UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

IN RE APPLE IPHONE ANTITRUST LITIGATION

Case No. 4:11-cv-6714-YGR

ORDER DENYING APPLE'S *DAUBERT* MOTION TO EXCLUDE THE TESTIMONY OF PROFESSOR DANIEL L. MCFADDEN AND DR. ROSA ABRANTES-METZ; AND

GRANTING PLAINTIFFS' MOTION FOR CLASS CERTIFICATION

Re: Dkt. Nos. 683, 690, and 786

Pending before this Court is the Renewed Motion for Class Certification filed by plaintiffs Robert Pepper, Stephen H. Schwartz, Edward W. Hayter, and Edward Lawrence ("consumer plaintiffs"), a *Daubert*[1] motion to exclude the testimony of Professor Daniel L. McFadden and Dr. Rosa Abrantes-Metz filed by defendant Apple, Inc., and an Omnibus Motion to Seal which will be addressed by separate order. Though the Court previously denied in part plaintiffs' motion for class certification, it noted that it expected that plaintiffs could fix the identified problems with their expert's econometric model. At this juncture, plaintiffs have resolved those deficiencies. The Court, therefore, **GRANTS** the renewed motion for class certification and **DENIES** Apple's *Daubert* motion.

Given the procedural posture of this motion, the Court accepts plaintiffs' representation that Professor McFadden can: (i) match the Apple identification numbers he has with *actual consumers* to ascertain class members, and (ii) limit the percentage of unharmed class members swept in by the narrowed class definition. Should Professor McFadden's model fail to do both, the Court will consider whether modification or decertification is appropriate for all or part of the class. *See City of Los Angeles, Harbor Division v. Santa Monica Baykeeper*, 254 F.3d 882, 885 (9th Cir. 2001) (holding that a district court is free to "reconsider, *rescind*, or modify an

[1] *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 589–90 (1993).

interlocutory order" such as certification of a class "for cause by it seen to be sufficient" (emphasis supplied)).

I. BACKGROUND

A. FACTUAL BACKGROUND

The facts of this case are well known to the parties. The background relevant to the instant motion is summarized as follows:

Consumer plaintiffs bring this class action pursuant to Section 2 of the Sherman Antitrust Act of 1890, 15 U.S.C. § 2, on behalf of the following class:

> All persons in the United States, exclusive of Apple and its employees, agents and affiliates, and the Court and its employees, who purchased one or more iOS applications or application licenses from Defendant Apple Inc. ("Apple"), or who paid Apple for one or more in-app purchases, including, but not limited to, any subscription purchase, for use on an iOS Device at any time since July 10, 2008 (the "Class Period"). The Class is limited to those persons who paid more than $10.00 in total to Apple during the Class Period for iOS application and in-app purchases from any one Apple ID account.

(Dkt. No. 666-1, Renewed Motion for Class Certification, "Mot." at 1.) Consumer plaintiffs theorize that Apple charges developers on the App Store supracompetitive commissions, which the developers then pass to consumers in the form of increased prices for app downloads or subscriptions. (Dkt. No. 228, Third Amended Complaint, ¶ 47.) Consumer plaintiffs allege that this conduct allows Apple to unlawfully monopolize the retail market for the sale of apps, including in-app purchases ("IAP").

Consumer plaintiffs bring two causes of action against Apple based on this alleged conduct: (1) unlawful monopolization of the applications aftermarket in violation of Section 2 of the Sherman Act and (2) attempted monopolization of the applications aftermarket. (*Id.* ¶¶ 78–88.)

B. PROCEDURAL BACKGROUND

1. PREVIOUS *DAUBERT* MOTION

In its previous order, the Court granted in part and denied in part Apple's *Daubert* motion to exclude Professor McFadden's expert opinion and denied without prejudice consumer plaintiffs' motion for class certification. (Dkt. No. 630, "Previous Order.") With respect to the

Daubert motion, Apple challenged several aspects of Professor McFadden's econometric model. The Court examined these challenges systematically.

First, it denied Apple's motion as to Professor McFadden's overarching model. Apple argued that Professor McFadden's econometric model was meant not to test whether Apple's allegedly anticompetitive conduct had a common impact on class members but to prove it. (*Id.* at 3.) The Court disagreed, finding that Professor McFadden relied on sound scientific and economic principles to determine that Apple's commission rate on developers acts as a tax for both developers and their consumers. (*Id*. at 4.)

Next, the Court denied Apple's motion as to Professor McFadden's market definition. (*Id.* at 5.) Professor McFadden opined that there was a single relevant aftermarket for selling iOS apps and in-app content to consumers. Apple argued that he had ignored the two-sidedness of the App Store. (*Id.*) The Court found that, under *Daubert*, the bases of Professor McFadden's market definition were sound. It declined to address the merits question of whether Professor McFadden's market definition was correct because, traditionally, market definitions are highly factual, and frequently the focus of any trial.

Finally, the Court ruled on Apple's challenges to Professor McFadden's three-step approach to quantifying the impact and damages of Apple's allegedly anticompetitive conduct. In step one, Professor McFadden identified the but-for commission rate—the commission rate that would exist but for Apple's monopolistic practices. The Court rejected Professor McFadden's but-for commission rate as arbitrary, finding that Professor McFadden was not an expert in the relevant fields nor was his conclusion the product of legitimate economic inquiry.

In the second step, Professor McFadden estimated the app and in-app prices that consumers would have paid in the but-for world. Apple challenged Professor McFadden's pricing model on five grounds:

1. The model initially forecasted that about 5.8% of Apple accounts were uninjured. In other words, the model forecast that plaintiffs' proposed class included many accounts who were not harmed by Apple's allegedly anticompetitive conduct. Largely due to errors identified by Apple's experts, Professor McFadden later

conceded that the model actually included 14.6% uninjured accounts.

2. Professor McFadden also conceded that, at the time of decision, he had not fixed one of these errors—the use of fixed-dollar rather than percentage pricing, which at times created negative but-for prices. Given this concession, and the fact that the parties did not dispute that fixing the model to reflect percentage pricing would fix the problem, the Court rejected Apple's argument that Professor McFadden's model otherwise generated negative but-for prices.

3. The Court did find that Professor McFadden's opinion that Apple's focal-point pricing and pricing tiers would not exist in the but-for world lacked foundation and ignored overwhelming evidence to the contrary.

4. Apple argued that Professor McFadden's model was not sufficiently robust for three reasons—the sample size was too small; the model easily allowed for accounts to switch from harmed to unharmed; and it estimated a wide variation of unharmed accounts depending on the sample size. The Court found that Professor McFadden had sufficiently supported his use of a 0.1% sample size. Given that the model required adjustment, the Court granted Apple's motion as to the robustness of Professor McFadden's model without ruling on its other arguments. The Court did, however, order plaintiffs to address the confidence level of the model in the next round of briefing.

5. Apple contended that Professor McFadden's decision to exclude free apps from his model ignored market realities. Because free apps were excluded from Professor McFadden's impact calculations and the proposed class definition, the Court rejected Apple's argument.

In the third and final step, Professor McFadden proposed a method for separating harmed from unharmed class members. Though the Court found that the method of identifying the class members—matching Apple IDs to actual customers through Apple's internal records—was sufficiently objective, plaintiffs' approach with respect to timing was unacceptable. The Court advised plaintiffs that it could not wait until *after trial* to ascertain which class members were

uninjured. While perhaps acceptable in a settlement context, plaintiffs had no legal basis for addressing a core merits issue after trial.

Ultimately, the Court granted plaintiffs leave to amend their expert's report and noted that it expected that many of the identified issues could be fixed.

2. PREVIOUS CLASS CERTIFICATION MOTION

The Court also analyzed plaintiffs' class certification motion and found that plaintiffs met all the Rule 23(a) requirements.

Four common questions capable of class-wide resolution existed. First, the relevant market. Plaintiffs proffered Professor McFadden's definition of the market: a single aftermarket of the sale of iOS apps and in-app content. Apple criticized this definition, arguing that the relevant market was a two-sided transaction platform. The Court found that, for purposes of class certification, Professor McFadden's opinion on the market definition constituted common proof, though it declined to rule on its merits. The Court also found that Professor McFadden put forth common proof that could resolve the question of Apple's power in the market, its willfulness in acquiring and maintaining a monopoly, and whether it had violated Section 2 of the Sherman Act by monopolizing the market for iOS apps and in-app content.

Without Professor McFadden's methodology, many of the same issues addressed in the *Daubert* context led the Court to find that plaintiffs could not meet the predominance requirement of Rule 23(b)(3). Plaintiffs had not shown that the impact or damages of Apple's allegedly anticompetitive conduct could be proven on a classwide basis. With respect to antitrust impact, because Professor McFadden's methodology could not then reliably ascertain how many class members were unharmed by Apple's allegedly anticompetitive conduct, individual questions would predominate. With respect to antitrust damages, the Court rejected plaintiffs' proffer that they would run Professor McFadden's model after trial to determine classwide damages as too speculative.

* * *

Since the Previous Order, plaintiffs have filed a revised supplemental expert report by Professor McFadden. They also filed a new expert report by Dr. Rosa Abrantes-Metz, an expert in

econometrics, statistics, transaction pricing, and payment processing, to calculate anew Apple's but-for commission rate. Based on those expert reports, plaintiffs renewed their motion for class certification. Apple then moved to exclude the new testimony of both of plaintiffs' experts and opposed the renewed motion for class certification.

II. *DAUBERT* MOTION

Because the Court's *Daubert* analysis informs the rest of its decision, the Court begins there. It then proceeds to analyze plaintiffs' renewed motion for class certification.[2]

A. LEGAL FRAMEWORK

Federal Rule of Evidence 702[3] provides:

> A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if the proponent demonstrates to the court that it is more likely than not that:
> (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
> (b) the testimony is based on sufficient facts or data;
> (c) the testimony is the product of reliable principles and methods; and
> (d) the expert's opinion reflects a reliable application of the principles and methods to the facts of the case.

At the class certification stage, "the relevant inquiry is a tailored *Daubert* analysis which

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[2] The Court references various reports from plaintiffs as follow: Professor McFadden's Opening Report from June 1, 2021 (Dkt. No. 443-14, "McFadden's Opening Report"); Professor McFadden's Reply Report from October 19, 2021 (Dkt. No. 554-5, "McFadden's Reply Report"); Professor McFadden's Second Revised Supplemental Report (Dkt. No. 679-1, "McFadden's 2nd Supplemental Report"); Professor McFadden's Second Reply Report from April 28, 2023 (Dkt. No. 708-2, "McFadden's Second Reply Report"); and Professor McFadden's Declaration (Dkt. No. 702-2, "McFadden's Decl.").

For Dr. Abrantes-Metz there are: Dr. Abrantes-Metz's Opening Report from September 26, 2022 (Dkt. No. 666-2, "Dr. Abrantes-Metz's Opening Report"); Dr. Abrantes-Metz's Reply Report from April 28, 2023 (Dkt. No. 708-3, "Dr. Abrantes-Metz's Reply Report"); and Dr. Abrantes-Metz's Declaration (Dkt. No. 702-3, "Dr. Abrantes-Metz's Decl.").

For Apple's experts, there are: Professor Jeffrey T. Prince's Report from March 10, 2023 (Dkt. No. 668-5, "Prince Report"); Professor Lorin M. Hitt's Report from March 10, 2023 (Dkt. No. 688-3, "Hitt Report"); Professor Mark Watson's Report from March 10, 2023 (Dkt. No. 688-6, "Watson Report"); and Professor Richard Schmalensee's Report from March 10, 2023 (Dkt. No. 688-4, "Schmalensee Report").

[3] The Supreme Court updated the rule effective December 1, 2023. The changes are underlined. *See* https://www.supremecourt.gov/orders/courtorders/frev235468.pdf. The new language does not change the intent of the rule, rather it provides further clarity.

scrutinizes the reliability of the expert testimony in light of the criteria for class certification and the current state of the evidence." *Rai v. Santa Clara Valley Transportation Auth.*, 308 F.R.D. 245, 264 (N.D. Cal. 2015); *Grodzitsky v. Am. Honda Motor Co.*, 957 F.3d 979, 985–86 (9th Cir. 2020). "Ultimately, the test under *Daubert* is not the correctness of the expert's conclusions but the soundness of [their] methodology." *Elosu v. Middlefork Ranch Inc.*, 26 F.4th 1017, 1024 (9th Cir. 2022) (quotation marks and citation omitted).

B. PROFESSOR MCFADDEN'S CHALLENGED OPINIONS

Apple submits that Professor McFadden has failed to fix the deficiencies in his model identified by the Court in its Previous Order. Plaintiffs disagree. The Court analyzes each argument.

1. METHODOLOGY

Apple challenges Professor McFadden's methodology on: (a) marginal costs; (b) in-app purchase prices; (c) price tiers and focal prices; and (d) developer competition.

a. MARGINAL COSTS

First, Apple argues Professor McFadden's model overestimates marginal costs. Even though, according to Apple, it is "textbook economics that digital goods have low or zero marginal costs," Apple believes the model is engineered to find positive marginal costs for every app and in-app purchase which leads to overestimation of marginal costs. Apple supports this position by pointing to the "natural experiments" its experts ran on the model.

The Court disagrees. Apple misconstrues Professor McFadden's model; in it, marginal cost is calculated based on app developers' "*variable* costs." (McFadden's Opening Report ¶ 185 (emphasis in original).) Professor McFadden defines a "variable cost" as an expense that "varies in proportion to production output." (*Id.* ¶ 185; *see also* McFadden's Decl. ¶ 5.) In other words, when Professor McFadden posits that app developers have marginal costs, he is looking at how costs change not when producing one additional unit of a digital good but when operating at scale. (McFadden's Reply Report ¶¶ 73–74.) So, for example, when Professor McFadden states that Fortnite incurs marginal costs, he is not talking about the marginal cost of creating one more unit of its digital currency, "V-bucks," but "all of the different variable costs that come along with [its]

iOS app monetization business." (*Id.* ¶ 74.)

Moreover, Professor McFadden provides examples of positive variable costs. (McFadden's Opening Report ¶¶197–208.) User acquisition costs, for example, tend to rise with revenue, suggesting that they are variable, rather than fixed, costs. (*Id.* ¶ 198.) Streaming costs are another. (*Id.* ¶ 201.) When a user streams a song on Spotify, for example, Spotify pays a royalty fee. (*Id.* ¶ 206.) Apple does not address either example of positive variable cost but at least one of Apple's experts, Professor Hitt, conceded when presented with such examples that marginal costs could be "meaningful." (McFadden's Reply Report ¶ 73 n.138.)

Lastly, Apple argues that its experts' "natural experiments" undermine how Professor McFadden computed marginal costs. Apple has lowered its commission rate three times. (Hitt Report ¶ 41.) Each time it did, prices mostly stayed the same. Apple extrapolates that such a result shows that in a digital marketplace "products have zero or negligible marginal cost."[4] By way of illustration, Professor Hitt proffers Apple's Small Business Program ("SBP"), introduced in December 2020. (*Id.* ¶ 55.) The SBP reduced Apple's commission rate to 15% for paid transactions for app developers who earned less than or equal to $1 million in net proceeds. (*Id.*) The program was voluntary. Professor Hitt then analyzed whether app developers who participated in the program lowered their prices in response by comparing what their prices were six months before the program and six months after. (*Id.* ¶ 56.) Professor Hitt concluded that most participants did not reduce their prices.

At most, Professor Hitt's conclusions on the natural experiments go to weight, not admissibility. The "test under *Daubert* is not the correctness of the expert's conclusions but the soundness of his methodology." *Daubert*, 43 F.3d at 1318. Apple's analysis of Professor Hitt's natural experiments say nothing about Professor McFadden's methodology; instead, they articular a different perspective on what would have happened in the but-for world. That perspective does

[4] Apple also states that, in a deposition, Professor McFadden admits that he did not test his model against these natural experiments. That is not what Professor McFadden said. In response to the question of whether he thought that "it is likely that marginal costs, as you estimate them, would change at the exact same time as a change in the commission rate," Professor McFadden responded he had not "examined" that particular issue. (McFadden 3d Deposition at 160:15–23.)

not discredit Professor McFadden's testimony about how all app developers across the App Store would have priced their apps and in-app content had Apple's commission rate always been 13.63% rather than 30%. "The question of what would have happened but for [defendant's] monopoly overcharge is a hypothetical, and a hypothetical question generally cannot be answered by historical data about what actually happened but must often be answered by general principles about what generally tends to happen." *In re TFT-LCD (Flat Panel) Antitrust Litig.*, 267 F.R.D. 583, 605 (N.D. Cal. 2010) (internal citation and quotations omitted); *see also In re Lithium Ion Batteries Antitrust Litig.*, 2017 WL 1391491, at *11 (N.D. Cal. Apr. 12, 2017) ("Determination of the difference between prices paid and prices that would have been paid 'but-for' the unlawful conduct is necessarily hypothetical.")

Professor McFadden has demonstrated that calculating marginal costs at the app, rather than individual item, level is reliable.[5] For that reason, the motion on this ground is **DENIED.**

b. IN-APP PURCHASE PRICES

Apple next argues that Professor McFadden's model cannot predict what individual in-app purchase prices would be but for Apple's allegedly anticompetitive conduct and therefore cannot reliably calculate damages. (*See* McFadden's 2nd Supplemental Report ¶ 42.)

As explained in its Previous Order, the Court understands that Professor McFadden calculates prices at the "app level" rather than the "individual app purchase level." (Previous Order at 10.) He does so because he opines that app developers consider costs at the app level when setting prices. (*Id.*) Thus, when he built his model, Professor McFadden averaged the prices of all in app content in an app, per month. (*Id.*) He then calculated the but-for prices at the *app* level to estimate damages. (McFadden's 2nd Reply Report ¶ 108.) The Court declined in the previous round of briefing to exclude Professor McFadden's model because he calculates but-for prices at the app, rather than individual, level and it will not revisit that decision here.

Apple next challenges Professor McFadden's use of the "percentage method" to estimate

[5] As Professor Prince acknowledged, "economists think about short run and long run." (Dkt. No. 702-5, 2023 Prince Dep. 70:15.) The perspective of the analysis, therefore, is "going to impact how [economists] think about [costs] being variable or marginal." (*Id.*)

damages. In its Previous Order, the Court excluded Professor McFadden's model because it generated negative but-for prices. The parties then agreed the issue could be fixed if Professor McFadden applied the percentage rather than fixed-dollar method. (Previous Order at 11.) Professor McFadden now uses the percentage method to estimate damages. (McFadden's 2nd Supplemental Report ¶ 40.)

Apple now argues that even though Professor McFadden applies the percentage method, he changes the price of every as-is in-app item by the same percentage to calculate the but-for price, a method that is scientifically unsound. The Court disagrees with Apple's characterization. As Professor McFadden states, he uses "the percentage method to estimate damages for each transaction, not to *predict* item level prices." (McFadden's 2nd Supplemental Report ¶ 37.) Instead, he calculates how much Apple overcharged consumers as a percentage of its total revenues. (*Id.* ¶ 40.) Professor McFadden then calculates individual damages by taking this percentage and multiplying it against each individual's spending on a particular app, in a particular month. (*Id.* ¶ 41.) To illuminate, Professor McFadden gives the example of two users, one who spends $0.99 on an app, the other $9.99. (*Id.* ¶ 41.) Using Dr. Abrantes-Metz's but-for commission rate of 13.63%, Professor McFadden concluded that Apple's overcharge for that particular app was 35.5% in January 2018. (*Id.*) At the as-is commission rate of 30%, Apple's revenue from the first user was $0.297, for the second user $2.997. The users were therefore overcharged by $0.105 (35.5% of $0.297) and $1.064 (35.5% of $2.997), respectively.

As now applied, the Court finds the percentage method sufficiently reliable. For that reason, the motion on this ground is **DENIED.**

c. PRICE TIERS AND FOCAL-POINT PRICING

The Court previously excluded Professor McFadden's model because it ignored Apple's price tiers and focal-point pricing. (Previous Order at 11–12.) Apple argues that Professor McFadden's model still ignores the issue.

In their renewed motion for class certification, plaintiffs maintain their challenge to Apple's price tiers. For that reason, Professor McFadden explains, he has created two models, one without price tiers and one which incorporates tier and focal pricing. (McFadden's 2nd

Supplemental Report ¶ 85.) Professor McFadden conducts a simulation with Apple's current price tiers, using the same 0.1% sample he uses generally to calculate damages. (*Id.* ¶ 87.) At the app-level, Professor McFadden assumes that developers choose their app and average in-app content prices consistent with the increments set out in Apple's tier schedules. (*Id.*) Within these restrictions, Professor McFadden models that app developers set the prices that will result in maximized profits. (*Id*.) In the same way, Professor McFadden's model demonstrates that it can accommodate focal-point pricing. (*Id.* ¶ 88.) Professor McFadden acknowledges that, with the current tier and focal pricing, the percentage of unharmed accounts is higher. (*Id.* ¶ 90.)

Professor McFadden then conducted a simulation using a more granular, 750-point pricing structure. (*Id.* ¶ 93.) He did so because, as part of its settlement with app developers, Apple announced that it would introduce such a pricing schedule. (*Id.* ¶ 94.) Using this more granular pricing structure, Professor McFadden calculates that the percentage of unharmed accounts would be similar to a but-for world with no pricing tiers. (*Id.* ¶ 95.)

The Court finds that Professor McFadden's tier and focal pricing simulation is sufficiently reliable. Whether proof exists that pricing tiers or a pricing schedule is, in fact, anticompetitive is a merits question not before the Court and likely reasonably in dispute in any event. That Professor McFadden's does not predict in-app prices ending at 99 cents is no surprise. As explained, Professor McFadden averages all in-app content prices, ending in 99 cents, at the app-level. He then restricts the movement of these averaged prices to change in increments consistent with Apple's pricing schedule. This approach, Professor McFadden explains, is consistent with how one of Apple's experts, Professor Prince, originally calculated the effect of price tiers. (McFadden 2nd Reply Report ¶ 51.)

Further, as Professor McFadden explains, his model does reflect the impact of focal-point pricing through Apple's current pricing structure and the 750-point structure that Apple has stated it will implement. Professor Prince disputes this, arguing that Professor McFadden's model does not reflect "voluntary focal-point pricing." (Prince Report ¶ 148.) In so arguing, Professor Prince ignores that the analysis of price tiers and focal point pricing is "interchangeable." (McFadden's 2nd Reply Report ¶ 55.) In other words, whether the impact of a price restriction is analyzed as a

price tier—Apple requiring that all app prices end in $0.99—or as focal-point pricing—app developers would freely choose to price at 99-cent points—the effect is the same. Apple does not give the Court any reason to think otherwise.[6]

Finally, Apple's argument that Professor McFadden's model does not reflect the as-is world because he assumes that app developers set prices to maximize profits exactly rather than along one of Apple's price tiers does not persuade. Professor McFadden states that he simulates the but-for world by assuming that developers choose the prices that yield them the highest profits based on Apple's pricing schedule. (McFadden's 2nd Supplemental Report ¶ 87.) Moreover, Professor McFadden's model incorporates actual transaction data from the App Store, which already reflects Apple's pricing restrictions. Nothing further is required.

On that ground, Apple's motion is **DENIED.**

d. APP COMPETITION

Lastly, Apple attacks Professor McFadden's methodology on the basis that it does not consider competition between app developers, instead treating them like monopolists to calculate the prices they would set in the but-for world. Put another way, Apple's expert Professor Prince argues that Professor McFadden assumes that app developers' prices are not sensitive to consumer demand. (McFadden's Reply Report ¶ 21.) Plaintiffs oppose, noting that Professor McFadden's model incorporates the reality of each app developer's competitive environment.

Apple again mischaracterizes Professor McFadden's methodology. Professor Prince contends that Professor McFadden's model:

> does not account for competition between apps, even within the same genre . . . . Instead, his model continues to assume that developers have no incentive to respond to changes in the price of other apps, even if they are in the same genre or offer a substitutable product.

(Prince Report ¶ 191.) This is incorrect. Professor McFadden's model does consider competition "through the price sensitivity of demand." (McFadden's Reply Report ¶ 120.) Modeling competition through demand captures "how readily consumers switch to other apps should an app

[6] In fact, in its *Daubert* motion, Apple noted that its price tiers and focal-point pricing had essentially the same impact. (Dkt. No. 476-11 at 22.)

increase its price." (*Id.*) It is true, Professor McFadden notes, that his model does not include the "strategic interactions between apps in the But-For world," but this decision, he argues is "conservative."[7] (*Id.* at ¶ 122.)

Because Professor McFadden does model competition between apps by considering the price sensitivity of demand in this section, the motion on this point is **DENIED.**[8]

2. SUFFICIENCY OF DATA

Apple challenges the sufficiency of Professor McFadden's data. It argues that Professor McFadden uses a two-step process to estimate consumer price sensitivity. In the first step, Apple states, Professor McFadden runs a regression on a 0.1% sample of transactions from the App Store to get a coefficient. In the next step, Apple continues, Professor McFadden constrains that coefficient by using profit margin bounds derived from a "tiny and unrepresentative" sample of six app developers. Apple concludes that the Court should reject Professor McFadden's model for imposing arbitrary and unrepresentative constraints.

To start, Apple again mischaracterizes the model. Professor McFadden does not proceed in two steps—he calculates consumer price sensitivity with the requisite constraints in one step. Apple has nothing to say against the reliability of this approach, which Professor McFadden presents as a "standard computation tool." (McFadden's Decl. ¶ 80.)

Instead, Apple expends much ink arguing that Professor McFadden's margin bounds were both arbitrarily chosen and imposed. The Court is not persuaded. First, plaintiffs note that, when the model was initially run, Professor McFadden only had access to six developers' data. By trial, plaintiffs state that they will receive profit data from significantly more developers and Professor McFadden will correspondingly update his estimated coefficients. That is sufficient at this stage. (*See* Previous Order at 10 n.8.) Moreover, Professor McFadden has produced unrebutted evidence

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[7] Apple also argues that Professor McFadden's methodology is flawed because it does not consider that "many apps are not subject to Apple's commission, so a change in commission rate may not translate to a decrease in the competitive price for competing apps." The Court previously rejected Apple's argument that Professor McFadden should have considered free apps in his demand equation and does so for the same reasons now. (Previous Order at 13–14.)

[8] In fact, in the very next section, Apple acknowledges that a "pivotal step" in Professor McFadden's model is "estimating price sensitivity."

that economists often infer costs, rather than inputting actual cost data, to estimate demand because firms do not typically disclose their costs. (McFadden's Reply ¶ 148.) That Professor McFadden can input actual app developer's costs here, even if minimal, increases the model's reliability.

Second, Apple contends that Professor McFadden has no "objective methodology" for translating his cost data into margin bounds and "instead appears to rely loosely on his review" of the available app developer data. As an example, Apple notes that Professor McFadden calculates the profit constraints for the Games Genre in the 60% to 90% range. This is so, Apple states, despite the fact that the lowest actual profit margin he observed was 64% and the highest was 92.2%. This is a minor quibble—Professor McFadden notes from the beginning that he is using these six developers' data to *estimate*, not precisely quantify, the average profit margin for the sake of class certification. (McFadden's Reply Report ¶ 151.)

Third, Apple's contention that if Professor McFadden removed or changed the margin constraints, the results would change, is a point in favor of the model's reliability, not against. If the inputs change, then the results *should* change as well.

On this ground, the motion is **DENIED.**

3. RELIABILITY

Apple next argues that Professor McFadden's model remains insufficiently robust by (i) failing to consistently determine the percentage of unharmed accounts depending on the sample used and (ii) producing different results even when using the same sample. Moreover, even though Professor McFadden has now clarified the confidence level of the model, Apple contends that this only masks how even slight changes to its margin constraints can cause millions of accounts to switch from harmed to unharmed.

In the Court's Previous Order, it noted that Professor McFadden's model had a "switcher" problem: the same account could switch from harmed to unharmed depending on which 0.1% sample he used to calculate damages. The Court asked plaintiffs to address the issue. Plaintiffs have now done so.

In his revised report, Professor McFadden first points out that switching is a natural

consequence of using different samples which have different apps, transactions, and customers and therefore different margin constraints. (McFadden's 2nd Supplemental Report ¶ 50.) To account for and minimize this sampling error, Professor McFadden has now drawn seventy-five 0.1% samples, estimated consumer demand based on these samples, taken the average of the seventy-five coefficients obtained, and used the averaged coefficients to estimate damages across all transactions from the App Store at a 95% confidence level. (*Id.* ¶ 54.)

Apple now pivots to a different argument. It contends that Professor McFadden has a switcher problem because accounts change from harmed to unharmed depending on the margin constraint used. McFadden explains that this is a feature not a bug. Logically, if Apple changes the margin constraints of the model—by, for example, arbitrarily imposing a 70%-90% profit range to make its point rather than the 60%-90% estimated by Professor McFadden—many accounts will switch from harmed to unharmed.[9]

When actually using the same samples and constraints as Professor McFadden, Apple's own expert arrived at consistent results. Instead of using seventy-five 0.1% samples and then averaging them, Apple's expert Professor Watson used a 7.5% sample that contained the same accounts. (McFadden's Decl. ⁋ 91.) Professor Watson's slightly different method produced slightly different results: a lower price sensitivity that resulted in 2.2% fewer harmed accounts. (*Id.* at ⁋ 92.) Apple notes that this equals 3.9 million accounts switched but ignores that 170 million stayed the same. (*Id.*) This does not shake Professor McFadden's 95% confidence interval but instead serves to confirm it. That the pool of putative class members is so high does not change the result.

Again, Apple's arguments here go to weight, not admissibility. They are fodder for cross-examination, not reason to exclude Professor McFadden's testimony. For the reasons set forth above, Apple's *Daubert* motion on this ground is **DENIED.**

[9] The same goes for Apple's first argument—that when Professor McFadden fixed an issue where certain apps were in the incorrect genre, a small percentage of accounts switched from harmed to unharmed. Because different genres have different constraints in Professor McFadden's model, this type of change demonstrates that the model reacts to different inputs as a reliable model should.

C. DR. ABRANTES-METZ'S CHALLENGED OPINIONS[10]

Dr. Abrantes-Metz opines that, in a but-for world, Apple would have charged a 13.63% commission rate in its App Store. Apple moves to exclude Dr. Abrantes-Metz's expert opinion on four grounds: (1) Dr. Abrantes-Metz has not applied her previous economics expertise to present her current expert opinion, producing an "accounting identity" rather than an economic model; (2) her but-for commission rate rests on untenable assumptions; (3) her inputs are unreliable; and (4) her benchmark analysis is arbitrary.[11] The Court evaluates each.

1. RELIABLE APPLICATION OF EXPERTISE

First, Apple seeks to exclude the opinion on the grounds it is a product of an "accounting identity," rather than an economic model. Because this accounting identity lacks "any economic content or predictive power," Apple argues, Dr. Abrantes-Metz's analysis is not a reliable application of her expertise. This is most noticeable, Apple concludes, in her disregard of indirect network effects.

Dr. Abrantes-Metz is a Ph.D. economist specializing in industrial organization,

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[10] Apple also argues that the Court must exclude Professor McFadden's entire model because, even though he relies on Dr. Abrantes-Metz's but-for commission rate, he never read the underlying report that justifies it.

Fed. R. of Evid. 703 permits an expert to base his opinion on "facts or data in the case that the expert has been made aware of." This includes data presented to the expert "outside of court and other than by his own perception." Fed. R. of Evid. 703, Notes of Advisory Committee. In that way, Rule 703 reflects the reality that it is now "common in technical fields for an expert to base an opinion in part on what a different expert believes on the basis of expert knowledge not possessed by the first expert." *Dura Automotive Systems of Indiana, Inc. v. CTS Corp.*, 285 F.3d 609, 613 (7th Cir. 2002). That is what Professor McFadden has done here—based his opinion in part on Dr. Abrantes-Metz's expertise in industrial organization and multi-sided platforms, expertise the Court previously noted he lacked. Whether the but-for commission rate is suspect, therefore, is properly addressed through Apple's challenge of Dr. Abrantes-Metz's opinion, not Professor McFadden's. Apple's *Daubert* motion on this ground borders on disingenuous and is therefore **DENIED.** Counsel is cautioned not to engage in such specious arguments.

[11] In its supplemental brief on Judge Donato's recent order excluding the opinion of consumer plaintiffs' expert in *In re Google Play Store Antitrust Litig.*, No. 21-md-2981-JD (N.D. Cal. Aug. 28, 2023), Apple also argues that Judge Donato's order there supports excluding Professor McFadden and Dr. Abrantes-Metz's opinions here. The Court disagrees. Other than noting that Judge Donato's order excluded the proffered expert opinion for its unsupported assumptions, an argument Apple already makes in its *Daubert* motion, Apple does not explain how Judge Donato's order is relevant here.

econometrics, and finance. (Dr. Abrantes-Metz's Opening Report ¶ 1.) She is currently the Principal at the Brattle Group and Co-chair of its Global Antitrust and Competition Practice. (*Id.*) Formerly, she was an adjunct professor at the Leonard N. Stern School of Business at New York University, where she taught industrial organization and competitive analyses. (*Id.*) Before that, she was an economist at the Federal Trade Commission. (*Id.* ¶ 2.) Plaintiffs present Dr. Abrantes-Metz as a qualified expert on benchmark analyses that would have prevailed but-for allegedly anticompetitive conduct. (*Id.* ⁋ 3.) Apple does not challenge her expertise.

Dr. Abrantes-Metz asserts that she used her expertise to create an "economic model" to calculate her but-for commission rate "based on the fundamental principles that an app store's operating profit margin is equal to the difference between the revenue it earns and the costs it incurs, and its revenue depends on its market share and the price (commission rate) it charges." (*Id.* ¶ 21.) To apply that equation, Dr. Abrantes-Metz estimated that Apple would have a 76.9% market share, while the hypothetical rival app store acquired the other 23.1%, using surveys developed by one of Apple's experts. (*Id.* ¶ 35.) She then assumed that the rival app store's profit margin would be 23%. (*Id.* ¶ 43.) Dr. Abrantes-Metz drew this figure from data about the Microsoft Store, which in 2019 reported a profit margin of 23%. (*Id.*) The Microsoft Store is an appropriate benchmark, Dr. Abrantes-Metz posited, because it is an established rival to Steam in the sale of Windows PC game apps. (*Id.* ¶ 47.) This is analogous to the but-for world on which she modeled her commission rate. (*Id.*) Finally, Dr. Abrantes-Metz assumes that a rival app store's variable and fixed costs are the same as Apple's App Store (3.8% of total billings and $786 million, respectively). (*Id.* ¶ 55.) She then plugs these figures into her economic model to calculate the but-for commission rate.

Apple's criticism is, essentially, that Dr. Abrantes-Metz erred in using an equation rather than an economic model. This is pedantic; economic models generally consist of mathematic equations that describe a theory of economic behavior. That Dr. Abrantes-Metz's economic model consists of one mathematical equation does not mean that she has "no theory of economic behavior underpinning her analysis," as Apple charges. Dr. Abrantes-Metz explains, step by step, how she calculates the "fundamental principles" underpinning her equation. (*Id.* ¶ 21.) And though

Apple may disagree with her inputs (as analyzed below), it has nothing to say about why those fundamental principles are not a reliable application of her expertise.

Nor does Apple's argument that Dr. Abrantes-Metz fails to reliably apply her economic expertise by ignoring indirect network effects persuade. Dr. Abrantes-Metz relied on Professor McFadden's market definition—a single aftermarket for the sale of iOS apps and in-app content to consumers—in constructing her model. (*Id.* ¶ 20.) The Court previously found that Professor McFadden's market definition was sufficiently reliable for purposes of class certification. (Previous Order at 4.) In doing so, the Court rejected Apple's argument that Professor McFadden ignored the two-sidedness of Apple's App Store and its indirect network effects. (Dkt. No. 476-3.) As the Court already warned Apple, it will not reconsider that ruling.[12]

On that ground, Apple's motion is **DENIED.**

2. ASSUMPTIONS

Apple next argues that Dr. Abrantes-Metz's model relies on untenable assumptions about the but-for world: (1) that Apple would only have one other competing app store; (2) both app stores would charge identical commission rates; and (3) the hypothetical app store would provide identical terms and services to the App Store.

First, Dr. Abrantes-Metz has sufficiently defended her assumption that, in the but-for world, the App Store would face one, smaller competitor. She conservatively chose to model a duopoly, rather than a market with multiple rivals, because of the unremarkable and well-supported proposition in economics that more competition equals lower prices. (Dr. Abrantes-Metz's Opening Report ¶ 36; Dr. Abrantes-Metz's Decl. ¶ 43.) Apple does not dispute this basic tenet but instead argues that, under Dr. Abrantes-Metz's model, having more than one rival app store would actually increase Apple's but-for commission rate. Professor Hitt, Apple's expert, arrives at this counterintuitive conclusion by changing the respective market shares in Dr. Abrantes-Metz's existing model while maintaining the same profit margins. (Hitt Report ¶ 296.)

[12] Apple also makes the argument that Dr. Abrantes-Metz erred by only considering some of the factors she has considered in other works. This argument relates to the strength of the opinion, not the reliability of the principles upon which it is based. (*See* Dr. Abrantes-Metz's Reply Report ¶ 40.)

As Dr. Abrantes-Metz states, it makes no economic sense to presume that "more competition increases prices but does not reduce profitability." (Dr. Abrantes-Metz's Decl. ¶ 44.)

Second, Dr. Abrantes-Metz sufficiently explains her reason for postulating that, in the but-for world, Apple and its competitor would charge identical commission rates. In Dr. Abrantes-Metz's but-for world, Apple and the rival app store would have started at the same time and provided the same services. It follows, Dr. Abrantes-Metz argues, that they would have charged the same price, or commission rate, to their consumers. (Dr. Abrantes-Metz's Report ¶ 28; Dr. Abrantes-Metz's Decl. ¶¶ 68–69.) This is not true of just the but-for world; in the as-is world, competitors like Microsoft and Steam charged the same commission rate for years until a new competitor, Epic Games, forced Microsoft to *lower* its commission rate. (Dr. Abrantes-Metz's Decl. ¶ 73.) If anything, these benchmarks demonstrate that assuming an identical commission rate among the two competitors Dr. Abrantes-Metz posits would exist in the but-for world is conservative.

Moreover, Dr. Abrantes-Metz explained why her model predicts that, in the but-for world, Apple would charge a single rate, rather than tiered rates. While tiered rates in the but-for world are possible, Dr. Abrantes-Metz explains, she does not think they are likely because commission rates would be much closer to costs. (Dr. Abrantes-Metz's Reply Report ¶ 60 n.114.) If she had modeled a tiered commission rate system, Dr. Abrantes-Metz notes, her predicted 13.63% but-for rate would be at the higher tier, not the lower. (*Id.* ¶ 63.) This is because she modeled her but-for commission rate on Microsoft's profits from game sales in 2019, when Microsoft charged a 30% commission rate on games and a 15% commission rate on non-game apps. (*Id.*)

Third, Dr. Abrantes-Metz's assumption that Apple and its hypothetical rival would provide identical services in the but-for world is well explained. Dr. Abrantes-Metz's cites to economic literature for the proposition that two competitors in a duopoly would provide the same services. (Dr. Abrantes-Metz's Opening Report ¶ 28 n.14.) Apple's experts do not contest that economists use symmetric competitors to design economic models—one of Apple's experts, Professor Hitt, stated in his deposition that it is not an "unusual assumption"—but instead speculate that in the but-for world Apple might try to differentiate itself by, for example, offering a consumer rewards

program. (Schmalensee Report ¶ 92.) Such speculation in the face of widely accepted principles goes to weight, not admissibility.

For those reasons, Apple's motion in this regard is **DENIED.**

3. INPUTS

Apple next argues that, even if Dr. Abrantes-Metz's model is sound, her inputs are not. Apple first takes issue with the fact that Dr. Abrantes-Metz assumes that the relevant market in the but-for world was at all times the same as it was in 2019. Dr. Abrantes-Metz's model, in fact, does not assume a constant market size; instead, she assumes that *billings* in the as-is and but-for world are the same. In other words, she assumes that billings would not increase as a result of lower commission rates. (Dr. Abrantes-Metz's Opening Report ¶ 56; Dr. Abrantes-Metz's Decl. ¶¶ 79–81.) This, she explains, is a conservative assumption because modeling that billings would *increase* in the but-for world would result in a *lower* but-for commission rate. Dr. Abrantes-Metz did take into account other market sizes when she, for example, input Apple's app billings from 2018 (not 2019) to check her model. (Dr. Abrantes-Metz's Reply Report ¶ 106.)

As another example, Apple attacks Dr. Abrantes-Metz's use of only one platform—Microsoft—to determine the rival app store's profit margin in the but-for world. Dr. Abrantes-Metz, however, sufficiently explained her process for choosing Microsoft as an input. (Dr. Abrantes-Metz's Opening Report ¶ 43.) To model a duopoly, she looked for an app store that had a high enough profit margin to support its entry and continued operation in the market but not so high it would attract other rivals. (Dr. Abrantes-Metz's Decl. ¶ 115.) She researched various choices and explained why she rejected them—noting that the Google Play store is accused of charging anticompetitive prices while Epic Games is known to charge a below-competitive one. (Dr. Abrantes-Metz's Opening Report ¶¶ 66, 90.) She then explained that she ultimately settled on Microsoft because it had a similar functionality to the Apple app store; was an established, profitable rival to a larger competitor, Steam; and using its 2019 profile allows Dr. Abrantes-Metz to calculate what Microsoft's profit margin was after a new competitor, Epic Games, entered the market but before Microsoft cut its commission rates in response. (Dr. Abrantes-Metz's Decl.

¶ 125.)[13]

Finally, Apple argues that Dr. Abrantes-Metz's input for the hypothetical rival store's market share is unfounded. Dr. Abrantes-Metz used the survey results from Apple's own expert, Dr. Simonson, to conclude that Apple and its hypothetical rival would have a 76.9/23.1% split of the market. As Dr. Abrantes-Metz explained, this is a conservative input in Apple's favor—in that but-for world, Apple's share of the market would still be highly concentrated. (Dr. Abrantes-Metz's Opening Report ¶ 113.) In fact, another of Apple's experts noted that it would have been reasonable for Dr. Abrantes-Metz to model a 50/50% split with a lower but-for commission rate. (Dr. Abrantes-Metz's Reply Report ¶ 114.) Yet Apple argues that, if Dr. Abrantes-Metz is using the Microsoft Store's profit margin from 2019, she should input its 2019 market share of 7.7% as well into her model. Dr. Abrantes-Metz explains why she rejects the resulting 92.3/7.7% split—it is far too concentrated to be a model of a truly competitive duopoly where both competitors entered the market on the same footing. (Dr. Abrantes-Metz's Opening Report ¶ 110.) Dr. Abrantes-Metz has sufficiently justified the opinion. Apple's objection may be reraised on cross-examination.

Apple's motion on this point is **DENIED.**

4. BENCHMARK ANALYSIS

Finally, Apple argues that Dr. Abrantes-Metz's benchmark comparison is cherry-picked. To check her conclusion that, in the but-for world, Apple's commission rate would be 13.63%, Dr. Abrantes-Metz did a benchmark marketplace analysis. A good benchmark must "share key features of the relevant marketplace in question, while at the same time being as free as possible of anti-competitive conduct." (Dr. Abrantes-Metz's Reply Report ¶ 168.) She first considered various candidates: the Windows PC Game apps, Android apps, MacOS apps, and Steam games. Dr.

[13] In its Reply, Apples argues for the first time that Dr. Abrantes-Metz's but-for commission rate should be excluded because while Microsoft's profit margin (on which Dr. Abrantes-Metz relied) was 23% in 2019, in 2020 it was 55% while in 2021 it was 43%. Arguments presented for the first time on reply are disfavored and can be disregarded. In any case, Dr. Abrantes-Metz already explained why she thought Microsoft's *2019* profit margin was particularly well-suited, as explained above. Moreover, even with a 13.63% but-for commission rate, Dr. Abrantes-Metz still calculates that Apple would earn a 57.2% profit. (Dr. Abrantes-Metz's Opening Report ¶ 23.) That is sufficient.

Abrantes-Metz explained why she rejected those benchmarks. For example, she states, Google purportedly raised barriers to entry by requiring Android device manufacturers to prominently display the Google Play store on their devices while Epic Games lowered its commission rate to break into the marketplace at the cost of negative operating profits. (Dr. Abrantes-Metz's Opening Report ¶ 49.) In the end, she concluded that the Windows Store was the most appropriate benchmark for two reasons: the Windows Store and Apple App store are similar in the services they provide, and, unlike Apple, Microsoft does not impose significant barriers to entry. (Dr. Abrantes-Metz's Opening Report ¶ 64.)

Apple does not dispute that Windows Store is a suitable benchmark.[14] Instead, it argues that Dr. Abrantes-Metz excluded other benchmarks with 30% commission rates, like the Google Play Store and Steam, while including the 12% commission rates of Microsoft and Epic Games in her analysis. As stated above, Dr. Abrantes-Metz excluded the Google Play Store because of its allegedly anticompetitive conduct.[15] Given that an important part of conducting her check was finding a benchmark as free as possible of anticompetitive conduct (a qualification Apple does not contest), Dr. Abrantes-Metz sufficiently explained why she excluded the Google Play Store.[16] Dr. Abrantes-Metz did *not*, however, exclude Steam from her analysis. (Dr. Abrantes-Metz's Opening Report ¶ 119; Dr. Abrantes-Metz's Reply Report ¶ 170.) Though Dr. Abrantes-Metz argued that Steam *should* be excluded because of its anticompetitive conduct, she ran her benchmark analysis *with* Steam and found that the but-for commission rate would range from 13.91%-14.18%, which

[14] Apple does argue that Dr. Abrantes-Metz was inconsistent in considering Google's anticompetitive conduct but ignoring the fact that the Federal Trade Commission recently sued Microsoft over its significant power in the video game market. But, as Dr. Abrantes-Metz states, FTC's complaint was over Microsoft's proposed merger with Activision, which had not taken place and so could not have influenced its then-existing commission rate. (Dr. Abrantes-Metz's Reply Report ¶ 165.)

[15] A jury recently convicted Google for the anticompetitive policies of its Play Store. *In re Google Play Antitrust litigation*, No. 21-md-2981-JD.

[16] Dr. Abrantes-Metz also explained why the Amazon and Samsung Stores were not suitable benchmarks for the deployment of Android apps: given Google's allegedly anticompetitive conduct, which has kept the Samsung Galaxy Store and Amazon Appstore from becoming true rivals in this space, neither was a good example on which to model a truly competitive duopoly. (Dr. Abrantes-Metz's Reply Report ¶ 143.)

was consistent with her final rate of 13.63%. (Dr. Abrantes-Metz's Reply Report ¶ 170.)

Moreover, Dr. Abrantes-Metz adequately defended her decision to include Microsoft and Epic Games' 12% commission rate. Though Microsoft charged a 30% commission rate in its PC games store and stated it would not lower its commission rate on its platform, once Epic Games entered the market, Microsoft eventually did lower its commission rate to 12% in response. (Dr. Abrantes-Metz's Opening Report ¶¶ 111–113.) Dr. Abrantes-Metz concluded that including the way Microsoft changed its commission rate when faced with "stiff competition" in her analysis was a useful predictor of what the range of commission rates would look like for Apple in the more competitive, but-for world. (*Id.* ¶ 115.)

Finally, Apple argues that Professor Abrantes-Metz's analysis was skewed by including direct-to-consumer platforms, or platforms that distribute their own apps. As Dr. Abrantes-Metz explains, however, including direct-to-consumer platforms, which do compete in the same market, is the more holistic approach. Moreover, Apple's argument that direct-to-consumer platforms should be excluded because they do not face the same costs ignores that self-distribution is not "free"; direct-to-consumer platforms have to choose between the costs of building and marketing a new platform or paying the commission rates of established ones like the Apple App Store. In either situation, there are distribution costs involved.

Apple's *Daubert* motion is **DENIED.**

III. CLASS CERTIFICATION

Plaintiffs once again move for class certification under Rule 23(b)(3) based on Apple's allegedly anticompetitive conduct. In its Previous Order, the Court found that plaintiffs met the requirements of Rule 23(a) which are summarized above. Here, therefore, it analyzes only whether plaintiffs can now satisfy the predominance requirement of Rule 23(b)(3).

A. LEGAL FRAMEWORK

Under Rule 23(b)(3), a court must find that "the questions of law or fact common to class members predominate over any questions affecting only individual members, and that a class action is superior to other available methods for fairly and efficiently adjudicating the controversy." "An individual question is one where 'members of a proposed class will need to

present evidence that varies from member to member,' while a common question is one where 'the same evidence will suffice for each member to make a prima facie showing [or] the issue is susceptible to generalized, class-wide proof.'" *Tyson Foods, Inc. v. Bouaphakeo*, 577 U.S. 442, 453 (2016) (citation omitted). The "predominance inquiry asks whether the common, aggregation-enabling issues in the case are more prevalent or important than the non-common, aggregation-defeating, individual issues." *Id.* (quoting 2 W. Rubenstein, 2 Newberg on Class Actions § 4:49 (5th ed.)).

"In carrying the burden of proving facts necessary for certifying a class under Rule 23(b)(3), plaintiffs may use any admissible evidence," including expert evidence. *Olean Wholesale Grocery Cooperative, Inc. v. Bumble Bee Foods LLC*, 31 F.4th 651, 665 (9th Cir. 2022). Just because the proffered expert evidence is admissible, however, does not mean that a court can certify a class. A court must decide if the expert's methodology is "capable of showing class-wide antitrust impact" in light of "factors that may undercut the model's reliability (such as unsupported assumptions, erroneous inputs, or nonsensical outputs)."

B. PREDOMINANCE

In its Previous Order, the Court excluded plaintiffs' expert testimony and thus found they could not satisfy the predominance requirement.[17] Now that the Court has found otherwise, the only dispute left is whether plaintiffs can prove antitrust injury on a classwide basis.[18]

Core to the predominance analysis is whether plaintiffs' class definition sweeps in a statistically significant number of uninjured class members. In the last round of briefing, plaintiffs conceded that their class definition included an estimated 14.6% of uninjured class members. (Previous Order at 23.) The Court then noted that the Ninth Circuit had not "squarely addressed

[17] The Court previously expressed its concern with plaintiffs' proposed plan of proving classwide damages by running Professor McFadden's model after trial. (Previous Order at 25–27.) Plaintiffs have now affirmed to the Court that Professor McFadden will calculate both aggregate and individual damages *before trial* with the full transactions data of the entire App Store. Given that, the Court now finds that plaintiffs have satisfied the predominance requirement as to damages.

[18] In its opposition to plaintiffs' motion for class certification, Apple raises many of the same arguments made in its *Daubert* motion. The Court incorporates its analysis above but does not regurgitate the reasons for rejecting the arguments.

the issue of whether a particular percentage of uninjured class members defeats predominance," but, given the errors in Professor McFadden's methodology, the Court found that individual issues would predominate regardless because plaintiffs could not reliably identify which class members, and how many, were injured. (Previous Order at 25.)

Plaintiffs now seek to narrow the class. Plaintiffs currently estimate that 17.8% of Apple accounts have not suffered an overcharge due to Apple's allegedly anticompetitive conduct. (McFadden's 2nd Supplement Report ¶ 16.) Because there are many more accounts than iPhone users, plaintiffs surmise that the actual number of class members that are uninjured is significantly lower. In any case, in response to the Court's overbreadth concerns, plaintiffs have now narrowed their class definition to only include Apple account holders who have spent $10 or more on app or in-app content. Under this narrowed definition, Professor McFadden estimates that the class includes only 7.9% uninjured members. (*Id*.)

Notably, since the Court's Previous Order, an *en banc* panel of the Ninth Circuit rejected the argument that "Rule 23 does not permit the certification of a class that potentially includes more than a de minimis number of uninjured class members." *Olean Wholesale Grocery Cooperative, Inc. v. Bumble Bee Foods LLC*, 31 F.4th 651, 669 (9th Cir. 2022). Nevertheless, the Ninth Circuit stated, a district court "must consider whether the possible presence of uninjured class members means that the class definition is fatally overbroad." *Id.* at 669 n.14. The problem with a class definition that includes uninjured class members is "the obverse of a different problem with class definition: the problem of the 'fail-safe' class: one that is defined so that whether a person qualifies as a member depends on whether the person has a valid claim." *Messner v. Northshore University HealthSystem*, 669 F.3d 802, 825 (7th Cir. 2012). "Defining a class so as to avoid, on one hand, being over-inclusive and, on the other hand, the fail-safe problem is more of an art than a science." *Id*. Both, however, "can and often should be solved by refining the class definition rather than by flatly denying class certification on that basis." *Olean*, 31 F.4th at 669 n.14 (quoting *Messner*, 669 F.3d at 825).

In *Olean*, defendants argued on appeal that the district court abused its discretion in certifying a class that potentially included 28% uninjured class members. 31 F.4th at 680. The

Ninth Circuit rejected this argument, holding that all that is necessary at the class certification stage is a finding that an expert's model was "*capable* of showing" that all class members suffered antitrust impact on a classwide basis, even those with "limited transactions." 31 F.4th at 681.

The same is true here. Professor McFadden's model can show the impact of Apple's allegedly anticompetitive conduct across all class members. He has now run his revised model on all the App Store transactions across the Games, Music, and Entertainment genres and can compute which Apple accounts suffered damages and which did not. Plaintiffs have represented to the Court that, once Apple produces the rest of its app transactional data, Professor McFadden will be able to calculate the exact extent of injury suffered by each class member. Acknowledging that an estimated 17.8% of accounts in Professor McFadden's model are uninjured, plaintiffs have revised their class definition to limit the number of uninjured class members.

While the Court remains concerned that the $10.00 cutoff results in an estimated 7.9% or 10,283,035 million uninjured accounts, it expects, given plaintiffs' representations, that once the model is fully run, that number will be reduced[19] or the cutoff could be changed to reduce the impact of including unharmed accounts. Accordingly, under *Olean*, the predominance requirement is met.

Apple's arguments otherwise do not persuade. According to Apple, *Olean* is distinguishable because all or virtually all class members in that case were harmed.[20] This is not the case—in *Olean*, up to 28% of the class was uninjured, significantly more than the 7.9% posited by plaintiffs here. It is true that in this case, the number of uninjured accounts numbers in

[19] *See* Dkt. No. 786-1, Declaration of Minjae Song, Ph.D. in Response to Order for Supplemental Information in Further Support of Renewed Motion for Class Certification. The attendant motion to seal is **GRANTED**.

[20] Apple argues also that the First Circuit's opinion in *In re New Motor Vehicle Canadian Export Antitrust Litig.*, 522 F.3d 6 (1st Cir. 2008), supports its position here. To start, the Ninth Circuit in *Olean* noted that *In re New Motor* was distinguishable because the First Circuit found that the case could not proceed on jurisdictional grounds and so the rest of its analysis on class certification was dictum. *Olean*, 31 F.4th at 678 n.26. In any case, Apple's arguments about why *In re New Motor* supports its position go to the admissibility of Professor McFadden's model, rather than whether it provides common evidence in support of class certification. The Court rejects these arguments for the same reason it denies Apple's *Daubert* motion.

the millions. The Ninth Circuit in *Olean*, however, rejected the argument that Rule 23 has an uninjured class member cutoff beyond which class certification is impermissible. That position is "inconsistent with Rule 23(b)(3), which requires only that the district court determine after rigorous analysis whether the common question predominates over any individual questions." *Id.* at 669. The model, once run, will answer the common question of whether Apple's conduct caused class members to suffer an antitrust injury. At this juncture, the Court cannot "flatly reject" class certification because the pre-run model shows an estimated 7.9% of the class is uninjured. *See id.*, n.14.

For those reasons, plaintiffs' motion for class certification is **GRANTED.**

C. APPOINTING CLASS REPRESENTATIVES AND CLASS COUNSEL

In its Previous Order, the Court noted that the proposed Class Representatives—plaintiffs Stephen H. Schwartz, Edward W. Hayter, Robert Pepper, and Edward Lawrence—were each both typical and adequate. (Previous Order at 20). Consumer plaintiffs now move to appoint them as class representatives. Apple does not oppose. The motion to do so is **GRANTED.**

The Court also noted, in its Previous Order, that it had "no concerns" regarding the adequacy of Wolf Haldenstein Adler Freeman & Herz LLP and Kellogg, Hansen, Todd, Figel & Frederick, P.L.L.C. to serve as co-class counsel. (Previous Order at 20 n.11.) Consumer plaintiffs move to appoint Wolf Haldenstein and Kellogg Hansen as co-class counsel. Apple, again, does not oppose this request. The motion in this respect is also **GRANTED.**

IV. CONCLUSION

For the foregoing reasons, Apple's *Daubert* motion is **DENIED** and plaintiffs' motion for class certification is **GRANTED.**

The Court sets a Case Management Conference for February 26, 2024, at 2:00 p.m. on the Zoom platform. Parties shall meet and confer on a schedule for the balance of the action. By no later than February 16, 2024, the parties shall file a joint statement with the proposed schedule including (i) the *earliest* date by which they will be in a position to file all remaining motions, including trial-related motions, (ii) any trial conflicts within six (6) months thereafter; and (iii) the timeframe within which Professor McFadden will run his model on the rest of the App Store

transactional data and whether the model can successfully ascertain the number of uninjured class members and limit them.

This Order terminates Docket Nos. 683, 690 and 786.

IT IS SO ORDERED.

Dated: February 2, 2024

YVONNE GONZALEZ ROGERS
UNITED STATES DISTRICT COURT JUDGE