also estimates the "Cost of Delayed Benefit Payments."[172] He opines that "[i]f a cardholder's account [redacted]"[173] Instead, according to Mr. Regan, [redacted]

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[171] Regan Report, ¶ 80 ("For the same reasons as the Claim Denial class members (see § II.B), the members of the Account Freeze class would likely have incurred additional damages beyond the principal amounts themselves resulting from their inability to access their UI funds. Accordingly, to measure the Account Freeze class's consequential damages, I have also applied a compound interest rate to the balance of frozen funds that reflects the time value of money for this population of cardholders. This is the same methodology described in § [II.B.2.a)] above.").

[172] Regan Report, Section IV.B.2.b.

[173] Regan Report, ¶ 83.

[redacted]."[174] Mr. Regan asserts that he can calculate [redacted] as a function of "[redacted],"[175] as well as the 20% APR he assumes based on his estimate of the "cost of the inability to access funds,"[176] but he does not have the necessary data to do so.

93. As an initial matter, Mr. Regan's assumed 20% interest rate obscures heterogeneity in economic harm and overstates economic harm for many proposed class members because many consumers who did borrow could have faced lower interest rates than those assumed in Mr. Regan's methodology, as described in my critique of his methodology for calculating alleged "consequential damages" for the proposed Claim Denial class in Section VI.C.

94. Beyond that, Mr. Regan's methodology for this class does not explain how to determine the "length of the delayed receipt" for any proposed class member. Mr. Regan "illustrate[s]" his calculation with a "[redacted] which includes [redacted].[177] Mr. Regan is silent on how he plans to calculate, on a class-wide basis, [redacted]. In my opinion, making such a determination would require individual inquiry, and Mr. Regan could not perform this calculation on a class-wide basis.

C. Correcting for the Errors in Mr. Regan's Methodology Substantially Reduces Estimated Damages

95. In Sections VIII.A–B, I explain that the errors in Mr. Regan's damages methodology for the proposed Claim Denial class described in Sections VI.A–B also extend to his damages methodology for the proposed Account Freeze class. These errors are related to his inclusion of

[174] Regan Report, ¶ 83.

[175] Regan Report, ¶ 84.

[176] Regan Report, fn 119, ¶¶ 40, 49.

[177] Regan Report, fn 140, ¶ 106. Mr. Regan's delayed benefit payment calculation also implicitly assumes that the proposed class member remained eligible for benefits for 30 days after their account was frozen, although he does not acknowledge or support this assumption.

unfrozen account balances as "damages," and his use of a 20% interest rate to measure the "economic loss to class members resulting from their inability to access their UI benefits."[178] In this section, I demonstrate that correcting these errors in Mr. Regan's damages methodology substantially reduces estimated damages.

96. As shown in **Figure 2** above, applying these two corrections substantially decreases Mr. Regan's "actual damages" estimates for the proposed Account Freeze class relative to the [redacted] he calculates using a 20% interest rate.[179] Excluding Mr. Regan's "principal amount of actual damages" results in recalculated class-wide damages of [redacted] using a 10% California statutory rate and [redacted] using the risk-free rate.

D. The Account Freeze Disgorgement Methodology Does Not Reliably Estimate BANA's Profits

97. Mr. Regan applies the same methodology for calculating alleged "disgorgement of profits" for the proposed Claim Denial class to the proposed Account Freeze class.[180] Accordingly, the critiques of his methodology for calculating alleged "disgorgement" for the proposed Claim Denial class described in Section VI.E apply equally here.

98. For the proposed Account Freeze class, Mr. Regan also fails to account for any decrease in [redacted] He opines that "[i]f a cardholder's account [redacted]."[181] Instead, according to Mr. Regan, [redacted]. Mr. Regan does not account for this decrease in float revenue in his disgorgement methodology for the proposed Account Freeze class.

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178 Regan Report, ¶¶ 9, 17, 46, 47, 49, 80.
179 Regan Report, ¶ 85.
180 Regan Report, ¶ 87.
181 Regan Report, ¶ 83.
182 Regan Report, ¶ 83.

IX. Mr. Regan's Damages Methodology for the Proposed Customer Service Class Ignores Important Consumer Heterogeneity and Fails to Propose a Damages Methodology that Reliably Measures Economic Harm on a Class-Wide Basis

99. Mr. Regan's proposed "actual damages" methodology for the proposed Customer Service class involves multiplying the alleged average excess hold time of "approximately [redacted] per call" (based on analysis by Plaintiffs' call center expert Mr. Jay Minnucci) by the number of times each proposed class member called BANA (for which Mr. Regan assumes data exist, also based on the opinion of Mr. Minnucci) and the "then-current California minimum wage."[183] This methodology fails to reliably measure economic harm on a class-wide basis because I understand that Mr. Minnucci has not shown either that the industry benchmark he proposes to determine the average excess hold time is appropriate or that the data needed to identify how many times each proposed class member called BANA actually exist.

100. I understand that BANA's expert Mr. Hindle has opined that "Mr. Minnucci has not shown that his industry benchmark properly reflects the [Average Speed to Answer] experienced by other call centers comparable to Bank of America's Claims call center during the Proposed Class Period."[184] To the extent that Mr. Minnucci's industry benchmark is inappropriate, the average excess hold time of "approximately [redacted] per call" that he determines and that Mr. Regan relies upon fails to reliably measure economic harm on a class-wide basis.

101. I further understand from counsel and Mr. Hindle that BANA did not retain records of which cardholders are associated with which calls during the class period.[185] This means that Mr. Regan also cannot identify the number of times each proposed class member called BANA.

102. Mr. Regan's proposed "actual damages" methodology for the proposed Customer Service class assumes that one could value proposed Customer Service class members' "lost time" using "the then-current California minimum wage" applied identically to all proposed class members.[186] Such an assumption does not constitute a reliable methodology for measuring economic harm either on a class-wide basis or for any individual members. Not only would the

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183 Regan Report, ¶¶ 92–93.

184 Expert Declaration of Stephen Hindle, October 24, 2024 ("Hindle Declaration"), ¶ 20.

185 Hindle Declaration, ¶ 18.

186 Regan Report, ¶ 93.

value of alleged "lost time" vary among individuals in the proposed class, it is not apparent that "the then-current California minimum wage" is a valid measure for any of them, since that would require evidence that they could or would have earned that wage but-for the alleged excess hold time.[187]

X. Mr. Regan's Proposed EMV Chip Class Damages Methodology Does Not Distinguish Harmed from Unharmed Consumers, Ignores Important Consumer Heterogeneity That Would Require Individual Inquiry, Overstates Damages for Many Consumers, and Does Not Reliably Estimate Profits

103. Mr. Regan's "actual damages" methodology for the proposed EMV Chip class is identical to his methodology for the proposed Claim Denial and Credit Rescission classes with an extended period for "consequential damages."[188] First, to identify members of the proposed EMV Chip Class, Mr. Regan was "asked to assume that the EMV Chip class consists of all members of the Claim Denial class and all members of the Credit Rescission class."[189] Next, Mr. Regan estimates "actual damages" for the proposed EMV Chip Class as the sum of "[t]he principal amount of damages" and "[c]onsequential damages,"[190] and he defines "[t]he principal amount of damages" the exact same way as he does for the proposed Claim Denial class: "the amount of the class member's claim that the Bank denied based solely on Indicator 1 of its Claim Fraud Filter."[191] Finally, as with the proposed Credit Rescission class, Mr. Regan claims that

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[187] *See* Section VI.A.

[188] Mr. Regan estimates "consequential damages" for the proposed Claim Denial and Credit Rescission classes for the period "from the application of the CFF … to the paid date." *See* Regan Report, ¶¶ 45, 68. Mr. Regan estimates "consequential damages" for the proposed EMV Chip class for the period "from the date the Bank opened the claim until the date the Bank finally reimbursed the class member for the value of the claim." *See* Regan Report, ¶ 99.

[189] Regan Report, ¶ 98.

[190] Regan Report, ¶ 99.

[191] Regan Report, ¶¶ 21, 99. Mr. Regan says that he has "been asked to assume that EMV chips would have prevented the unauthorized ATM withdrawals that were the subject of Claim Denial and Credit Rescission class members' claims that triggered the Bank's CFF Indicator 1." *See* Regan Report, ¶ 97. I am not opining on whether this assumption is accurate. However, to the extent this assumption is inaccurate, the methodology Mr. Regan describes in Section VI of his report would not measure harm attributable to the alleged misconduct. Furthermore, even though Mr. Regan only assumes that the unauthorized ATM withdrawals would have been prevented by EMV chips, he also includes amounts from unauthorized point-of-sale transactions in his "principal amount of damages" for the proposed EMV Chip class. Mr. Regan does not explain how these unauthorized point-of-sale transactions are relevant to the alleged misconduct.

"[c]onsequential damages can be calculated using the same two [sic] methodology described above with respect to the Claim Denial class."[192]

104. Therefore, Mr. Regan's methodology for the proposed EMV Chip class is subject to the same critiques described above in Sections VI and VII.

105. In addition, Mr. Regan's proposed EMV Chip class, consisting of "all members of the Claim Denial class and all members of the Credit Rescission class," may improperly include individuals who were not harmed.[193] He notes that the proposed "EMV Chip class definition may be modified to exclude EDD cardholders who reported at the time of submitting their unauthorized-transaction claim that their card was lost, stolen, or never received."[194] Indeed, he claims that "such individuals can be identified from [BANA's] records and excluded from [his] damages calculations," with those exclusions having "no impact" on his proposed damages methodology.[195] However, he fails to mention EDD cardholders whose card was "lost, stolen, or never received" but *did not report it as such*. These cardholders would not be easily identified and excluded. I understand that BANA's expert Pamela Joseph has opined that EMV chips would also not have prevented other types of fraudulent transactions, including (but not limited to) "[redacted]."[196] To the extent Mr. Regan's proposed EMV Chip Class consists of cardholders whose cards were lost, stolen, or never received but failed to report it or who would not have been protected from fraud by the presence of an EMV chip, it improperly includes individuals who should be excluded from the proposed class.

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192 Regan Report, ¶ 99.
193 Regan Report, ¶ 98.
194 Regan Report, fn 11.
195 Regan Report, fn 11.
196 Declaration of Pamela Joseph, October 24, 2024, ¶¶ 15, 87.

Executed this 4th day of April, 2025

Victor Stango

Appendix A

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FIELDS

Household finance, behavioral economics, banking.

CURRENT AND PAST FULL-TIME POSITIONS

- Professor, UC Davis Graduate School of Management, Davis California USA August 2017-present
- Associate Professor, UC Davis Graduate School of Management, Davis California USA August 2008-July 2016
- Associate Professor, Tuck School of Business, Hanover New Hampshire USA August 2004-July 2008
- Economist/Senior Economist, Federal Reserve Bank of Chicago, Chicago Illinois USA August 2001- July 2004
- Assistant Professor, University of Tennessee, Knoxville Tennessee USA August 1996- July 2001

JOURNAL PUBLICATIONS

1. "We are all behavioral, more or less: A taxonomy of consumer decision making" (with Jon Zinman), *The Review of Economic Studies* 90:3, May 2023: 1470–1498.

2. "Borrowing High vs. Borrowing Higher: Price Dispersion and Shopping Behavior in the US Credit Card Market" (with Jon Zinman), *Review of Financial Studies* 29:4, 2016: 979-1006.

3. "Limited and Varying Consumer Attention: Evidence from Shocks to the Salience of Overdraft Fees" (with Jon Zinman), *Review of Financial Studies* 27:4, 2014: 990-1030.

4. "Celebrity Endorsements, Reputation Risk and Firm Value: Evidence from the Tiger Woods Scandal" (with Chris Knittel). *Management Science* 60(1), 2014: 21-37.

5. "Fuzzy Math, Disclosure Regulation and Credit Market Outcomes: Evidence from Truth in Lending Reform" (with Jon Zinman), *Review of Financial Studies* 24(2), 2011: 506-534.

6. "Strategic Incompatibility in ATM Markets" (with Chris Knittel), *Journal of Banking and Finance* 35(10), October 2011: 2627- 2636.

7. "Some New Evidence on Competition in Payday Lending Markets," *Contemporary Economic Policy*, March 2011.

8. "Exponential Growth Bias and Household Finance" (with Jon Zinman), *Journal of Finance* 64(6), December 2009: 2807-2849.

9. "How Does Incompatibility Affect Prices? Evidence from ATMs" (with Chris Knittel), *Journal of Industrial Economics* LVII (3), September 2009: 557-582.

10. "What Do Consumers Really Pay on Their Checking and Credit Card Accounts? Explicit, Implicit and Avoidable Costs" (with Jon Zinman), *American Economic Review Papers and Proceedings* 99 (2), May 2009: 424-429.

11. "Incompatibility, Product Attributes and Consumer Welfare: Evidence from ATMs" (with Chris Knittel), *BE Journal of Economic Analysis and Policy* 8(1) (Advances), 2008.

12. "The Causes of Bargaining Failure: Evidence from Major League Baseball" (with Amy Farmer and Paul Pecorino), *Journal of Law and Economics* XLVII(2), October 2004: 543-568.

13. "Ask Prices, Offers and Time-to-Sale in an Online Exchange" (with Amy Farmer), *Economic Inquiry* 42(1), January 2004: 14-28.

14. "The Economics of Standards Wars," *Review of Network Economics* 3(1), March 2004:1-19.

15. "Price Ceilings, Focal Points, and Tacit Collusion: Evidence from Credit Cards" (with Chris Knittel), *American Economic Review* 93(5), December 2003: 1703-1729.

16. "Strategic Responses to Regulatory Threat in the Credit Card Market," *Journal of Law and Economics* XLVI (2), October 2003: 427-452.

17. "Pricing with Consumer Switching Costs: Evidence from the Credit Card Market," *Journal of Industrial Economics* 50(4), December 2002: 475-492.

18. "Competition and Pricing in the Credit Card Market," *Review of Economics and Statistics* 82(3), August 2000: 499-508.

19. "Environmental Regulation as an Entry Barrier for Small Manufacturing Establishments: A Longitudinal Examination," *Journal of Environmental Economics and Management* 40, 2000: 56-75. (with Tom Dean and Robert Brown).

20. "Ranking Graduate Programs by Graduate Publications," *Economic Inquiry* 38(2), April 2000, 358-367. (with Jeffery T. Collins and Richard G. Cox).

21. "The Tax Reform Act of 1986 and the Composition of Consumer Debt," *National Tax Journal* LII (4), December 1999, 717-739.

OTHER PUBLICATIONS

22. "Debit or Credit: How People Choose to Pay" (with Jon Zinman), Research Monograph, Filene Institute, November 2008.

23. "The Economics and Strategy of Standards and Standardization" (with Shane Greenstein), in Scott Shane (ed.), *Handbook of Technology and Innovation Management*: Blackwell, Oxford, UK 2008.

24. "Outsource or Die," Research Monograph, Filene Institute, August 2007.

25. "Credit Cards," (with Julian Wright), *New Palgrave Dictionary of Economics*: MacMillan, Hampshire, UK, 2007.

26. *Standards and Public Policy* (ed., with Shane Greenstein), Cambridge Press, 2006.

27. "Outsourcing, Firm Size and Product Complexity," (with Yukako Ono), *Federal Reserve Bank of Chicago Economic Perspectives*, 1st Quarter 2005: 2-11.

28. "Emerging Payment Standards and Public Policy," (with Tom Ciesielski and Carrie Jankowski), Federal Reserve Bank of Chicago *Annual Report*, 2004.

29. "The Economics of Standards: Public Policy and Market Performance" (with Carrie Jankowski), Federal Reserve Bank of Chicago *Fed Letter*, August 2004.

EDUCATION

UC Davis (1996), Ph.D. in Economics.
University of Pennsylvania (1991), B.A. in Economics and Political Science.

GRANTS AND AWARDS

Michigan Retirement Research Center (MRRC) Grant "Behavioral Factors and Long-Run Financial Well-Being," 2016-2017.
Pension Research Council/TIAA Institute Grant "Behavioral Factors and Long-Run Financial Well-Being," 2016-2017.
Russell Sage Foundation Grant "Behavioral Biases in Household Financial Decision-making," 2011-2012.
Finalist, UCD GSM Professor of the Year, 2010.
National Science Foundation Grant "Information Technology, Outsourcing and Productivity," 2008-2010.
NET Institute Research Grant, Summer 2004, Summer 2006.
Filene Institute Research Grant "Outsource or Die," 2006-2007.
Filene Institute Research Grant "Payment Choices," 2006-2008.
FDIC Research Grant, 2006.
Allen H. Keally Teaching Award, University of Tennessee, 1999-2000.
Club 6 (High Teaching Evaluations), Haas School, UC Berkeley, 1998.
Finalist, Allen H. Keally Teaching Award, University of Tennessee, 1997-98.

OTHER PROFESSIONAL POSITIONS

Visiting Scholar, Federal Reserve Bank of Philadelphia Consumer Finance Institute, 2018-present; Associate Editor, International Journal of Industrial Organization (2004-present); Consulting Economist, Chicago Fed (2007-10); Research Economist, NBER (2009-2011); Visiting Senior Economist, New York Fed (2004); Adjunct Professor, Chicago GSB (2001-2003); Visiting Professor, Haas School (1998).

Appendix B
Documents Considered List

I incorporate by reference the materials listed in Appendix B of the Expert Report of Victor Stango dated October 24, 2024.

Academic Articles

- Cotton, Christopher D., Vaishali Garga, and Justin Rohan, "Consumption Heterogeneity by Occupation: Understanding the Impact of Occupation on Personal Consumption During the COVID-19 Pandemic," *Federal Reserve Bank of Boston Working Papers*, no. 20–16, 2020
- Espinoza, R. David, "Separating Project Risk From the Time Value of Money: A Step Toward Integration of Risk Management and Valuation of Infrastructure Investments," *International Journal of Project Management* 32, no. 6, 2014, pp. 1056–1072
- Gathergood, John, et al., "How Do Individuals Repay Their Debt? The Balance-Matching Heuristic," *American Economic Review* 109, no. 3, 2019, pp. 844–875
- Sarno, Lucio, and Daniel L. Thornton, "The Dynamic Relationship between the Federal Funds Rate and the Treasury Bill Rate: An Empirical Investigation," *Journal of Banking and Finance* 27, no. 6, 2003, pp. 1079–1110
- Stango, Victor, and Jonathan Zinman, "Borrowing High vs. Borrowing Higher: Sources and Consequences of Dispersion in Individual Borrowing Costs," *National Bureau of Economic Research Working Paper*, no. 19069, 2013, pp. 1–53
- Stango, Victor, and Jonathan Zinman, "What Do Consumers Really Pay on Their Checking and Credit Card Accounts? Explicit, Implicit, and Avoidable Costs," *American Economic Review: Papers & Proceedings* 99, no. 2, 2009, pp. 424–429
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- Zinman, Jonathan, "Household Debt: Facts, Puzzles, Theories, and Policies," *Annual Review of Economics* 7, no. 2, 2015, pp. 251–276

Books and Book Chapters

- Buffo, Stephen L., David P. Hoffman, and Roman L. Weil, "Serving as a Financial Expert in Litigation" in *Litigation Services Handbook, The Role of the Financial Expert*, Fifth Edition, ed. Roman L. Weil et al. (Hoboken, NJ: John Wiley & Sons, 2012), pp. 2.1–16

- DeFusco, Richard A., et al., "The Time Value of Money" in *Quantitative Investment Analysis*, Fourth Edition (Hoboken, NJ: John Wiley & Sons, 2020), pp. 1–43
- Dunbar, Michael K., Elizabeth A. Evans, and Roman L. Weil, "*Ex Ante* Versus *Ex Post* Damages Calculations" in *Litigation Services Handbook, The Role of the Financial Expert*, Fifth Edition, ed. Roman L. Weil et al. (Hoboken, NJ: John Wiley & Sons, 2012), pp. 5.1–23
- Evans, Elizabeth A., Joseph J. Galanti, and Daniel G. Lentz, "Developing Damages Theories and Models" in *Litigation Services Handbook, The Role of the Financial Expert*, Fifth Edition, ed. Roman L. Weil et al. (Hoboken, NJ: John Wiley & Sons, 2012), pp. 4.1–35
- Ross, Stephen A., Randolph W. Westerfield, and Bradford D. Jordan, *Fundamentals of Corporate Finance,* Sixth Edition (New York, NY: McGraw-Hill/Irwin, 2003)

Bates Stamped Documents

- BANA_EDD_MDL-00694814
- Bank of America, "Unemployment Insurance Prepaid Card Program Remediation Plan," Submitted October 6, 2022 to the Office of the Comptroller of the Currency and October 12, 2022 to the Consumer Financial Protection Bureau, BANA_EDD_MDL-00102554–577

Data

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- "Center for Microeconomic Data: Survey of Consumer Expectations," *Federal Reserve Bank of New York*, 2020–2023, https://www.newyorkfed.org/microeconomics/sce#/
- "Household Pulse Survey Public Use File: January 20 – February 1, 2021," *U.S. Census Bureau*, https://www2.census.gov/programs-surveys/demo/datasets/hhp/2021/wk23/HPS_Week23_PUF_CSV.zip, accessed October 7, 2024

Depositions

- Deposition of Jennifer Meza, April 30, 2024

Declarations

- Declaration of Jennifer Lennon in Support of Defendant's Memorandum in Opposition to Plaintiffs' Motion for Class Certification, *In Re: Bank of America California Unemployment Benefits Litigation*, October 23, 2024
- Declaration of William Martin in Support of Defendant's Memorandum in Opposition to Plaintiffs' Motion for Class Certification, *In Re: Bank of America California Unemployment Benefits Litigation*, October 23, 2024
- Appendix of Exhibits to the Declaration of Laura Brys in Support of Defendant's Opposition to Plaintiffs' Motion for Class Certification, *In Re: Bank of America California Unemployment Benefits Litigation*, October 24, 2024
- Declaration of Pamela Joseph, October 24, 2024
- Expert Declaration of Stephen Hindle, October 24, 2024

Expert Reports

- Expert Class Certification Report of Greg J. Regan, CPA/CFF, CFE, August 29, 2024, Backup Materials, and Materials listed in Appendix B
- Expert Report of Greg J. Regan, CPA/CFF, CFE, March 4, 2025, Backup Materials, and Materials listed in Appendix B
- Expert Rebuttal Report of Carl Pry, April 4, 2025
- Expert Report of Professor Justin McCrary, Ph.D., April 4, 2025

Legal Documents

- Bank of America's Responses and Objections to Plaintiff Yick's Fourth Set of Interrogatories, *In Re Bank of America California Unemployment Benefits Litigation*, January 2, 2024, with Exhibits
- Bank of America's Revised Second Supplemental Responses and Objections to Plaintiff Yick's First Set of Interrogatories (Interrogatories 2-6, 14-15), *In Re Bank of America California Unemployment Benefits Litigation*, December 1, 2023, with Exhibits
- Bank of America's Second Set of Responses and Objections to Plaintiff Yick's Seventh Set of Interrogatories (Interrogs. 39 & 42), *In Re Bank of America California Unemployment Benefits Litigation*, April 23, 2024
- Memorandum of Points and Authorities in Support of Motion for Class Certification, *In Re Bank of America California Unemployment Benefits Litigation*, August 29, 2024

- Plaintiff Alex Yuan's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories, *In Re Bank of America California Unemployment Benefits Litigation*, January 29, 2024
- Plaintiff Azuri Moon's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories, *In Re Bank of America California Unemployment Benefits Litigation*, January 29, 2024
- Plaintiff Candace Koole's Objections and *Supplemental* Responses to Bank of America, N.A.'s First Set of Interrogatories, *In Re Bank of America California Unemployment Benefits Litigation*, January 29, 2024
- Plaintiff J. Michael Willrich's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories, *In Re Bank of America California Unemployment Benefits Litigation*, January 29, 2024
- Plaintiff Janette Mouck's Objections and Supplemental Responses to Bank of America, N.A.'s First Set of Interrogatories and Admissions, *In Re Bank of America California Unemployment Benefits Litigation*, July 19, 2024
- Plaintiff Juanita Isles's Objections and Supplemental Responses to Bank of America, N.A.'s First Set of Interrogatories, Request for Admissions and Request for Documents, *In Re Bank of America California Unemployment Benefits Litigation*, April 29, 2024
- Plaintiff Kuang Ting Chong's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories, *In Re Bank of America California Unemployment Benefits Litigation*, January 29, 2024
- Plaintiff Lindsay McClure's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories, *In Re Bank of America California Unemployment Benefits Litigation*, January 29, 2024
- Plaintiff Miguel Salazar's Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories, Request for Admissions and Request for Documents, *In Re Bank of America California Unemployment Benefits Litigation*, January 16, 2024
- Plaintiff Roland Oosthuizen's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories, *In Re Bank of America California Unemployment Benefits Litigation*, January 29, 2024
- Plaintiff Russell Matson's Objections and Supplemental Responses to Bank of America, N.A.'s First Set of Interrogatories and Admissions, *In Re Bank of America California Unemployment Benefits Litigation*, July 17, 2024
- Plaintiff Stephanie Moore's Supplemental Objections and Responses to Bank of America, N.A.'s First Set of Interrogatories, *In Re Bank of America California Unemployment Benefits Litigation*, January 29, 2024

- Plaintiff Tina Pomeroy's Objections and Supplemental Responses to Bank of America, N.A.'s First Set of Interrogatories, Request for Admissions and Request for Documents, *In Re Bank of America California Unemployment Benefits Litigation*, May 4, 2024
- Plaintiff Vanessa Rivera Objections and Supplemental Responses to Bank of America, N.A.'s First Set of Interrogatories, *In Re Bank of America California Unemployment Benefits Litigation*, January 29, 2024
- Tentative Order Granting Plaintiffs' Motion for Class Certification, *In Re Bank of America California Unemployment Benefits Litigation*

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- "Credit Cards: Pandemic Assistance Likely Helped Reduce Balances, and Credit Terms Varied among Demographic Groups," *United States Government Accountability Office, Report to Congressional Committees*, September 2023, https://www.gao.gov/assets/d23105269.pdf
- "Economic Well-Being of U.S. Households in 2021," *Board of Governors of the Federal Reserve System*, May 2022, https://www.federalreserve.gov/publications/files/2021-report-economic-well-being-us-households-202205.pdf
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- Chris Wheat, Erica Deadman, and Daniel M. Sullivan, "How Vulnerable Are Americans to Unexpected Expenses?" *JPMorgan Chase Institute*, July 30, 2024, https://www.jpmorganchase.com/institute/all-topics/financial-health-wealth-creation/how-vulnerable-are-americans-to-unexpected-expenses
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- Diana Farrell, et al., "Policy Brief: The Unemployment Benefit Boost: Trends in Spending and Saving When the $600 Supplement Ended," *JPMorgan Chase & Co. Institute*, October 2020, https://www.jpmorganchase.com/content/dam/jpmc/jpmorgan-chase-and-co/institute/pdf/Institute-UI-Benefits-Boost-Policy-Brief_ADA.pdf
- Fiona Greig, Erica Deadman, and Tanya Sonthalia, "Household Cash Balance Pulse: Family Edition," *JPMorgan Chase Institute*, November 2021, https://www.jpmorganchase.com/institute/all-topics/financial-health-wealth-creation/household-cash-balance-pulse-families
- Hamza Abdelrahman, Luiz E. Oliveira, and Adam Hale Shapiro, "The Rise and Fall of Pandemic Excess Wealth," *FRBSF Economic Letter 2024-06*, February 26, 2024, https://www.frbsf.org/wp-content/uploads/el2024-06.pdf
- Joanna Stavins, "Credit Card Spending and Borrowing Since the Start of the Covid-19 Pandemic," *Federal Reserve Bank of Boston*, October 19, 2023, https://www.bostonfed.org/publications/current-policy-perspectives/2023/credit-card-spending-and-borrowing-since-the-start-of-the-covid-19-pandemic.aspx
- Neil Bhutta, and Lisa Dettling, "Money in the Bank? Assessing Families' Liquid Savings using the Survey of Consumer Finances," *FEDS Notes*, November 19, 2018, https://www.federalreserve.gov/econres/notes/feds-notes/assessing-families-liquid-savings-using-the-survey-of-consumer-finances-20181119.html
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- Sarah Bohn, Marisol Cuellar Mejia, and Julien Lafortune, "Unemployment Benefits in the COVID-19 Pandemic," *Public Policy Institute of California*, April 9, 2020, https://www.ppic.org/blog/unemployment-benefits-in-the-covid-19-pandemic/

Publicly Available Documents

- "California Employment Development Department Debit Card Account Agreement," *Bank of America,* March 1, 2018

Note: In addition to the documents on this list, I considered all documents cited in my report to form my opinions.

Appendix C

List of cases in which Victor Stango testified as an expert by trial or by deposition in the past four years

Ramirez v. Bank of America, N.A., United States District Court for the Northern District of California, Case No.: 4:22-cv-00859-YGR. Deposition, March 20, 2025.

Charles Daniel Bickerstaff, as executor of the estate of Jeff Bickerstaff, Jr., on behalf of himself and all persons similarly situated, v. SunTrust Bank, State Court of Georgia, Fulton County. Case No. 10-ev-010485-H. Deposition, November 28, 2023

Bureau of Consumer Financial Protection v. Progrexion Marketing Inc., et al., United States District Court for the District of Utah. Deposition, December 14, 2021

Moss v BMO Harris Bank, N.A. et al., United States District Court for the Eastern District of New York. Case No. 2:13-cv-05438. Deposition, December 10, 2021

Kristen Schertzer, et al. v. Bank of America et al., United States District Court for the Southern District of California. Case No. 3:19-cv-00264-JM-MSB. Deposition, November 20, 2021